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List of abbreviations

ACC	Anterior cingulate cortex
ADD	Attention Deficit Disorder
ADHD	Attention deficit hyperactivity disorder
BDNF	Brain-derived neurotrophic factor
CAPS	Curriculum Assessment Policy Statement
СВТ	Cognitive Behaviour Therapy
DIE	Drama in Education
DLFC	Dorsolateral prefrontal cortex
EBD	Emotional Behaviour Disturbance
EC	Emotional competency
ECI	Goleman's Emotional Competence Inventory
EE	Entertainment education
EI	Emotional intelligence
ESI-model	Bar-on's emotional-social intelligence model
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EQ	Emotional Intelligence
FET	Further Education and Training
fMRI	functional Magnetic Resonance Imaging
GABA	Gamma-amminobutyric acid
LTP	Long term potentation
MBE	Mind, Brain and Education Science
MoE	Mantle of the Expert
MNS	Mirror neuron system
MSCEIT	Mayer-Salovey-Caruso Emotional Intelligence Test
NAPT	The National Association of Poetry Therapy
NCS	National Curriculum Statement
OBE	Outcomes Base Education
OBF	Orbitofrontal ventromedial area
PET scans	positron emission tomography
REBT	Rational Emotive Behavior Therapy
SNS	Somatic nervous system
TfD	Theatre for Development
TIE	Theatre in Education
TiR	Teacher in Role



CHAPTER ONE: THE DRAMATIZATION OF POETRY AS A STRATEGY IN AN ANGER MANAGEMENT PROGRAMME FOR MIDDLE ADOLESCENT GIRLS

1.1 Introduction

As the adolescent female finds herself in a society that is often characterized by gender-based violence and discrimination, where emotion is one of the multiple drivers of communication, she should be empowered to voice her anger assertively. Adolescent females should be privileged with emotional competency skills, such as anger management. The practical implication, however, is that theoretical knowledge by itself cannot facilitate effective communication of the complicated emotions of anger. The study employs the methodology of Process Drama to guide the adolescent participant by means of a process in which the meaning and expression of anger can be explored on a cognitive, emotional and physical level within the safe parameters of a fictitious reality. In this way, the participants can be intimately involved in a fictitious reality, but also simultaneously distance themselves from it as the dual nature of role play provides for a viewpoint close to a problem while also presenting a global perspective.

In order to achieve the objective of enhancing emotional competency skills in the adolescent female participant, the dramatic interventions should be embedded in a pedagogy of the highest quality and integrity, answering to the principles and strategies laid out by neuro-educational experts and cognitive behaviourists. It is with this aim in mind that the research combines the principles of brain-based learning with the methodology of Process Drama. The learning material is drawn from seminal sources on Cognitive Behaviour Therapy (CBT) in order to benefit the adolescent female optimally. Jarvis (2005:7) defines learning as a socially staged process that incorporates the whole person in order to integrate the learning material into each participant's own biography. This study approaches the act of learning as a whole-bodymind experience, unique to each individual. The combination of theories, strategies and principles of Process Drama, brain-based learning and CBT interventions offers a multimodal praxis to empower the adolescent girl.





This chapter consists of the research question and sub-questions, as well as the contextualization of fields of knowledge that interact in the study, namely the adolescent female, the emotion of anger, Process Drama, brain-based education and emotional competency skills. The chapter introduces the research theme in the context of the educational milieu of South Africa. The chapter delineates the research objective and research methodology of the study. Finally an outline of the various chapters is presented.

1.2 Research question, sub-questions and contextualization

1.2.1 Research question

The study is based on the assumption that the anger management skills of the adolescent female can be enhanced through the brain-based methodology of Process Drama, and specifically the convention of dramatized poetry. Emotions form the basis of being human (Damasio 1995:281; LeDoux 1998:20). All human beings are, from time to time, confronted with the overwhelming effects of the emotion of anger. The adolescent female finds herself in a transformational phase between childhood and adulthood. This phase has its inimitable set of frustrations, irritations and anger-related emotions. The thesis proposes that the adolescent female can benefit from a brain-based intervention that takes her rapid neurological and biological growth into account while learning an emotional competence skill. This assumption directs the investigative research question: In what ways can the adolescent girl's anger management skills be enhanced by a brain-based methodology, such as Process Drama, and specifically the convention of dramatized poetry?

1.2.2 Sub-questions

To interrogate the research question, various sub-questions are addressed in the study:



• Sub-question 1

How are emotions, with specific reference to the emotion of anger, generated in the middle adolescent female and how does anger, as an emotion, influence her emotional life?

• Sub-question 2

How does the methodology of Process Drama, especially the convention of dramatized poetry, facilitate the middle adolescent female's acquisition of anger management skills?

• Sub-question 3

In what way does the methodology of Process Drama adhere to brain-based learning?

• Sub-question 4

How does the acquisition of developmental skills towards anger management enhance the emotional competence of the female adolescent according to the methodology outlined in the empirical examples?

The following section contextualizes the study's main fields of reference, namely the development phase of the adolescent female and the neurological generation of her emotions, in particular the emotion of anger.

1.2.3 The contextualization of the study

1.2.3.1 The adolescent and her emotions

In the research, various aspects of the development phase of the adolescent female are taken into consideration. The adolescent female presents strong emotional needs and has to manage strong emotions (Silk, Steinberg & Morris 2003:1869). The emotion of frustration with and anger towards parents and peer groups surfaces time and again as the adolescent girl finds herself poised between childhood and adulthood. She is confronted with constant changes on a physical, emotional and social level (Jensen 2006:105). The frustration she experiences, as well as the uncertainties regarding her identity, can lead to emotional outbursts and covert



anger. It is imperative that she is empowered with insight and skills regarding the identification and management of her anger (Adams & Berzonsky 2003:284).

However, emotion per se, and the emotion of anger specifically, should first be defined before an introduction of the adolescent and her expression of emotions of anger can be presented. There is consensus amongst scholars that emotions are difficult to define (Frijda 1998:273). Emotions are described by Damasio (1999:282) as "feelings of feelings" that occur when a transient change takes place in an organism's neural patterns and the same state of change is registered by "knowing" or "sensing" it consciously as a "feeling" in the organism. Damasio (1999:284) further explains that emotions are necessary for survival. According to him, emotions are defined as a state of perceived change with the incentive of survival. Sternberg (2002:397) maintains that emotions capture brain functions, bodily urges, environmental changes and cognitive appraisals.

In this study anger and anger-related emotions are discussed from a neurological perspective. Anger as an emotion is often based on fear and may also be provoked when a person is constantly hampered while trying to reach a goal (Adams & Berzonsky 2003:67).

The study focuses on anger as a strong emotion which holds destructive qualities (Ellis 2003). Mosby's Medical Dictionary (2009:434) describes the emotion of anger as a reaction characterized by extreme displeasure, rage, indignation, or hostility. It is considered to be of pathological origin when such a response does not realistically reflect a person's actual circumstances. However, expressions of anger vary widely in different individuals and cultures and may be considered functional under certain controlled circumstances (Mosby's Medical Dictionary 2009:434).

The basic neurological principle that anger is caused by an increase in adrenaline that prevents the prefrontal lobe – the area of logical thinking – from functioning properly, serves as a general point of reference for anyone who has to deal with this emotion (Sternberg 2002:397). The fact that one cannot think clearly when angered is a physical and neurological actuality that validates CBT principles (Beck 2000), as well as theories of emotional intelligence (Mayer & Salovey 1997).



The relevance of anger management skills for the adolescent female is acknowledged by various researchers, such as Brown (1998), Silk, Steinberg and Morris (2003), Adams and Berzonsky (2003), Underwood (2003), and Perl (2008). This section covers the main issues regarding anger management for this development phase in order to construct the underpinning of this study. Middle adolescence ranges from the ages of 14 to16 years (Adams & Berzonsky 2003:554; Louw, Van Ede & Louw 2004). During this period brain maturation has not yet been completed. The landmark research of Giedd, Blumenthal, Jeffries, Castellanos, Liu, Zijdenbos, Paus, Evans and Rapoportet (1999:862) indicates that the "brain is still developing during the teen years and brain maturation does not stop at age 10, but continues into the teen years and even into the 20s". Impulse control, planning and decision-making are largely frontal cortex functions that are still maturing during this development phase. The fact that greater irrationality occurs during adolescence is important as the rationale for the study addresses the promotion of better emotional management. Silk et al. (2003:1869) state that the adolescent female experiences her emotions more frequently and more intensely than younger children and adults.

Adams and Berzonsky (2003:284) list a broad range of emotional competences as abilities to be developed during mid-adolescence, for example, the adolescent's ability to manage her anger, calm herself down, learn to understand her feelings, and think and verbalize her feelings through symbolic thought. Therefore the regulation of emotions during this period is one of the primary development tasks of the adolescent female (Adams & Berzonsky 2003:67).

Steinberg (1990) explains that cognitive reorganization and an increased ability to think in abstract terms result in a preoccupation with interpersonal and intra-personal relationships. During this process of new found abstract thinking the adolescent may de-idealise the values and beliefs of authority figures, such as teachers or parents. Her growing independence is characterized by an increase in conflicts of interest between the authorities and herself, which can lead to suppressed or displayed anger. Smetana (1991) and Jensen (2006:105) confirm that theoretical and empirical research support the idea that shifting power dynamics result in conflicts of interest and a higher incidence of disputes in the life of the adolescent. They caution that the



adolescent needs the support of significant others and the educational system during this development phase.

Adams and Berzonsky (2003:284) state that a well-established, emotional management framework that develops during the transitional period of adolescence will remain until adulthood. This statement is confirmed by Elias, Bryan, Patrikakou and Weissberg (2003), who maintain that empirical research proves that such collaborative activities, designed to provide adolescents with opportunities for social-emotional competence development, have been successfully implemented. Vernon (2006) designed such collaborative activities in her curriculum for emotional education that contain story-telling, brain-storming, role play and writing. Sylwester (2004:6) strongly appeals to schools to engage in meta-cognitive¹ activities that stimulate learners to think, understand and talk about their emotions. Rosenblum and Lewis (2003:280) explain that skills building can influence the adolescent for life. They state that emotional competence life skills – such as the ability to reflect on opposite emotions and empathy that develops during the teen years – have a high probability to persist into the adult years of one's life.

The anger management programme for the target gender group, namely the female adolescent, is based on the distinct differences between male and female adolescents. There is a notably higher increase in activity in the social and emotional brain circuits of the adolescent female than in those of her male counterparts or younger females. This is due to the difference in the sequence of brain development of adolescent males and females. According to Giedd (2007:1065 – 1073), females reach the halfway point in brain development at the age of 11, whereas males only reach this point at 15. This neuroscientific evidence, namely that female adolescents are more interested in their emotional lives than their male counterparts, inspired me to facilitate a programme on anger management with girls, rather than with adolescent boys.

In order to influence the emotional life of female adolescents, this study favours a single-gender educational situation. During adolescence the two genders do not

¹ Flavell (1976:232) defines metacognition as follows: "Metacognition refers to one's knowledge concerning one's own cognitive processes or anything related to them, e.g., the learning-relevant properties of information or data. For example, I am engaging in metacognition if I notice that I am having more trouble learning A than B; if it strikes me that I should double check C before accepting it as fact."



express and experience their emotions in the same way. It is easier for adolescent girls to voice their own opinions and find their own voices when not confronted with the viewpoints of the opposite sex from the outset. In her work on drama education in the lives of girls, Gallager states:

Single-sex schools, in my view, merely begin to interrupt the cycle of oppression and allow girls the much-needed space to rearticulate the multiplicitous construction of the 'self' before taking on the larger and more dichotomous nature of gender relations. It is a space that can take the reality of heterogeneity seriously. (Gallager 2001:36,37).

The difference in emotional expression between male and female adolescents is an additional reason why I prefer a single-gender educational milieu for this study. Kostiuk and Fouts (2002:2) emphasize that males and females are nurtured differently regarding social-emotional conduct. Females are taught to attach a higher value to emotions and emotional connections than males. According to Stalker (2005:171), women generally experience discomfort during arguments or confrontations. The main stream of international research on female adolescent anger agrees that female adolescents prefer covert anger displays (Brown 1998; Underwood 2003; Perl 2008). Perl (2008:107) describes the adolescent girl's anger behaviour as acts of sadness and crying in an attempt to appear more vulnerable and less aggressive.

This act of masking their negative feelings is confirmed by Underwood (2003:138), who posits that "girls seem to refrain from expressing anger openly".² Underwood states that research confirms that girls suppress their anger more readily to protect their social relationships and rarely use physical aggression, but engage in social aggression instead. Underwood (2003:153) as well as Di Guisseppe and Tarfrate (2007:275) describe this kind of behaviour as "relational aggression that can be hurtful, mean-spirited, back-stabbing and manipulative". This may be one reason why some females do not always have the self-confidence to openly voice their point of view in the face of conflict. Brown (1998:12) cautions that female adolescents should realize that when they do not acknowledge their anger, self-doubt about their interpretation of reality is intensified. In such instances they risk losing the capacity to

² Underwood's observation was made regarding a specific cultural group, but the tendency of female adolescents to mask their anger can be observed in diverse cultural groups. Research to verify this observation, however, falls outside the parameters of this study.



identify the source of their pain. In the empirical examples, this study encouraged female adolescents to voice their emotional perceptions and learn to explore their personal emotional structures without jeopardizing their privacy.

Although covert anger in adolescent females can be described as a global phenomenon, further motivation to present anger management training to adolescent females is based on the ongoing need for female adolescent empowerment in the South African context. A South African study of covert adolescent female anger confirms that girls who self-mutilate find it difficult to voice their anger (Robertson 2008:63). Rose-Innes (2006:1) posits that South African culture is male-dominated. Traditional cultural practices and customs dictate that women have to be submissive and hold a lower status than men. This increases the vulnerability of women when negotiating sexual encounters, especially with regard to HIV/Aids. Vogelman and Lewis (1993), from the Centre for the study of Violence and Reconciliation in South Africa, view violence against women as deeply entrenched in many societies and state that rape is first and foremost an act of power by men. To empower young adolescent girls with emotional competence skills in a country with a culture of violence and oppression is a vital educational duty. The next section introduces the methodology that was employed to facilitate the development of anger management skills with the adolescents.

1.2.3.2 The methodology of Process Drama and the convention of dramatized poetry

The study is positioned in the field of Applied Drama, described by Nicholson (2005:2) as a "dramatic activity that primarily exists outside conventional mainstream theatre institutions, which [is] specifically intended to benefit individuals, communities and societies". According to Nicholson (2005:5,6), Applied Drama strives to engender change in the social and psychological spheres. This is an umbrella term, primarily used since the 1990s, and includes fields such as Drama in Education, Theatre in Education, Process Drama, Community Drama and Prison Theatre. Applied Drama operates in a non-theatrical space where the process involves meeting some challenges of the participants and the community. Each variant of



Applied Drama has its own typical features, but the variants are practically and theoretically intertwined (Prentki & Preston 2008:8). From these forms of theatre³ or drama⁴ the specific requirements of a situation determines which of the methodologies will be chosen.

Applied Drama, which is concerned with education and development⁵ in broad sense, can be categorized as a practical pedagogy, as well as methodology, seeking to experientially explore abstract knowledge. Callery (2001:14), a physical theatre educationalist, explains that it is in doing that one starts to understand. Thus the common factor binding these variants together is the application of participatory drama strategies to foster personal and social efficacy and educational development. Dramatized poetry, termed choral poetry by Swartz (1995), suits the purpose of Applied Drama with a view to developing the adolescents' social and personal effectiveness.

Applied Drama is mainly the outcome of the work of Drama in Education⁶ specialists who over decades experimented with forms of improvisation and role play in educational milieus in order to entice their participants to explore educational themes such as history, or social issues like bullying, war or poverty. These pioneers include Slade (1954), Courtney (1968), Haseman (1991), Heathcote (1984), O'Toole (1992), Bolton (1999) and Neelands and Goode (2005). Their successes have been documented in literature research. Their main aim has been to use Drama in Education as a mode of learning (O'Neill & Lambert 1990).

O'Neill (1995), one of the most influential Drama in Education practitioners, has identified the essential principles of Drama in Education and endeavoured to make the convention manageable in educational circumstances for school teachers (O'Toole, Stinson & Moore 2009:103). O'Neill has simplified the Drama in Education methodology, teasing out the main principles advocated by especially Heathcote

³ The word theatre is derived from the Latin *theatrum and the* Greek *theatron*, meaning *theasthai, to behold*. It is associated with a building where a play is produced or actors perform in a theatre production. (http://oxforddictionaries.com/definition/theatre).

⁴ The word drama is derived from the Greek word *drãn* which means to do (Nicholson 2005:4).

⁵ The term development *per se* is located in theoretical paradigms which fall outside the scope of this thesis. The way in which the term development is understood in this thesis surfaces in the discussion from Chapters 2 – 8.
⁶ In Drama in Education one learns through activity, to solve problems whilst role playing in an "as if" world and through reflection when de-rolled into reality (Andersen 2004:281 – 286).



(1984) and Bolton (1999), and eventually developed it into Process Drama. Generally speaking, however, there is no definitive difference between Drama in Education and Process Drama as the latter evolved from the former (O'Toole et al. 2009:200). Both terms refer to a learning mode, and Process Drama offers an accessible form of methodology to educators, and as this thesis will demonstrate, also in the South African context. The differences will be discussed later in this thesis.

Drama in Education and Process Drama do not seek to entertain⁷ an audience, but it invites the participants or role players to form their own inner-circle audience. The term role play does not refer to acting in terms of interpreting a character, but to the willingness of the participants to collaboratively believe in the fictional, dramatic situation into which they are launched (O'Toole 1992) – taking on values or a set of ideas of a person or a group of people to use in the fictional situation. The term Process Drama thus implies that the facilitator suggests a scenario or, as O'Neill (1995:45) describes it, "a dramatic elsewhere", in which the participants can improvise the situation and "have a degree of freedom in how they interpret their roles and functions" (O'Toole et al. 2009:105). To intensify the learning process, conventions⁸ distance the participants from the scene or engage them on a deeper level. This creates an opportunity in which the participant fluctuates between empathetic⁹ involvement and detachment, and different perspectives on the same dramatic moment are created. A learning mode is produced, namely that of the participant in role simultaneously looking from the inside out, and of the spectatorparticipant looking from the outside in. This mode is called *metaxis*, a Greek word meaning "being in two modes at once, that of reality and that of fiction" (Boal 1995:43).

⁷ Although DiE and Process Drama does not seek to entertain per se, both these notions contain entertainment value for those participating.

⁸ Conventions derived from theatrical rehearsals, performance and games, for example, freeze frame, hot seating, thought tracking, and many more (O'Toole 1992, O'Neill 1995).

⁹ Empathetic involvement: The following extract from Harper Lee's (1960), *To kill a mocking bird* describes empathetic involvement from the viewpoint of a character: "If you just learn a single trick . . . you'll get along a lot better with all kinds of folks. You never really understand a person until you consider things from his point of view . . . until you climb inside of his skin and walk around in it". Empathetic engagement therefore implies that one gets under the skin of someone else, or stands in his or her shoes, observing life from his or her point of view.



In order to create opportunities for engaged and reflective learning, this study mainly implements the following dramatic conventions: role play,¹⁰ improvisation, Mantle of the Expert (MoE), tableaux, TiR, with the main convention the dramatization of poetry.

It is especially the convention of TiR that creates opportunities for reflection through questioning (Morgan & Saxton 1989:69).

During the Process Drama, the facilitator asks questions in order to stimulate reflective thinking. The facilitator has to think and explore together with the participants, either as facilitator¹¹ or as TiR, as both parties are placed in a creative mode of learning (O'Neill & Lambert 1990:22). For the purposes of this study, the researcher is facilitator and TiR, as well as reflective researcher. Gallagher (2001:14) describes the researcher/teacher as a "reflective practitioner". Gallagher (2001:14) states that the "term 'reflective practitioner' turns research, with connotations of outside evaluators and recognised wisdom, on its head, for it entails a valuing of teachers' practical and tacit own thinking". A TiR12 provides a new dimension to a role drama when the facilitator takes on a role of high, middle or low status. This position can empower the facilitator to see the situation through the eyes of the participants as co-role players, and thus control the tempo or energy level of the drama, helping to move the drama forward, or introducing other viewpoints to the drama from within the dramatic moment itself (Morgan & Saxton 1989:41). In the role play I adopt a more subordinate role and place the participants in the role of experts of a subject. Thus the teacher/pupil structure in Process Drama is reduced (Bolton 1999:239) and a more democratic relationship between educator and learner is formed.

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¹⁰ Role play: "In role play the participants see the world through someone else's eyes and in so doing not only show the outer aspects of that person, but also try to understand how that person thinks and feels" (Morgan & Saxton 1989:38).

¹¹ Facilitator: "promoting or helping forward" (Morgan & Saxton 1989:40).

¹² Teacher in Role (TiR): "Here the teacher is 'taking part in the play', and at the same time monitoring the experiences of her students. Her most important role is that of teacher, controlling class discipline and learning, but releasing the power to the students when they are ready" (Morgan & Saxton 1989:38).



The convention Mantle of the Expert¹³ (MoE) places the participants in a responsible, more active position. This technique has a highly successful pedagogical outcome, as described by Hughes (2004:65): "Interactive engagement with students, to enhance their concepts of self, can enable teachers and students to overcome seemingly insuperable difficulties". In this study, the learners are supplied with learning material about anger management and placed in a consulting position to solve a conflict between two fictitious people. The TiR in this study challenges the participants in order to create a conflict situation in which the learning material is explored, and in so doing, empowers the 'expert' participants to take ownership of knowledge.

Not only are the conventions of role play, TiR and MoE employed in the empirical examples, but also the convention of dramatized poetry. This convention provides the participants with poems that convey in an emotional, subjective voice an experience of anger. The poems imparted an opportunity to analyze the material in order to define various types of anger and to physically and vocally express the poems. In this way the participants could experience someone else's anger within the safe parameters of poetry.

The immediacy and effect of a poem as a multi-layered construct of meaning and feeling can hypothetically enhance emotional competence in the young female adolescent participants. Poetry is in many instances loaded with emotional content and impresses as a point of departure to discuss emotional issues that would otherwise not be possible (Reiter 1997:173). On the one hand, poetry offers a neutral field for discussion without intruding on the privacy of the participants, and on the other, it opens up avenues for personal identification with a subject (Boone 2006:2; Chavis 2011:24).

1.2.3.3 The educational strategy of brain-based learning

¹³ Mantle-of-the Expert (MoE): "Here the students are working as themselves, but 'as if' they were experts. The role is a general one (we are all engineers, advisors, the tribe, anthropologists ...), which implies special skills, particular information and/or expertise which can be brought to bear upon the task" (Morgan & Saxton 1989:31).



In order to verify the methodology of Process Drama and the convention of dramatized poetry (both embodied pedagogies), the study examines the principles of brain-based learning.¹⁴ This strand of the research includes other disciplines such as experiential learning and learning through the arts.

The importance of neuroscientific principles in pedagogy should not be underestimated. There is a significant movement in academic circles to recognize the importance of an arts curriculum for educational growth (Deasy 2002; Bresler 2007). Horowitz and Webb-Dempsey (2002:100) describe the successful integration of the arts into other educational learning areas as "parallel, symbiotic, interactive and multi-layered".

The study is conducted against the backdrop of learning through the arts as endorsed by neuroscientific researchers (Hannaford 1995; Sylwester 2004). Recent studies linking learning in the arts with academic and social development (Jensen 2001; Deasy 2002; Bresler 2007) suggest that the arts provide strategies for enhancing the learning experience. Jensen (2001:2) states that the arts enhance the functioning of learning systems such as the attentional, sensory, motor, cognitive and emotional systems. Fiske reports in *Champions of Change* (1999) that seven art studies in the United States have estimated the value of the arts in education, and indicated theatre and movement arts as being significant.

Another reason for the study's espousal of the pedagogical field of brain-based education is the fact that it may offer literature research as evidence and understanding of how Process Drama can enhance the learning process on a neuroscientific level. Slavkin (2004:38) defines brain-based education as a way to use information about how the brain learns and to apply it to teaching techniques. The combination of education and neurological science has become a focus in pedagogy. The study takes several outcomes of brain-based learning into consideration to examine the effectiveness of Process Drama as a method of instruction; for example, in order to capitalize on the best practice for adolescent female learning, the learning should be collaborative, verbal, emotionally open and may employ inductive thinking, all of which are grounded on the brain-based

¹⁴ Brain-based education is the "engagement of strategies based on principles derived from an understanding of the brain" (Jensen 2008:3) *Phi Delta Kappan*, February 2008.



principle that defines the importance of gender-specific learning and the uniqueness of the brain (Chadwell 2010:142).

The study's endorsement of brain-based principles of learning may establish the methodology of Process Drama as a neuroscientific methodology and distinguish it as an important facet of experiential learning. Hall (2005:150) supports the ability to stimulate emotional management through experiential learning.

The characteristics of experiential learning match the parameters of the conventions of Process Drama as methodology. Hall (2005:151) describes experiential learning as an approach in which learners "are offered opportunities to explore and express emotional reactions to sense data – sight, sound, smell, touch, movement, fantasy – and through guided imagery." Hall confirms that the use of imagery or metaphors has the potential to create a greater understanding of abstract concepts and emotional intra-personal experiences. In the convention of dramatized poetry, the learner absorbs the content, intent and feeling of the poetry through physical expression. The convention of dramatized poetry, as part of the methodology of Process Drama and other conventions, offers a physical and experiential learning experience.

Drama educationalists can now obtain literature research as evidence that the subject of drama offers teaching methodologies that can influence the brain positively. The inclusion of the brain-based principles increases the relevance of the study.

1.2.3.4 Learning material that fosters emotional competence skills

The following discussion introduces the learning material employed in the empirical examples of the proposed anger management programme. That emotional competencies can be taught is supported by Goleman (1998), Mayer and Solovey (1997), Gray and Weare (2003), Crawford (2007), Sylwester (2007), Feinstein (2009) and many others, and their work has inspired even further research in the field of emotional competence. The basic principles of anger management are conveyed in



a comprehensible manner by CBT textbooks for middle adolescents, making the learning material for anger management programmes clear and accessible (Vernon 2006:2). The study draws on the principles of the various emotional competence ability models which propagate the possibility of managing an emotion like anger.

According to Goleman (1998), one of the major scholars doing groundbreaking work in the field of emotional intelligence, emotional competences are not talents, but learned abilities that can be identified when a range of some of the following skills is displayed: assertiveness, empathy, anger management and resilience. The emotional competence achieved during anger management training can empower the person on an emotional level. Goleman (1998:24) defines emotional competence as "a learned capability based on emotional intelligence that results in outstanding performance at work".

As the outcomes of emotional competency models comply with the objectives of this study, the ability to manage one's anger is identified as a competence and not as "intelligence" as such. This reflects the notion of Goleman who describes emotional control as a learned skill. The definition offered by Elias, Zins, Weissberg, Frey, Greenberg, Haynes, Kessler, Schwabstone and Shriver (1997:2) has been employed as the primary definition of emotional competence in the study:

(The) ability to understand, manage and express the social and emotional aspects of one's life in ways that enable the successful management of life tasks such as learning, forming relationships, solving everyday problems, and adapting to the complex demands of growth and development (Elias et al. 1997:2).

This study subscribes to the perspective of emotional competence as an acquired skill. The study therefore explored the emotional life of the mid-adolescent girl and her awareness of the emotion of anger in the quest to enhance her competence of anger management.

A Proposed emotional competence learning programme for anger management can be based on the principles of Cognitive Behaviour Therapy (CBT) (Beck 2000) or Rational Emotive Behavior Therapy (REBT) (Ellis 1955, 2004). Vernon (2006) designed an emotional education curriculum for adolescents, based on the principles of REBT, which confirms anger management as a teachable construct based on the



following principles (Ellis 2003): emotional responsibility, dysfunctional behaviours resulting from irrational thinking, and the importance of reality-based thinking.

I have based the study on the assumption that the adolescent female can benefit from an anger management programme during this development phase. When adolescents are exposed to the possibilities of choice through anger management skills training, they learn that impulsive emotional reactions and aggressive behaviour can be managed. Irrational risk-taking – due to the fact that their prefrontal executive functions are still developing –can be counteracted. Sound theoretical frameworks for the emotional competence training of adolescent learners, as well as anger management training, validate the implementation of emotional competence education.

1.2.3.5 Positioning the research in the South African context

It is necessary to place the relevance of the study within its broader educational environment. This study is not concerned with the school curriculum per se, but has to acknowledge the context of the broader educational environment as it was done with school going learners. It is important to mention that the practical component of this study did not form part of the formal school curriculum.

Emotional management is defined as a global need that is not being met in most school curricula. Harris (2007:5) argues that "the current social, political and economic climate has depersonalized communities and cut people off from internal and external sources of care and support, making them an 'It'." Harris (2007:4) explains that many young people experience such intense and sustained challenges to and violations of their core sense of self that they are unable to engage with the process of maturation. Their interactions with significant others, usually people in authority, have involved the intentional or unintentional misuse or abuse of personal power (Harris 2007:4). As abuse and oppression is prevelant in the South African culture (Rose-Innes 2006), a programme on anger management can strengthen the confidence of the adolescent girl by accentuating her human right to voice her needs.



The implementation of the anger management programme took place in 2012. The workshop plans in Chapter Seven used some concepts of Outcomes Based Education (OBE). At the time of its implementation, OBE implemented a new paradigm that replaced the old teacher dominated, content-based curriculum of the former regime in South Africa. OBE did provide a transformational paradigm that was learner-centered, focussing on skill training, applied competencies, outcomes and encouraging critical learning (Hofmeyer 2010:3). The problems with OBE, as stated by Hofmeyer (2010:1), was not inherently in it's fundamental philosopy, but was that it has been launched without specific guidelines regarding lesson plans, teacher training and assessment indicators to obtain outcomes. To address this the Curriculum Assessment Policy Statement (CAPS) was developed and is in the process of being phased into schools. CAPS will only be fully phased into the system by 2015 (Curriculum News 2011:4).

OBE underpins the core values that are still in place in the National Curriculum Statement of 2012. As stated in the Facilitators Manual for CAPS (Department of Basic Education 2013), the NCS provided what was expected from learners during a learning task and CAPS presents the content of the lesson and how it should be planned and assessed. The terminology of the OBE curriculum is therefore now outdated and replaced by that of CAPS, but the central principles and philosophy behind it is the basis for CAPS as well.

Learning area is now replaced by "subjects". Outcomes and assessment standards are now replaced by "topics and themes" (South African Department of Basic Education 2011:3-5; Curriculum News 2011:4). At the time of planning and implementing of the project, CAPS was being phased in and an uneasy tension between OBE and CAPS terminology existed in the context that the study took place. This project however, aligned with the educational practice of the school where the practical study was implemented. That practice was primarily still OBE-based and as such, reflects in the presentation of the practical study in this thesis.

1.3 Research design



As indicated before my assumption is that the adolescent female can benefit from a programme on anger management which is conveyed through the brain-based methodology of Process Drama. The research design is therefore based on the premise of the following research question.

1.3.1 Research question

For the purpose of clarity the research question is repeated here as part of the research design: *In what ways can the adolescent girl's anger management skills be enhanced by a brain-based methodology such as Process Drama, and specifically the convention of dramatized poetry?*

1.3.2 Research objective: Exploration as research objective

"A large proportion of social research is conducted to explore a topic or to provide a basic familiarity with that topic. An exploratory approach is typical when a researcher examines a new interest or when the subject of the study itself is relatively new" (Babbie & Mouton 1998:80). The creative nature of the artistic approach of Process Drama and the convention of dramatized poetry as a vehicle to explore and stimulate emotions link well with the research objective of exploration. According to Neuman (1997), researchers who can explore objectively are creative, open-minded and flexible; adopt an investigative stance; and explore all sources of information. Researchers ask creative questions and take advantage of serendipity, those unexpected or chance factors that have large implications (Neuman 1997:19).

I embrace Neuman's principles in order to open up avenues of communication between myself and the adolescents. The study explores a combination of Process Drama conventions, such as dramatized poetry and emotional management, without pre-conceived ideas of what the outcome might be. The empirical examples might render interesting insights that cannot be obtained in any other manner than to explore the research topic creatively through practical workshops. This methodology



holds the possibility of captivating the participants physically, emotionally and cognitively in order to examine a difficult topic, such as anger management, with the full participation of the learners. This study therefore endeavours to interrogate the development of the female adolescent in conjunction with brain-based principles, as well as how the methodology of Process Drama influences her to assimilate the anger management programme.

1.3.3 The research design: Exploratory research

According to Stebbins (2001:3) exploratory research could be defined as follows:

Social science exploration is a broad ranging, purposive, systematic, prearranged undertaking designed to maximize the discovery of generalizations leading to description and understanding of an area of social or phsycological life.

Exploratory research is a qualitative research design that generates new assumption and ideas by investigating research problems where there are few earlier studies to refer to. This research design is flexible and can research a variety of questions such as, how, why or what (Babbie 2007:87). The method could therefore create opportunities to define new terms or clarify existing ideas and findings (Cuthill 2002:79-89). Usually, this kind of research applies small sample sizes.

This study investigates the possibilities for adolescent girls to aquire anger management skills through Process Drama. The main aim of the study is to address questions regarding the emotional competency of middle adolescent girl drawing from brain-based pedagogies, specifically referring to the use of dramatized poetry as a sub-division of Process Drama. Upon completion of this interdisciplinary exploratory process, three case studies will be offered to demonstrate how the triangulated outcome of the aforementioned fields can practically be applied.

According to Yin (2003), case studies provide the researcher the opportunity to apply various methodologies and resources to investigate the problem as discussed in the following section on the research structure. The data from the case studies could then be used as key points to illustrate the research findings. Chapter Eight of this study has been situated as the critical reflective chapter of the research in order to



illuminate the various possibilities that immerge from the theoretical and methodological findings. The study therefore adheres to the parameters of qualitative research. The literature-based research is imperrically applied to demonstrate the viability of the exploratory outcome.

1.3.4 Research procedures and structure

1.3.4.1 The research structure of exploration

The structure of exploratory designs consists of the triangulation of the literature research of the various fields. The efficacy of the information gathered, is empirically demonstrated through three case studies.

a) Review of prior scholarship

The literature research forms the foundation for the practical research process. The literature research is concerned with the biological and psychological aspects underpinning the emotions of the mid-adolescent girl, especially the emotion of anger. Furthermore, the methodology of Process Drama, the brain-based principles of learning, the theoretical principles of emotional competence and the learning material of CBT and REBT, all contribute to the content of the research. The literature research provides the theoretical basis for the development of the Applied Drama programme on anger management that is used in the empirical examples, as well as for a final reflection on the empirical findings with a view to constructing basic explanations for the outcomes of the research.

b) The empirical examples: a practical Applied Drama programme

In order to consolidate the recommendations and findings of the literature research with the empirical research project, the Applied Drama programme on anger management was designed. A concept programme in a research framework refers to "any intervention or set of activities mounted to achieve external objectives, that is, to meet some recognised social need or to solve



an identified problem" (Rutman1984:11). The first case study's workshop comprised six one and a half hour sessions¹⁵ presented over a period of two weeks. Two other case studies were undertaken as one-day workshops and presented in the course of six different workshop sessions.¹⁶ Each workshop consisted of approximately six to ten participants. The researcher functioned as the facilitator. The fact that the case studies were conducted consecutively – allowing me to gain more experience by repeating the process – helped to improve the standard of the second and third case studies.

c) A questionnaire to determine the baseline for the workshops of the empirical examples

I designed a data collection instrument that was verified by a professional Industrial and Organisational Psychologist, ¹⁷ as well as by the Department of Statistics of the University of Pretoria. This diagnostic questionnaire, developed according to the parameters of the Likert scale, assessed the level of the current insight the participants display regarding their understanding of their anger before attending the workshop. Babbie and Mouton (1998:139) indicate that "this knowledge can be very specific e.g. in clarifying a programme model or underlying theory". They add that in seeking to understand the programme better, the uncertainty or risk of failure is reduced. The questionnaire was implemented at the beginning of each of the three workshops of the empirical examples. This determined the participants' level of prior knowledge regarding the concepts of anger and anger management in order to assess at what level of difficulty the participants would be able to accommodate the learning material of anger management, thus establishing a baseline to work from.

d) Journaling by the participants and the researcher/facilitator

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¹⁵ After consultation, a high school (name withheld for research privacy) suggested that one and a half hour lessons for eight consecutive weeks would be practical and feasible.

 ¹⁶ I decided to call the lessons "sessions" as they were not lessons in the traditional sense, but rather sessions in which anger management was practically explored by the participants under the guidance of a facilitator.
 ¹⁷ Mariana Pretorius: Registered Industrial psychologist; Registration number PS0073504.



Babbie and Mouton (1998:275) posit that "(e)xtensive field notes are another important aspect of enhancing the validity and reliability of research done within the interpretative paradigm". Babbie and Mouton define the goal of qualitative research as follows:

That generic research approach in social research according to which research takes as its departure point the insider perspective on social action. Qualitative researchers attempt always to study human action from the perspective of the social actors themselves ... The primary goal of studies using this approach is defined as describing and understanding [...] rather than explaining human behaviour (Babbie & Mouton 1998:270).

The participants were provided with structure to prepare and aid them in the journaling process. I used their journals extensively to support my own reflections and observations when I wrote an extensive report on the empirical examples (refer to Chapter Eight).

1.3.4.2 Recruitment of the volunteers

The female adolescents were recruited at a multicultural, bilingual school and several other high schools in the same area. Although all the girls of the multicultural school were invited to participate in the research project, only English and Afrikaans speaking girls volunteered. All the participants in the research were between 14 and 16 years of age, Afrikaans and English speaking and from middle class families. The empirical examples was presented in English as all the girls were bilingual. The Afrikaans participants had no difficulty communicating in English.

1.3.4.3 The ethical prerequisites for the study

The research was conducted in accordance with ethical principles cleared by the Ethical Committee of the University of Pretoria, and approved by the Gauteng Department of Education. The parents and the children were well informed about the aims and processes of the study. Letters were written to the principal of the multicultural school, the parents of each adolescent participant and the participants



themselves in order to obtain informed consent for the study. The parents and the adolescent participants of the three case studies were required to give their full legal consent for participation in the creative processes, the journaling and the completion of the questionnaire. The agreement clearly indicated that the researcher would not be venturing into the field of psychology or in any way be working as a therapist. The agreement also stipulated that the identity of the participants in the empirical examples would not be made available in the discussion of the outcomes of the thesis. The data are in safekeeping at the Drama Department of the University of Pretoria.

1.4 Analysis of findings

Conclusions were drawn after analysing the outcomes of all the case studies to determine how the emotive and cognitive experiences of the conventions of Process Drama influence the emotional understanding of anger management on a deeper level than cognitive analysis alone would have done. The data in the journals of the participants were analyzed and documented, together with the observations in journal format made by the researcher during the lessons. This detailed report forms the basis of Chapter Eight and indicates specifically how the outcomes of the methodology of Process Drama in the empirical examples addressed the prerequisites stated in the literature research. The analysis of the case studies is reported. A summary of each workshop explains in Chapter Eight how the methodology of Process Drama adheres practically to the principles of brain-based education. Chapter Nine of this study provides an overall summation of the research.

1.5 Limitations of the study

When the researcher/facilitator attempts to validate the insider perspective, problematic aspects such as differences in language, race, culture and beliefs can produce barriers between the researcher and the research participants (Babbie &



Mouton 1998:271). For instance, if some of the adolescent girls and I don't speak the same first language, we might have different world-views. This problem was solved by building a relationship of trust with the participants and acknowledging their adolescent sub-culture, letting them journal and voice their own observations and comparing the observations with those in my own report. With years of experience of teaching drama to adolescent girls of different cultures, I did not find the communication process problematic. The methodology of Process Drama renders many opportunities for participants to voice their own world views. In a Process Drama, the researcher/teacher takes on a deferential role, namely that of facilitator, a person who presents various opportunities to participants through which they can explore knowledge on a cognitive and emotional level.

1.6. Chapter outlines

1.6.1 Chapter One

This chapter introduces the theoretical content investigated in this study, the rationale underpinning the study and the research design.

1.6.2 Chapter Two

Chapter Two describes how emotions are neurologically elicited, regulated and classified. The chapter investigates the profile of the emotion of anger and its function in human behaviour. The relationship between anger and aggression is discussed, as well as the various anger styles.

1.6.3 Chapter Three

This chapter investigates the emotional life of the adolescent female. The influence of the physical changes of puberty, the synaptic growth of neurons leading to



cognitive expansion and intra-personal changes regarding her identity and selfawareness are explored. The four development factors of the adolescent female, namely the physical, cognitive, social and emotional phases, are discussed. The chapter explores the anger profile of the adolescent girl for the purposes of the Process Drama anger management programme.

1.6.4 Chapter Four

The methodology of Process Drama and the convention of dramatized poetry are placed in the pedagogical context of Applied Drama. The educational value of Process Drama and the convention of dramatized poetry is discussed.

1.6.5 Chapter Five

The principles of brain-based education are analyzed in order to explore how these principles interrelate with the methodology of Process Drama. Both underpin the perspective that the act of learning involves the whole body, brain and emotions. The different strands under discussion culminate in a table that indicates how the conventions of Process Drama and especially that of dramatized poetry integrate with brain-based principles and the adolescent learner's development profile.

1.6.6 Chapter Six

This chapter explains how the emotional competence training of adolescent females can be accomplished by means of the learning material of CBT and REBT, the methodology of Process Drama and the convention of dramatized poetry. Dramatized poetry is employed as an intervention with the focus on anger management skills.



1.6.7 Chapter Seven

This chapter presents the six pre-planned anger management workshops. The workshop activities and outcomes are presented. The session plans are based on the study's findings on Process Drama, brain-based education and the development characteristics of the female adolescent.

1.6.8 Chapter Eight

This chapter consists of a detailed report on the three case studies and a comprehensive analysis of the emotional competence and brain-based learning outcomes resulting in the methodology of Process Drama.

1.6.9 Chapter Nine

The final chapter is a summation of the outcome of the integration between the empirical and the literature research as observed in the journal data which were generated by the facilitator/researcher and the participants.

In order to facilitate the development of the life skill of anger management for adolescent girls through the methodology of Process Drama, the following chapter addresses the subject of emotions, focusing on the emotion of anger and the management of anger and aggression.



CHAPTER TWO: EMOTIONS WITH SPECIFIC REFERENCE TO THE EMOTION OF ANGER

2.1 Introduction

In the previous chapter the discussion has posited that the adolescent female can be stimulated to competently manage the emotions of anger. This chapter interrogates the concept of how emotions are elicited, experienced and expressed in general in order to provide a platform for the specific understanding of the emotion of anger. It is imperative that the facilitator of an anger management programme have clear insight into the mechanisms of emotions in general in order to know and understand how the emotion of anger relates to the vast array of other emotional manifestations in human behaviour. Chapter Three will explain the information pertaining specifically to the emotions of the adolescent female. The facilitator of an anger management programme should be able to explain to a female adolescent participant that she can, for example, be overcome by the chemical processes of emotions that influence her physical self and block the ability to think and act logically or reasonably. The objective of the chapter is therefore to explain the neurobiological underpinnings of emotions and how emotions drive cognition and behaviour in general, in order to equip the facilitator of an anger management programme to better understand the emotion of anger and its management. It is important, however, before proceeding with the introduction, that the meaning of the concept emotion is defined.

In order to find a working definition for the concept of emotion, the definition of Konijn (2000:57) will be presented. Konijn (2000) has studied the psychology of emotions within the framework of mediated emotions based on acting theories. Her definition is therefore well placed within the parameters of the study namely the discipline of Applied Drama, as discussed in Chapter One.

According to Konijn, the following is an explication of emotions:

Emotions are the convergence of the (im)possibilities offered by the surroundings or situation with the (im)possibilities the individual has with respect to satisfying his concerns. Both the *threat* as well as the hope of *satisfying* concerns set the emotion process in motion. Emotions arise in the 'interaction of the situational meanings and concerns (Konijn 2000:57).



Emotions are consequently elicited when the circumstances of an individual are either satisfying to the individual's expectations or threatening the expectations of the individual. This instigates emotions in the individual that result in actions. Damasio's ¹⁸ (1999:284) definition of emotions integrates well with Konijn's (2000:57). Damasio explains that emotions are imperative for survival. Emotions are 'feelings of feelings', as indicated before, that transpire when change occurs in an organism's neural patterns and the same state of change is registered by 'knowing' or 'sensing' it consciously as a 'feeling' in the organism (Damasio 1999: 282).

For the purposes of this study, a working definition has been created, drawing from Damasio (1999:284) and Konijn (2000:57). This definition defines emotions as sensed feelings that occur when one's expectations of a situation are satisfied or when one's expectations of a situation are threatened, leading one to react to the specific circumstance in order to satisfy one's needs in order to survive. After sensing or experiencing a generated emotion, the emotion is regulated. Frijda (1987:115 – 144) states that every phase of appraisal is linked to a regulatory intervention; in other words, every time one evaluates an emotion or sensed feeling, one will react to it in order to regulate the emotion or sensed feeling by interacting with it in a certain way. This intervention can be unconscious or conscious, and in some cases the regulatory process is limited by a flood of chemicals secreted by the body. Frijda (ibid) and Konijn (2002) confirm the well-established notion of emotions as recognitions, experiences and expressions of biological and neurological functions. One can deduce from their conclusion that emotions are generated neurobiologically.

The physical manifestation of emotion is further proved by the involvement of the somatic and visceral nervous systems¹⁹ (Purves, Augustine, Fitzpatrick, Hall, LaMantia, McNamara & Williams 2004:687). The visceral nervous system, also known as the involuntary, autonomic nervous system, consists of the sympathetic and parasympathetic divisions and is responsible for cardiac and smooth muscle

¹⁸ In this chapter the researcher refers to landmark resources that date from 1995 to 1998, namely Hannaford's *Smart Moves* 1995, Damasio's *The feeling of what happens* of 1995, Panksepp's *Effective neuroscience* of 1998 and Joseph LeDoux's *The emotional brain* of 1998, These reference books are all watershed resources that mark historical changes in the discourse of their specific subjects. Instead of using secondary resources that refer to these historic reference points, I referred to them directly.

¹⁹ See appendix A for description of the visceral nervous system



contraction and glandular secretion (Waugh & Grant 2002:144). The somatic nervous system²⁰ is involved in voluntary and reflex skeletal muscle contraction. Both systems are coordinated by the amygdala²¹ and the hypothalamus,²² and are both part of the emotional motor system. These manifestations in the nervous system are displayed as subjective recognitions of feelings. These feelings are not always easily described linguistically, but are experienced in all humans, irrespective of culture,²³ by the same neurological emotional systems in the brain. The present chapter will therefore proceed to investigate the generation of emotions from a neuroscientific viewpoint as confirmed by LeDoux (1998:2). He states that emotions function biologically, and an understanding of how emotions are neurobiologically generated, will create a better understanding of emotions (LeDoux 1998:12).

The issue of emotional regulation will be considered in the second part of this chapter. The Process Drama facilitator presenting an anger management programme to the adolescent should understand and be able to explain how emotions can or cannot be regulated. According to Berkman and Lieberman (2009:475), neuroscientific studies have broadened insight into the comprehension of emotion regulation; researchers can now explain that people do regulate their emotions and have to do so in order to be fully human. From this one can deduce that the emotion of anger can be regulated or managed. For example, Navaco (2007:3) explains that anger dysregulation should not dampen the "energizing, empowering, justifying, signalling, rectifying and relieving" side of anger, but believes that society should find ways to control the savage, destructive and consuming side of anger and aggression (Navaco 2007:4). Emotion and anger management are current research topics in which the importance of emotion management for the human race is acknowledged.

- ²¹ See appendix A for description of the amygdala
- ²² See appendix A for description of the hypothalamus

²⁰ See appendix A for description of the somatic nervous system

²³ This statement can be verified by researchers in the field of emotional studies: The Discrete Emotion Theory states that people have innate, basic, cross-cultural biological processes that create certain emotions, mainly recognizable through the same facial expressions such as happiness, sadness, surprise, disgust, anger and fear (Colombetti 2009:407 – 425). This theory is confirmed by Ekman (1992) and Stein and Book (2001). One should, however, accept that various emotions are culturally specific, as researched by Prinz (2004).



This study focuses on the competence of anger management for the adolescent. The knowledge of the neurological pathways towards emotion regulation should have an influence on educational levels (Crawford 2007:12). Crawford (2007:11) believes that social and emotional life skill programmes can influence the mid-adolescent female and suggests that classrooms should be learner-friendly environments, seeking to stimulate emotional intelligence competencies such as the ability to control emotions, resist impulses, plan ahead and solve problems. Saver (2002:22) maintains that "social interventions early in life can often avert the development of chronically violent behaviour in adulthood". This chapter presents knowledge regarding the generation and regulation of emotions to assist in the understanding of an anger management programme for adolescent females. Such a programme should also consist of ways to identify generated emotions will be discussed.

This chapter also contains the classification of primary end secondary emotions. This differentiation is discussed from the various viewpoints of researchers such as Damasio (1995), Carter (2000), Parrot (2001), Adolphs and Heberlein (2002) and Feindler (2006). Most of these theories categorize emotions as the primary constructs such as disgust, happiness, sadness, fear and anger, whereas feelings are the sub-divisions of the former primary emotions; for example, fear can consist of the feeling of frustration, annoyance and iiritation.

Spielberger, Jacobs, Russel and Crane (1983) confirm that a variety of energy levels are involved when emotions are elicited. Anger that is high in intensity can be displayed as fury or rage. Anger that is low in intensity can be displayed as a mild annoyance with someone or something. Emotions can also be classified on the basis of motivation, for example, hostile aggression is anger that is motivated, but instrumental aggression does not contain angry feelings, only the motive to obtain a victim's possessions (DiGuiseppe & Tafrate 2007:72). Knowing how to verify emotions linguistically assists one in being more emotionally competent. It could then be helpful to the facilitator and participants of an anger management programme to be schooled in the linguistic identification of emotions, be it primary or secondary emotions of feelings.



In order to present a programme on anger management, the facilitator should be able to position anger and anger-related emotions as dualistic: it generates energy to defy what is wrong or stir up the power to destroy what is right (Taylor & Navaco 2005:38). Thus the positive and the negative expressions of the emotion of anger will be discussed.

This section will also contemplate the importance of the identification of the physical expression of the emotion of anger in order to reiterate that the identification of emotions is important for emotionally competent behaviour. The localization of anger as a social and neurological system, as described by Panksepp (1998), will be presented. Panksepp (1998:54) explains how the emotional neural system is embedded in the reptilian,²⁴ mammalian²⁵ and neopallium²⁶ brain sections that answer to the demands of the various needs for survival. He identified four primary emotional systems, namely the SEEK system, PANIC system, FEAR system and RAGE system. These theoretical systems help the prospective facilitator to understand the positioning of anger in relation to other strong primary emotions. An understanding of anger in relation to other strong emotions of survival can aid the facilitator of a programme on anger management in the identification and understanding of the emotion of anger – notions that are strongly related to emotional competency.

The relation between anger as emotion and aggression as behaviour is defined in the next section. A general model for aggression is introduced (Anderson & Bushman, cited in DiGiuseppe & Tafrate 2007:131), proposing five patterns of how anger can establish the building blocks for aggressive behaviour. The complexity of anger is presented in the discussion of individuals with low self-esteem whose reward systems are stimulated by their aggressive behaviour, as well as the fact that some individuals display their anger differently when in a group than when alone (Baumeister, Smart & Boden, cited in DiGuiseppe & Tafrate 2007:359). Lastly, the chapter commences with an introduction on how individuals may experience anger, like their fellow human beings, but communicate their anger in different styles.

—via List of research project topics and materials

²⁴ See appendix A for description of the reptilian brain

²⁵ See appendix A for description of the mammalian brain

²⁶ See appendix A for description of the neopallium brain



Further, two models for anger management and emotion regulation are introduced, namely the Cognitive Behaviour Therapy of Beck (1999) and the Rational Emotive Behaviour Therapy of Ellis (2004) as posited by DiGuiseppe and Tafrate (2007: viii); these are some of the most impressive models with which to curb the emotion of anger.

In conclusion, knowledge of the neuroscientific processes of emotions forms the basis of the forthcoming chapters. As emotions are manifested as whole-body and whole-brain processes, this study will also base the exposure to anger management skills on experiential learning, involving the whole person, physically, emotionally and cognitively in the learning process. This serves as further motivation why the present chapter will be dealing with the physical, biological and neuroscientific features of emotions.

2.2 The neurological generation of emotions

This section describes how the emotional brain circuit generates emotions and how it influences behaviour, as explicated by Panksepp (1998). The functioning of the amygdala, for example, indicates how emotions can flood logical thinking or be overruled by logic. The discussion on the hypothalamus explains how hormonal secretions can influence behaviour. The memory system's role in the elicitation of emotions indicates how emotions can be generated by the episodic memories and/or our imagination. The biological functions of emotion control centres, such as the hypothalamus, amygdala and prefrontal cortex,²⁷ are considered. A discussion of the emotional motor system of the brain demonstrates that emotions are involved in "a variety of complex brain functions, including rational decision making, the interpretation and expression of social behaviour and even moral judgements" (Purves et al. 2004:687).

As stated before, the presenter of an emotional competency programme should be knowledgeable about the interaction between cognition and emotion, and how these constructs can influence and motivate each other (Goleman 2011). In order to further

²⁷ See appendix A for description of the prefrontal cortex



explain how emotions are generated, the role of the amygdala is discussed. The brain regions involved in the generation of emotion, the role of the hypothalamus, visceral motor system, somatic nervous systems and endocrine systems in the generation of emotions are explained. The influence of chronic stress on the generation of emotions is investigated, as well as how emotions are elicited through the memory system and how emotions generate other emotions.

2.2.1 The amygdala's role in the generation of emotions

Higher order neural coordinators of emotion have formerly been classified as the limbic system²⁸ (Purves et al. 2004:687). MacLean's (1949, 1952) theory of the limbic system correctly describes the evolution of the brain as the key function to maintain the survival of a species (LeDoux 1998:102). MacLean proposed that the structures of the brain stem correspond to the reptilian brain. The primitive reptilian brain area is, according to MacLean (cited in Rocho do Amaral & de Oliveira), described as follows:

The primitive one is responsible for self preservation. It is there that the mechanisms of aggression and repetitive behaviour are developed. It is there that occur the instinctive reactions of the so-called reflex arcs and the commands which allow some involuntary actions and the control of certain visceral functions (cardiac, pulmonary, intestinal etc.) indispensable to the preservation of life (MacLean cited in Rocho do Amaral & de Oliveira 2009:2).

The area surrounding the brain stem is called the limbic system and is responsible for survival behaviours such as the fight or flight reaction, personal identity, and some memory functions. According to MacLean (1949, 1952), the limbic system is the emotional centre and takes responsibility for basic emotions. These basic emotions are recognized by contemporary neuroscientists. Adolphs and Heberlein (2002:181) explain them as a limited group of primary emotions, expressed and identified from a very early age in the development of children and recognized crossculturally. The list usually comprises six entities, namely anger, fear, sadness, happiness, disgust and surprise. Where the limbic or reptilian brain has traditionally

²⁸ See appendix A for description of the limbic system



been seen as the seat of emotion, the neocortex²⁹ is regarded as the regulator of the executive functions of the brain, such as pre-planning and problem solving.

Contrary to MacLean's classical limbic-system theory, the neurological research by Panksepp (1998), Carter (1998), LeDoux (1998:100) and Damasio (1999), amongst others, reveals that the inclusion of the hypothalamus, as part of the limbic system, has changed this system into the entire brain, defying the former theory of only one limbic system as the seat for emotion generation. LeDoux (1998:103) and Damasio (1999:60) both postulate that there is not only one limbic system dedicated to emotion, but many different emotional systems in the brain. According to Arden (2010: Chapter Two, Kindle version), these structures form a well-integrated, acknowledged emotion motor system or emotion brain circuit. Current research employs fMRI (functional magnetic resonance imaging)³⁰ and PET scans (positron emission tomography)³¹ that can detect immediate changes in neural activity in the brain, increasing the insight into the localization and generation of emotions on a wide scale (Jensen 2008:3).

Arden and Linford (2009), as well as Adolphs and Heberlein (2002:186), confirm that several other brain regions play an important role in emotional generation. These include the amygdala, cortical areas in the medial and orbital sections of the frontal lobe, as well as regions in the diencephalon³² that will be discussed in the next section.

2.2.2 Brain regions involved in the generation of emotion

The following explanation, drawn from Price (2002:183), will indicate how some emotional responses are primary responses without the influences of thought, and how others are influenced by thought. In its most primitive form an emotion is generated by an external sensory stimulus. This stimulus reaches the thalamus³³

²⁹ See appendix A for description of the neocortex

³⁰ See appendix A for description of the fMRI

³¹ See appendix A for description of the PET

³² See appendix A for description of the diencephalon

³³ See appendix A for description of the thalamus



which functions as the sensory conductor of the brain. The stimulus is then conducted from the thalamus to the amygdala via two pathways, bypassing the cortex,³⁴ either directly to the amygdala (Adolphs & Heberlein 2002:186), or to the higher sensory cortex. The direct pathway to the amygdala provides an instant reaction on an impression of the potential danger and causes an immediate response. The output of the amygdala informs various systems responsible for the somatic and visceral motor expression of emotion. Behaviour is then modified accordingly, as if seeking the relevant reward or avoiding punishment (Arden 2010: Chapter Two, Kindle version). The projections to the visceral control centres of the hypothalamus and the brainstem³⁵ can influence heart rate, blood pressure, gut and bowel functions, as well as the respiratory system and bladder functions.

The cortical pathway, however, is able to override the direct pathway to the amygdala in order to prevent an inappropriate response or to communicate that the stimulus was a false alarm. During this process the stimulus reaches the cortex where the anterior cingulate cortex³⁶ can, if necessary, suppress the amygdala's activity to prohibit irrational actions. The anterior cingulate cortex is a region in the frontal lobe that can be classified as the emotional control circuit of the brain's primitive survival responses (Goleman 2011: Introduction, Kindle version).

The orbitofrontal (OBF)/ventromedial area³⁷ in the brain is situated in the prefrontal cortex behind the forehead (Goleman 2011: Brain circuitry for emotional intelligence, Kindle version). This area is responsible for the inhibition of urges and emotional expressions. Damage in this area can result in reckless, impulsive, uninhibited behaviour (Arden & Linford, 2009: Chapter Four, Kindle version). Arden (2010: Preface, Kindle version) explains that both the anterior cingulate area and the orbitofrontal cortex, as well as the mirror neurons,³⁸ are collectively referred to as the social brain. The system helps build social interaction and empathy. The ability to solve personal and social problems, manage impulses and to express feelings, as

³⁴ See appendix A for description of the cortex

³⁵ See appendix A for description of the brainstem

³⁶ See appendix A for description of the anterior cingulate cortex

³⁷ See appendix A for description of the orbitofrontal (OBF)/ventromedial area

³⁸ See appendix A for description of the mirror neurons



well as to relate to others, is located in this area of the brain (Goleman, 2011: Brain circuitry for emotional intelligence, Kindle version).

Another area that coincides with the orbitofrontal area is the dorsolateral prefrontal cortex³⁹ (DLFC), responsible for the working memory and decision-making (Goleman, 2011: Section Self-mastery, Kindle version). The OBF and the DLFC act together as general synthesizers of self-evaluation and emotional regulation (Keating 2004:50).

An understanding of how the basic emotions are generated by the emotion motor system is the key to the understanding of the emotion of anger, as dealt with in this study. Scientific knowledge of the generation of emotions serves as an aid to refute assumptions about emotions; for example, the postulation that anger is always an uncontrollable, primitive emotion per se, or that one can, by just 'pulling oneself together', overcome a strong emotional flood of adrenalin. Thus, further knowledge of emotion generation and regulation leads to an understanding of how the amygdala integrates with other biological systems such as the hypothalamus, the visceral motor system and the soma motor system, explaining the chemical and physical impact of emotions on the body.

2.2.3 The hypothalamus' role in the generation of emotions

The hypothalamus is located in the base of the forebrain with close proximity to the pituitary glands. It integrates information from the forebrain, brainstem and spinal cord and other chemo-sensitive neurons. The hypothalamus has diverse functions, for example, the control of blood flow, regulation of energy metabolism, water balance, sleep, body temperature, reproductive activities, and the coordination of responses to threatening conditions, by governing the release of stress hormones (Weller 2002:203). The main function of the hypothalamus in this regard is to create a balance between the sympathetic and parasympathetic visceral motor systems, in order to support the visceral motor system in the regulation of homoeostasis. Purves et al. (2004:469) describe homeostasis as a way in which the body renews itself on

³⁹ See appendix A for description of the dorsolateral prefrontal cortex



cellular level in order to restore balance in all the physiological collaborative functions.

As mentioned previously, the hypothalamus receives input from the limbic system to regulate a range of physiological and behavioural activities. According to Saver (2002:26), the hypothalamus plays an important role in the setting of a threshold for aggressive response, in other words, keeping a balance in neuro-chemical reactions for the sake of homoeostasis. The hypothalamus does not receive direct external sensory input from the sensory cortices.⁴⁰ The inputs are information regarding the internal states of organisms through chemoreceptors,⁴¹ osmoreceptors⁴² and the viscerosensory cranial nerves.⁴³ In contrast, the amygdala receives cortical sensory input produced in the cortical areas to create a model of external reality. The amygdala then projects to the hypothalamic and somatomotor centres,⁴⁴ evoking fear, pain or anger and other drive-related emotions (Saver 2002:27). Thus, through projections from the amygdala, complex temporal-limbic structures are "linking perceived objects with appropriate emotional valences. The result is a qualitative steering of behaviour rather than quantitative regulation of threshold" (Saver 2002:27).

The inclusion of the functions of the hypothalamus in this study is to render an integrated impression of the complexities of emotion generation and regulation in connection with other emotion systems, such as the amygdala, as preface to the discussion of the emotion of anger. The implication of knowing how emotions are generated imparts indications of how sleep patterns, metabolic functions, hormonal and sexual orientations can be influenced by emotions, due to the proximity of neurochemical projections in related organisms. The role of the visceral and somatic nervous systems in the generation of emotions will be explained in the next section.

⁴⁰ See appendix A for description of the sensory cortex

⁴¹ See appendix A for description of the chemoreceptors

⁴² See appendix A for description of the osmoreceptors

⁴³ See appendix A for description of the viscerosensory cranial nerves

⁴⁴ See appendix A for description of the somatomotor centres



2.2.4 The role of the visceral motor system and the somatic nervous systems in the generation of emotions

Purves et al. (2004:687) state that "[a]II emotions are expressed through both visceral motor changes and stereotyped somatic motor responses, especially movements of the facial muscles". The somatic nervous system (SNS) is the part of the peripheral nervous system associated with the voluntary control of body movements via skeletal muscles, and with sensory reception of external stimuli (for example, touch, sight and hearing), as well as the facial muscles. When acetylcholine⁴⁵ is received the stimuli are relayed down the ventral root of the spinal cord and then the signals proceed to the neuromuscular junctions of the skeletal muscles (Purves et al. 2004:14).

The right brain somato-sensory insular cortex⁴⁶ is responsible for self-awareness and empathy. The right hemisphere insular cortex senses the bodily state and creates an awareness of feelings (Goleman 2011: Introduction, Kindle version). The mirror neurons in this area are, according to Arden and Linford (2009: Chapter Six, Kindle version), part of the therapeutic circuitry of the brain. Mirror neurons⁴⁷ "allow us to grasp the minds of others not through conceptual reasoning, but through direct simulation: by feeling, not by thinking" (Arden & Linford 2009: Chapter Six, Kindle version). For more information about mirror neurons, refer to Chapter 3.3.5.

Purves et al. (2004:471) state that "[t]he visceral (or autonomic) motor system controls involuntary functions mediated by the activity of smooth muscle fibres, cardiac muscle fibres and glands". It comprises two sections: the sympathetic system and the parasympathetic systems. The sympathetic system's neurons gear the individual up for the flight or fight reaction, as described by Cannon (1929). During an intense reaction of the sympathetic motor system, the pupils will dilate, blood vessels in the skin and gut will constrict to allow more blood to flow to the rest of the body in order to produce more energy, the heartbeat will increase, hair will stand on end and the bronchi will dilate for more oxygen (Wellar 2002:9). The sympathetic system will stimulate the adrenal medulla to release hormones such as

⁴⁵ See appendix A for description of the acetylcholine

⁴⁶ See appendix A for description of the somato-sensory insular cortex

⁴⁷ See appendix A for description of mirror neurons



epinephrine and nor-epinephrine in the bloodstream. The system also mediates the release of glucagon⁴⁸ and insula⁴⁹ from the pancreas to enhance energy in order to activate the flight or fight reaction (Arden 2010: Chapter Two, Kindle version) in response to stressors, such as anger or fear. The parasympathetic system of the visceral motor system has an opposite function, namely to increase metabolic and other resources during non-stressed periods. The pupils are constricted, heart rate slows down, and blood flows to the skin and gut (Purves et al. 2004:477).

The information about the biochemical influence of emotion on the body is included in this study to explicate the importance of cultivating the ability to manage emotions, especially in the case of the destructive construct of anger. It also emphasises the importance of relaxed and safe educational environments that are free from fear (Chesney-Lind & Irwin 2008:96). Such biochemical information can serve to motivate the facilitator of a creative drama and anger management programme to understand the negative influence of stress in a negative social environment. The following section will present the effects of various different neurotransmitters that are released during emotion generation and regulation.

2.2.5 The elicitation of emotions through the endocrine system and how chronic stress produces negative emotions

2.2.5.1 Nor-epinephrine (noradrenaline) and epinephrine (adrenaline)

Waugh and Grant (2002:224) explain that when nor-epinephrine is released, it directs attention and responding actions. Nor-epinephrine, along with dopamine, is recognized as important role players in attention and focus. For patients with attention deficit hyperactivity disorder (ADHD), as well as for patients with depression, medicines are prescribed to heighten levels of nor-epinephrine and dopamine.

 ⁴⁸ See appendix A for description of the glucagon
 ⁴⁹ See appendix A for description of the insula



Epinephrine rouses the fight or flight response by increasing the heart rate, contracting the blood vessels, dilating air passages and instigating the other fight or flight responses of the sympathetic system. Epinephrine is an excitatory neurotransmitter that controls our ability to handle stress. Neurotransmitters are chemicals that are used by the brain to relay, enhance, suppress or change messages flowing from an axon terminal to produce activity in other nerves (Weller 2002:276). Long term stress, as well as insomnia, can cause epinephrine levels to be depleted. Epinephrine is produced by the adrenal glands from the amino acids tyrosine and phenylalanine (Waugh & Grant 2002:224).

Hannaford states that the release of this stress hormone explains why it is difficult to be able to think clearly when one is in a state of shock or stressed:

Adrenaline reinforces the body's primary defences by increasing blood flow to the heart, lungs and large muscles, especially of the arm and legs, away from the digestive system and the brain. This blood flow insures a greater dispersal of electrolytes to the membranes of these muscles so they can contract – preparing us to fight or flee (Hannaford 1995:161).

LeDoux (1998:164) proposes that the cortex is able to identify this stimulus and, in some cases, to suppress an emotional outburst when the stimulus is classified as safe. He concludes that if epinephrine has been released, but no fight or flight reaction was required, the heart will still beat faster and the hands and legs can shake. In such a case the feeling of relief can activate a hysterical reaction, for instance laughter or tears.

2.2.5.2 Cortisol

Other hormones which are released during a state of stress are cortisol, corticosterone and cortisone. These glucocorticoids are important to maintain life, for metabolism and stress reactions (Waugh & Grant 2002:222). During stress reactions cortisol raises the blood sugar levels in the body in order to release the needed energy for muscle function. According to Vincent (1990), chronic high cortisol levels can eventually destroy the neurons in the hippocampus associated with memory. LeDoux (2007:5) explains that constant exposure to high blood sugar levels



damages the hippocampus, the centre of long term memory. Constant trauma may therefore result in memory loss due to an excess of glucose in the blood.

Hannaford (1995:55) suggests that the increase of epinephrine and cortisol decreases our ability to learn and remember, whereas neurotransmitters like GABA, acetylcholine, interferon⁵⁰ and interleukins⁵¹ increase our ability to think and recall effectively.

2.2.5.3 Serotonin

Serotonin is an inhibitory neurotransmitter necessary to help maintain a stable mood. Saver (2002:33) explains that the hypothalamus, amygdala and the frontal cortex are stimulated by neurotransmitters, acetylcholine and neuropeptides. According to Saver (2002:32), impulsive and aggressive behaviours are regulated by the following neurochemicals: serotonin, dopamine, GABA, norepinephrine, acetylcholine and testosterone. According to Saver (2002:34), several studies of animals and humans have proved that decreased levels of serotonin increase impulsivity, irritability and aggression in humans and animals. There are no fewer than fourteen serotonin receptors in the brain seeking to balance aggressive behaviour. Post-mortem studies of aggressive suicide victims revealed low serotonin levels.

2.2.5.4 Dopamine

The chemical 'reward pathway' for joy and happiness is described by Carter (2000:103) as a "rush of dopamine" as part of the reward system. Carter (2000:103) explains further that components of a positive mind include the experience of meaning, sensory, sexual or physical pleasure and the absence of negative emotions. Pleasure could be experienced if the neurotransmitter, dopamine, is released in the brain to transmit nervous impulses and the reward system of the brain is stimulated. According to Carter (2000:103), dopamine is a special

⁵⁰ See appendix A for description of the interferons

⁵¹ See appendix A for description of the interleukins



neurotransmitter because it can be both excitatory and inhibitory. Dopamine helps with depression and focus as well as memory. According to Kennedy (cited in Moran 2008:1), (a)ggression occurs among virtually all vertebrates and is necessary to get and keep important resources such as mates, territory and food. We have found that the 'reward pathway' in the brain becomes engaged in response to an aggressive event and that dopamine is involved (Kennedy cited in Moran 2008:1).

Couppis (cited in Moran 2008:1), who conducted a study on dopamine, explains that there is proof of links between behaviour and the activity of dopamine receptors in response to an aggressive event. There may therefore be individuals who will fully seek out an aggressive encounter in order to obtain an awarding sensation from it. This indicates that conflict will be sought out in order to experience the reward of the positive 'reinforcer', dopamine.

2.2.5.5 GABA

GABA (gamma-amminobutyric acid) is a natural inhibitory neurotransmitter which has the same effect as valium (usually prescribed to treat anxiety disorders, alcohol withdrawal symptoms or muscle spasms), which is to relax a person. Kleppner and Tobin (2002:367) have described the boosting features of GABA. Hannaford (1995:55) suggests that GABA enhances concentration, learning, reading and focusing, as well as the ability to remember. When people are busy with a task, needing to concentrate or wanting to go to sleep, neurons secrete GABA which blocks out unnecessary noise. GABA thus plays a role in regulating neuronal excitability throughout the nervous system. Hannaford (1995:173) postulates that GABA can be increased through repeating light-coordinated movement patterns. In Chapter 3.3.2 the dual nature of GABA during adolescence is discussed in detail.

In line with current research on the importance of positive emotions and cognition (Huppert 2005:2), it is important to investigate the biochemical systems of wellbeing as opposed to the influences of destructive emotional behaviour. The findings of inter alia Fredrickson (2000), Diener and Lucas (2000), Forgas (2001) and Huppert (2005) indicate that positive emotions and happiness have an immediate effect on cognitive



behaviour and social relationships, as well as resilience. Huppert (2005:7) declares that a chain reaction is created when positive feelings result in positive thinking and behaviours that in turn fuel positive attitudes.

2.2.5.6 Oxytocin

The neurotransmitter oxytocin, produced by the hypothalamus and secreted by the pituitary gland, has various functions. Some of these functions are associated with childbirth and nursing. This hormone, however, is also linked to trust, bonding, love and sexual pleasure. DeAngelis (2008:30) explains that this hormone induces feelings of trust and generosity, and is therefore labelled as the tend and befriend response, as opposed to the flight or fight response. It is called the love hormone because it reduces fear, increases empathy and enhances trust. In the next section the influence of chronic stress is discussed and how it can influence the generation of emotions.

2.2.5.7 The influence of chronic stress on the generation of emotions

Anger and stress are deeply related. Either anger or stress can be generated according to how a person perceives a situation. One person may experience being cut off in traffic as a threat and become extremely angry. Another person may interpret the same incident as a sign of her own incompetence to drive in heavy traffic and become extremely nervous. Both incidences may be signs of chronic anger or stressful behaviours that can lead to malfunctions in the nervous system (LeDoux 1998:243).

Both anger and chronic stress can have a destructive effect on the immune system. According to LeDoux (1998:243), chronic social and psychological stressors can cause apical dendritic atrophy; in other words, neurons degenerate through the lack of nourishment or nerve supply (Weller 2002:37). Chronic social stress of this type



reduces the branching of the dendrites⁵² which leads to atrophy (LeDoux 1998:243).⁵³ Hannaford (1995:164) explains that "[p]erpetually responding to a stressful world with survival-oriented (SOSOH) behaviour takes its toll on the nervous system". Childre and Rozman (2003: xiv) state that individuals with long-standing histories of anger displays have strengthened the brain patterns that trigger angry reactions, leading to habitual anger behaviour that is hard to overcome.

LeDoux (1998:239) confirms that "stressful events can cause malfunctions in the hippocampus", as has been stated in section 2.2.5.2 under the heading cortisol. LeDoux (1998:240) concludes that [i]f stress persist too long, the hippocampus begins to falter in its ability to control the release of the stress hormones and to perform its routine functions. [...] Stress also interferes with the ability to induce long-term potentation in the hippocampus which probably explains why the memory failure occurs. Importantly, stress also impairs explicit conscious memory functions in humans (LeDoux 1998:240).

The fact that chronic stress can have a negative influence on the immune system and emotional wellbeing of a person, emphasizes the importance of the regulation of emotions. The management of emotional behaviour should therefore become a lifelong concern, especially for those educating young people. Hannaford (1995:168) states that "[t]he immune system is regulated by the limbic system, the area of the brain that processes emotions". Emotions and health are interdependent concerns in everyone's life. The destructive influence of chronic negative emotional experiences should be conveyed in programmes on emotional competences in order to assist participants with the dangers of chronic stress in their own situations. The participants in an anger management programme should be aware of the stress levels in their own lives in order to identify stressors that can lead to outbursts of anger. Relaxation techniques as interventions for anger outbursts should be included in a programme of anger management as an alternative to anxiety and chronic stress. Weare (cited in Aggleton, Dennison & Warwick) suggests that a mental

⁵² See appendix A for a description of the dendrites

⁵³ I refer here to landmark resources that date from 1995 to 1998, namely Hannaford's *Smart Moves* 1995, Damasio's *The feeling of what happens* of 1995, Joseph LeDoux's *The emotional brain* of 1998, and Panksepp's book *Effective neuroscience* of 1998. These reference books are all watershed resources that mark historical changes in the discourse of their specific subjects. Instead of using secondary resources that refer to these historic reference points, I referred to them directly.



health programme for schools should include the following emotional competency skills:

(U)nderstanding and managing feelings: relating skilfully to difficult feelings and impulses such as anger, sadness, anxiety and frustration and promoting positive states such as happiness, elation, joy and calm (Weare cited in Aggleton, Dennison & Warwick 2010:25).

Overall, the brain operates best when emotions are positive. Development can not take place in a climate of fear that can set alight a chain of related feelings, for example, hostility, annoyance, irritation or anger. It is important to endow the adolescent girl with social skills training to be able to help curb stressors in this developmental phase. According to research by Hankin (2009:460-472), "(g)irls reported significantly greater increases in depressive and anxious symptoms over time compared with boys". This will be discussed in depth in Chapter 3.3.7. In the next section the role of the memory system in the generation of emotion is introduced.

2.2.6 Emotion generation through the memory system

It was commonly believed that there is only one memory system in the brain, but due to advanced neurological science, it can now be stated that the brain accommodates multiple memory systems (Kesner 2002:783). Jonides, Wager and Badre (2002:797) confirm that multiple systems of memory underpin our cognitions.

Lucas (2002:817 – 833) classifies these multiple memory systems according to different areas of the brain; for instance, the procedural memories of how to execute activities involve the cerebellum; memories of negative experiences and phobias are kept in the amygdala; episodic memories of personal past experiences are stored in the hippocampus;⁵⁴ factual memories of semantics are stored in the cortical areas. Hannaford (1995:54) describes the short term and long term memory system as sensory information that enters the hippocampus through the thalamus to form short term memory systems in the hypothalamus. These short term memory networks can

⁵⁴ Refer to Appendix A for a description of the hippocampus



be activated in the hippocampus and long term memories can be stored in various areas of the brain (Hannaford 1995:54).

Memories are perpetually forming the consciousness of our existence. Episodic memories recreate a state of mind and a sense of time and space. They create an "all-encompassing perception of the world that binds sensory perception, thoughts, feelings and memories into a seamless whole" (Carter 2000:162).

For the purposes of this study the memory system will be divided into two categories: the explicit and implicit memory systems. In the case of implicit memories, McDermott (2002:773) explains that one's unconscious or implicit memory formations are mediated by different systems. One of the systems is that of the emotional memory involving the amygdala. A stimulus of a past traumatic or very stressful experience will cause the amygdala to react by triggering the endocrine system. The visceral motor system will cause the body to respond with, for example, an increased heartbeat, tenser muscles, higher blood pressure, deeper breathing and a very pale complexion (LeDoux 2007:5).

Lucas (2002:833) states that "the amygdala plays a key role in conditioned learning of fear responses and emotional modulation of memory". Connections from the amygdala to networks containing neuromodulators are important in regulating brain arousal during emotional situations. These neurons containing nor-epinephrine, dopamine, serotonin, and acetylcholine, release chemicals in widespread areas, including areas involved in forming and storing explicit memories. The release of epinephrine stimulates the kidneys to produce cortisol that has complex effects on memory, as discussed in Section 2.2.5.7. The amygdala's implicit memory system will cause the body to react on the memory stimulus, recreating the feeling of the event. McDermott (2002:773) explains the implicit memory system as "[t]he change in performances as a result of prior experience in the absence of intention to remember the prior event. Implicit memory is often facilitative, although it can cause interference." Hannaford (1995:63) explains that emotions are generated by memory systems and the memory systems are enhanced by emotions.

The explicit memory system stimulates the memory of the factual details of the event (Jonides et al. 2002:798). McDermott (2002:774) states that the explicit memory



system comprises two systems, one of facts (semantic memories) and one of memories of personal episodes (episodic memories). Both the semantic and episodic memory systems rely on the medial temporal lobe, which consists of the hippocampus and other cortical areas. LeDoux (2007:1) suggests that the hippocampus is involved in the storage of explicit memories and the cortical areas of the medial temporal lobe are involved in the formation of explicit memories. This implies that the hippocampus is involved is involved in explicit memories about emotional situations or cognitive representations of emotional situations (LeDoux 2007:1). These episodic emotional situations make deep impressions and can be remembered well. Process Drama places the participant in episodic situations and could therefore be regarded as a methodology that enhances retrieval.

According to Jensen (2008:90), information with an emotional undertone will be more easily retrieved than mere facts. Conveying information through stories or episodes can imprint information on the mind in a deeper way than mere factual transmission of knowledge. Sensory impressions and feelings strengthen memories. Carter (1998:164) explains that "a surge of excitatory neuroses transmitters . . . increases the firing rate of neurons in certain parts of the brain", and emotions strengthen the ability to remember in this way. Lucas (2002:824) states further that the more potent sensory stimuli are, and the more intense the "states of emotional excitement", the stronger the long term potentation (LTP) of the memory. This confirms that one should incorporate emotional material into lessons in order to strengthen the retrieval of facts as emotions reinforce memories.

Caine et al. (2005:191-192) instruct teachers to use dramatic strategies, such as songs, poems or make-believe stories which portray the facts the learners should remember. The senses are drawn into the experience as the fantasy world is depicted through strong visual imagery or sensory metaphors, a strategy that is highly applicable to this study. (Refer also to the discussion of emotions and learning in Chapter 5.4.5.)

When facilitating an emotional-behaviour management programme, an investment should be made in emotional experiences in order to enhance the retrieval of the material. A programme on anger management might employ poetry about the



subject of anger. Participants may be asked to dramatize poems in order to involve their sensory awareness and emotional insight into the content. Dramatized poetry may have an emotional effect on the participants. In so doing, the participants will be able to remember the content of the learning material on anger management more vividly and their insight into the emotion of anger might be deepened. In the next section the indirect generation of emotions through other emotions is discussed.

2.2.7 The indirect generation of emotions by other emotions

The generation of emotions can also be brought about through indirect means (Damasio 2000:59). When a person focuses on achieving a certain goal and is motivated by the prospect of experiencing a pleasant emotion, but is prevented from attaining the desired outcome, the positive emotion can be altered from irritation to frustration, escalating to aggressive behaviour and eventually to anger and rage (Panksepp 1998:54).

This confirms the explanation of the generation of emotion by Frijda (cited in Scherer et al. 2001:31), one of the leading appraisal theorists. Frijda's (ibid) theory correlates well with Damasio's (2000:290) indirect generation theory and consequently explains emotions as chain events. Frijda (cited in Scherer et al. 2001:148) explains that this non-linear process can be conceived as a set of response dispositions. Emotional reactions – experiences, motivations, behaviours, physiological reactions – can consist of one or more of these dispositions in a state of activation (Frijda cited in Scherer et al. 2001:148).

Concerning the generation of chain emotions, Frijda (cited in Scherer et al. 2001:155) explicates that emotions can be elicited without being analysed. Sometimes logical appraisals may occur before the arousal of the emotions and sometimes after the arousal of the emotion.

Dispositions can be described as goal-directed aims to attain a certain type of relationship with the environment. They can also be called "functioning attunements" (Frijda cited in Scherer et al. 2001:148) which produce feelings of pleasure or pain to



correspond with the situation. Other internal and/or indirect dispositions which can interfere with goal-directed behaviour to create emotional responses can be previous emotional states or mood states, a discomfort in the body, such as ill health, or hormonal imbalances. The background influence on dispositions causing certain emotional reactions defines mental states, such as fatigue, harmony, depression or discord (Damasio 2000:285).

Frijda (cited in Scherer et al. 2001:150) concludes that some emotions can be aroused without any information or known disposition at all. They can be called sudden urges due to certain brain processes. They can manifest in anger fits or states of bliss or despair, or other driven states, hormonal changes or other emotions (Izard 1992a:561 – 565). There are emotions induced by dysfunctional brain structures causing personality disorders, for example, Attention Deficit Disorders (ADD) which, in many circumstances, create irrational behaviour (Amen 2001:141), and epilepsy. Emotions caused by these dysfunctions fall outside the scope of this study and will therefore not be discussed.

The generation of emotions, as described in the above-mentioned section, is in line with Izard's theory (cited in Davidson, Scherer, Goldsmith & Hill 2003:226) that presents four different strands that may elicit emotions. They are described as a) all neural systems, b) the sensori-motor system, c) the motivational systems that regulate emotional drives such as hunger or fatigue, and d) the cognitive system which is responsible for the appraisal of emotions, as well as the memory networks. This theory, as introduced by Panksepp (1998:50), confirms the fact that emotion generation is literally a whole-brain function, driven by the four main systems involving the prefrontal cortex, hypothalamus, hippocampus and amygdala, with increased complexities in the process of generating emotions.

The generation of emotions clearly includes the ability to regulate these emotions to a certain extent. There is clear evidence that there are several different prefrontal cortex-amygdala circuits operating to enhance the self-regulation of social-emotive behaviour in the brain (Davidson, Scherer, & Goldsmith 2003). Davidson et al. (2003:655) confirm the innate willingness of the brain to manage emotional impulses:



"(O)ne of the key components of affective style is the capacity to regulate negative emotion and specifically to decrease the duration of negative effect once it arises".

During the process of anger management, the most emotionally intelligent action is to be able to identify the root of one's anger. It is crucial that the facilitator of a creative drama anger management programme understands the complexities of the generation of emotions and perceives how many different factors co-influence each other during this process. When analysing and exploring situations that may cause angry emotions, the facilitator should be knowledgeable regarding the triggers that can cause anger and angry feelings. Assisting adolescents in the identification of their emotions can set them on a course to later be able to understand and control their emotions, specifically their emotion of anger. In the next section the regulation of emotion will be discussed. This study endeavours to encourage the regulation of emotions as an achievable, prefrontal action that has the possibility of becoming a learned behaviour when cognitively identified and understood.

2.3 The regulation of emotions

2.3.1 The regulation of emotions by higher mechanisms of the brain

For the purpose of this study it is important to indicate to what extent strong negative emotions which are mainly processed by the amygdala as primary, survival-driven emotions, as well as more complex emotions called secondary emotions or feelings, can be regulated. As the aim of this study is to facilitate anger management, it is imperative to indicate, from a neurobiological viewpoint, how far the brain circuitry can accommodate emotional management.

As indicated before, the intensity of emotions is usually short-lived and can have subsequent repercussions upon several of the systems in the body, such as blood pressure, heartbeat, skin reaction and the endocrine system.⁵⁵ Emotional responses have the inherent energy to set up partial or total blocking of logical reasoning. This can cause a high degree of loss of control. Feelings can be as intense, but are more

⁵⁵ See appendix A for description of the endocrine system



cognitively generated and semantically perceived by the affected subject, for instance the feeling of empathy, embarrassment or hate. LeDoux (1998:302) proposes that emotions can be described as responses of the body to "brain states". He explains that these states are sensed as "conscious feelings", and that they can sometimes be described linguistically.

Will it therefore be possible to manage a strong emotion like anger? It is a neurological fact that the connection between the amygdala and the cortex (down-upwards connectivity) is stronger than the connection of the cortex with the amygdala (top-to-bottom) (LeDoux 1998:303). In *The Synaptic Self* (2002:320), however, LeDoux proposes that one's thoughts can be powerful enough to influence one's emotional reactions, making one react according to one's self-image or changing one's reactions to become what one would like to be, thus "one's self-image is perpetuating" (LeDoux 2002:320).

Carter (2000:90) confirms that emotions are kept under control by higher mechanisms of the brain. There are, however, situations in which the control system can break down. One is if the signals sent from the cortex to the limbic system are too weak or undirected to override the activity arising from the amygdala. The other is if the amygdala is activated in the absence of any outside stimulus that would simultaneously arouse the cortex (Carter 2000:90).

Carter (2000:90) further postulates that the relative weakness of cortical signals can cause children to have far more emotional outbursts than adults. She suggests that "cortical maturity can accelerate by use – children who are encouraged to exhibit self-control are likely to become more emotionally continent than those whose tantrums are allowed full rein". This builds a strong case for the possibility of emotional management for children of all ages, seeing that the prefrontal lobe is only fully developed in late adolescence (Giedd, Mollay & Blumenthal 2002:19).

Specific emotional control centres in the brain have been classified, for example, the orbitofrontal cortex (an appraisal-arousal structure), the rostral anterior cingulate,⁵⁶ the lateral prefrontal cortex and the amygdala. Researchers Etkin, Egner, Peraza, Kandel and Hirsch (2006) state that they were able to map brain circuitry that detects

⁵⁶ See appendix A for description of the rostral anterior cingulate 51 List of research project topics and materials

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conflict and other circuitry that resolves conflict. According to Etkin et al. (2006), the amygdala generates an impulse that communicates the presence of emotional conflict. This conflict interferes with the current functioning of the brain. The rostral anterior cingulate cortex in the frontal cortex is consequently activated to resolve the conflict by moderating the activity in the amygdala in order to prohibit the overwhelming effect of an emotional response. This discovery confirms the prefrontal cortex area as a significant role player in emotional regulation.

The regulation of emotions by constructing an event in an alternative way constitutes the ability to reappraise the event. The coping mechanism of reappraisal avoids emotional responses to dominate behaviour in maladaptive ways (Scherer, Schorr & Johnstone 2001:3). Social cognitive neuroscientists confirm that the frontal cortex is established as the main centre for emotional control (Lebrecht & Badre 2008:841). Functional magnetic resonance imaging (fMRI) has confirmed increased activity in some of the lateral and medial frontal regions during reappraisal (Ochsner, Bunge, Gross & Gabrielli 2002; Eippert Veit, Weiskopf, Erb, Birbaumer & Anders 2007). Ochsner and Gross (2008) reported a successful reappraisal during an emotional response which correlates with some higher activity in the lateral prefrontal cortex. This finding confirms the theories of Etkin et al. (2006) that the prefrontal cortex controls reactions to a negative response in the amygdala.

Lebrecht and Badre (2008:842), as well as LeDoux (1998:164), demonstrate that there are two independent pathways present in the prefrontal cortex for emotional control: the circuit through the amygdala that predicts a greater negative emotional response and a circuit through the nucleus accumbens/ventral striatum⁵⁷ that predicts a more positive response. This means that when participants are instructed to reappraise certain emotionally stimulating images, the action in certain brain areas is activated to control the outcome. Lebrecht and Badre (2008:842) state that this study is important in that it provides the strongest evidence to date that cognitive control implies the representation of information in order to modulate processing elsewhere in the system and thus create a network function of control.

⁵⁷ Nucleus accumbus/ ventral striatum



A similar experiment, conducted by the University of Wisconsin-Madison in 2006 by Urry, Van Reekum, Johnstone, Kalin, Thurow, Schaefer, Jackson, Frye, Greischar, Alexander and Davidson (2006), indicated that responding adaptively to stressful situations is facilitated by the ability to regulate negative emotions. The pattern suggests that the top-down projections of the ventromedial prefrontal cortex to the amygdala have an inhibitory influence on the amygdala's negative response. This leads to a decline in the cortisol secretion.

Although some neuroscientific studies posit that it is possible to regulate, control, influence or manage emotional responses deliberately by activating prefrontal activities and alter behaviour, one cannot expect the same results in the case of adolescents as findings imply that one should not expect mature prefrontal emotion regulation from adolescents, seeing that their prefrontal areas are not yet fully developed (Weinberger, Elvevag & Giedd 2005). The next section introduces the concept of brain plasticity and how it functions in emotion regulation.

2.3.2 The concept of brain plasticity and emotional regulation

When considering the neurobiological viewpoint as the basis of emotional competent behaviour management, two other aspects regarding the functioning of the brain should be taken into account. Can learned emotional-behaviour management change behaviour preferences in humans? Is it, for that matter, possible to change emotional behaviour? The following reasoning endeavours to introduce the concept of brain plasticity.

Brain plasticity⁵⁸ implies that the neural networks can change their structure and can form new neural networks when necessary (Ratey & Hagermann 2008). The following information will render proof of the ability to remember new information and to change older network structures to form new behaviour patterns by means of learning.

⁵⁸ See appendix A for description of the brain plasticity



The concept of brain plasticity is interwoven with the important periods of brain development and should be investigated for the purposes of this study. There are two distinct conditions for neuroplasticity to occur. Yusuf and Islam (2002:487) posit that during brain development the immature brain first begins to process sensory information and this process continues during adulthood and has a clear age-dependent determinant. Plasticity dominates during certain periods of development, for instance during the pre-school years and again at the onset of puberty. Another condition for plasticity to occur is to serve as an adaptive mechanism to compensate for lost function in the event of brain injury (Hannaford 1995:27).

Drubach (2000) explains that to comprehend how neuroplasticity is brought about one has to understand the concept of synaptic pruning. This means that individual connections in the brain are being removed or recreated, largely dependent on how they have been applied. Cortical maps of neurons⁵⁹ which are firing together in close proximity may be joint together. When firing apart, they will wire apart from each other. Lerner and Steinberg explicate that the adolescent, during this phase, enjoys a greater cognitive ability than before, as follows:

[w]hen an axon of cell A is near enough to excite cell B repeatedly or consistently takes part in firing it, some growth or metabolic change takes place in one or both cells such that A's efficiency as one of the cells in firing B, increased. (Lerner & Steinberg 2004:74.)

Goleman (2011, Chapter 10, Kindle version) explains that the adult brain generates up to 10 000 stem cells⁶⁰ per day that split into two parts. The one cell continues to produce new cells and the other goes to areas where new learning takes place. The new cell forms about 10 000 new connections with other cells where learning occurs. According to Goleman (2011, Chapter 10, Kindle version), new learning can break old habits with rigorous practice, commitment and reachable goals.

The research of Doidge (2007) confirms that when a stimulus is cognitively reinforced, its cortical representation is strengthened and enlarged. The cortical representation can increase two- to threefold in one or two days at a time. Giedd, Malloy and Blumenthal (2002:15) explain that the reason for the heightened activity

⁵⁹ See appendix A for description of neurons

⁶⁰ See appendix A for description of the stem cells



of brain development during adolescence is due to the process of arborization,⁶¹ where cortical grey matter is thought to increase in thickness of branches and connections on the axons⁶² and dendrites⁶³ of existing neurons. The number of branches and connections are selectively 'pruned' after the peak period of arborization. Giedd et al. (2002:19) further hypothesize that cells and connections with cells that are applied in meaningful activities will be strengthened, whereas cells that are not used will decline. The implication is that adolescents should be motivated to participate in activities that influence them positively.

The brain therefore has the embedded ability to change (Jensen 2006:199). Stein (2005:38) states that due to the plasticity of brain functions, neural synaptic⁶⁴ connections can alter. This indicates that the brain consists of underlying mechanisms that mediate the learning of new memories that should be exploited for educational purposes. A human being who is motivated to change habitual behaviours can break the grip of these habits by forming new connections of neurons through repeated activities and new thought patterns.⁶⁵ Synaptic connections can change their locations and their impact or create new groups of connections (Jensen 2006:199). Siegel (cited in Hass-Cohen & Carr 2008:152) confirms that controlled focus helps to enhance self-regulation as new pathways create new patterns of neurons.

It can be concluded that the plasticity of the brain is a biological fact. The brain can learn and remember new life skills. This indicates how important it is for the adolescent to be confronted with opportunities to learn and relearn how to manage their anger with rational management skills. The classifications of emotions will be discussed in the next section in order to assist the facilitator of an anger management programme to be able to position the emotion of anger correctly.

⁶¹ See appendix A for description of the arborization

⁶² See appendix A for description of the axons

⁶³ See appendix A for description of the dendrites

⁶⁴ See appendix A for description of the synaptic connections

⁶⁵ This statement does not refer to a specific change in behaviour but would like to prove that the brain can accommodate new learning material that can underpin structural changes in connectivity through exposure to new material.



2.4 The classification of emotions and the positioning of the emotion of anger and the variety of angry feelings

Most neuroscientists and appraisal psychologists differentiate between basic emotions and primary emotions, for example, anger, fear and sadness. Secondary or complex emotions or, for example, feelings of anger can be listed as irritation, annoyance or frustration. Damasio (1995:285:15) acknowledges three major kinds of emotions, namely background emotions, basic emotions and secondary emotions or feelings. He agrees with Adolphs and Heberlein (2002:181) who suggest that the primary emotions, recognized cross-culturally, namely happiness, sadness, surprise, disgust, anger and fear are universal regulators of survival and present in all primates and humans. Patten (2008:73) states that emotions occupy different brain systems than cognition. Emotional stimuli more often result in involuntary bodily reactions, whereas cognitive reactions can more often be delayed and controlled. Emotions are therefore not always easily accessed by rational thoughts.

Carter (2000:82) compares emotion with colours. She suggests that just as the three primary colours can be combined to form an almost endless range of shades of colours, basic emotions can be mixed to produce a complex variety of feelings. According to Adolphs and Heberlein (2002:181), feelings are subjective experiences of emotions. Carter (2000:83) confirms that these secondary, complex feelings are sophisticated cognitive constructs that are arrived at only after considerable processing by the conscious mind and an elaborate exchange of information between the conscious cortical areas of the brain and the limbic system beneath (Carter 2000:83).

The cerebral cortex⁶⁶ consists of a network of highly interconnected neurons that respond in milliseconds to various demands, in an integrated, non-linear way, and that recognize the emotion, experience the feeling and respond by solving problems, or make decisions to activate affective behaviour (Adolphs & Heberlein 2002:183). A feeling can be described as a semantic state that one identifies after an experience of an emotion. The feeling of pride can be semantically categorized after a surge of joy-emotion has been experienced, or a spurt of impulsive anger can make one feel

⁶⁶ See appendix A for description of the cerebral cortex



embarrassed (Damasio 1995:285). The cerebral cortex system is mainly responsible for the identification on a perceptional and semantic level of feelings elicited by our emotions, memories or other feelings and thoughts.

People understand themselves in terms of functional, emotional classifications because "emotions are associated with a multimodal network of information about the self and one's experiences of the world" (Feindler 2006:204). Linguistic knowledge of 'emotion words' can stimulate the awareness of related emotions and feelings and forms the basis of the primary emotional intelligence ability, namely the identification of emotions. Le Roux and De Klerk (2001:52) indicate that people who are able to identify their feelings are linguistically more skilful in naming their emotions than others.

Feindler builds a case for the classification of emotions from a subjective, emotional perspective:

... what best explains human behavior is the subjective experience of reality, attention to and symbolization of clients' subjective worlds that is the raw material from which a new understanding of the self and of others can emerge (Feindler 2006:203).

Feindler (2006:205) distinguishes three types of anger that correlate well with neuroscientific classifications. Anger is classified under primary, secondary and instrumental emotions by Feindler. Feindler (2006:204) states that "[n]o single emotion, such as anger, belongs exclusively to one category, and all can travel between the following categories depending on their specific activation"; for example, anger can be low in intensity, manifesting itself in irritation and annoyance, or high in intensity, displaying itself in rage and fury (Spielberger, Jacobs, Russel & Crane 1983).

Parrot's (2001) classification is in line with Feindler's (2006). The main archetypes of emotions, as classified by Parrot (2001:34-35), are love, joy, surprise, anger, sadness and fear. Each main emotion is divided into six or seven smaller clusters. As Ellsworth and Scherer (2003:575) elaborate: "Rather than a single emotion of anger there can be many varieties of 'almost anger' and many nuances of the anger experience". Panksepp (cited in Cavell, Kenya & Malcolm 2007: 99) explains that secondary emotions, or complex emotions or feelings related to the emotion of anger



are annoyance, irritation, frustration, disgust, indignation, hostility and hate. Parrot (2001) divides the different feelings into clusters, with each cluster falling under a primary emotion, as will be described in the next paragraph.

Parrot (2001) divides anger into six clusters with their own related feelings. Group one consists of aggravation, irritation, agitation, annoyance, grouching and grumping. Group two has two similar feelings, namely exasperation and frustration. Group three consists of sixteen different words to describe anger, namely anger itself, outrage, hostility, bitterness, loathing, spite, dislike, rage, fury, wrath, ferocity, hate, scorn, vengefulness and resentment. Group four has three feelings for the emotion of anger, namely disgust, revulsion and contempt. Envy and jealousy are in group five, and torment is in group six.

As indicated above a third category of emotions, according to Feindler (2006:205), is that of instrumental emotions, expressed to obtain a desirable reaction from others. One can be manipulative, for instance, when expressing sadness in order to elicit care, or expressing anger in order to obtain power, without directly asking for either outcome. This is confirmed by DiGiuseppe and Tafrat's hypothesis (2007:72) that claims that hostile aggression is anger-motivated, impulsive and seeks to harm the victim. Instrumental aggression does not contain angry feelings for the motive is only to acquire a person's possessions in a calculated way which benefits the aggressor.

In summary, a primary emotion is an immediate reaction to an external impulse, such as joy, fear, anger and sadness (Frijda 1986:72). A secondary emotion, or rather feeling, can be initiated by a primary emotion. Fear can cause the secondary reaction of anger, and anger can initiate self-protection or assertiveness. Secondary emotions or feelings can be impulsive reactions instigated by primary emotions, or they can be reacting in defence against primary emotions; for example, sudden anger may lead to a secondary feeling of shame or fear. This feeling, in its turn, may bring about a feeling of vulnerability (Feindler 2006:205). Feindler (2006: 206) concludes that knowledge of human emotions is imperative for anyone who facilitates emotional management. One should know, for example, that rejection can produce sadness and disrespect can evoke anger. Identifying the roots of anger is one of the basic tasks of a programme on anger. Assertiveness is the ability to



identify the needs of yourself and others in order to negotiate a win-win situation (Wilding & Milne 2010). Knowing the possible roots of various emotions might assist in this identification process.

Another classification of anger has a pragmatic function and complies with the theories of anger management. Anger can be expressed in several behavioural styles. DiGiuseppe and Tafrate (2007:57) state that cognitive behaviour theories divide the human experience into thoughts, feelings and behaviours. DiGiuseppe and Tafrate (2007:57) state that "anger is an emotion, and aggression is a behaviour. One possible link between anger and aggression is motive". They explain that anger may therefore lead to aggression, but it is not aggression. All anger does not necessarily lead to aggressive behaviour. LeDoux (2002:236) confirms that "[a]ctions motivated by emotional arousal have a purpose to deal with the emotions." The next section will further examine the interrelated bond between the concepts anger and aggression.

2.5 The emotion of anger

2.5.1 Anger: Two sides of one emotion

Although generally perceived as a negative emotion, the facilitator of a creative drama programme on anger management should clearly understand the important place of anger in human behaviour. Anger is neither right nor wrong in itself. According to Hannaford (1995:171), strong and negative emotions should be expressed and not suppressed. In this way adrenalin is secreted in small amounts or not at all, and such behaviour prevents stress from becoming a chronic problem. Taylor and Novaco (2005:38) state that anger can be "unsettling, and oddly satisfying" and may "command our attention and alertness for potential danger". They posit, however, that constant displays of anger can affect one's health negatively and destroy social relationships.

Hankins and Hankins (2000:7) offer constructive details how anger, perceived by them as a "natural and normal emotion", can be employed in either a positive or a



destructive manner. They explain that anger can stimulate or drain the person who experiences the anger. The angry feeling can open communication between conflicting parties or can block communication. They posit that anger can alert others or deter them. Anger can be an indication for positive action or can trigger destructiveness (Hankins & Hankins 2000:7).

Anger therefore serves a variety of functions. According to Cavell, Kenya and Malcolm (2007:100), anger can be used in self-defence, to master a situation or to manage social and interpersonal situations, as well as organizing behaviour with goal-directed actions. It can serve as a way to convey non-agreement or conflict.

If anger is not conveyed in an assertive manner, anger can destroy human relationships. The expression of anger should be regulated in order to prevent unnecessary irrational incidences in relationships. The construct of emotional competence offers the behavioural skill of assertiveness in order to control anger and angry emotions (Stein & Book 2001:66).

2.5.2 Expressions of anger and angry feelings

Ekman (1999:47) encourages an awareness and understanding of one's own emotions, as well as that of others, in order to act in an emotionally competent manner. The identification and regulation of facial expressions could assist, according to Ekman (2004:113), in being emotionally competent and sending the appropriate emotional signals about one's feelings. It is part of an anger management programme to involve the learners in the expression and identification of anger and related feelings. The facilitator, as well as the participants, should prove themselves emotionally competent regarding the identification of aggressive feelings and emotions as displayed by the body. Izard (cited in Cavell, Kenya & Malcolm, 2007:99) describes the commonly recognized facial expression of anger as follows:⁶⁷ the brow forms a frown as the eyes are fixed on the object of contempt. The nostrils are flaring and the mouth can be open, showing gritted teeth. The face can generally

 $^{^{67}}$ The Discrete Emotion Theory states that people have innate, basic, cross-cultural biological processes that create certain emotions, mainly recognizable through the same facial expressions, such as happiness, sadness, surprise, disgust, anger and fear (Colombetti 2009:407 – 425).



be recognised as red. Bloch and Lemignan (1992:31 - 40) confirm that the facial muscles are tensed, the eyes focused and the lips tight.

It is not only facial expression that denotes anger or angry feelings, the whole body is involved in the communication process. It is generally accepted that even blind people, from their childhood onwards, use gestures to communicate. According to Novaco (2000:170 - 174), the body language of anger is typically displayed by poses such as the following: an increase of tension in the muscles, arms that are raised and a squared-off stance. The body will indicate that the angry person is preparing actions for attack and/or defence. The tension of the skeletal muscles indicates strength and self-confidence. The neck may be stretched forward, the fists clenched and an increase in the heartbeat and breathing may be noticed (Ekman 2004:110). Bloch and Lemignana (1992:31 - 40) describe the body attitude of allignment of anger as follows: the head can be stretched forward and bent low and the torso can be facing the object of anger, displaying a threatening attitude. The movements can be quick and abrupt and the muscle tones are in a tense state. In many cases the index finger can be pointed directly towards the one that is being attacked.

If people are not displaying the most intense level of anger and rage but is only slightly annoyed or irritated, they will display combinations of "no-gestures" (Ekman 2004:110). Their arms may be folded, they may be holding their chin and their eyes are squinting. They may be tapping or fidgeting with their feet or fingers. Their feet and trunk may be pointing away from the other person. There may be constant eye movement, a shaking of the head and the jaw could be clenched. In some instances of intensive rage the person may avoid contact and turn away from the other person (Navoco 2000:170 - 174). The tone of the voice may display great contrasts: the voice can either be very high or low and the volume can be either very soft or very loud. The voice can become higher in tone and the person can start talking faster and louder with great energy. There can be a tense quality in the voice that might lead to breathiness. Angry people might also display 'cold' anger that is characterized by a lower voice and softer sound (Sauter, Eisner, Calder & Scott (2010). The emotion of anger calls for great contrasts in its presentation. In the next



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section anger is positioned in its social and neurological context in order to understand how it connects with strong emotions like fear and rage.

2.5.3 The social and neurological localization of anger

In this section the emotion of anger will be positioned according to its neurological and sociological locality, its place amongst other emotions, the differences between anger and aggression, the variety of anger styles, as well as the importance of anger control. It is vital for this research study to consider the different aspects regarding the emotion of anger before offering a structure for anger management. The foundational understanding of the localization as part of the primary emotion of anger will be introduced from the neurological perspective of Panksepp (1998:187). Panksepp (cited in Cavell et al. 2007:99) explains that anger provides an organism with behavioural potential that is complex and biological to assist in confronting challenges threatening its welfare. Long and Averill (2002:131) state that for anger to be fully localized, it must have a place, first and foremost, in the social system, not only in the nervous system. Anger can only be generated if directed at someone or something for some perceived wrong. Anger in humans is an interpersonal and intrapersonal emotion. The theory of the neurological localization of anger should not be divorced from its social environment.

Panksepp (1998:50) provides a comprehensive explanation of coded emotional neural circuits integrated with the evolutionary development of the reptilian,⁶⁸ mammalian⁶⁹ and neopallium⁷⁰ brain sections. Emotions are thus generated by different evolutionary sections of the brain in order to apply to the demands of the different emotional and motivational needs for survival. Advanced studies have revealed different circuits involved in processing various emotional responses, such as the genetically ingrained processes, epigenetic⁷¹ interaction with the genetic

⁶⁸ See appendix A for description of the reptilian brain section

⁶⁹ See appendix A for description of the mammalian brain section

⁷⁰ See appendix A for description of the neopallium brain section

⁷¹ **Epigenetics:** "The study of heritable changes in gene expression that are not encoded in the DNA of the genome" (New England Biolabs 2013).



processes in social environments, as well as the human ability to conceptualize emotions via cognitive functions (Panksepp 2007:187).

Panksepp (1998:53) identifies four primary emotional systems on the basis of the primary survival needs and has coined them as the SEEK, PANIC, FEAR and RAGE systems. These systems instigate a variety of emotional outcomes, as well as motivations for outcomes of various higher cortical 'feelings'. The discussion of these systems holds an introductory key to the subject of emotional classification and control of the emotion of anger.

2.5.3.1 How anger is positioned in relation to the SEEK system of the brain

The first section under discussion is the SEEK system or appetitive, motivational system. This system is motivated to drive self-satisfaction in the animal or human being with positive incentives, such as finding food, water, protection from elements, companionship and sex.

In humans the SEEK system underpins some of the higher neural activities. They are, for example, to sustain curiosity, to undertake intellectual explorations, and to stimulate learning, especially about where resources can be found and how to obtain them (Panksepp 1998:53). This system correlates with the major self-stimulation circuit between the midbrain and the cortex. An important neurochemical in this pathway is the neurotransmitter dopamine that coordinates functions in the higher brain areas, for example, the nucleus accumbens and prefrontal cortex that promote planning, eagerness, direct purpose and foresight. The facilitator of any learning programme should invest in stimulating the participants' SEEK system with handson, active learning processes that are meaningful. Caine, Caine, McClintic, and Klimek (2005:179) recommend that active learning processes should be embedded in reflective activities such as in-depth questioning that expand the learners' insight into real-life situations.

The learner should be immersed in an experience and from there draw logical and analytical results (Hannaford 1995:87). This process can integrate the learning



material and personalize it to a greater extent. Angry feelings may be elicited when there is an interference with the urge to complete activities pertaining to the SEEK system.

2.5.3.2 How anger is positioned in relation to the PANIC system of the brain

This system is based on the survival instinct to safeguard the life of offspring. Parents are driven to be with their young; the young do not want to be separated from their parents. Panksepp (1998:54) indicates the presence of a strong tendency for distress when individuals are separated from the pack. Any social loss or rejection causes panic, grief, separation distress and loneliness in different ways during all human developmental phases. Interdependence provides a "neural substrate for many other social emotional processes" (Panksepp 1998:54). He also postulates that there is evidence that all mammals have a more sophisticated system mediating sexual lust, but that it is different for males and females.

Maternal care and rough play stimulate brain chemicals such as oxytocin, creating circuitries for more complex social behaviours. The brain is a social organism and facilitators should short-circuit negative effects of the PANIC system by using the outcomes of positive social interaction produced chemically by the brain. Caine, Caine, McClintic & Klimek (2005:49) state that collaborative learning enhances the sense of belonging in learners. They should experience that they are heard and that their opinions are recognized. This contributes to an atmosphere of 'relaxed alertness' that is imperative for good relationships, impacting on the experience of learning.

The actual way the synaptic connections of the brain cells grow and connect to other brain cells can be modified through an individual's connections and dealings with other people (Caine et al. 2005:50).The continued research on 'mirror neurons' demonstrates and confirms that people are created in such a way to react and gain knowledge from others in their surroundings (Feinstein 2009:79). Everyone is affected by the habits, routines, language and principles of those in the same social



group (Caine et al. 2005: 51).⁷² Any type of rejection may induce angry feelings or the primary emotion of anger in order to satisfy the need to be connected.

2.5.3.3 How anger is positioned in relation to the FEAR system of the brain

This system increases the awareness of threat and destruction in order to prevent pain and dying. The fear system is generally linked to the concept of flight or freeze responses. In humans this system engulfs all rational thinking when intense anxiety is experienced. Bowers and Sivers (1998:631) state that the awareness of danger can lead to the secretion of hormones such as adrenaline into the blood, creating thoughts that communicate danger for which the body prepares itself. The emotion of fear can therefore easily be transformed to anger in order to protect one against that which one fears most.

2.5.3.4 How anger is positioned in relation to the RAGE system in the brain

In order to facilitate an anger management programme, it is important to investigate the concept of the RAGE system (Panksepp 1998:54). This system operates in conjunction with the FEAR system and in opposition to the SEEK system (Panksepp 1998:54). The RAGE system is stimulated when goal-directed behaviour (SEEK system) is threatened. The alternative to the flight reaction of fear (FEAR system) is to be aggressive and to employ the fight reaction of the RAGE system. It impels emotions such as irritation, restraint, frustration, indignation, anger and rage. In animals rage is aroused when their freedom of action is curtailed and in order to arouse fear in their opposition. Rage and anger energize behaviour through the secretion of adrenalin. Aggressive behaviour in humans is usually perceived as a negative social display and is supposed to be suppressed and rationalized (Goleman 1996:64). Rage could be classified as an ultimate experience of anger, manifesting

⁷² This section also refers to the discussion on mirror neurons in Chapter 3.3.5.



often in people with personality disorders, whereas cognitive control is almost lost in that instant and the individual loses sense of herself.⁷³ They are totally consumed by their anger, according to Greenfield (2000:140).

There is evidently a significant interaction amongst the different neural systems. Panksepp (1998:51) reasons that the "the ability of the human cortex to think, to fantasize and pursue many unique paths for the human cultural evolution can dilute, mold, modify and focus the dictates of these systems but cannot eliminate them". As confirmed by Long and Averill (2002:135), "(a)n inability to recognize another's anger may thus be as disruptive of social relationships as the inability to express anger appropriately".

In summary, the emotion of anger is classified as an emotion in its primary state, involving involuntary action readiness. Panksepp (cited in Cavell et al. 2007: 99) states that humans have the ability to regulate their basic emotions, such as anger, in order not to affect behaviour directly. In the next section the classification of the various types of angry emotions will be discussed.

2.5.4 Defining the relation between anger and aggression

For the purpose of this study, it is expected that an anger management facilitator should know the difference between the construct of anger as emotion, and that of aggression as behaviour, seeing that two such closely related concepts could be misidentified. According to Long and Averill (2002:131), aggression in humans can be defined as "the intentional infliction of harm on another, against their wishes and not for their own good; in other animals, the infliction of harm per se".

Anderson and Bushman (cited in DiGiuseppe & Tafrate 2007:63) have created a general aggression model that serves as a general anger model as well. They propose five patterns how anger increases the probability of aggression. The five reasons can be listed as follows:

⁷³ As this thesis deals with 'female' participants 'she' is used as the universal person.



- Anger reduces inhibitions to display aggression. The aggressor believes that the victim of the aggression deserves punishment. Anger interferes with higher order or cognitive thinking processes which may have reappraised the anger outcome and prohibited aggressive behaviour with moral restraints, and by contemplating possible negative consequences.
- Anger may motivate the aggressor to consider aggressive behaviour over time.
- During anger episodes the aggressor focuses on the targets of his or her anger and perceives them as worthy of blame and condemnation. The aggressor's focus on the anger deems it difficult to put facts into perspective regarding the reality of the victim's actions.
- Anger triggers aggression-related thoughts and actions. Angry people attend to anger-related aspects in their environment and focus on aggression-related solutions to their problems.
- Anger activates high emotional arousal, which can easily energize aggressive actions.

Harmon-Jones and Sigelman (2001:798) postulate that some individuals can experience so-called state⁷⁴ anger that can relate to high levels of self-assurance, strength and bravery. It can be associated with optimistic expectations. Harmon-Jones and Allen (1998:1310 – 1316) postulate that there is an increase in left frontal cortical activity when someone is involved in approach-motivated anger⁷⁵. This is explained by the fact that anger, although a negative, subjective experience, entertains awareness constructs such as bravery, self-assurance, determination and strength, which are regarded as elements of positive emotion models (Berkowitz 1993:35). DiGiuseppe and Tafrate (2007:359) challenge the idea that low self-

⁷⁴ State anger is defined as an emotional state marked by subjective feelings that vary in intensity from mild annoyance or irritation to intense fury. State anger is generally accompanied by muscular tension and arousal of the autonomic nervous system. Trait anger is defined as the disposition to perceive a wide range of situations as annoying or frustrating, and the tendency to respond to such situations with more frequent elevations in state anger. Anger expression has three main components: anger-out, anger-in, and anger control (Spielberger 1988).

⁷⁵ Approach-motivated anger: McGregor, Nash and Inzlicht (2009:xxx) state that people with high self-belief can react to threats with positive approach motivation, a feeling that mutes their sensitivity to the perspective of others and enjoys the feeling of power.



esteem is central to the anger experience. This finding is confirmed by Baumeister, Smart and Boden (cited in DiGiuseppe & Tafrate 2007:359), who posit that some individuals hold the belief that they are more important than others. From their egocentric viewpoints they display aggressive anger without any remorse or empathic awareness of the other person's feelings, holding on to their "high, unstable self-esteem" (Baumeister et al. cited in DiGuiseppe et al. 2007:359). This explains why some individuals are more prone to transform their emotions of anger into aggressive behaviour than others who rather prefer to hide their anger.

Anger is displayed differently as aggression by individuals in a group than when they are alone. There clearly is safety in numbers. Adolescent anger-aggression behaviour is often displayed in groups. It is important that anger management facilitators for adolescent groups should consider the various aspects of this construct.

Eidelson and Eidelson (2003:182–192) postulate that the group or individuals of the group will justify violent behaviour based on the belief that they are better than others, more deserving or entitled to act in a hostile manner. The group may believe that they are the recipients of unfair treatment. They attribute their own failure to achieve their goals to unjust treatment and perceive themselves as victims. The group or individual may experience real threats and may be in a vulnerable position. Exaggerated perceptions of threats can lead to the protective emotion of anxiety. Distrust or suspicion accompanies aggression. Angry and aggressive people may define neutral acts as hostile.

Lastly, anger can result when people have a low self-image and believe that they are helpless and hopeless. Aggression may appear to be their only option.

To sum up, anger may be experienced by all, but expressions of anger or aggression are not all the same. The expression of anger and aggression is closely related to the various communication preferences of people. In the next section a variety of anger styles will be investigated. The ability to identify the expressions of anger in humans forms the foundation of any anger management programme. Facilitators of such programmes should acquaint themselves with the constructive,



passive/defensive and aggressive/defensive styles of anger (Cooke & Szumal 2000:147-162).

2.5.5 A discussion regarding a variety of anger styles

Anger styles are preferred ways in which people react when they are angry. These styles may be employed according to the demands of a situation, but if an anger style is expressed too often in a mindless manner, it may result in negative relationships or self-harm (Potter-Efron & Trepper 2005:19).

The following table introduce a combined overview of the various anger styles as presented by Carter and Minirith (1993), Shelton and Burton (1994), White (1997), Stein and Book (2001), Simmons (2002) and Potter-Efron and Trepper (2005:20). The information of the behaviour styles in the first column is based on the Circumplex of Cooke and Lafferty of the Human Synergistics Institute (2010). This section also refers to Chapter 3.4 where the anger styles of the adolescent are discussed.

Type of behaviour style	Anger display form	Description of the anger style
Non-assertive, passive behaviour	Indirect implosive	
 style: people-oriented needs to be accepted by 		unable to accept angerunaware of anger
 wants to please people 		avoids situations of aggressive communication
agreeable		 sees anger as useless and bad ignores and rationalizes anger
obedientwants to make a good		 feels powerless

Table 1 Various anger styles



impression		feels dominated by others
conventional thinker		 harbours feelings of resentfulness
 wants to maintain the status quo approves of secure, predictable environment 		 despises those in control motivates the refusal to participate in conflict based on moral conviction.
 dependent presents need for self-protection depends on others to make decisions believes that one has little direct control over important decisions 		 does not want to lose face can be overly image conscious, resulting in a refusal to be angry publicly. is afraid that feelings will be invalidated by others
 Passive-aggressive behaviour style presents apprehension withdraws from threatening situations for self-protection takes minimum risks shies away from group activities indecisive, non-committal shows aggression by oppositional behaviour questions others in a critical, cynical way emphasizes minor flaws uses criticism to gain attention blames others for mistakes 	Indirect Implosive	 needs to control with the least amount of vulnerability anger is controlled, but still creates an atmosphere of tension does not want to participate in open communication; frustrates others by subtle sabotage does not want too much honesty about personal beliefs; believes that openness lessens the ability to maintain the upper hand displays anger by refusing to do things sometimes promises to do as told, but holds the upper-hand by refusing to act
Passive aggression as psychological disorder ⁷⁶	Direct	This kind of anger is directed at oneself in the form of self-hatred, for example, suicide, self-

⁷⁶ It is imperative to be able to distinguish between anger and the chronic anger/rage phenomenon, especially when the anger/rage presents chronically. Greenfield's (2000:139) theory of emotion cognition processing best describes anger as personality disorder or emotional disorders. Greenfield (cited in Smith 2002:396) argues that "emotional experience is the result not of adding an emotional quality to a cognitive state, but of losing the



Assertiveness or Constructive	Chronic Direct Non-implosive Explosive	 mutilation, anorexia, bulimia or any other masochistic behaviour anger is motivated to preserve personal worth, needs and convictions acknowledging the needs of others, with respect anger style would like to help relationships grow acts in a non-abrasive manner with honesty communicates after thinking clearly and objectively over a matter endeavours to solve interpersonal problems in a direct and respectful manner gives "I-messages" (this is how I see it, this is how feel about it) does not assume what the other person thinks or feels without first listening
 explores alternatives before acting learns from mistakes 		 and objectively over a matter endeavours to solve interpersonal problems in a direct and respectful
 potential has a strong desire to learn creative, yet realistic shows interest in growth of others wants to develop people likes to encourage and support sensitive to needs of others shares their thoughts and feelings likes to sustain relationships 		 gives "I-messages" (this is how I see it, this is how feel about it) does not assume what the other person thinks or feels without first listening
Aggressive behaviour style task-oriented		This kind of anger takes a self-preserving stand for personal worth, needs and convictions, but at someone else's expense

cognitive state". Greenfield (cited in Smith 2002:396) explains the occurrence of aggressive dysfunctional personality disorders as follows:

"...the prefrontal cortex is the key to the interaction of emotion and cognition. When its activity is disturbed by unusually strong emotional input, drugs, or abnormal transmitter levels associated with schizophrenia, emotions rule and our sense of self is temporarily or permanently lost (Greenfield cited in Smith 2002:396).

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not people-oriented	 blames others if things go wrong
 reflects need for power, can be very competitive or perfectionistic 	explodes when upset
	becomes defensive
has a tendency to dictate	tries to control
rather than to guide	tries to manipulate
runs everything oneself	insensitive to others
 treats others in an aggressive and forceful, controlling way 	 wants to make things happen by being pushy, forward, belligerent
 seeks recognition and praise from others 	Four different styles of aggression have been
tries to prove oneself	identified which are worth considering:
 tends to equate self-worth with the attainment of unreasonable high standards 	The first style is manifested in sudden rage and dramatic outbursts of intense anger
 has high expectations of others 	 The second is shame-based anger which is converted to feelings of rage.
 can be impatient with others 	People with shame-based anger is volatile and dangerous
can be frustrated by others	
 can show indifference towards the needs of others 	The third type of explosive anger is excitatory anger. Such people seek out anger as excitement and become irate when arguments are triggered
	 Deliberate anger is the last explosive style of anger. It can also be called projected anger, where the aggressors transmit their anger onto others to make them act in an aggressive way. This type of anger is purposefully acted out in order to intimidate others. People with poor communication styles employ this style and believe that their anger makes things happen for them. This is the way they can control people and achieve their goals
	Another perspective on explosive, direct anger is bullying behaviour:
	anger is negative and destructive



		 underlying this behaviour is low self- esteem and a lack of trust can be very egocentric is built on unrealistic self-belief can be motivated by envy always wants to be cleverer, more popular etc.
Social anger/relational Anger	Indirect Explosive	 underhanded form of damaging other people's social position through spreading rumours and back-biting non-physical harms the person psychologically and socially indirect or covert social aggression is currently the main focus point in investigations about women and girl anger behaviour by researchers such as Brown (1998), Simmons (2002), Dellasega (2003), Underwood (2003), Taylor (2006) and Chesney-Lind (2008)
<u>Chronic anger</u>	Direct, Explosive or Implosive	 Chronically angry people believe that they should constantly perpetuate their anger. They are bitter, resentful, easily annoyed and defensive Chronic anger can present as moral anger. These people regard themselves as righteous and believe they fight for a cause greater than their own self-interest. They project anger of the past into negative situations in the present Chronic anger can present as a style of resentment and hate. A sense of hatred is solidified over timeThese people are inflexible, unforgiving and always act as if they were mistreated. This style can also be identified in people with personality disorders.

Beverly Engel (2004:38) states that anger styles match communication styles. The passive style is to avoid conflict at all cost, with difficulty in expressing honest feelings. Aggressive communication styles are displayed by those who want to



control others with aggression, sarcasm, humiliation and abuse. Passive-aggressive styles display aggression in dishonest ways, for example through back-biting, gossip and seduction. The assertive communication style takes the feelings of others into account and shows respect towards the opinion of others. The anger behaviour styles of the adolescent girl are discussed in Chapter Three.

The above explication of adult anger styles serves as an introductory basis for the profiling of adolescent anger. Insight into the various anger and communication styles serves as a platform when having to negotiate the best practice for an anger management style, namely assertiveness. In the empirical examples assertiveness will be the emotional competence ability that the facilitator will convey to the participants. In the next section anger and aggression interventions will be explained according to two cognitive behaviour therapies.

2.5.6 Anger and aggression interventions

The importance of anger management for the adolescent female lies in the fact that she has to entertain many different challenges during this 'cross-road phase' in her life. She could be challenged by peer pressure, misunderstanding between her and her most significant figures of authority, or a search for her own identity, leading to frustration and anger against herself. This section serves to empower the facilitator of an anger management programme with motivational information as to the importance of a sensible and adolescent-friendly anger management programme. It is therefore of prime importance that one has to understand what anger management entails. A definition of anger management commonly refers to a system of psychological therapeutic techniques and exercises by which someone with excessive or uncontrollable anger can control or reduce the triggers, degrees and effects of an angered emotional state (Wilding & Milne 2010:284). In emotional competence terms, it refers to the ability to identify angry feelings and taking action to calm down and deal with one's emotions in a positive way. Anger management does not try to prevent one from feeling anger or holding it in. Anger is a healthy, normal emotion when expressed appropriately (Mayer & Salovay 1997:10).



Long and Averill (2002:132) state that although the emotion of anger is not often accompanied by physical or verbal aggression when people endeavour to talk things over or avoid confrontation by engaging in calming activities, it is still important to invest in anger intervention skills. Long and Averill (2002:132) offer the following motivations:

- anger erupting into aggressive behaviour can have serious effects on relationships
- aggressive behaviour is often used as an excuse in the aftermath of an altercation, for example, the aggressor will state that he or she were overcome by the emotion of anger and cannot be blamed for their behaviour, whilst blaming the other person for aggravating them
- if the anger is not expressed in an assertive manner, it can result in chronic stress, for example, hypertension.

Olatunji, Lohr, & Bushman (2007:124) discuss the advantages of anger intervention and recommend the avoidance of intervention through the pseudo-psychology of venting: "venting anger does not reduce aggression". According to Olajtunji et al. (2007:124), venting can only strengthen the anger-aggression behaviour and presents no rational and practical solution to the problem of anger or the motives behind anger behaviour

DiGiusseppe and Tafrate (2007:viii) posit that the REBT model or Rational Emotive Behaviour Therapy of Ellis (2004) "may be among the most valuable interventions for assisting those with problematic anger reactions". The REBT framework and Cognitive Behaviour Therapy (CBT) posit that humans possess innate rational and irrational inclinations and tendencies. REBT proposes that people can consciously and unconsciously construct emotional difficulties such as self-pity and self-blame, anger, hurt, guilt, shame, anxiety and depression. They can construct behaviours like procrastination, over-compulsiveness, avoidance, addiction and withdrawal through their irrational thinking, emoting and behaving (Ellis & McLaren 2005).

REBT and CBT are educational processes in which the therapist facilitates the participant's identification of irrational and self-defeating, rigid, extreme, unrealistic,



illogical and absolutist beliefs and philosophies, and replaces them with more rational and self-helping ones (Dryden 1999:114). By using different cognitive, emotive and behavioural activities, the adolescent participant, together with the facilitator and through exercises, can achieve a more rational, self-helping and constructive rational way of feeling, thinking and behaving. One of the main outcomes in REBT⁷⁷ and CBT is to show that whenever unpleasant and unfortunate activating events occur, there is an available choice to improve the outcome by acting rationally and assertively (Ellis & McLaren 2005).

Anger management can in some cases only reduce the aggressive behaviour, but not the anger itself (DiGiusseppe & Tafrate 2007:68). Vengeful and constantly angry individuals maintain their anger or hate after they have stopped behaving aggressively. In such cases it seems necessary to facilitate pro-social behaviour to reduce anger behaviour. During the last decade the concept of forgiveness-based interventions has become popular as an addition to successful anger management programmes (Kassinove & Tafrate 2002:225). In the empirical examples this will be offered as one of the prerequisites when dealing with assertive negotiations.

DiGiuseppe and Tafrate (2007:354) suggest that anger management programmes can only be successful if the participants agree that their anger is socially unacceptable and that they acquire a new way of behaviour. They should acknowledge that their anger is dysfunctional and that there are alternative behaviour systems. They should believe that they can control their reactions. DiGiuseppe and Tafrate (2007:355) conclude: "We believe interventions such as these, which are designed at increasing the motivation for change hold great promise for helping angry clients". The above-mentioned section refers to Chapter 6.8 where the learning material of CBT for an anger management programme is introduced.

2.6 Summary

⁷⁷ These two therapies will be discussed in detail in Chapter Four.



This chapter investigated how emotions are elicited through the emotion motor system of the brain. The generation of emotions through the amygdala, the hypothalamus, the secretion of the endocrine system, memories and other emotions, were explained. According to neuroscience, it is possible to regulate primal emotions through cognitive interventions, for example REBT and CBT. These interventions are validated on the basis of the neuroplasticity of the brain.

The classification of emotions has positioned the emotion of anger as a primary emotion with various secondary emotions flowing from the basic emotion. Panksepp (1998) has classified it as part of the RAGE system. The bodily and facial expressions of anger and angry feelings have been introduced and the relation between anger and aggression has been discussed. The different types of anger displays have been introduced as a platform for the design of a creative drama anger management programme.

The third chapter introduces the development phase of the adolescent female and indicates how this development period has the potential for the eruption of inner and outer conflict. The influence of anger on the emotional life of the adolescent female will be investigated in the next chapter.



CHAPTER THREE: THE EMOTIONAL LIFE OF THE ADOLESCENT GIRL

3.1 Introduction

In the previous chapter the foundation has been laid for an understanding of the neurobiological generation, regulation and management of emotions in general, with the emphasis on the emotion of anger and the different anger styles. The second chapter introduces the various concepts of emotion in order to form the background for this chapter which deals specifically with the emotion of anger of the adolescent female. This chapter therefore investigates the emotional life of the adolescent female in detail in order to equip the facilitator of a programme on anger management with the necessary insight into this emotional competency. The chapter only focuses on the emotional aspects of the adolescent based on the homogeneity of the groups used in the empirical examples, and therefore does not have to deviate to differences in cultural and social profiles. Cultural and social variants regarding emotional competency do not seem to have a great influence on the basic emotional experiences of adolescents, although the expressions of emotions differ culturally (Stein & Book 2001).

This chapter investigates how the physical changes of puberty influence the emotional life of the adolescent female. The relational changes regarding her new-found 'adult' ego state in opposition to authoritative control and nurture are explored. This chapter interrogates the physical, cognitive, social and development aspects influencing the emotional life of the adolescent female. The chapter explores the anger profile of the adolescent girl for the purposes of the Process Drama anger management programme. Female adolescent aggression is generated when anger arises due to frustrations with having to adapt to a new identity, anxiety experienced in the wake of hormonal changes, temperamental traits, deep-seated psychological needs, and personality disorders. The chapter investigates gender differentiation in adolescent anger and introduces the various types of anger styles. This includes the various types of anger management styles, namely assertiveness, direct and indirect anger, as well as implosive and explosive anger. In the last section of the chapter the



adolescent female anger construct is positioned in the South African context because the empirical study was conducted in South Africa.

3.2 The various development factors influencing the emotional life of the adolescent

This section presents an overview of the development tasks involved in the physical, cognitive, social and emotional development of the adolescent girl. Hurlock (1980), Sebald (1992), as well as Rice and Dolgin (2005) suggest that the completion of these adolescent development tasks can enable individuals to function optimally as adults. The conflicting experiences, rooted in the development changes, may impart insight into the origins of the anger, angry feelings and aggression of the adolescent girl. The identification of potential incidents of conflict contributes to the purpose of this study, namely to prepare the adolescent female to be able to begin to identify, express, understand and regulate her anger as part of her journey to maturity.

Adolescence demarcate the age between childhood and adulthood. It may be divided into three stages: early adolescence from 12 to15 years of age, middle adolescence from 15 to18 years of age, and late adolescence from 18 to 25 years of age (Louw, Van Ede & Louw 2004:384). This study investigates the period between the end of early adolescence and the beginning of middle adolescence, in other words, the group consisting of Grade Ten and Eleven learners. Dahl (2004:1) describes adolescence as a period rife with changes due to neurobiological development giving rise to pubertal upheaval; all this has a great influence on the motivational and emotional life of the adolescent.

The development tasks illustrate the psychological turmoil of change that may be experienced during this phase. Physical change is experienced through rapid physical growth and the hormonal shifts associated with puberty (Ganong 1995). Adolescents experience changes in sleep/arousal regulation, as well as variations in metabolism.

Adolescents of both genders experience social and emotional changes underpinned by neurological brain maturation (Giedd et al. 1999; Dahl 2004; Feinstein 2009).



Sweeney (2001:87) suggests that there may be an increase in social conflict with parents and other authority figures as an outcome of the maturation of adolescents' cognitive growth. The potential for conflicting ideas, feelings, situations and relationships may be regarded as an intrinsic part of this period. Embedded in their inner conflict is the latent power of frustration, hostility, anger, angry feelings and aggressive behaviour. On the emotional level they may be moody, sensation-seeking and participate in high-risk behaviour (Dahl 2004:7). Pipher depicts this period of turmoil and change as follows:

Wholeness is shattered by the chaos of adolescence. Girls become fragmented, their selves split into mysterious contradictions. They are sensitive and tenderhearted, mean and competitive, superficial and idealistic. They are confident in the morning and overwhelmed with anxiety by nightfall. They rush through their days with wild energy and then collapse into lethargy. They try new roles every week (Pipher 1994:20).

Although Pipher's research deals mostly with so-called dysfunctional teenage girls, her insight into this period of change and conflict supplies many guidelines for those who wish to understand adolescent anger. The next section deals with the development task of the adolescent female regarding her physical development and how it influences her emotional life.

3.2.1 The development task of the acceptance of changed physical identity

The first task of the adolescent girl is to accept a changed physical self, acknowledge her feminine gender role,⁷⁸ and form her own physical and gender identity (Louw et al. 2004:388). During this phase rapid growth is stimulated by the growth hormone somatrophin (Ganong 1995). This growth hormone is stimulated by the release of sex hormones, such as oestrogen, and enhances cell generation. The internal reproductive organs reach maturity between the ages of ten and 15 years. These physical changes manifest as the maturity of the uterus, uterine tubes and ovaries, the start of the menstrual cycle, breast development and the growth of

⁷⁸ During this phase the feminine gender role and the way in which it is constructed could also be questioned: "A child whose biological sex is that of a typical female can have a gender identity and role of a boy" (Dragowski, Scharron-del Rio and Sandigorsky 2011). It is important to note here that sex does not necessarily determine gender.



axillary and pubic hair (Waugh & Grant 2002: 444). Waugh and Grant (2002:445) further explain that there is "an increase in the rate of growth in height and widening of the pelvis [...] there is an increase in the amount of fat deposited in the subcutaneous tissue,⁷⁹ especially at the hips and breasts."

The psychological implications of the changed physical and sexual self have a definite influence on self-acceptance and the forming of an individual identity. The most important psychological effect of biological incidences is the fact that "many cultures regard the appearance of menarche as a sign that the girl is now a 'woman' " (Louw et al. 2004:392). This change is in itself a challenging identity shift for any girl between ten and 15 years of age and in some instances can bring about body-hate disorders that present often in implosive anger in the form of depression, bulimia, cutting or anorexia.

The changes occurring in body height and weight influence the perceptions of attractiveness according to the norms of different societies. The modern view of an attractive female is usually associated with a slender body. Louw et al. (2004:395) state that from a certain cultural perspective, "(g)irls who mature late are usually perceived as physically attractive, lively and sociable and are generally more popular than those who mature early. They also seem to have a more positive body image than girls who mature early". Mwamwenda (in Louw et al. 2004:396) contends that the opposite may be true in another cultural paradigm, for example, for African adolescents "early maturation could be an advantage … as it could bring them prestige and respect in the community". Louw et al. (2004:393) posit that irrespective of culture, there is a certain awareness of weight increase in all cultures. They suggest that "(g)irls are usually concerned about their sudden weight increase, although cultural differences do occur" (Louw et al. 2004:393). This research study acknowledges that there are cultural differences amongst different social groups, but emphasizes that the groups in the empirical examples were homogeneous.⁸⁰

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⁷⁹ See appendix A for description of subcutaneous tissue.

⁸⁰ The group was all South African, middle adolescent, bilingual females (Afrikaans and English speaking). 81



Chesney-Lind and Irwin (2008:58,78,155) quote research that strengthens the argument that globally the prevailing beauty standards are the Western⁸¹ slim body image, blonde hair and a light skin. Pipher (1995) confirms that girls strive to meet the standards created by the Western media of waif-like figures. In the South African context there is evidence that this trend is growing. Caucasian girls are highly susceptible to developing anorexia, but research confirms that there is an increasing proportion of young African, Indian and Coloured women who are prone to this disorder. The research indicates that middle class black African girls⁸² who attend private schools and black women who attend urban universities endeavour to follow the ultra thin body image propounded by the media (Kleyn & Clark 2008).

The media tend to frame girls' problems in ways that increase the culpability for their own situation of being overweight, and at the same time heighten their intense desire for the perfect body image (Chesney-Lind & Irwin 2008:155). The ideal of the perfect 'teen-image' is communicated and when viewing her own situation, inner-conflict prevails (De Wet 2004:210). The 'black image' is unfortunately shaped in the media by the Western cultural fantasy of an ideal woman. In a South African AMPS SURVEY (2003:24), the following has been postulated regarding the power of advertising: "The need for economic recognition [...] confirms the idea that consumption, identity and status are intimately connected and suggests that 'empowerment' is measured largely in material terms symbolic of Westernisation". This means that adolescents are constantly made aware of limitations in the reality of their own lives which may lead to dissatisfaction with their own identity and status, and to frustration or even anger. The facilitator of an anger management programme in South Africa should be able to identify and acknowledge, or at least be aware of, the inner conflict of the various race and cultural groups in the country when presenting a programme on anger management.

In most literature about the adolescent female, the body-hate theme is proposed regarding the adolescent girl and her relationship with her physical self (Pipher

⁸¹ Western image, in this regard, refers to the image of the thin, busty, blonde, white 'Barbie Doll' (Kuther & McDonald 2004:4).

⁸² The notions of 'whiteness' and 'blackness' are contested theoretical terrains that includes essentialist notions centered on biological/physical manifestations of blackness or whiteness based on, amongst others, skin colour to race as social construct. These discussions fall outside of the scope of this thesis.



1994:166). The body-hate theme brings anger directly into play. Sweeney (2001:69) states that the levels of self-esteem of the adolescent girl drop significantly during this period. The prevalence of eating disorders, dissatisfaction with body image and unhealthy methods for weight-loss occur more frequently in girls than in boys, according to the Office of Research on Women's health (ORWH 2008:2).

Sweeney (2001:74) states: "Specifically, physical appearance overly determines identity in adolescent girls leading to the forfeiture of a strong self and voice." Sweeney (ibid) further suggests that there is a conflict between the image of perfection in the media and the reality of puberty. In instances where teenage girls experience this contradiction as overwhelming, they may cut their bodies or go on irrational diets (Chesney-Lind & Irwin 2008:55).

The adolescent girl is confronted with contradiction regarding her gender role. Pipher (1994:166), as well as Simmons (2002:18) and Brown (1999:6), describe this by presenting samples of the different conflicting, contradictory discourses and double standards communicated to adolescent females about their femininity in the media:

- be beautiful, but remember beauty is but skin deep;
- be sexy, but not a slut;
- be honest, but do not hurt anyone's feelings;
- be independent, but not too strong;
- be smart, but not so smart to intimidate;
- say no, but handle the rejection as the result.

These conflicting messages lead to inner confusion, as described by Shandler in her book, *Adolescent girls write about their search for self: Ophelia speaks*:

It is not for lack of understanding or intelligence that my circle of friends is plagued by drug abuse, eating disorders, and depression. We have all been told to love ourselves. We are all intelligent. We are all aware that we have been raised in culture that cradles double standards, impossible ideals of beauty, and asks us to listen. But we are caught in the crossfire between where we have been told we should be and where we really are. [Even] self-directed girls are sometimes lost (Shandler 1999:vii).



Another significant implication of the appearance of menarche is that the current average for its onset in the South-African milieu is between 12 to 13 years of age. The average age at which girls get married in contemporary society is 26 years. The adolescent period has expanded from a two to four year period, to an eight to 15 year period in contemporary international society (Dahl 2004:44), as well as in South African society (Olivier 1996; Parent, Teilmann, Juul, Skakkebaek, Toppari & Bourguignon 2003:668-693). This indicates that the adolescent girl should navigate strong self-regulations in terms of sexual behaviour and long-term economic, career and marital goal orientation. As full individuation is only completed during the late adolescent period (Giedd, Molloy & Blumenthal 2002:19), a high premium is placed on the ability of the adolescent girl to manage life.

Adolescents in the contemporary society are becoming progressively more sexually active at a younger age than previously (Louw et al. 2004:403). Louw et al.⁸³ (2004:403) present the following reasons for this behaviour, namely earlier sexual maturation, peer group pressure and changed values, attitudes and the influence of the mass media. Regarding the South African milieu, Olivier and Bloem (2004:177) confirm in their South African-based research: "It is a well-known fact that adolescents mature earlier nowadays, are more sexually active and that teenage pregnancies have become frequent". According to Marteleto, Lam and Ranchhod (2008:353), South Africa has one of the highest proportions of 15 year-old girls enrolled in school and also one of the highest proportions of 15 -17 year-old girls who have had sex, in comparison to other countries in Africa and Latin America. Young ages of sexual initiation, relatively high levels of adolescent fertility, and late ages of marriage yield high rates of unmarried childbearing. Most teenage births in South Africa are non-marital (Marteleto, Lam & Ranchhod 2008:353).

The facilitator of an anger management programme for the South African adolescent needs to be informed regarding the different backgrounds and cultures of the participants. The aim of the research, however, is not to study culturally diverse activities but to indicate how important emotional competent skills are to middle adolescent girls as a homogeneous group. As Louw et al. (2004:405) posit, girls give

⁸³ Human development. Louw, DA, Van Ede, DM and Louw, AE. 2004. Cape Town, South Africa, Kagiso, Tertiary. This is a South African resource that reflects the South-African perspective.



in to sexual intercourse because of pressure from their partners, peer pressure and when carried away by their passion. Being dehumanized and seen as a sex object rather than a person in her own right, may create inner conflict for the adolescent girl. Louw et al. (2004:407) indicate that South African black⁸⁴ girls have "very little power in the negotiation of sex" and many of the first-time intercourse incidents are forced. Due to the cultural paradigm they perceive the sexual need of men as something they have to accommodate, even against their own wishes (Louw et al. 2004:407). This discrimination against their sense of self-worth could lead to the build up of anger and other related feelings.

Another aspect of physical change that influences adolescents is the fact that they are neurologically programmed to sleep later in the morning and go to sleep later at night. Carskadon, Wolfson, Acebo, Tzischinsky and Seifer (1998:871) suggest that the change in the sleep patterns of adolescents leads to an increased delay in spontaneous morning arousal during adolescence. During adolescence sleep patterns change, resulting in "increased aggression, decreased tolerance, and impaired performance due to neurological, endocrine and environmental cues" (ORWH 2008:1). Dahl (2004:17) explains that there is a biological tendency for sleep delay during adolescence, namely a delayed circadian phase, resulting in less sleep. The adolescent finds it hard to fall asleep and to get up in the mornings. This may lead to some feelings of irritation or grumpiness during the day, making her even more prone to aggressive behaviour during this period of her life.

I reason that the adolescent girl traditionally harbours some suppressed feelings of grief for the loss of childhood (Blanchard 1920; Brown 1999). The awkwardness of a new body-image can cause confusion and frustration and may lead to anger and angry feelings (Nichter 2000; Kirberger 2003; Redd 2010). Blanchard states (1920:87) that as the adolescent female matures, she harbours some inner struggles about her childhood and about her new role as adult. In the next section the effect of heightened expectations induced by greater cognitive abilities and a wider social consciousness of identity are discussed.

⁸⁴ Black girls refer to girls of African races



3.2.2 The development task of cognitive expansion

Another crucial development task, according to Rice and Dolgin (2005), is the acquisition of knowledge and development of cognitive skills. Traditionally the cognitive maturation of the adolescent is explained according to the development psychologists Piaget (1972) and Erikson (1974). This study introduces adolescent brain development from a neurological perspective and confirms the observations of the more traditional theories according to this view. Lerner and Steinberg (2004:76), argue that "[s]ignificant methodological developments in recent years may afford a rich enough depiction of adolescent expression to enable brain-behaviour-context research to proceed".

The scientific details of arborization⁸⁵ are discussed in Chapter 2.3.2. This section refers to it as relevant information regarding the cognitive expansion of the adolescent. Based on cognitive and neuroscientific investigations, adolescence presents as an important period in which a wide range of brain activities are coordinated into self-aware, self-guided and self-monitoring systems of conscious control (Lerner & Steinberg 2004:73).

The dramatic development of the brain during adolescence may either precede puberty and hormonal changes, or be the consequence of pubertal changes. In some cases brain development occurs independently from pubertal timing (Dahl 2004:16). The human prefrontal cortex is one of the last areas in the brain to mature and does not reach adulthood until 25 years of age (Spear 2000:420). The process of myelination,⁸⁶ as well as the rapid procedure of synaptic pruning of grey matter volume continues during adolescence and well into early adulthood. Synaptic pruning is only observed in the prefrontal cortex and not in other cortical regions. Giedd et al. (2002:19), as well as Dahl (2004:46), explain that this late development of higher cognitive processes in the region of the executive functions, social cognition and decision-making, leads to increased vulnerability. Some adolescents display strong tendencies for risky behaviour during this phase because their cognitive functions are not yet fully developed. The adolescent is prone to the effects

⁸⁵ See discussion in Appendix A chapter 2 of arborization

⁸⁶ See discussion in Appendix A chapter 3 of myelination



of emotional stress, illicit alcohol use, drug taking and smoking. Symptoms of major psychiatric disorders, such as schizophrenia or bipolar disorders, present now (Dahl 2004:7).

On a positive note, though, Giedd, Molloy and Blumenthal (2002:19) suggest that as the brain 'prunes' redundant connections and an increase in myelination processes can be observed, the transmission of brain messages is enhanced. Giedd et al. (2002:19) confirm the plasticity of the brain and state that adolescents whose brains are stimulated, will "grow more brain cells" instead of succumbing to a passive attitude.

The onset of adolescence depicts a significant change in cognitive flexibility. The traditional observation regarding changed cognition is seen in the movement from a concrete to a more abstract expression of thought. Pioneering psychologists Inhelder and Piaget (1958) emphasize that embarking on formal thinking patterns often leaves the adolescent vulnerable. They argue that an imbalance is created in the adolescent's self-esteem when breaking away from the known structures of concrete thinking to explore a newly discovered, cognitively mature state. They also run the risk of unrealistic optimism and overvaluing their competence to act safely in an adult world (Inhelder & Piaget 1958).

Less than ten years after Piaget and Inhelder's theory of the inflated optimism of the adolescent, David Elkind (1967) developed a theoretical basis for understanding the concept of "adolescent egocentrism" that brought to the fore Piaget's (1958) view. Elkind (1967) explained that this optimistic bias may place the adolescent at personal risk. According to Elkind's theory, the adolescent not only develops a self-concept formulated from the various conclusions of her own thinking, but also believes that others hold the same idealistic views of her. The adolescent can, for example, develop the self-image of being a fearless and competent sport star and also conclude that her⁸⁷ peers have formed the same image. The adolescent will go to great lengths to save face regarding this self-structured image. Elkind (1967) proposes two phenomena relevant to the adolescent's self-image, namely the *imaginary audience* and the *personal fable*. One could argue that Piaget, Inhelder

⁸⁷ I refer to "her" only as this study is about the female adolescent.



and Elkind's research is outdated; these days, however, the concept of inflated optimism has become even more relevant in coming to understand the development of the adolescent's cognition and behaviour (Vartanian 2000, Aalsma, Lapsley & Flannery 2006, Washburn, McMahon, King, Reinecke, & Silver 2004).

The theory of the imaginary audience is the belief that others are as preoccupied with themselves as the adolescent is with herself. The personal fable presents the adolescent's rendition of the sort of person she dreams of being or believes to exist. These theories explain why adolescents may put themselves at risk with little or no concern for the outcome (Arnett 1990:171). Lapsley and Stey (2012) states that the capacity of adolescents to hypothesize about a grandiose ego and an imaginary audience can be the same ability that helps them to test their hypothesis against reality; this subsequently leads to the declining of their egocentric thinking. The traditional psychology theories of the inflated ego, the imaginary audience and the personal fable during adolescence are confirmed by recent research studies that have found neurobiological evidence for increased risk taking during adolescence, and are explained in the following section.

3.2.3 The development task of social independence: individuation and independence from parents and peers

Rice and Dolgin (2005), as well as Louw et al. (2004), suggest two further development tasks for the adolescent, namely increased independence from parents and the fact that they take socially more responsibility for themselves amongst their peers. This implies growing maturity in an adolescent that is becoming emotionally balanced and able to make her own rational and moral decisions.

Neuroscientific research on the Social Information Process Network (SIPN) model, designed by Nelson, Leibenluft, McClure and Pine (2005), indicates that adolescents may find it difficult to be rational decision makers. This model reveals the Hormone Dependent and Hormone Independent maturational modifications in the brain. The three different neural circuits in the SIPN mature at different times. Regarding the processing of the reward and punishment cues, the results of these studies prove



that there is a greater response in the award system of adolescents (in the nucleus accumbens⁸⁸ of the brain), in a win or lose conflict situation, than in the punishment system. Adults have a heightened sensitivity to punishment (in the amygdala) which is greater than their desire for reward (Shirtcliff 2009:104). Shirtcliff (ibid) further suggests that [i]n adolescence, the cognitive node may not be mature enough to dominate the affective node in the third circuit of the Social Information Process Network (SIPN). Consequently, adolescents may be overwhelmed by socially relevant reward cues, failing to inhibit their behavior in emotion-laden situations (Shirtcliff 2009:104).

Thus, although adolescents have a greater brain capacity, for example, to have increasing insight into abstract concepts, a more efficient memory system and a larger metacognition capacity than before, their affective thinking patterns dominate. Traditional theories of the social behaviour of adolescents confirm the need for social reward from peers without taking possible negative consequences into consideration (Brown 1999:4). The need for social reward will therefore make the adolescent more prone to risk taking and irrational decision making than adults (Feinstein 2009: Chapter Five, Kindle version). The implication of greater irrationality during adolescence is important as the purpose of the study is to promote an awareness of and a need for greater rational emotional control, as introduced in Chapter 1.2.3.1.

The fact that the frontal cortex is the last area of the brain to develop (Giedd et al. 1999; Landau 2000; Dahl 2004) supports the notion that the adolescent does not always use rational thinking when making important decisions. Dahl (2004:3) states that "overall morbidity and mortality rates increase 200%" between middle childhood and late adolescence. Dahl (2004:3) further remarks that there is a growing incidence of problems, such as teenage pregnancies, drug abuse and reckless behaviour during this development period.

As the separation process from parents becomes increasingly more pronounced in the life of the adolescent, the peer group's influence grows stronger (Louw et al. 2004:449). If this process of individuation is accepted by the parents as a necessary part of healthy adolescent development, the process will be successful. The

⁸⁸ See discussion in Appendix A Chapter 3 of the nucleus accumbens



adolescent experiences a change of roles in their relationships with their parents. There is an identity shift in the adolescent from a predominantly non-responsible, spontaneous Child ego state, to that of a more rational, responsible Adult (Berne 1992:25). Perl (2008:40) builds a strong case for the need of adolescent girls to return to their parents to refuel emotionally every now and then during the process of individuation. In cases where the parent is too controlling, the outcome of such inconsistent parental influence may engage the adolescent in a world of self-made standards that can be at odds with personal safety, respect for others and acceptable moral standards (Louw et al. 2004:453). Hence healthy adolescent individuation relies heavily on the protective and positive influence of parents and trusted authority figures. A readiness to step into the world view of the adolescent in a communicative manner will be the crucial factor in determining the adolescent's individuation process (Feinstein 2009: Chapter Three, Kindle version).

Sweeney (2001:87) describes the conflicting experiences of the increased demand for more money, clothes, goods, activities and the 'cool stuff', as well as the quest for economic independence, as stressful for both parties. Parents are guilt-ridden as they cannot always supply, and adolescent girls are feeling guilty because they are demanding more. Sweeney (2001:84) explains that during adolescence the quest for independence is manifested as opposition and rebellion. Generally the adolescent girls share much less of their inner feelings, demand more attention, and like to test their limits regarding risky social events. Fuelled by their drive to be accepted in the subculture of their peer group, conflicting situations, anger, angry feelings and aggression may be ignited in both parents and adolescents.

The process of individuation and reorganised social structures during adolescence begets conflicting viewpoints between adolescents and authoritative figures and parents. The ability to apply their newly developed deductive thinking skills supports the adolescents with several solutions to a problem. The adolescents' cognitive ability "makes them aware of inconsistencies between their parent's values and their actual behaviour. This, in turn, could lead to arguments" (Louw et al. 2004:423). Many adolescents are idealistic thinkers (Caissy & Toepfer 2002:105). They can construct theories around ideal values and norms, social and political systems, but lack practical experience and may lose sight of reality in their interpretations.



Frustration with adults who do not respect their idealism may result in conflict with authorities. The typical adolescent's quest for autonomy may place her in conflicting situations that may lead to anger, angry feelings or aggressive behaviour. Parental guidance should respect the adolescent's perspective and may give alternative guidance, in an assertive manner, avoiding anger and over-emotionality (Sylwester 2007:4). The parents should also understand the next development task of the adolescent as part of their new-found autonomy, namely the increased importance of the peer group in the life of the adolescent which is discussed in the next section.

The place of the peer group is described as a synergy of collective cultures (Lightfoot 1997). The facilitator of a programme on anger management should be knowledgeable regarding the social life of the adolescent considering that anger takes place in a social construct and the empirical examples is a collaborative exploration. The differences in social or cultural character are not ignored in this study but this programme is based on the premise that all human beings process their emotions in certain known ways irrespective of culture or social background. In some cultures, however, they might express their emotions differently. Regarding the expression of emotions, evidence from over 75 studies done recently confirms that the facial expressions of the seven primary emotions are produced spontaneously and in the same manner by different cultures and social groups (Kendler, Halberstadt, Butera, Myers, Bouchard & Ekman 2008; Matsumoto, Keltner, Shiota, Frank & O'Sullivan, 2008).

The adolescent has degrees of intimacy with a peer group of similar age and interests. The peer group as subculture usually adheres to matters such as acceptable activity codes of conduct, communication style, manner of dress, hairstyle and music. In the process of moving away from the family, the peer group provides the maturing adolescent with a milieu of social contact and identification (Louw et al. 2004:455). For older adolescents the peer group provides a place where they can expose their feelings and beliefs and feel accepted for who they are (Adams & Berzonsky 2006:213; Sylwester 2007: ix).

Adams and Berzonsky (2006:331) describe peer groups as same gender cliques of a small number that belong to a greater crowd of heterosexual character. The

v=v List of research project topics and materials

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members of the clique start to communicate safely with members of the other gender's clique. During middle adolescence the more popular members of the boy and girl cliques begin to form heterosexual cliques. Later the cliques and crowds disintegrate as loose associations of "couple cliques" develop (Connolly, Furman & Konarski 2000:1396).

In cases where the parents object to the participation of their child in a peer group or where the adolescent is rejected by the peer group, the adolescent has to cope with a difficult lifestyle of stress, loneliness and anger (Simmons 2006:43). Being rejected by the peer group has the propensity for leading the adolescent to seek out other antisocial or rejected adolescents. La Greca, Mitchell, Prinstein and Fetter state the following:

Burnouts and nonconformists had the highest levels of health-risk behaviors across the areas assessed, the greatest proportions of close friends who engaged in similar behaviors, and relatively low social acceptance from peers (La Greca et al. 2001:1).

Thus, joining other antisocial adolescents or groups of more rebellious character satisfies the intense adolescent need to belong to a group (Louw et al. 2004:449). When the foundation of the family environment does not promote connectedness, warmth and acceptance, there is a possibility that the peer group may take over (Laible, Carlo & Raffaelli 2000:45). Laible et al. explain:

Adolescents high on both peer and parent attachment were the best adjusted (i.e., least aggressive and depressed, most sympathetic) and those low on both were the least well adjusted. Furthermore, those high on peer but low on parent attachment were better adjusted than those high on parent but low on peer attachment (Laible et al. 2000:45).

I can conclude that peer attachment has a greater influence on the emotional life of the adolescent than parental regard. This coincides with the progressive growth of empathy towards others during adolescence, as observed by Eisenberg, Morris, McDaniel and Spinrad (cited in Lerner & Steinberg 2009:229), as opposed to many negative testimonies of relationship aggression (Simmons 2006:43) and risky behaviour in adolescents. Eisenberg et al. (in Lerner & Steinberg 2009:229) place moral development during adolescence in perspective to indicate how a culture of mutual caring grows as adolescents become progressively more decentred as individuals with growing empathy and social moral judgement faculties.



Lightfoot (1997:35) posits that "the peer groups and peer relations provide a likely context for adolescent decentrerisation". Sylwester (2007:81) states that the exploration of the culture of risk taking during adolescence explicates the exploration of risk-taking behaviour as a declaration of independence, defiance and ways to interconnect with each other in peer groups. It sets the adolescent community apart from those of adults and is a necessary and natural part of growing up. Lightfoot, Cole and Cole (2008) propose that the culture of risk taking is in most cases not permanent. This leads to a deeper view into some aspects regarding the formation of identity, egocentrism and gradual decentring of the adolescent.

The female adolescent is attached to the growing demands of her development task to individuate, be accepted socially in larger groups, become less reliant on her parents, make the right career choice and be financially independent (Sylwester 2007:121). Erikson (1968, 1974) posited that for the development of an "ego identity" to be completed, a series of other development stages need to be resolved. This implies that the adolescent should have developed sufficiently to be able to accomplish the following identity tasks (Erikson 1968; Kroger 2004:205):

- an integrated, unified self-image;
- a socio-cultural identity, reflecting the values of his or her own culture;
- an established gender-role identity;
- a realistic and achievable career identity;
- a personal value system.

According to Erikson (1968, 1974), from his viewpoint as behaviourist, the identity development crisis occurs during middle adolescence. Meilman (1979:231), a social constructionist, however, indicates that this view is too optimistic as it is evident that the majority of adolescents experience an identity crisis during late adolescence. These research findings demonstrate that only 4% of adolescents are sure of their identities at the age of 15 and only 20% at the age of 18 years. Lefrancois (1996:471) suggests that it should not be called an identity crisis but rather an identity exploration that can explicate individuation as an explorative process.



Sylwester (2007:3) refers to this process as a "meandering" journey into adulthood, a period of transition.

Individuals who have successfully resolved their identity exploration are characterized by Kroger (2004:211) as

- having high motivation to achieve;
- having a high self-image;
- not neurotic;
- conscientious;
- extroverted;
- not using defence mechanisms easily;
- not very shy;
- having high levels of an internal locus of control.

Kroger (2004:211) suggests that adolescents who have achieved the above mentioned characteristics are responsible and mature individuals. In the next section a description of the emotional development task of the female adolescent will explain why and what leads to anger and angry feelings in her life.

3.2.4 The emotional development task of the female adolescent

It is self-evident that the emotional life of the adolescent is challenging regarding their intrapersonal task of individuation and the all-embracing demands of this growth period (Louw et al. 2004:434). Rosenblum and Lewis (2006:275) explain that these changes are related to their higher hormone levels, negative emotions, mood swings, depression and an increase in angry feelings.

The construct of the emotional life of the adolescent should be understood against the background of infancy and childhood. During the first year of an infant's life, the



six primary emotional states are experienced and expressed, namely interest, joy, disgust, sadness, anger and fear (Rosenblum & Lewis 2006:271). Only during the second year of life more complex emotions are experienced, coinciding with the phase of self-awareness. As early as in the third year of development the child experiences a wide and complex spectrum of emotions like, shame, empathy, guilt, pride, regret and envy (Louw et al. 2004:268). These emotional experiences develop along with cognitive growth throughout middle childhood. During childhood an enhanced understanding of their own emotional experiences on intra- and interpersonal levels is established.

Emotional competencies, such as the identification and regulation of emotions, are developed during infancy and middle childhood. From an early age already children are able to differentiate between emotions experienced and emotions expressed according to cultural display rules (Sigelman & Rider 2006:390). Louw et al. (2004:283) explain that children will generally seek out behaviours and situations associated with positive emotions, for instance, pride and joy, and avoid situations that can trigger negative emotions such as shame, guilt and regret. From the ages two to six years children will display the expected emotional reaction. Only if the reaction differs from their expectancy will they endeavour to seek out the motives behind the unexpected reaction. Gradually children will understand that an outward expression of emotion does not always correspond with an inner emotional experience (Rosenblum & Lewis 2006:272). During adolescence they have grown to incorporate new and subtle information in order to understand the emotions and motives behind emotional expressions better than before. Although some adolescents can articulate the conflicting state of mind inherent in feeling one thing whilst expressing another, they struggle to manage the emotional ambiguity of conflicting cognitive viewpoints (Saarni 1999:5). An anger management programme should be able to create situations where emotionally competent management of such conflicting states can be explored.

For the purposes of this study it is important to have a general indication of where the adolescent finds herself on the emotional competency scale. How much metacognitive growth has taken place regarding emotional understanding? Can the adolescent regulate her emotional life and how well can she understand the



emotions of others? Piaget (1972) and Inhelder (1969) explain that the formal operations phase replaces the concrete operations phase at the onset of puberty. The adolescent's cognitive growth and insight into symbolic and abstract concepts lead to a better insight into emotions. The increase in memory allows for a wider perspective on events. Rosenblum and Lewis (2006:273) explain that adolescents are consummate relativists who understand that there are different realities in different contexts for different people. Adolescents still maintain that there is only one absolute truth, but if two people hold different opinions, one of them is deprived of the truth (Rosenblum & Lewis 2006:274). They recognize that the same event may stimulate different reactions in different individuals. Not having a fixed point of reference may cause emotional stress and anxiety in the adolescent. This can lead to the adaptation of a dogmatic style of thinking in order to counter feelings of isolation or chaos, known as "Cartesian anxiety" (Bernstein 1983). One can conclude that enhanced cognitive abilities in the adolescent allow for emotional growth. Emotional competency programmes can assist the adolescent to reach

- an increase in intra-personal awareness;
- better understanding of the emotions of others that can lead to more intimate friendships;
- the ability to see people as personalities and not mere agents of action (Rosenblum & Lewis 2006:274).

Hormonal events during this period of biological change have a significant influence on emotional behaviour. Scientific evidence shows that the adolescent experiences greater fluctuations of emotions than adults or younger children. These emotional fluctuations are generally more negatively toned, especially in girls (Rosenblum & Lewis 2006:275). Csikszentmihalyi and Larson (1984) conducted a study on the quotidian emotional lives of adolescents with an electronic paging device. It indicated that the emotional life of the adolescent differs in frequency, persistence and intensity from that of older and younger individuals. This intensity of emotions is confirmed by Newman and Newman (2009:319) when they posit that the emotions of rage, jealousy and hatred are prevalent during this period. Adolescence is therefore



a period during which multiple life events all aggravate collective enhanced stressors that can contribute to greater emotional fluctuation and negativity.

Each graduation to a more senior level in the school environment can potentially lead to the loss of structured relationships and the loss of friends, which in turn can lead to isolation and loneliness. The growing demand of peer pressure regarding the adolescent's social status and romantic dating activities can all lead to greater extremes of emotional experiences. Wersfield and Woodward (2004:11-19) indicate how important certain dating phases are regarding social acceptance. During the initiation phase the focus is on their own experience; later, during the status phase, the relationship must be with a partner whose status complies with the standards of the peer group. Only during late adolescence are relationships built on real affection and not mere infatuation. During adolescence social interaction often calls upon the adolescent to compromise in order to be accepted. These acts of compromise can greatly influence the emotional life of the adolescent. Rosenblum and Lewis (2006:275) recommend that the adolescent be exposed to skills and competencies such as assertiveness, the understanding of emotions and their management. In order to motivate the application of an anger management programme through the dramatization of poetry, the effect of the emotion of anger on the life of the adolescent girl is introduced in the next section.

3.3 The profile of adolescent female anger, angry feelings and aggression

3.3.1 The instigation of anger due to the frustration of change

Although the general assumption is that women find it difficult to express their anger, Brown (1999: vii) states that the adolescent girl has an intrinsic need for her anger to be voiced. This need is expressed during this period when she "actively *resists* dominant cultural notions of femininity". Young females tend to become more assertive and articulate as they age. Adolescent female anger seems to be universally well defined.



Panksepp (1998:55) states that anger, angry feelings and aggression may stem from daily conflicts in which the adolescent is endeavouring to reach her goals or obtain certain objectives, but is prevented from completing or obtaining them. Panksepp's (1998:50) SEEK system, discussed in the Chapter 2.5.3, explicates this aspect as the motivational system, driving self-satisfaction. He states (1998:187) that "arising from irritations and frustrations that arise from restriction of freedom of action and access to 'resources' anger can erupt in violent rage".

The neurobiological theory of the SEEK system explains one of the main sources of teenage anger, namely frustration. Being positioned between two different worlds, namely that of the child and that of the grown-up, can easily feed the feeling of being fenced-in, and frustration can be expressed in anger outbursts or passive aggression. Until the prefrontal cortex has been fully developed, most young adolescent girls do not yet have control over all their executive functions to make good judgements and control their feelings rationally (Giedd et al. 2002:19). On a positive note, Brownlee, Hotinski, Pailthorp, Ragan and Wong (1999:2) state that neurons that become myelinated during adolescence connect to areas of the brain where emotions are regulated for judgement and impulse control. It is further postulated by Brownlee et al. (1999:7) that girls seem to mature emotionally earlier than boys. This nerve network's myelination is generally completed earlier in female adolescents than in male adolescents.

As already indicated, the adolescents who are less vulnerable to risk taking are those who are in a functional, caring family (Wootton 2001:219) and who have a family member whose predominant parenting style is that of an emotional coach. The adolescent girl who finds it difficult to process relational conflicts with her parents will tend to be more vulnerable regarding negative peer influences and more inclined towards risk taking.

There seems to be a clear link between low emotional insight and high substance abuse. Bracket Mayer and Warner (2004:1391) posit that low EQ⁸⁹ measures match high levels of substance abuse and social defiance. Petrides, Frederickson and Furnham (2004:279) report that negative self-perceptions are linked to negative

⁸⁹ EQ Measures refer here to standard Emotional Intelligence tests.



social conduct. Bohert, Crnic and Lim (2003:70–01) indicate that a low level of EQ and low social skills and self-efficacy run parallel. Emotional management skills can potentially support adolescent females in their quest to emotional maturity, away from egocentric behaviour, high-risk taking and substance abuse. They can learn how to identify, understand, express and manage their emotions in programmes such as those designed for the empirical examples of this research. The wellbeing of the adolescent girl may depend on how well she is able to practise conflict resolution and manage her own anger and destructive behaviour against herself and against others. In this section the generation of anger due to the frustration of change has been investigated. In the next section the way anxiety can lead to angry feelings in the life of the adolescent female is explained.

3.3.2 Stress and anxiety as one of the main origins of anger in adolescent females

If one probes deeper into the origins of the emotion of anger during adolescence, one can also approach them as verbal or physical outburst stemming from symptoms of stress. Palaputta, Kingery and Ginsberg (2006:441) state that anxiety and anxious feelings present more in teenage girls than in boys of the same age. On a very basic level, stress can be defined as the body and mind's response to change. Different people express the symptoms of chronic stress in different ways; some are genetically more predisposed to anxiety or panic. Female adolescent mood swings and anxiety, caused by stress, are well-known characteristics of puberty.

A study by Smith, Aoki, and Shen (2010:91) confirms that the neurotransmitter GABA (refer to Chapter 2.2.5.5) regulates anxiety in the brain by counteracting the effect of glutamate, the excitatory neurotransmitter in the limbic system of preadolescents and adults, but has the opposite effect in adolescents. The steroid THP (allopregnanolone) increases the calming effect of GABA in the limbic system but THP has a different role in the hippocampus where it excites the emotions during adolescence. This dual role of the THP is the reason that the adolescent brain presents differently from those of pre-adolescents and adults. The anxiety-raising effect of THP in the hippocampus outweighs the calming effect it has in the limbic



system. It can be concluded that the adolescent can present an overreaction to a situation, may cry or be angry, which is often the only solution at the time.

In addition to the fact that adolescent girls present more anxious than adults and preadolescents, another study by Brownlee, Hotinski, Pailthorp, Ragan and Wong (1999:6) posit that the limbic system generates more emotions of anger and fear during this phase than during any other development phase. High surges of testosterone swell the almond-shaped amygdala, the seat of the flight or fight system. Boys are more irritable and aggressive during this phase. In girls' bodies testosterone is produced by breaking down oestrogen, and this in turn accounts for the aggressiveness and irritability in adolescent girls. Panksepp (1998:54) explicates that the FEAR system can engulf the adolescent in an intense anxiety, blocking access to the prefrontal system in order that no clear, rational thinking can take place. Some female adolescents can become depressed, whilst some react to stress through outbursts of uncontrolled anger. The output of rage or anger, according to Panksepp (1998:76), is mainly due to the amygdala. Panksepp (1998:54) states further that the FEAR system uses much of its psychic energy to break out in angry self-defence. Anger could therefore be classified as a unique expression of stress in that it represents an outward manifestation of inner fear or anxiety. This viewpoint submits to the theory that the core emotion leading to anger behaviour is the emotion of fear.

In the life of the female adolescent this outburst of anger or angry feelings can be delineated as a defence mechanism triggered by a conscious, or in many cases, unconscious fear. During adolescence there is an increase of social fears, as postulated by Kendler, Gardner, Annas and Lichtenstein (2008:421–429), for example, the fear of the following:

- abandonment;
- humiliation;
- failure;
- physical harm;



- rejection by a peer group;
- or any other fear unleashed because of a threatening situation.

The fear of failure is due to the pressure to compete and achieve, as confirmed by inter alia Spandler and Warner (2007: v). Adolescents' insecurity and fear of their own inabilities to manage the intense changes experienced in so many ways have been revealed in numerous empirical reports of counsellors and psychologists (Brown 1999; Shandler 1999; Spandler & Warner 2007). Various modes of expression, such as adolescent poetry, popular music and its lyrics, the subculture of the way they dress and speak, can often act as testimony to the insecurity, loneliness and fear experienced during this phase.

The fear of failure manifests itself in many ways: there is the fear to fit in, to be accepted by the peer group, to live up to their parent's expectations, to be cool, have cool stuff, to look cool, hang out at the coolest places, get a matric certificate, get a boyfriend, keep a boyfriend, be included in a sport team, and so on (Kendler et al. 2008:421–429). Failure in any of these areas leads to frustration, followed by anger. Leach (2006:2) explains that "outbursts of anger really serve as a tool used by the teenager either to protect themselves (sic) from experiencing fear, or to accomplish some goal which they were initially incapable of achieving." Authoritative people in the adolescent's life should not reward such behaviour, but demonstrate that such angry outbursts are ineffective tools and should be replaced with prompt emotionally competent behaviour. Luxmoore (2002:11) states that if adults avoid angry young people or ignore their anger, young people cannot feel safe but somewhat neglected and yet endowed with a disturbing power. Luxmoore (2002:10) suggests that teachers and parents should listen to the meaning behind adolescent anger and evaluate it as an important indication of the levels of their inner conflict. This is the rationale behind a creative drama programme on anger management programme for adolescent girls. The effects of change and anxiety in the life of the adolescent female have been elucidated for these reasons. In the section to follow the research explores how temperamental traits can be the cause of anger or angry feelings.



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3.3.3 Temperamental traits can instigate anger and angry feelings

Different personality traits express emotions differently. Temperaments can differ with regard to how easily one can become frustrated or angered, and this may be noticeable as early as infancy. Some individuals are more emotionally reactive than others whereas others adapt more readily to situations. It can be posited that people are reacting according to their emotional comfort zones. Although personality traits are believed to change over time, adolescents can present basic characteristic of various personalities (Kaufman & Kaufman 2009). Pawlik-Kienlen (2007) postulates that neuroticism, as a personality trait, can have a negative influence on one's health and relationships, and interfere with performance. Neurotic personalities are prone to anxiety, perfectionism, sadness and depression. An extremely high need for control due to perfectionism can lead to annoyance, irritation, frustration and anger (Ben-Ze'ev 2000:239).

3.3.4 Underpinnings of deep-seated psychological needs can cause anger and angry feelings

Anger may also stem from underlying psychological needs, such as unresolved loss, verbal or physical abuse, or harbouring bitterness or envy due to unfair conditions (Leland 2005:1). The adolescent girl may experience suppressed needs, for example, to be acknowledged, praised, accepted for who she is, nurtured and treated with respect. She may suffer from a negative self-image. As Leland (2005:1) explains, mothers often witness their adolescent daughter's anger as the result of her self-criticism. She measures herself against the standards of society and questions her weight, looks, hairstyle, and giving in to judgemental remarks by her own peer group.

Less reliance on parental commendation leads to a greater demand for peer approval as the adolescent endeavours to find her place in the social construct. Casey-Cannon, Hayward and Gowen (2001:135–147) propose that the maintenance of interpersonal relationships become central to girls' psychosocial development and wellbeing as girls rely on peer feedback and approval for measures of self-esteem,



attractiveness and self-confidence. This leads to greater vulnerability to the opinion of the peer group and may predispose girls to participate in and being victimized by relational aggression.

During adolescence uneasy feelings of frustration or hostility can erupt in anger or suppressed anger. The restraint of expressing feelings like hurt, embarrassment, shame or sadness takes a fair amount of energy, but when these feelings become too overwhelming they can be released as anger (Wilding & Milne 2008: Chapter 21, Kindle version).

3.3.5 Anger as acceptable style of conduct

Modelling the aggressive conduct of role-models - with parents obviously at the top of the list - can set examples of aggressive behaviour. These behaviour styles are usually imitated by the child. Modelling is the act of learning through observing others, retaining and replicating behaviour displayed by those who are acting as role models (Meltzoff & Prinz 2002:8). Meltzoff and Prinz (2002:21) demonstrate how babies already display some rudimentary forms of imitative behaviour during their early development years. The brain mirrors what is given to it, as introduced in Chapter 2.2.4. The neurophysiology of the mirror neuron system (MNS) operates in tandem with the social cognition system. Lacoboni and Dapretto (2006:942) describe the way in which the pre-motor and parietal cells, known as mirror neurons,⁵⁰ fire when one observes others and imitates them. They describe how the MNS confirms traditional theories of social cognition and how children learn by imitating their parents or other people. Iacoboni and Dapretto posit the following:

Whereas the social psychology literature reminds us how pervasive and automatic mimicry is in social interactions, the experimental psychology literature has often looked at the functional aspects of imitation to better understand the sharing of common codes between perception and action. The neuroscience of the MNS obviously also maps well onto these themes (lacoboni & Dapretto 2006:943).

It can be concluded that the imitation of aggressive or passive-aggressive behaviour is a matter of nurture as children imitate their parents as role models of behaviour. If

⁹⁰ See Appendix A for a description of mirror neurons



parental behaviour allows strong and even negative emotional expressions in interpersonal relationships, the adolescent can act out as if aggressive display forms are the norm.

Furthermore, Feinstein (2009), Crawford (2007) and Sylwester (2007) confirm that mirror neurons play an important role in adolescents' need for acceptance by their peer groups. One can therefore conclude that teenagers mimic each other's social behaviour codes. If aggressive behaviour is the norm, especially in relational aggression, one can be sure that the social style of a peer group will accept aggression as the acceptable style. Feinstein (2009:79) suggests that conformity, driven by mirror neurons, is the norm with many teens who would like to be accepted by their peer groups. In this section the influence of nurture (environmental and social influences) has been discussed regarding the expressions of adolescent female anger. In the next section the influence of nature (gene expression and inherited traits) is introduced.

3.3.6 Psychological disorders generate anger behaviour displays

Anger can be continually instigated by a disorder. Although an in-depth discussion of this issue lies outside the scope of this study, it is important that a facilitator of an anger management programme should be able to identify chronic anger. In our current educational environment many children are diagnosed with Attention Deficit Disorder or EBD (Emotional Behaviour Disturbance) (Feinstein, 2009:67), as well as other learning disorders. It is also important for the facilitator to be able to identify chronic anger when the participants confront her with questions on anger identification. If the anger is often expressed in irrational ways, for instance in violent behaviour or rage, a psychiatric disorder or reaction to the frustration of a disorder may be the underlying reason for an adolescent's anger. Amen (2001) classifies many of these anger outbursts as types of ADDS⁹¹ (Attention Deficit Disorder Syndrome). He defines these disorders as brain dysfunctions and explains how medication, as well as cognitive behaviour therapy, can curb their effect. Anger

⁹¹ See discussion in Appendix A, Chapter Three of ADDS.



stems in many cases from anxiety and fear. LeDoux (1998:226:4) notes that anxiety and fear form the basis of mental disorders. Individuals with childhood depression, conduct disorder, oppositional defiant disorder or traumatic brain-behaviour can also erupt angrily with violent behaviour.

3.3.7 Gender differentiation regarding female adolescent anger

In comparison with adolescent boys, girls are more self-conscious and egocentric (Hudson & Gray 1986:751–765). This defence mechanism may be based on the fact that girls are expected to be more submissive and acknowledge the feelings and opinions of others more than boys have to do. Louw et al. state the following:

Adolescents are able to conceptualise and imagine the thoughts of others, but, when doing so, they fail to differentiate between what is of importance to them and what is of interest to others. [...] They think that others perceive them in a similar way as they perceive themselves. Furthermore, they believe falsely that their own thoughts are shared by others and that they are prominent in the thoughts of others (Louw et al. 2004:418).

According to Pipher (1994:12), psychology has ignored the adolescent girl as research subject over many decades, but recently academic literature has offered more information on the specific way in which adolescent females present regarding development differences. Underwood (2003), however, warns that there are many variables when studying gender-specific behaviour that should not be overlooked, for example, class, subculture and race. As in the case of boys, girls, as a gender, are not alike.

Conflict and aggression are not unknown for adolescents of both genders. They may daily be involved in several disputes or disagreements with one or two friends or with people in their peer group. Underwood, Galenand and Paquette (2002:248) state that a high percentage of adolescent female anger is relational anger, or social and indirect anger. Some investigations, however, confirm specific gender characteristics that belong to female behaviour. Evidence suggests (Crick & Werner 1999:1630–1639) that girls are becoming more socially aggressive than before, but that does not mean that boys are not involved in social victimization and aggression (Underwood 2003).



Research has shown that the differences in gender behaviour regarding risk taking and violent crimes are shrinking. Chesney-Lind and Shelden (1992) state that the low number of female delinquents in the past was due to less access to illegitimate means of misbehaviour and greater disapproval shown for girls acting violently. This behaviour is currently changing. Henderson and King (1998:4) state that "female gang members have turned more violent and dangerous". They (1998:6) continue that "despite reputation issues, more girls are more sexually active with more partners than ever before". The types of behaviour that make girls more high risk include depression, post-traumatic stress, sexual assaults and eating disorders. The aggressive society affects all – even adolescent females, often regarded as the epitome of innocence.

Regarding adolescent females, Underwood (2003:136) suggests that "a significant proportion of girls' anger experiences in this age range may occur in peer context". Brown (1999:5) declares that there are more and more "angry girl movements" or "gangs" in middle class Caucasian societies in America who protest against the contradictory messages of femininity in their culture. From this statement, as well as from research about adolescent anger conducted by Underwood (2003) and Simmons (2002), it can be concluded that anger and angry feelings are presenting strongly in peer group context.

Another characteristic of female adolescent anger is that some female adolescents prefer to mask their anger (Underwood 2003:137). Sweeney (2001:83) states that adolescent girls force their anger underground: "Adolescent girls have a particularly difficult time with the direct and constructive expression of anger and aggression". It is from this base that this discussion about the specific profile of adolescent female aggression is approached.

The loss of assertiveness and low self-esteem may be the motivation behind the female adolescent's covert behaviour. The transition from adolescence to adulthood can be accompanied by a lowering of self-esteem and achievement that is specifically observed in girls (Richardson 2002:55). Vernon and Al-Mabuk (1995:125) state that during middle adolescence (14 to 17), the adolescents



compromise their need for self-esteem by bolstering their confidence through rebellious behaviour and defiance.

Pipher (1994) intimates that some girls metamorphose as quieter, less likely to express their opinion, more careful, self-critical people-pleasers. Femininity is expressed in soft-spokenness, humility and submissiveness in their cultural context. Chesney-Lind and Shelden (1992:6) state that "girls learn early to experience their gender as identity, as role, as rule, and ultimately as an institutional web of expectations that define women, especially young women, subordinate to men". It is consequently unfeminine to express one's anger openly in such a milieu.

Gender differences have been observed in the way girls resolve their conflicts as opposed to boys. There is strong confirmation in academic literature that adolescent girls' experience of anger, angry feelings and aggression is more intense than boys' (Simmons 2002; Underwood 2003). Girls are more often hurt and upset by conflict and worry more about friends' loyalty or betrayal than boys (Underwood 2003:137). Girls, according to Underwood (2003:138), are especially sensitive to harm their relationships and will therefore resolve disputes by compromise. Apparently girls seek to reduce their own hurt by using relationship-protective strategies in order to have less stress as a result (Underwood 2003:138). They will work harder to preserve their relationships than boys do. Laursen and Koplas (1995) posit that adolescents, regardless of gender, resolve most of their conflicts by submission, explanation, defending themselves, outright denial, laughter and humour. Laursen (1996:186) states that older adolescents are keener to negotiate during conflict in order to resolve a problem than younger adolescents.

Some may resolve conflict by disengagement and then engage in social aggression behind the friend's back. Many conflicts are about social behaviour and normative concerns. Underwood (2003:139) explains that aggressive behaviour violates the accepted social norms of the adolescent group and therefore the older they become, the more physical aggressive behaviour will decline. In lower income groups, however, there is a higher incidence of physically aggressive behaviour. When physical aggression manifests in female adolescents it will rather be toward their romantic partners than with other girls (Coie & Dodge 1998:779-862).



3.4 The expression of anger during adolescence

In her investigation of adolescent anger, Underwood (2003:16-32) motivates the difficulty of categorizing aggression. She states that scholars have presented various subtypes of aggression over many decades (Underwood 2003:17) and lists various subtypes of aggression to demonstrate her claim, for instance: pro-social versus antisocial aggression, physical versus verbal, indirect versus direct, targeted versus untargeted, and, amongst others, rational versus manipulative aggression. Underwood's (2003) opinion is confirmed by Putallaz and Bierman (2004:15) who introduce the various undercurrents regarding the terminologies, namely social, confrontational, non-confrontational and relational aggression. Cairns and Cairns (1994) make a useful distinction between types of anger in social relationships and call them confrontational and non-confrontational anger. This identification, however, can also imply that non-confrontational anger is unconfrontational. One cannot assume that any anger is unconfrontational; it always confronts, even indirectly. For the purposes of this study the different types of anger display forms are introduced to understand the adolescents' aggressive behaviour with anger management skills in mind.

The main differentiation between the types of anger that are employed for the purpose of this study is therefore that of direct or indirect anger, with the subtypes of anger display forms, namely assertiveness as the most effective form of direct anger display, antisocial aggression as the most aggressive form of direct anger, indirect social aggression, indirect passive-resistant anger, and indirect implosive anger directed at oneself. Each anger display form will be discussed in the paragraphs to follow.

3.4.1 A direct anger display form: assertiveness

White (1997:196) describes assertiveness as a healthy way to express anger. In Chapter 2.5.5 this style of anger is discussed as a constructive style of behaviour.



Assertiveness is a non-aggressive form of displaying that one is in non-agreement with another person. When being assertive, no one gets physically or psychologically harmed. The anger is expressed interpersonally and directly to the person concerned. Stein and Book (2001:66) define assertiveness as the ability to express feelings, beliefs and thoughts openly, even if it is contrary to popular opinion. It is to stand up for one's personal rights without being shy, over-controlling or abusive.

Burton and Dimbleby (1995:121) confirm that "[i]t enables you to express your view in a clear and confident way without putting down the other person." Dickson describes the difference between aggressive behaviour and assertiveness as follows:

Aggressive behaviour is competitive, overriding, always lacking in regard for the other. It means winning at someone else's expense. Assertion is based on equality not superiority, co-operation not competition, honest and appropriate expression of feelings instead of ruthless expression of them (Dickson 2000).

According to Stein and Book (2001:69), there are three prerequisites for assertive behaviour:

- the person who wants to assert herself must be aware of her current feelings and opinions, and must be able to clearly identify, unambiguously, what response she would like to communicate;
- secondly, the person must be able to control her anger in order to express her feelings strongly, depending on the degree of anger that is called for, but without letting it develop into fury or rage;
- lastly, the person should be able to state her opinion clearly, without emotional sabotage, but still be able to understand, respect and be sensitive to the opinions, needs and feelings of the other person(s).

White's (1997:196) recommendation for assertive behaviour adds to Stein and Book's viewpoints. White (1997:196) suggests that angry conflict needs to occur within a set of rules or guidelines to be fair, for example, no hysterical violence, violent emotions or withdrawal until some resolution is achieved. Admitting the angry feeling, but not harming the other person intentionally, should be the desired style of assertive behaviour. White (1997:196) suggests that the angry person should calm



herself down and use cognitive therapy strategies to communicate her feelings assertively.

Assertiveness is based on a great amount of emotional competency skills such as awareness and identification of one's own emotions, the ability to understand one's own emotions and those of others, as well as being able to manage those emotions (Mayer & Salovey 1997:10). According to Goleman (1998:24), emotional competency is a learned ability. The self-assured adolescent will find it easier than the person with low self-esteem to be assertive (Goleman 1998:68). It is therefore imperative to expose the adolescent female to a learning process of emotional competency during a process of endeavouring to empower her with anger management skills, such as assertiveness. In the following section the direct, explosive anger style, namely, anti-social aggression is analyzed.

3.4.2 Direct anger: anti-social aggression

This style of anger has been introduced in Chapter 2.5.5 where it has been categorized as a direct, explosive style of anger. White (1997:192) posits that "(i)t has long been recognized that the adolescent stage of development is, at least in par, an angry and tempestuous one". In his Transactional Analysis Model, Berne (1992:25) explains that each person has three types of ego states. The state that derives from parental figures, namely the Parent, can either be a controlling or a caring parent. Secondly, an Adult ego state that "appraises his/(her) environment objectively, and calculates its possibilities and probabilities" has been identified; thirdly, each person exhibits an ego state called Child (Berne 1992:26). This ego state can display the Adapted Child, the Natural Child (being a positive ego state of spontaneity and naivety) and the Rebellious Child, who does not accept authority and seeks confrontation. Berne (1987:171) notes that the adolescent is often in antiscript and rebelling against parental precepts. An anti-script, according to Berne (1987:442) is "(t)he defiant opposite of what each directive calls for". Adolescence is a period, according to Berne (1987:171), when adolescents oscillate between their scripts and anti-scripts. They try to follow the rules and regulations of their parents,



then rebel against them, only to find themselves following the parental programmed scripts again. Many adolescents get caught up in their anti-scripts because their parents do not want to give them the space to develop into a responsible Adult. The rebellious anger can be defined in many ways as a way to struggle for own individuation. Stein and Book confirm (2001:77) that [a]ggression dead-ends; it never succeeds for long. For one-thing, the aggressive and anger driven personality is under non-stop self-inflicted stress. This is a very unpleasant state of mind and body; it's terribly draining to be forever argumentative and looking for a fight (Stein & Book 2001:77).

Antisocial anger or aggressive behaviour is highly explosive. White (1997:194) posits that during such a display of anger the aggressor is violating the rights of others and/or their property. This includes physical harm to others or their property, stealing or vandalizing or verbally abusing others publicly. White (1997:194) explains that antisocial anger can, in many instances, be a cry by the adolescent for limits and authoritative attention. White (1997:194) states that in some instances adolescents use antisocial anger in order to draw attention to themselves. They appear to have a need to be restrained and sanctioned to experience a state of security under the jurisdiction of strong authoritative figures.

The adolescent who constantly displays her anger in an antisocial manner may in the end isolate herself from others and become imprisoned by this behaviour style. Not all teenagers, however, fit this profile. Graham (1990) and Greene (1980) confirm that only 25% of adolescents have profiles that present the same as the rest of the adult population. One can therefore hypothesize that 75% of adolescents have a typical stress profile but are endeavouring to find solutions to their problems. In this section direct anger has been discussed. In the following section indirect, social aggression is investigated.

3.4.3 In-direct social aggression

In Chapter 2.5.5 this style is discussed and described as social, relational, indirect and explosive. Maccoby (2004:15) states: "(A)II aggression, including physical

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fighting, is social. But in the currently accepted usage, the term 'social aggression' has come to mean acts intended to inflict damage on a victim's social relationships or social states". Maccoby (2004:15) classifies this type of aggression as an indirect form of aggression because it harms the victim in a subtle way, and indicates that it is more frequently applied by girls than physical fighting.

Underwood (2003:8) argues that "research by social psychologists suggests that women find provoking situations more aversive than do men". This notion of not openly expressing anger can be linked to the psychological vantage point of a negative self-image (Pipher, 1994). An angry adolescent does not have the assertiveness or self-belief to confront the other person directly. Casper, Belanoff and Offer (1996:500) postulate that angry girls resort to emotion-focused solutions, such as crying, as a result of poor self-esteem and less confidence. Simmons (2011:23) in turn adds that in some cultures women may suppress their angry feelings. As confirmed by Underwood (2003:141), adolescent girls express their anger often by harming others covertly, hurting what the other girl strongly values and seeking revenge in a covert manner to maximize the effect of their anger. Dellasega's (2005:7) term for social aggression is relational aggression. She states that relational aggression (RA) can also be non-verbal behaviour that can emotionally devastate the victim more than physical aggression can. Simmons (2011:47) describes non-verbal communication as a part of social aggression. She proposes that mean looks, turning one's back, and friends who suddenly fall silent, glare or roll their eyes can all cause devastation in the victim of such psychological abuse. Social aggression is therefore covert aggression that is often presented nonverbally.

Another form of such covert, indirect, social aggression currently presents itself as cyber-bullying (Wiseman 2002:68). It can be defined as a way to use the internet or other technological devices to send harmful text or images to bully others. Cartoons can ridicule others and cruel hate-speech can be used without being traceable. Photographs can be posted to class mates and they can be asked to 'rate' the photographed individual. Simmons states:

Technology has also altered girls' everyday relationships, indeed girls' very sense of self. It is not uncommon for a girl to say "I don't exist if I'm not on Facebook" Many



girls sleep with their cell phones on their chests, waiting for them to vibrate with news in the night (Simmons 2011: xvi).

One can therefore understand that social aggression is a growing phenomenon in a technological, faceless, dehumanized society where people generally are exposed to subcultures of hate-speech, violence and verbal attacks.

3.4.4 Indirect passive resistance

This style is discussed in Chapter 2.5.5 where it was classified as passiveaggressive behaviour that presents indirect and implosive anger. This level of adolescent anger, as introduced by White (1997:194), is called passive resistance, a type of implosive anger. The adolescent is neither openly rebellious nor conforming and could be classified according to the Transactional Analysis model as being stuck between two ego states (White 1997:194). One of the ego states is that of the Rebellious Child and the other that of the Conforming Child (Berne 1992:14). The adolescent who is displaying this type of anger resists authority passively; she refuses to do as she is told. She may say she will tidy up her room, or not use her cellular phone too often, but never does as promised. This type of anger is also symptomatic of the passive aggressive personality type (White 1997:194). The adolescent's body language displays anger, hostility or resentment, but her feelings are not communicated. They implode their anger (Chesney-Lind & Irwin 2008:55). White (1997:194) states that with encouragement these adolescents will usually start to communicate their anger. Stein and Book (2001:73) posit that passive anger is bottled up, not expressed and leads to resentment. Such people will be negative towards others and feel exploited, but will lash out, unexpectedly and in anger. This level of anger can become increasingly negative and can implode on a deeper level as indirect implosive anger. The next section describes indirect, implosive anger that can lead to self-harm.



3.4.5 Indirect implosive anger⁹²

White (1997:194) suggests that this level of implosive anger is dramatic and can indicate a significant degree of emotional disturbance. Some of the adolescents displaying implosive anger can be categorized as "good children" (Weiss & Weiss 1984:119 – 126). They come across as well-behaved, well-adjusted and problemfree individuals in the social context. 'Underneath', however, the adolescent may be feeling discomfort and, in particular cases, anxiety. What is felt inside is entirely different from what she displays in public. Along with her feelings of anxiety, she can develop anger, but it implodes inwards on herself and the consequence may be selfmutilation (White 1997:194). It is as if she would like to physically feel and see what she is experiencing on a psychological level. Some of the forms of self-mutilation are suicide threats or attempts, head banging, hair pulling, excessive nail biting, selfinduced vomiting, cutting, pinching or burning. It can present in self-abuse, for example, self-starvation, anorexia, bulimia or over-exercising. Strong (1998:xii) describes this type of adolescent self-mutilation as a symptom or associated feature in a number of mental disorders such as borderline histrionic or antisocial personality disorders, post-traumatic stress disorders or eating disorders (Strong 1998:xii).

If an environment of anger, aggression and angry feelings, violence and a hostile atmosphere is what an adolescent is up against, either in her intra- or interpersonal relationships, such an adolescent will have to concentrate on "survival, not on development tasks and skills, and violence makes it difficult to develop responsible adult relationships due to the lack of trust" (Strauss 1994:94). It is important to submit counter activities to curtail the anger of self-mutilation in adolescent girls (Huppert 2005:15). Dellasega and Nixon (2003:4) state that "(g)irls have enormous relational abilities, but need guidance to build those abilities into constructive assets". Dellasega and Nixon (2003:5) advocate that girls should capitalize on their strong abilities to be positive and resourceful in order to overcome inherited negative situations and engage in positive activities.

⁹² Refer to Chapter Two Section 2.5.5 where this style of anger is described as a non-assertive, passive style of behaviour.



Taylor (2006) offers an opposing theory to that of the flight or fight stress response, namely the tending and befriending response to stress. Taylor (2006:273) posits that "(O)xytocin is implicated in the seeking of affiliative contact in response to stress". Taylor (in Dellasega & Nixon 2003:4) states that female hormones, such as oxytocin (refer to Chapter 2.2.5.6) make women more likely to show a friend-seeking response during a time of stress. Females tend to reach out to each other during stressful times. Dellasega and Nixon (2003:4) urge women to build networks of support and reach out to counselling by empathetic professionals, for oxytocin can have a powerful indirect effect on their health. Social support curbs stress responses. This is the reason an anger management programme should take place in a relaxed and alert environment in order to curb high stress levels. One can hypothesize that the positive effects of social support can also have a great influence on adolescent female anger in the South African context. The next section is intended to prepare the facilitator of an anger management programme in this country for possible interaction with adolescent females who may be exposed to environmental threats that can lead to deep-seated anger.

3.5 Adolescent female anger in the South African context

The physical, cognitive, social and personal demands of adolescence have an enormous influence on the general area of the emotions. If the adolescent is also challenged by a potentially violent society, like the one in South Africa, the weight of endeavouring to become a mature, well-adjusted person may be too overwhelming for a successful outcome. This is affirmed by George and Finberg (2001:4) who report that many South African female adolescents have to deal with violence and sexual harassment in the educational environment. Adolescents' emotional experiences are complex interactions between pubertal and societal influences. South Africa presents a societal determinant of a high incidence of violence, poverty, overcrowding and family disintegration, especially in townships (George & Finberg 2001:4). Louw et al. (2004:464) affirm the high incidence of emotional problems among adolescents in township societies. In more recent studies the same picture emerges (Beukes cited in Louw 2004:437). Prinsloo and Kruger state:



Middle adolescents are exposed to environments riddled with potential adversities which pervade their lives, adding to the challenges inherent in their developmental stage. They spend a significant time in school and therefore it is an appropriate context to foster, enhance, and develop emotional, social and cognitive resilience competencies (Prinsloo & Kruger 2008:1).

The current South African milieu challenges the resilience of the adolescent. Leoschut (2006:7) argues that youth in South Africa are exposed to disturbingly high rates of violence within their families. Leoschut (2006:9) contends that the adolescents who grow up in violent surroundings are the most likely to struggle to manage their anger in other social constructs. An important aspect of anger in the adolescent girl's life that has to be addressed as a very current and real issue in the South African milieu is the fear of violence and sexual assault, which leads to high levels of anxiety that can build up in anger displays. Olivier and Bloem (2004:181) suggest various ways to assist teenage girls in difficult situations in the South African milieu. They suggest that "teachers should equip adolescents with life skills, such as a positive self-concept, decision-making, problem-solving and crisis management". On an international level, Henderson and King (1998:7) state in their article that the fear of sexual assault means that girls are taught from an early age that they must constantly be vigilant. They lose confidence in their ability to navigate in the world. If they are not sufficiently fearful, they may place themselves in a situation of extraordinary risks.

It seems as if the various development tasks that the adolescent female has to complete hold the potential for inner conflict regarding their bodies, self-esteem and individuation, parental and peer relationships, and important decisions to be made regarding moral and career choices. The objective of this study, as indicated before, is to present an anger management programme by employing the Process Drama methodology of dramatized poetry to enhance the emotional experience as well as the immediacy of the informative material. This may empower the participating female adolescent with emotional competency, such as assertiveness, non-violent expression of anger and general human right.

3.6 Summary



This chapter confirms the most prevalent aspects to be taken into account when designing an anger management programme for adolescent females. The most prominent aspect is the fact that the adolescent female is experiencing a period of heightened physical change. Her identity is challenged by a new physical self. Her social relationships change according to her maturation. Arborization is challenging her cognitive status quo and this brings about more turmoil. She may develop her executive powers, however her new-found identity might expose her to risk taking. She might experience a greater emphatic awareness that may assist her with a more assertive anger management style. The increase of anxiety and low self-esteem during this period may lead to covert aggressive behaviour. The quest for acceptance by her peers may result in conflicting relationships with herself and others. This may lead to anger and angry feelings. On the other hand, the cognitive expansion of her ability to reason more abstractly may assist her in managing her anger better than before. She may have more insight into her emotional life and also the ability to verbalize the way she experiences her feelings.

The next chapter introduces the strategies and conventions of the methodology of Process Drama. The methodology is an educational approach that employs dramatic techniques to obtain a learning outcome, in this case, anger management.



CHAPTER FOUR: THE METHODOLOGY OF PROCESS DRAMA WITH SPECIFIC REFERENCE TO THE CONVENTION OF DRAMATIZED POETRY

4.1 Introduction

In the first three chapters the neurological roots of anger as an emotion, as well as the adolescent female's anger profile, are introduced. This chapter deals with the methodology of Process Drama which serves as a vehicle to train emotional competency skills towards anger management. The aim of the chapter is not to interrogate Process Drama *per se*, but rather to broadly contextualize Process Drama in order to position it as a methodology in the teaching of anger management skills to adolescents, and later to relate it to brain-based learning. This chapter consists of a discussion on the strategic characteristics of Process Drama in the specific context for which it is used in this study. It maps a broad spectrum of elements of Process Drama in order to substantiate the use of these elements (with specific reference to dramatized poetry) in the planning and implementing of anger management workshops. These elements consist of a range of strategies and techniques, called conventions⁹³ for the purposes of this study.

The chapter briefly introduces Applied Drama as the broad conceptual framework for Process Drama. From a pedagogical point of view, it supports experiential learning and meta-cognition, as will be discussed later. As a methodology, it is critical, learner-centered, collaborative, and offers an approach to thinking from multiple perspectives. Process Drama is a derivative of Drama in Education (DiE), as will be explained in the chapter. As such, the chapter will necessarily refer to DiE and often refer to elements or conventions that are similar to both approaches. The binding factor of all the variants is the application of participatory drama strategies to foster personal and social efficacy and educational development.

4.2 A brief introduction to Applied Drama

⁹³ Conventions refer to improvisational and theatrical techniques that can shift the point of view of the participants or distance the participants from a certain issue, such as role play, mime, hot seating, MoE and improvisation (O'Toole, Stinson & Moore 2009:105).



Applied Drama is described by Nicholson (2005:2) as a "dramatic activity that primarily exists outside conventional mainstream theatre institutions, which (is) specifically intended to benefit individuals, communities and societies". It is an umbrella term, in use since the 1990s, and refers to various disciplines, amongst others, Psychodrama, DiE, Process Drama, Community Theatre, Political Theatre, Youth Theatre, Theatre in Prisons, Playback Theatre, Drama Therapy and Theatre for Development (Jackson & Vine 2013:10). A discussion of the tensions between Applied Drama and Applied Theatre falls outside the scope of this dissertation. Following Nicholson (2005), I will use Applied Drama as the collective terms for the forms/modes that I refer to in this chapter. I do, however, acknowledge that differing viewpoints on the matter exist. Taylor and Warner (2006:32) argue that the distinction between theatre and drama is limiting as both concepts are part of the same continuum, with or without presenting it to an audience as a product. The popular way, however, is to differentiate between these terms by categorizing Applied Drama and DiE as more process oriented and Applied Theatre and Theatre in Education as more product oriented (O'Toole, Stinson & Moore 2009:105). As mentioned earlier, this debate falls outside the scope of this study.

Applied Drama generally operates in non-theatrical spaces where the process involves meeting some challenges of the participants and/or a community. Lewis and Rainer (2012:6) describe Applied Drama as "theatre removed from a traditional (perhaps building-based) context and applied to the objectives of wider social institutions, organizations and agencies", where process is the objective to bring about personal and/or social change and not the product *per se*. This is not to say that all forms of Applied Drama exclude a product. The use of Applied Drama in this thesis will exclude a product.

A very brief, broad and necessarily incomplete overview of Applied Drama will therefore assist in providing some background to the history and development of Applied Drama for the purposes of this study. The historic roots of Applied Drama corroborate it as a well-developed domain that can be broadly linked to Aristotle, who in his *Poetics* (Aristotle 1996), explored the role of *catharsis* in assisting emotional healing, as well as other Western theatre practitioners, such as Grotowski,



who implemented improvisation in ensemble to create theatre, Brecht who made use of the *verfremdungseffekt* in order to distance or alienate his audience from the play using episodic scenes, as well as to Piscator with his documentary theatre styles (Nicholson 2011:67). According to the developmental history of Applied Drama, it became a "way of learning" through the catharsis of dramatic actions (Landy 1986:5) and drew on eclectic, interactive, participatory techniques – amongst others the works of Augusto Boal (Baxter 2011:130) to elicit dialogue, enhance understanding, facilitate a change in perspective or work towards communal problem-solving or action (Dalrymple 2006:202). The influence of Brecht can be traced in the groundbreaking work during the 1960s and 1970s in educational forms of Applied Drama. There is a strong Brechtian influence in the work of the Drama in Education doyenne, Dorothy Heathcote (O'Toole, Stinson & Moore 2009:105). This chapter will later on focus specifically on the history and elements of DiE and Process Drama as some of the educational branches of Applied Drama.

Closer to home, the African involvement referring to Applied Drama activities on the African continent depicts groundbreaking examples of Applied Drama praxis. In Botswana, for example, the term Theatre for Development (TfD) was coined in 1973 by Ross Kidd who used drama in a literacy project to raise community awareness and ownership for community development (Gambles 2010).

In South Africa during the early 1990s, Applied Drama and theatre topics were raising political awareness regarding issues surrounding apartheid. After 1994 concerted efforts with topics such as HIV/Aids, human rights, teenage pregnancy, drug and alcohol abuse and violence against women endeavoured to achieve individual change (Dalrymple 2006:203). The pedagogic intent of these projects (in some instances initiated by Dalrymple) in the context of the South African HIV/Aids pandemic was primarily to develop programmes that probe these problems, seeking to bring about hope through community participation. Dalrymple (Jackson & Vine 2013:217) recognized the complexity of the South African social-cultural context. In order to intervene more effectively, she utilized peer education, knowledgeable role players in the health fraternity, as well as the power of multimedia vehicles. She worked from the premise of problem-posing rather than problem-solving. Dalrymple's ability to organize and adapt to the viewpoints of the socio-cultural domain in the



South-African milieu created a strong foundation for the continuity of her success over a period of two decades. It has to be noted that Dalrymple's work experimented with a variety of communication strategies in order to optimize the efficacy of her DramAide team's work. Dalrymple and DramAide significantly impacted on the landscape and praxis of Applied Drama in South Africa.

There are currently many programmes operating including Themba Interactive⁹⁴, Wits' Drama for Life programme, The Mothertongue Project, the Gogola – Growth through Knowledge project (Drama Department, University of Pretoria 2013) and the UKZN drama department's programme in the Westville correctional services centre in Durban (Young-Jahangeer 2009). There are many other examples.

South Africa, as a developing country, also serves as an example of the criticism against Applied Drama that in some instances have foregrounded a Western capitalistic and colonial discourse (Preston 2004:231). Dalrymple (2005:161) regards the hegemony of Western educational viewpoints, while employing forms of Applied Drama in developing countries, as "proving dangerous for the discipline". Baxter (2011:131) endorses this statement by pointing out that when the broader social context is not acknowledged, forms of Applied Drama and Theatre can oppress rather than liberate. As an example, Chinyowa (2009:336) describes a possible scenario where facilitators of such a programme do not free themselves from their own assumptions and regard themselves as the "thinkers or experts". This approach can be oppressive, rather than liberating. The 1999 loveLife Programme which in its strictest sense, can be termed entertainment education or EE (Singhal, Cody, Rogers & Sabid 2008:5), was criticised for not relating to the ideological underpinnings of the sexual behaviour of the South African youth (Baxter in Jackson & Vine 2013:218). Preston (2004:231) states that drama/theatre practices should position themselves ideologically and acknowledge their ideological stance which scrutinizes practice through consistent, thorough interrogation (Dalrymple 2006:2004) and self-reflexivity. Adams (in Jackson & Vine 2013:290) therefore suggests that forms of Applied Drama that are concerned about education should be based on a critical pedagogy, as described in the next paragraph.

⁹⁴ Themba Interactive, for example, is a partner of the Drama for Life programme of the University of the Witwatersrand. Since 2007 they are also co-partners with the South African Department of Health and Social Development to assist to curb the incidence of HIV/Aids in South Africa. (www.themba.org.za 2013).

v=v List of research project topics and materials



Pedagogy should not be based on the positivist epistemological assumption that knowledge can be framed outside of social constructs as so-called objective material. It should rather be engaged in critical pedagogical structures, encouraging an interactive approach. Such an approach, underwritten by most of the leaders in the field of Applied Drama, is that of Brazilian pedagogue Paulo Freire⁹⁵ (2003:70 -73), who offers a view of an education that liberates, presents a problem-posing approach incorporating dialogic participation and that acknowledges prior, indigenous and experiential knowledge of all involved in the learning process. This pedagogy follows a transformative process of liberation grounded in social justice (Adams in Jackson & Vine 2013:293-299). Freire's pedagogical stance implies that one culture or ruling class should not impose certain ideologies upon another culture. For him, education is inherently political. In line with Freire, Hornbrook (1998:98) suggests that the DiE domain, should incorporate a "wider culture as a frame of critical reference" to the participants and encourage them to look beyond the parameters of their own cultural backgrounds, recognise the hegemonic implications of culture and become responsible for their own learning through continued dialogical education. Although this study recognizes and acknowledges this very important caveat, interrogating these notions *per se* or analyzing them in relation to the praxis project falls outside the scope of this study.

In the next section a broad overview of the history and main elements of DiE and Process Drama will be addressed in order to indicate how the strands of Applied Drama, DiE and Process Drama are interrelated. As Process Drama is a derivative of DiE, a short introduction is required.

4.3 Introduction to Drama in Education

The roots of Drama as pedagogy in the Western countries can be broadly traced back to the late 18th century and the philosophy of Jean-Jacques Rousseau (1712 – 1778) that proposed an approach that encouraged educators to be receptive to the

⁹⁵ This researcher is aware of critique against Freire, for example that he argues simplistically that one is either for or against the oppressed, and that his pedagogy can "involve smuggling in all sorts of ideas and values under the guise of problem-posing" (Smith 1997 2002). To elaborate on the critique against Freire is outside of the scope of this study.



supposedly "natural" impulses of children. This was followed by Friedrich Froebel (1782 - 1752) in the early 19^{th} century who advocated a more child-centred approach to education in the light of the teacher-centered and content-driven educational system of the time. In the early 20^{th} century the American education reformer, John Dewey (1857 – 1952), encouraged the concept of the arts as experience, as well as experiential, child-centred, communication-based learning (1938).

A child-centred approach was also present in the work of Harriet Finlay-Johnson who perceived drama as a child-centred way to teach the curriculum (1920). She advocated that the play-making process should not be a skills-training exercise to learn to perform, but an exploration of how learners can make and present a play outside of the value judgements of "adult aesthetics" as the learner's growth is central to the theatrical experience (Weltsek-Medina 2008). Her ideas were integrated into what Caldwell Cook terms "The Play Way" (Weltsek-Medina 2008).

Other practitioners who proclaimed role play and improvisation as a method of teaching and learning were Jacob Moreno (1889 – 1974) and Augusto Boal (1931–2009). Moreno, for example, organized the first improvisational theatre troupes in 1921 and named them the Theatre of Spontaneity (Blatner 1995:92 – 96). Augusto Boal is known for the establishment of the Theatre of the Oppressed that originated as a mode of theatrical engagement originally used in radical and popular education movements, mobilizing towards social change and activism. All these pioneers' work had an acute influence on drama/theatre-based education.

The concept of drama as pedagogy was furthered by Peter Slade (1954, 1968) who posited that drama is a form of 'spontaneous', improvisational child art with therapeutic effects (Hornbrook 1991:18). Brain Way (1967) stated that drama as pedagogy and methodology develops children holistically through improvisation and dramatic play or storytelling. He also questioned whether performances of plays should be part of the drama experience (Weltsek-Medina 2008). During the 1960s, Dorothy Heathcote placed drama as education in the global spotlight. Her relentless passion for drama as a learning medium has changed the perceptions of how children learn, the role of the teacher in learning, as well as the understanding of the



roles of content, methodological processes and relationships (O'Toole, Stinson & Moore 2009:101). Heathcote joined forces with Gavin Bolton, an important practitioner in his own right, and they established parameters for an educational approach and called it Drama in Education (DiE)⁹⁶ (Bolton 1979, 1984, 1995). Since the 1960s onwards, Bolton and Heathcote became leading forces for drama as methodology. Bolton (1985:151–157) describes the crux of DiE as a way in which the learner can make sense of social, moral and ethical concepts through the concrete exploration of an experience through improvised conventions such as role play and Mantle of the Expert (MoE). Bolton gave DiE a theoretical foundation with publications such as: *Towards a theory of Drama in Education* (1979) and *Drama as Education* (1984).

Heathcote's quest, as expounded by Bolton (in Bresler 2007), was to challenge the participants with a fictitious "man in a mess" situation while functioning as a Teacher in Role (TiR) to carefully manoeuvre the participants to reach a credible outcome through collective problem solving. Heathcote (Bolton in Bresler 2007:54) advocated that the teacher should become part of the role play and choose the right functional moment to focus the learner on deeper levels of a topic. Thus, from this theory she developed the term Teacher in Role or TiR. The TiR does not suggest answers for problematic situations, but negotiate insight. The TiR explores different viewpoints of characters through different techniques or conventions in order to create empathy with the roles of others. This pluralistic model generates "interaction rather than position, and the shifting among several points of view rather than a reliance on linear reasoning" (Blatner 1995, 2002:2).

O'Neill (1995: ix) posits that Heathcote led the participants to inhabit their roles as knowledgeable experts and then grow through engagement with the role far beyond functionality. The participants take on a mantle of expertise as they are empowered with knowledge. This theory was coined by Heathcote as the Mantle of the Expert

⁹⁶ There are contextual and semantic differences in the use of the term educational drama and conflicting ideas about the meaning of the term. In this context it does not refer to school plays and drama as a school subject, for instance theatre history. It refers to a teaching methodology where drama is used as vehicle to educate. Other terms that are consistent with educational drama are improvisation, creative drama, educational theatre and drama for the curriculum where drama is applied in an educational context, often referred to as drama for learning (O'Toole, Stinson & Moore 2009:101). In DiE the participants can act out make-believe situations through role play for the purposes of collaborative and personal efficacy, or cognitive, social and emotional insight into a situation or theme.



(MoE). The participants identify with their roles and provide solutions to the challenges they encounter as they grow in capacity. Heathcote's approach is thus learner-centred and fosters active participation from learners.

Heathcote was therefore not only concerned with the curriculum content (when it was applicable to her learning sessions), but also with the growth of the individual as balanced human beings (Lazarus 2012:68). Hesten (1986:249) confirms that Heathcote used to create an awareness of a particular idea and through improvised action the participant could experience and respond to real-life emotions in a fictional context – thus working with mediated emotions. These experiences reveal inner, personal 'truths' concerned with an aspect of life of an individual or group. Often these truths are then further developed by 'universal' interpretation (Hesten 1986:249). The discovery of these 'universal truths' can supposedly stimulate the morality and values of the participants, whose values and morals were foregrounded. This is a point of critique on Heathcote's work and bring Chinyowa's (2009:329 -346) warning to the fore. Whereas Heathcote may have seen these 'truths' literally as 'universal', my reading of later scholars' work proposes that they acknowledge the socio-cultural and historical aspects of this idea and categorizes these 'universal truths' as an extrapolation of values or idea to a broader human context which is neither a historical nor apolitical.

Since the 1980s a host of other practitioner-theorists have contributed to the development of Heathcote's legacy into a manageable methodology for teaching purposes - amongst many others, O'Neill and Lambert (1990), Haseman and O'Toole (1991)⁹⁷, Kathleen Gallagher (2001), Taylor (2003), Neelands and Goode (2005) and Bowell and Heap (2013). Morgan and Saxton⁹⁸ (1987) wrote a teaching practice theory on the implications of drama for educators, explaining how participants can become fully engaged in the learning moment. This was followed by their publication in 1991 on questioning techniques as a convention, also initiated originally by Heathcote.

⁹⁷ The dates refer to groundbreaking publications of these practitioners.

⁹⁸ Morgan and Saxton's (1987, 1989) discussions of the elements DiE are also applicable to Process Drama.



Cicely O'Neill⁹⁹ (1995) re-structured DiE and simplified it to create a teacher-friendly methodology, namely Process Drama.¹⁰⁰ The term and the terminology of DiE¹⁰¹ are still widely used and are by no means ousted by the term Process Drama. They are sometimes used as synonyms, as stated by O'Neill (1995: xv): "Process Drama is almost synonymous with the term *drama in education*". She explains that both Process Drama and DiE are used to distinguish the educational, process-oriented form of drama from the product-oriented drama with the focus on theatrical production.¹⁰²

The following is an attempt to summarize the crux of DiE in the form of a working definition. In DiE the facilitator, acting as Teacher in Role (TiR), agrees with the participants to collaboratively create a fictitious situation in which they assume roles with attitudes or values that may or may not correspond with their own. They can, with the TiR, "live through"¹⁰³ selected dramatic situations of the human condition in order to provide solutions to problems posed, open critical discussions around, and reflections on, the specific condition. The participants may explore the situation or human condition from different viewpoints facilitated by the TiR or educator/facilitator by employing various conventions.

O'Neill's rationale behind her re-interpretation of DiE, called Process Drama, is, in my opinion, an academic refinement of Heathcote's research in order to present an accessible methodology that could fit classroom practice. O'Neill stated that it is "an attempt to distinguish this particular approach from less complex and ambitious

⁹⁹ This study refers directly to several DiE landmark works (such as by Bolton, O'Neill, Heathcote, Boal, Morgan and Saxton, and others) in order to acknowledge these sources directly as the basic theories from which Process Drama originated. Secondary sources that sprouted from the original theories are referenced less often, although they are more recent.

¹⁰⁰ Previously the term was used informally by Haseman and O'Toole when they communicated between 1988 and 1990 about their co-project, the book *Dramawise* (1989).Thereafter Cecily O'Neill used the term Process Drama (1995) freely in her book *Drama Worlds*.

¹⁰¹ As researcher, I am fully aware of the discrepancies regarding the use and meaning of DiE. It is, however, interpreted as it is stated for the purposes of this study.

¹⁰² The improvisation in Process Drama differs from that of theatrical improvisation. This difference sets the process-oriented drama apart from the product-oriented drama. The participants in a Process Drama are fully engaged in the creative process as their roles determine the outcome of the drama or 'script'. In product-oriented dramas the actors mostly follow the directives of the script. It is beyond the scope of this study to elaborate further on this issue as the debate is far more involved than described here. For the purposes of this study the methodology used to present the anger management workshops draws on elements of Process Drama. ¹⁰³ "Live though" implies the experience of the situations via the make-believe world.



improvised activities and to locate it in a wider dramatic and theatrical context" (O'Neill 1995: xv). O'Neill attempted to assist teachers with clear guidelines how to translate Heathcote and Bolton's ideas into classroom practice (O'Connor 2003:35). Furthermore, O'Neill kept Process Drama an aesthetic pedagogy by focusing on the similarities between theatre structures and Process Drama as learning medium. Like Heathcote, O'Neill used the "elements of theatre craft" that Heathcote appropriated extensively to dramatise participant's experiences in the fictional world (as explained in Morgan and Saxton 1987), but did so specifically to structure Process Drama as "artform" in order to expose educational praxis to aesthetics and vice versa, but not to compare it with "theatre productions". She added contemporary theatre terminology, for example, spectatorship, fragmentation and alienation instead of plot, climax and sub-plot.¹⁰⁴ Bolton (1999:231) states that O'Neill's approach distinguishes her from her predecessors through the application of contemporary theatre¹⁰⁵ terminology. In this study I focus on O'Neill's so-called drama for learning approach and not so much on her aesthetic approach of drama as art (Taylor & Warner 2006:5).

O'Neill's contribution to Process Drama was to structure it as an art form and view facilitators and participants as artists. She states that her focus is on the similarities between theatrical structures and Process Drama (1995: xviii). O'Connor (2003:44) explained that this was in answer to Hornbrook's onslaught on the Process Drama community. In Hornbrook's view the DiE community had belittle the art form of the theatre in pursuit of supposed universal truths and deny students culture and access to theatrical skills (Taylor 2000:106). This attack on Process Drama led to the defensive refinement by O'Neill of the theory of Process Drama as an aesthetic pedagogy (O'Connor 2003:44).

Improvisation forms the hub of a Process Drama learning session where the fictional world is created via a pretext impulse. O'Neill (1995:xvi) suggests that Process Dramas consist of episodes and therefore draws a distinct parallel between conventional theatrical events that entail different scenes or a series of scenes,

¹⁰⁴ These terms were also implicated in the work of Heathcote as elements of theatre craft and as in making the familiar strange and vice versa (reflecting a Brechtian orientation especially pertaining to the notion of alienation). ¹⁰⁵ Here Morgan and Saxton's (1987) differentiation between drama and theatre is useful. For them, drama is the meaning behind what happens, and theatre the means through which drama is expressed and manifested.



instead of one improvisational event as often applied in DiE (O'Neill 1995:xvi). According to Weltsek-Medina (2006), O'Neill "invented" the concept of the pretext which launches the participants in the Process Drama, via its strong emotional underpinning, into a fictitious world. She was first to refer to the concept of the pretext. Weltsek-Medina (2006) states as follows: "This 'pre-text' technique, developed by Cecily O'Neill, can facilitate the techniques of questioning and problem solving. Based on the given pre-text, the class is helped to generate questions, acknowledge themes, and begin to form the structure of the fictional world". O'Neill compares the pretext with the exposition of the traditional form of the drama where certain themes are introduced and the main characters and events revealed. The pretext enroles the participants and suggest the time and place of the Process Drama. It contains information of previous and future events to develop the theme or themes of the Process Drama.

In 1982 O'Neill and Lambert published a practical handbook for teachers. This publication introduces DiE as "a mode of learning" in step with Heathcote's belief of DiE as a pedagogical approach. In 1984 O'Neill and Johnson published a volume of writings on the work of Heathcote, confirming O'Neill's intrinsic respect for Heathcote's DiE theories. In O'Neill and Lambert's work, Drama *Structures (1984, 1990)*, they emphasize that the structure of the drama should override a linear plot for the drama. This means that the participants are not stimulated to ask "what happens next?", but rather encouraged to ask "why did this happen?" or "what are the consequences of this event in the future?" Thus, in line with Heathcote's pedagogy, the facilitator and participants probe deeper into the meaning of the drama by reflecting on the motives behind events in the dramatic episodes of the Process Drama. O'Neill built on the foundation of DiE to become one of the major players in the structuring of what has become known as Process Drama.

4.4 The methodology of Process Drama: an introductory overview

The research presents the framework of the methodology of Process Drama and explains how it integrates with the learning material of anger management. This



chapter refers only to some basic aspects of anger management skills, for example the concept of responsibility, meta-cognition, empathy and social skills. Chapter Six renders a full discussion on the learning material of anger management as an emotional competency. In this section the characteristics¹⁰⁶ of Process Drama will be discussed. This section opens with a brief introduction on the principles of Process Drama.

In Process Drama the participants and facilitator work in ensemble to explore problems, issues or situations of the real world through fictitious realities (O'Neill 1995:152; Bowell & Heap 2013:7), just as in DiE. The only precondition is that the participants should be willing to suspend their disbelief and collaboratively agree to abide by the laws of the fictitious world (O'Toole, Stinson & Moore 2009:106). The outcome of such a collaborative activity is to gain a better and more meaningful understanding of the "real world" through "living through" fictitious realities (Bowell & Heap 2013:7). Through dramatic conventions, such as role play, Mantle of the Expert (MoE), tableaux and/or improvisation, to mention but a few, as well as through various out-of-role activities, such as journaling and single or group reflections, the participant can consider a situation, theme or problem from a range of perspectives and evaluate his or her personal position in relation to those perspectives. These perspectives can hold a degree of dissatisfaction with the present reality that may serve as an agent of positive change (O'Neill 1995:152). Baxter (2011:132) suggests that such a degree of dissatisfaction could be brought about by asking Socratic questioning (as per Boal), meaning that participants should be questioned to a degree that creates puzzlement in order to stimulate thinking that may lead to a change in perspective.

Process Drama as pedagogy has the potential to train participants on a cognitive, emotional and social level (O'Toole, Stinson & Moore 2009:105). The methodology of Process Drama is creative and non-sequential as it is a holistic experience negotiated between the facilitator and the participants with an open-ended outcome that cannot be pre-planned (O'Neill, 1995). It is a unique process, never to be repeated in exactly the same manner (O'Neill, 1995: xiii). The rest of the chapter presents discussions of the elements and strategies of Process Drama methodology.

¹⁰⁶ O' Neill (1995:xvi) refers to the characteristics of Process Drama strategies to explain her theory.



The following section explains the methodology of Process Drama as it operates in two realities, that of the imagination, which is fictional reality, and reality itself, a strategy called metaxis.

4.4.1 The Process Drama methodology that employs metaxis: operating simultaneously in fiction and reality

The most pivotal strategy of this methodology is the fact that Process Drama operates in two realities at once. The methodology of Process Drama uses the strong emotional or controversial impact of a pretext from which the participants are launched into a fictitious reality by the facilitator of the Process Drama (Bowell & Heap 2013:78). The pretext can be drawn from a newspaper clip, poem, narrative or a story, as long as it can create a platform from which improvised action can be launched. The facilitator and participants agree to enter this fictitious "as if" world where the participants have the functional responsibility to "live through" certain roles (Bolton 1986:101). This is accomplished through the application of the conventions and strategies referred to earlier in this chapter, for example, role play, MoE and tableaux.

"Living through a role" is described by Weltsek-Medina (2006:3) as a way to enter the fictitious reality with others and interact with them while mutually influencing each other. It is a multi-layered process in which the participant is involved *in* the fictitious world, as well as observing *from the outside* what is occurring in this world. This concept is linked to the concept of metaxis, which means that one is mindful¹⁰⁷ of two realities at once – that of fiction and that of reality – and is therefore able to look from the outside into the fiction, and from inside the fictitious reality outwards towards the reality as one knows it (Boal 1995:43).

In order to lead the participants into this fictitious world of the drama, Morgan and Saxton (1991:19) advocate an educational drama strategy namely, the five-stage taxonomy of personal engagement, based on Heathcote's levels of student involvement. Such an engagement can be stimulated through intense involvement

¹⁰⁷ In this context mindful means being aware.



with the roles. Baxter (2011:134) proposes that the participant become involved with the will of the characters, their dreams and ambitious hopes. In the fictitious reality of the make-believe world the participants in role ask penetrating questions and solve problems experienced by people in difficult situations, or as Heathcote (in Johnson & O'Neill 1984) explains it, they have to solve "man in the mess"¹⁰⁸ problems. Heathcote (Bolton 1999:176), for example, placed her participants in problematic situations of desperation in order to encourage emotional involvement and meaning making.

Morgan and Saxton (1987:24) explain that once the participants take interest in the work and believe in the dramatic concept of the work, they become willing to offer their creative ideas in role.¹⁰⁹ If the participants and facilitator are immersed in the work, they begin to internalize the deeper levels of meaning and perhaps better understand multiple perspectives due to the experience. Morgan and Saxton have detailed the process of stimulating this immersion by guiding facilitators and educators through strategies (facilitated by Process Drama conventions) to move to the point of immersion, the taxonomy of personal engagement.

The taxonomy of personal engagement, as coined by Morgan and Saxton, consists of two concepts: the expressive, observable and physical frame that depicts the inner world of the cognitive and affective involvement, and the meaning frame, dealing with the understanding of the learning material. Morgan and Saxton (1987:21) state that "the full power of drama can only be realized when the inner world of meaning is harnessed to the outer word of expressive action". They further state that these two frames are interdependent.

The success of Process Drama depends on the way the facilitator captures the interest of the participants. Interest is demonstrated when the participants respond verbally and non-verbally through making eye contact and listening. The participants are willing to become involved in the expressive frame as they gradually personalize

unvertices and materials

¹⁰⁸ Man in this case refers to a human being and not only to the male gender.

¹⁰⁹ Hornbrook (1998:99) – questioning the extent to which participants can transcend their own cultural paradigms and value systems - explains that participants may only become divorced from their own cultural matrixes if they are granted full responsibility for their own learning. The participants and the facilitator should investigate diverse research materials regarding "human interaction, organisation and meaning" in ensemble with as few preconceived ideas and as little preference as possible for their own cultural point of view (Hornbrook 1998:99).



the learning material in the meaning frame. As they explore expressive ways of getting acquainted with the learning material, they become more emotionally involved in the process and this leads to the need to express the learning material physically.

The following level of personal engagement is therefore displayed when the participants are willing to participate cognitively, emotionally and physically in the learning process, to follow instructions and get actively involved in the learning material in order to understand its meaning. Participants who are committed to the learning process will display a high degree of creative investment in the work. They will internalize the learning material. Morgan and Saxton (2006:29) state that internalization implies that "the drive to understand is fuelled by feelings of excitement, concentration, perplexity and, often, anxiety. It is followed by feelings of relief, satisfaction, and calm". Internalization also implies that an "empathetic relationship with the new knowledge" has developed (Morgan & Saxton 2006:30).

If the learners are willing to discuss the meaning of the work and share their viewpoints in a reflective manner, they are engaging on an interpretative level with the learning material. In this instance they are willing to "reconsider their responses and adapt their conclusions in the light of new information" (Morgan & Saxton 2006:30). A final level of engagement, namely evaluation, is reached when the participants are willing to submit their findings to outside opinions. This taxonomy of personal engagement in the learning material leads to full ownership of the learning material.

During this process the participants hopefully become affectively and emotionally engaged with their roles. This engagement may become empathetic (as will be discussed in detail later in this section) when they identify with their roles. Bolton (1986:19) explains that Process Drama employs a, "as if" mental set outside of oneself to activate social, emotional and cognitive engagement. In other words, Process Drama creates platforms for learning from different perspectives.

These new perspectives are further attained as the participants de-role and contemplate and evaluate the experience of being in role in ensemble (Bowell & Heap 2013:6). One should take note that reflection and problem solving can also be



in role; it can be part of a scenario in the fictitious reality (O'Toole 1992; O'Neill 1995:80-84). By de-roling, debriefing takes place. The participants should be able to distance themselves from the fictitious reality in order to make decisions to further the process of the drama. Taylor and Warner (2006:3) describe the Process Drama of O'Neill as fluctuating moments of reflection and activity, or involvement and separation. In this manner the structure of the Process Drama consistently challenges the participant to participate on the one hand and evaluate on the other.

Process Drama thus creates an opportunity for the participants to interact with each other in problematic context as if the context was real. In addition, they need to reflect critically on the problem outside the parameters of the make-believe context as well. The teacher can move in or out of role depending on the outcomes to be reached (O'Neill 1995:62). Morgan and Saxton (1989:38) confirm that the facilitator joins the process in role but can simultaneously observe the process to monitor and manage its development. To conclude, O'Neill and Lambert (1990:11) speculate that the fictional world may be superficial and action orientated, but with the teacher's guidance and intervention it should be possible for the work to grow in depth. In creating and reflecting on the make-believe world pupils can come to understand themselves and the real world in which they live (O'Neill & Lambert 1990:11).

The methodology of Process Drama and learning how to manage one's anger require the same responsible ownership from the participant. The learning material of anger management as a life skill can only be effective if the participant takes full responsibility or ownership of his or her emotional life and its management (Wilding & Milne 2010). During a Process Drama programme on anger management the participants can enter the mediated anger in the world of fictitious characters in order to broaden their own experiences of anger and to look at anger from different perspectives through the fictitious reality and reality. The following section explains the methodology of Process Drama as a critical methodology.

4.4.2 Process Drama as critical methodology



Process Drama has the potential to help participants develop problem solving skills through the technique of questioning. Weltsek-Medina (2006:2) proposes that guestioning becomes a way to engage the student/participants in critical thinking skills". The facilitator is also constantly in a state of self-questioning. The facilitator should find ways to interrogate the participants in order to explore their belief systems that are revealed in their attitudes towards issues and themes. The learners should explain their actions and reflect about the consequences of their explorations. O'Neill (1995:139) underwrites this method developed by Heathcote and suggests that the questioning can be initiated by the TiR,¹¹⁰ as well as out of role at any given time in the process of the improvised drama. O'Neill (1995:105) has derived different types of questioning techniques from Heathcote's theories to aid the facilitator by prompting reflection (Wagner 1999). Some of them are questions to seek information, probe and stimulate thinking, prompt action, elaborate ideas, assess interest, help with decision making, control action, establish moods, elicit tension, feelings or conflicts and questions, and create belief in the fictitious reality (Morgan & Saxton 1989:71; Swartz 2002:35). Questioning prompts reflective engagement and therefore forms an intrinsic part of both DiE and Process Drama. Therefore, in contrast with mere rote learning, the learners must find their own answers to problems in a collaborative way, and obviously this learner-centred approach will aid memorization of learning material.

Process Drama may develop creative thinking skills. The notion of "possibility thinking" (Craft, 2002:111) is thinking that "encompasses an attitude which refuses to be stumped by circumstances, but uses imagination, with intention, to find a way around a problem". Karakelle posits that Process Drama stimulates divergent thinking skills:¹¹¹

Divergent thinking is essential to creativity as it involves thinking in multiple directions, seeking changes, and investigating. Its first element, fluency, is measured by the quantity of unconventional and associated ideas generated on a specific issue; and the second, flexibility, is measured by the number of associations that

¹¹⁰ Teacher in role (TiR) is one of the conventions of Process Drama that allows the teacher to become part of the fictitious reality. O'Toole, Stinson and Moore (2009:107) describe this convention as follows: "Teaching through a dramatic process entails suspending teachers' status, relinquishing some of their sovereignty over knowledge, even putting themselves in the hands of the students-in-role. This is daunting to many teachers". ¹¹¹ Divergent thinking can be described as "thinking that moves away in diverging directions so as to involve a

variety of aspects and which sometimes lead to novel ideas and solutions; associated with creativity" http://www.thefreedictionary.com/divergent+thinking.



relate to different fields. Exposure to a process of creative drama improves the fluency and flexibility thinking levels (Karakelle 2009:124).

Process Drama develops multiple perspectives and multiple ways of seeing the world by creating, through role play and other conventions, opportunities for participants to step into the shoes of other people by playing their roles. In Process Drama the participant is also prompted to use convergent thinking skills. Convergent thinking uses the problem as the source of information and works around the problem for the solution, whereas divergent thinking sources for information to solve the problem by exploring other options away from the problem (Cropley 2006). One can therefore conclude that both divergent thinking and convergent thinking skills are enhanced in a programme on anger management where the group is collaboratively involved in creative problem solving. In Process Drama the thinker moves away from simply answering questions about what, where and when, and has to move towards answers solving the higher order questions, namely how and why. In this study the participant pertinently has to explain how she can manage her anger. Process Drama creates a platform where the participants can explore their own anger management skills without revealing their personal problems with anger. The process is therefore one of self-discovery and finding solutions to the problem of destructive anger.

One of the main aspects of anger management is to be able to analyze one's anger and angry feelings in a rational manner (Ellis 2001). Process Drama as methodology offers ways in which participants can explore the motives behind their own anger and the anger of others. Writing in role, for example, encourages the participants to imagine why people get angry. The participants have to understand the subtext of their dialogues in order to write meaningfully.

Another Process Drama convention that is highly effective for developing higher order thinking skills is the MoE, as introduced previously in section 4.3 (Bolton 1995). This strategy introduces a problem that should be solved through cognitive, as well as emotional involvement. Baxter (2011:133) reiterates that the Freirian model of "problem-posing" in forms of Applied Drama creates a critical consciousness in the students that can help them, through interaction, to evaluate solutions and answers



to social and personal problems. In the next discussion the importance of empathy in role play as a learning strategy of Process Drama is presented.

4.4.3 Process drama is a methodology that fosters empathy

The outcome of this study depends on the way Process Drama scenarios can draw the participant into a make-believe world that sheds light on a real-life situation by moving through the taxonomy of personal engagement as guide. The participant has to be able to identify with and engage in the situation before any transformation¹¹² or change can take place (Morgan & Saxton 1989:29). The participant should not be "acting" the character¹¹³ in the role drama and should not "show" us how the character is feeling, as this will lead to artificial, codified results (O'Neill 1995:69). To "take on a role" means that the participant should not pretend to be a threedimensional character, but rather that the participant should take on the function of the role of the character in the drama and identify with the character's role. By taking on the function of the role the participant should identify with the character and this may create an empathetic stance towards the character. As so aptly described by O'Neill (1995:78), "(r)oleplay carries both the implication of a functional quality, as well as an instrumental and didactic purpose. In these cases, role is primarily defined by its function, and its instrumental purpose". Dalrymple (2005:166) confirms that "both role-play and theatre with their constructs of fictional worlds, provide space for young people to play out different identities with a focus on the consequences of a particular choice of behaviour".

According to Morgan and Saxton (1989:30), engagement with all five levels of the taxonomy of personal engagement can initiate the process of role identification leading to empathy. The participant can move to a level of "dramatic playing" where the participant is involved in activities that do not "require him(her) to be someone

¹¹² The term transformation in this context refers to a change either in outer form or inner attitude by the participant in role.

¹¹³ "Characterisation has been described as 'the outer clothing of the inner life'. It is the communication of a representation of a life style, and should not consciously be to create a theatrical effect. This is where students often think they should begin their drama work. These students tend to show a stereotyped interpretation of the role" (Morgan & Saxton 1989:33).



other than himself (herself)" (Morgan & Saxton 1989:31). Furthermore, the participant can engage in the role play by being "an expert", still as herself in a make-believe scenario. From this stance the identification can grow to role play where the participant has to represent a certain attitude or point of view, not necessarily her own (O'Toole 1992). Blatner (2002:2) postulates that role play develops a habit of shifting viewpoints. Through this taxonomy of expression of another's viewpoints the participant can identify with other frames of minds. This technique of role reversal helps the participant to understand the other person's situation as the participant engages on an empathetic level. Blatner (2002:2) states that "we must recognize that there are other realities than those promoted by pure rationality – intuition, imagination, emotion, physical action or experience – these can no longer be implicitly devalued in a hierarchy that dismisses such vitally real elements in human life". Morgan and Saxton (1989:32) explain: "It is the 'being' not the 'doing' that the 'me' is often suppressed in the interests of the role." Taking on a role presents an opportunity to experience other options of being and thinking, getting under the skin of another person without being exposed to the real-world consequences. O'Neill confirms:

Even the most limited and functional kind of role taking will demand some degree of self-transcendence, something that goes beyond the actual here and now. [...] Through theatre and process drama we can reinvent ourselves, discover what we may be, and live in what Heathcote calls the "no-penalty zone" of these powers and possibilities (O'Neill 1995:80).

Process Drama allows for the participant to step into the function of the role of the fictitious person and to step out of the role, having contemplated the motives of the fictitious person (O'Neill & Lambert 1990:3). This dual process of involvement and distancing encourages conceptual and contextual thinking (Weltsek-Medina 2006:4). This process allows the participant to move in and out of the embodied emotional experience¹¹⁴ in order to reflect on meaningful ways to manage emotions. Such an embodied emotional experience can be entered through role play where the participants engage in the function of the role they take on in the Process Drama. In so doing, one moves from reality to fiction and from fiction to reality (metaxis). Participants can be transported to safe "make-believe worlds" where people are in

¹¹⁴ Embodied, emotional experience refers to a state where the participant is physically and emotionally involved in the role of the character.



messy situations in order that some "self-transcendence" can take place and hopefully some transfer of knowledge may occur (Heathcote in Bolton 1999:176). This process should encourage the participant to become empathetically involved with the character, seeing things from the character's perspective.

To elaborate further, when the participant agrees to take on the role and submit to the make-believe reality, the process of empathy can occur. The prerequisite, however, is emotional engagement with the role via the taxonomy of personal engagement and operation in the meaning-frame. The following section presents various suggestions by drama practitioners of how dramatic conventions can stimulate emotional engagement. Heyward (2010:19) states that it can be challenging for the facilitator to assist the participants to achieve a level of emotional engagement with their roles in the Process Drama. He suggests that time should be allocated to the creation of the fictional reality, its time, space and social conventions. O'Neill's (1995) strategies confirm the fact that the participants should be included in a process where the social context and the rules of that context are agreed on.

Central to the practice of Heathcote and Bolton is the relevance of building belief in the dramatic world. Bolton (1992) explains that the participant should be able to move from a descriptive state of the drama, where the feelings of the character are artificially signalled, to an existential state¹¹⁵ where they can experience the emotions and feelings of the characters in the protected environment of the role play. Bolton (1992:57) suggests that emotions surface as a result of "life conditions being explored". He observes that improvisational acts, such as role play, have far more potential to engage the participant existentially than more scripted forms of drama. In order to engage the participants in this state the facilitator should lead the participants to trust and submit to the dramatic reality (Bolton 1992:11). Research confirms that when the facilitator takes on a role in the make-believe world, it demonstrates the facilitator's commitment to the drama and makes it easier for the participants to feel protected in that world (Bolton 1992; O'Neill 1995). O'Neill's Process Drama specifically focuses on the role of the facilitator to stay involved as

¹¹⁵ An existential state refers to a state of "being" in role and not mere "showing or signalling" as when one takes on the role of the character.



an operator of the structure of the Process Drama by negotiating constantly with the participants through in-depth questioning techniques. In this way the Process Drama facilitator "protects" the participant from losing focus of the issues that are being investigated.

Another strategy to enhance the process of emotional engagement with the role is to ensure that the participants know when and where they should enter and exit the dramatic world. In this instance the use of a routine of rituals and enroling/de-roling techniques can be of assistance. Heyward (2010:201) suggests that the use of recurrent signals to enter, exist in and exit the dramatic world contribute to safeguard the transformation from being in role to a state where one reflects on the role.

When the participants are engaged in the drama in an existential mode, as suggested by Bolton (1992), affective and cognitive engagement with the character can take place. Morgan and Saxton (1987:30) state that the participants identify with the role when they are engaged in the meaning frame of the role, as well as in the expressive frame. The participants can personalize the role when they represent the attitude or point of view of the role, represent the life style of the character, and even select physical signals to represent the character. Morgan and Saxton (1987:32) state, however, that this identification process occurs only when "being in role" and not so much "doing in role" as this suppresses the self-awareness in favour of character or role awareness.¹¹⁶ When this personal engagement takes place, empathy can occur.

Empathy is elicited on both the cognitive and affective levels (Rogers, Dziobek, Hassenstab, Wolf & Convit 2007). When the participant in role understands and feels the motives and feelings of the role portrayed, empathetic engagement is entered. Through empathetic engagement understanding can occur and hypothetically also a change of insight into an issue or situation of the role. Empathetic engagement can be defined as follows:

Emphatic engagement is the fostering of emotional involvement intending to create a coherent cognitive and emotional experience which results in emphatic relations

¹¹⁶ This indicates a state of metaxis, being both in the role of the character and being aware of being in role, observing the role from the inside out and the outside in (Boal 1995).



between the user and the synthetic character (Hall, Woods, Aylett, Newall & Paiva 2005:731).

One can therefore conclude that the participant is aware of and models the feelings and emotions in role through affective and cognitive interaction with the character. This enables the participant to experience the viewpoints and feelings of the character through personalized identification. This can hopefully enable the participant to empathize with the social and personal issues of the character that can influence the participant to be able to develop constructive solutions in real life.

Empathy is an emotional competency that is essential when one has to learn how to manage one's anger (Wilding & Milne 2010). Empathy – one of the most important thinking-feeling skills of emotional competence – is one of the main outcomes of role play as it offers an opportunity to stand in the shoes of another person and to perceive things from the character's perspective (Blatner 2000:122). It is important that the participants are exposed to empathetic engagement as a valued ingredient for assertive negotiation, and when resolving conflict, is able to empathize with someone else (Wilding & Milne 2010, Kindle version). Baxter (2011:137) argues that "the creation of dramatic scenes has the potential to be a catalyst for feelings to be expressed". Transporting the participants into situations where they have to identify with a character's feelings creates an opportunity for them to understand the mechanisms of anger and the motives of the character from their personal perspective. In the next section Process Drama as embodied methodology is explained as learning is not only an intellectual and affective concern, but also physiological.

4.4.4 Process Drama as an embodied methodology

In the previous section the importance of empathetic learning was explained. In this section Process Drama as embodied methodology will be investigated. Ackroyd states that the body plays an important part in the process of learning:

My bodily actions serve as the landscape through which I am able to think. My body has begun to experience the world differently because I have been engaged in the fieldsite, in circumstances that were previously unknown to me and now I have begun



to experience my own world differently and so my landscape has shifted (Ackroyd 2006:141).

Learning used to be perceived as mainly a cognitive activity (Jensen 2001:7), but is currently considered a holistic body cum mind cum emotional experience (Caine, Caine, McClintic & Klimek 2005). The interconnectedness of body, mind and emotions processing is confirmed by Hannaford (1995:13) and Jensen (2008:40) who state that sensorimotor integration is fundamental to learning activities. LeDoux (2002:9) explains that "[m]ost systems of the brain are plastic, that is modified by experience, which means that the synapses involved are changed by experience". This multidisciplinary perspective involves the whole person – brain, mind, emotions and body – in the learning process. "Bodymind learning and knowing can be cognitive or extra-cognitive, conscious or unconscious"¹¹⁷ (Munro & Coetzee 2007:102).

The power of Process Drama as educational tool therefore derives from its embodied immediacy. Learning material is not only verbally discussed, but also embodied in the present moment. This embodiment of the role of the character occurs when the participants physically present the character, not so much signalling a physical difference as in the case of acting, but rather identifying physically with the character by "being" in role. This refers to Merleau-Ponty's (1964) concept of the "body-subject" in which experience begins with the body and extends via awareness into the social world. Embodiment, as a noun, refers to a way of knowing, embedded in the interplay between the body, the brain and the environment (Damasio 1995). Embodiment is therefore by definition a multimodal experience that "entails the interplay between bodies, components of bodies and the world in which the bodies live" (Krieger 2005:351). Wright explains this pedagogical process as follows:

Drama generates meaning through two inter-related elements, embodied experience and focused reflection upon embodied experience. Each element informs and "educates" the other: action feeds into knowledge and knowledge feeds into action (Wright 2004:79).

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¹¹⁷ Cleeremans (2001) confirms the fact that learning can be unconscious as follows: "Freud's characterization of the 'dynamic unconscious', however, makes very specific assumptions — specifically that there exist unconscious mental representations and that these representations can reflect semantic and affective dimensions of processing. Further, the unconscious, as Freud depicted it, is as dynamic and causally efficacious."



Process Drama, as an applied construct, encompasses the pedagogical process that involves physicality and practicality, such as body, voice and space, moving from the abstract to the concrete, offering a platform for somatic learning (Nicholson 2005:57). Nicholson (2005:57) describes the application of drama activities as a way to expose learners to explore reality through fictitious worlds and metaphors.

The term embodied pedagogy is explained by Nicholson (2005:57) as the physical engagement of the participant, involving the whole person, cognitively and affectively, thus incorporating thoughts and feelings. This way of knowing can be observed when the whole person is involved in the exploration of meaning; when feedback is given not only on a cognitive level, but also through sensory awareness, physical explorations and reactions, as well as affective engagement. Exploring anger management in a physical and emotional manner can intensify the learner's involvement and hopefully deepen insight, as well as stimulate the memorization of the material. As Nicholson confirms:

On an entirely practical level, drama is composed of material elements, of bodies and voices in space, and the physical embodiment of knowledge and understanding is integral to the art form itself (Nicholson 2005:56).

Anger is physically displayed in and through the body. It is therefore a prerequisite that anger management learning material should incorporate opportunities in which the participants can learn how to identify the expression of anger through the voice and the body. Learning about the expression of anger is one of the aspects of the definition of emotional intelligence as explained by Mayer and Salovey (1997:10). The physical manifestation of anger implies the secretion of adrenaline. The methodology of Process Drama presents opportunities for learners to experience mediated anger and practice techniques through which they can learn how to manage their anger. The next section introduces Process Drama as a learner-centred methodology; in other words, a methodology that places the responsibility of the learning process on the shoulders of the learners themselves.

4.4.5 Process drama as a learner-centred methodology



Process Drama as a derivative of DiE is a learner-centred methodology that compels the learner to take ownership of the learning material and to be co-responsible for the learning process. The purpose of this empirical examples in the study is to provide students an interactive participatory experience through Process Drama in order to explore the emotion of anger and its management. Process Drama is a dramatic process that involves the learner as co-creator of the learning process, the fictional world and its meaning. The following paragraph explains how a convention of Process Drama creates an opportunity for learner-centred learning.

One of the strongest conventions promoting this learner-centred approach is the MoE. As previously indicated, this convention empowers the participant to become an expert in a certain field of knowledge by furnishing him or her with resources on the subject. Weltsek-Medina (2006:2) describes this convention as an active learning opportunity that engages the learners by making them choose what information should be applied in order to solve a problem. The participant in the Process Drama is encouraged to be an agent of change and participate in a learner-centred, interactive and experiential learning moment. The facilitator encourages the participant to take responsibility and ownership in the fictitious, as well as in the real world of the Process Drama through role play – wearing the MoE in the fictitious world and reflecting in the real world on what has been learnt.

According to Ellis (2001:25), anger management requires self-regulation. Assertiveness implies that one has enough self-belief to make one's own needs known in order to curb aggressive relationships. Process Drama stimulates self-regulation as it entrusts the responsibility for the learning process to the hands of the learner. Anger management requires the acceptance of ownership for one's own anger recognition. In so doing one can observe that Process Drama and anger management incorporate learner-centred opportunities as important building blocks for learning. In the following section the educational implications of Process Drama as a collaborative learning methodology is presented.

4.4.6 **Process Drama is a collaborative learning methodology**



Process Drama introduces a collaborative learning experience in which the individual learns from the input of the group and vice versa (Gallagher 2001:5). Chinyowa (2009) explains that people-centred participation should focus on process rather than product (as is the case in Process Drama). He suggests that the facilitator should bestow partnerships by seeking for diversity rather than uniformity and not patronize the participants. Baxter confirms:

The performance is a text that is collectively or socially constructed, making meaning of their lives for the participants. That meaning is negotiated through the process of participation (Baxter 2011:138).

The facilitator forms part of this collaboration and introduces the "entrance" to the "dramatic elsewhere" via the strong catalyst of a pretext. This form of social learning is highly effective when teaching adolescent females as they prefer learning in social environments, according to Crawford (2007). In their article, *Power in their hands: The outcomes of Acting against Bullying Research Project,* Burton and O'Toole (2009) report on a ten-year Process Drama research project and conclude that peer teaching is a highly effective strategy to empower learners to deal with complex issues.

Inclusive interaction enhances self-esteem in learners. Reasoner (1994) posits that self-esteem relies on five concepts, namely competence, security, purpose, identity and belonging. The facilitator of a Process Drama programme should include the whole group in an interactive process where emotional competence is enhanced in a secure, purpose-filled environment. In this environment acceptance of different individuals should create the group coherence of belonging. Exclusion from a group can lead to feelings of low self-esteem, alienation and deviancy. Dalrymple (2006:207) reiterates the fact that most forms of educational drama develop a sense of self-worth and self-efficacy¹¹⁸. She states that the teaching of life skills includes the development of communication, negotiation and planning skills and these relate directly to the development of self-efficacy or self-esteem (Dalrymple 2006:207).

It is the responsibility of the facilitator to see to it that all learners are included in the study (O'Neill & Lambert 1990:27). The learning environment for an anger

¹¹⁸ Dalrymple (2006:207): "Self-efficacy means having a feeling of competency to adopt a recommended behaviour.



management programme should be embedded in a social construct in order to encourage interactive learning possibilities.

Anger management has social implications. Emotional competency skills imply that one is socially intelligent. Emotional competency and anger management require the ability to deal with the emotions of others and manage one's own emotions (Mayer & Salovey 1997:10), as discussed in Chapter Six. A prerequisite for an anger management programme should be collaborative learning as anger is embedded in relationships. The following section posits that Process Drama enhances metacognition.

4.4.7 Process drama as fostering meta-cognition and multiple perspective thinking

Imagined worlds are created and maintained by the participants and the facilitator by taking on a variety of roles in the different episodes of the Process Drama. The TiR role invites the participants to improvise in the imagined world, as well as to contemplate the meaning of this world in real time through various dramatic conventions and reflections (O'Neill 1995:126). This means that participants are able to hold two worlds in mind at the same time, that of the dramatic and that of real life, as explained in the section 4.4.1 on metaxis. It is in fiction-making that one finds another perspective to look at the world (Bolton1999:278). Baxter (2011:133) calls it a "dialectic tension between ignorance and education". This creates an opportunity to think critically about one's thinking and to reflect on one's insights (Baxter 2011:133).

Process Drama consequently creates accessible opportunities, called meta-learning, in which the participants learn about the way they learn. O'Neill (in Wagner 1999:6) posits that "(t)he essential nature of the dramatic medium is a liberating act of imagination, a dual consciousness in which the real and the fictional worlds are held together in the mind". This study employs Process Drama to create such fictitious moments in order to explore anger and its management. In so doing, meta-cognitive



insight and multi-perspective views on how one is managing and can manage one's anger have been developed.

Providing the participants with various incidents of anger displays creates avenues for learning how to cope with different conflict situations involving anger and aggressiveness. The participants can take part in these fictitious dramatic moments and reflect afterwards on how anger could have been managed in these incidents. The participants are stimulated to think about anger and how they handle their own anger (Ellis 2001). The next section demonstrates Process Drama as an experiential methodology.

4.4.8 Process Drama as experiential learning

Process Drama immerses the learner in a practical experience of the learning material and this integrates well with the methodology of experiential learning. Silberman (2007:8) defines experiential learning as a mode of learning that involves the learners in practical, hands-on activities to experience what they are learning, as well as rendering an opportunity to reflect on the learning process.

This definition confirms experiential learning as both a practical and a reflective experience. Process Drama is similarly a form of experiential learning that focuses on practical exposure followed by reflective thinking. Boud, Cohen and Walker (2000:8-14) posit the following essential criteria for experiential learning:

- experience should stimulate and form the basis of experiential learning;
- the learning process involves the whole person body, mind and emotions;
- the learning environment is socially and culturally constructed;
- the learning process is influenced by the socio-emotional context.

Kolb (1984:26) proposes that learning should focus on the process and be embedded in continuous experiential learning, resonating with Process Drama ideals.



When Process Drama is seen in the light of the aforementioned criteria of experiential learning, one can make the following assumptions: the conventions of Process Drama are group activities that can instil in the participants the desire to explore the symbolic meanings of the learning material. When applying the taxonomy of personal engagement in the expressive frame, the participants interpret the learning material emotionally and physically with a view towards empathetic understanding of the realities of others. This involves the whole-person – body, mind and emotions – in a learning frame (Morgan & Saxton 1989:19). Process Drama conventions introduce cultural experiences of language and art that take place in a social milieu. The learning experience of Process Drama conventions involves emotions and cognition simultaneously. Role play connects the participant-performer to the emotions of the character so that the participant can experiment with different possibilities of outcomes in a safe space.

The aforementioned discussion indicates that Process Drama aligns well with the criteria of experiential learning. To conclude: the core principle that sets this methodology apart from others is the fact that the participant is emotionally, physically and cognitively engaged in a fictitious reality and then disengaged to reflect on the experience. This leads to outcomes such as critical, learner-centred reflection, empathetic awareness, embodied learning, social interaction, meta-cognition and multiple perspectives of practical, experiential learning. The next section of this chapter is an exploration of the conventions that are employed to create fictitious realities.

4.5 A brief discussion of conventions of Process Drama applied in this study

Generally speaking, Process Drama employs activities, conventions and the craft of the worlds of drama and theatre for educational purposes (Bolton 2000:28). Process Drama theory lists certain conventions or dramatic strategies that are employed to explore the problem posed in the Process Drama from various perspectives. There are currently about eighty conventions or Process Drama strategies, according to Bowell and Heap (2013) and Neelands and Goode (2005). Examples include role



play, hot seating, thought tracking, writing in role, improvisation, tableaux, dialogues, mime and dramatization. Only a small number of Process Drama conventions or elements will be used in the workshops of the empirical examples. These conventions are briefly discussed. This chapter focuses on dramatized poetry as one of the sample conventions of Process Drama that creates a safe space for the dramatic exploration of anger and ways to manage these emotions.

4.5.1 Primary conventions applied in this study

4.5.1.1 The convention of Teacher in Role (TiR)

This convention was introduced in section 4.3 of this chapter. This convention can serve to empower the participants as experts to become more responsible for the dramatic action, whilst the facilitator or TiR can still influence the action in role (Piazzoli 2012:31).

4.5.1.2 The convention of the Mantle of the Expert (MoE)

In this convention the participants take on the roles of experts and become responsible for their own learning (Weltsek-Medina 2006:1). This convention was introduced in section 4.3 of this chapter.

4.5.1.3 The convention of role play and writing in role

Hertzberg (2003:2) explains that role-taking helps the learners to experience the social situation of the role by putting themselves "in the shoes" of the role they are presenting as discussed in section 4.4.3. of this chapter. Heyward (2010:197) reiterates the fact that role play intensifies the emotional engagement of the participant in "issues of human concern". Role play in writing as if one is the character is another option where each participant can prepare a monologue or



where two participants prepare a dialogue that depicts the viewpoint of their characters. The participants can therefore prepare their presentations well which is more difficult with improvised role play in which they have to improvise impromptu. Role play takes place in the fictitious reality where the participant can be challenged by mediated emotional experiences in a safe environment (Heyward 2010:197).

4.5.1.4 The convention of tableaux

Participants can create still images to depict a certain scene. As there is no dialogue involved the participants can form a tableau in a short time. This convention is easier to manage than that of improvisation. The tableau can be used to further the story line. The facilitator can also ask the participants to reveal the thoughts of their characters in role whilst in tableau, a convention known as thought tracking.

4.5.1.5 The convention of visualization

This convention is meditative. The participants should close their eyes and visualize a certain scene or event. By so doing a fictitious world is entered through the imagination of the participant.

4.5.1.6 The convention of rituals

Rituals in a Process Drama serve as a way to create a pattern of expectancy and serve as familiar signs through the unknown journey in the Process Drama. The crystallizing technique of rituals, according to Morgan and Saxton (1987:141), focuses attention to "provide moments which will act as keys", open up a new section of the drama, and "comment through the Universal or the Paradox to promote reflection". According to O'Neill (1995:148), rituals on content can present some social commentary. Chinyowa (2009:332) states that rituals can create new forms of reality or lead the participant into a make-believe world. This was applied in



the empirical examples where the participants were enroled and de-roled through a ritual.

4.5.1.7 The convention of dramatized poetry

(Will be discussed in detail in the following section)

4.5.1.8 The convention of group reflection

During the reflective phase of a Process Drama the participants reflect on their experiences and make them known during a group discussion. Reflection can also be done privately or written down in journals.

4.5.1.9 The convention of journaling

This is a form of private reflection. The fact that their reflections are documented can assist a Process Drama researcher in the analysis of the drama. It also serves as a way to consolidate what participants have experienced. The following section will discuss the convention of dramatized poetry as a means to convey anger management learning material.

4.6 Positioning the Process Drama convention of dramatized poetry

Parts of the learning material to convey anger management skills are addressed through the Process Drama convention of dramatized poetry. Blank and Flynn (2006:2) explain: "In education, arts integration refers to the incorporation of an art form and another content area into lessons so that the objectives in both subjects are addressed". In the empirical examples the kinaesthetic art of Process Drama is combined with the literary art form of poetry. Process Drama can be classified under



the kinaesthetic arts, for example, mime, dance and drama, and falls under the tactile form of art-making where movement is a way of expressing meaning (Jensen 2001:71). This section introduces dramatized poetry as an artistic, kinaesthetic expression of a literary art form that exposes the participants to the consequences of anger through the eyes of two poets.¹¹⁹

Recent educational research has explored the arts as a strategy for deeper learning (Burton, Horowitz, & Abeles 2000; Eisner 2002; Upitis & Smithrim 2002; Hughes & Wilson 2004; Snyder, Mitchell, Bossomaier & Pallier 2004; Irwin, Wilson, Kind, Grauer & de Cosson 2005; Stevenson & Deasy 2005; Naray 2009;). For the purposes of this study the term "the arts" includes the creative and performance arts, as well as the literary arts.

According to the *International Handbook of Research in the Arts* edited by Bresler (2007:xvii), the academic profile of the 21st century is characterised by "the softening of boundaries" between different academic domains, as stated by Detels (1999). Expressive arts research has gained influence in the domain of qualitative research during the past two decades (Richardson 2002). Denzin and Lincoln (1994) postulate that arts-based methodologies have gained ground in educational circles. Furman, Langer, Davis, Gallardo and Kulkarni (2007:302) state: "Indeed, expressive arts researchers seek to magnify the intensity of the affective experience of people, whereas traditional researchers seek to 'cool down' data via their presentation in research reports". Langer and Furman (2004a) suggest that "(p)oetry has become an increasingly valuable tool for social investigators utilizing expressive arts". Bresler (2007) advocates cross-fertilization among art disciplines. It is in the interest of this research study to take note that Bresler (2007: xix) includes the art of poetry and literature in the domain of the arts. Bresler (ibid) justifies the inclusion as follows:

Literature and poetry, though often not included in the institutional and political "arts" umbrella, share with the arts a deep aesthetic tradition and rich scholarship, as well as aesthetic goals, contents and pedagogies (Bresler 2007: xix).

The boundaries of domains are therefore modulated regarding the discipline of education and that of the arts. Arts-based learning is all about making meaning (Naray 2009:2). Naray maintains that the process of making meaning is a multimodal



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activity and that arts-based learning facilitates this multimodal process for all learners. An operational definition for learning can be based on Naray's (2009:2) statement that "(I)earning is the process of making sense or creating meaning from experiences". An art activity and a learning activity evoke personal and social connectedness, creative insight, meta-cognition and the ability to use multiple symbolic and metaphorical systems.

Art and learning both investigate problems and question existing hypotheses. According to the research of Frank Smith (2003), human learning relies on the triumvirate of imagination, social inter-connectedness and identification. He posits that learning is motivated by the engagement of the imagination and opportunities to make meaning and communicate with others.

Employing the arts as a methodology validates the use of dramatized poetry as a convention of Process Drama. Efland (2002) states that the arts address social meanings that promote communication. Stevenson and Deasy (2005) confirm that the arts develop ownership and responsibility. The primary focus of this study is to enhance the emotional competence of female adolescents by capitalizing on dramatized poetry that serves as a catalyst for emotional insight into anger management. Firstly, one has to define the terminology of dramatized poetry as referred to in this study.

Dramatized poetry is poetry that expresses the levels of emotion and meaning through acts of embodiment and envoicement. Dramatized poetry enables the participant to physically express the content of the poem by cognitively and affectively expressing meaning through a series of symbolic movements or appropriate vocal interpretations (Berry 1992:104). For the purpose of the empirical section of the thesis the convention of dramatized poetry will not be performed to an audience. The purpose of the dramatization is purely to express the poetry physically and vocally in order to strengthen the participants' awareness of the meaning of the poetry. The Process Drama convention of dramatized poetry should not be confused with the art form of performance poetry or action poetry. The rationale behind Performance poetry and action poetry is to express the poetry, as well as to



communicate the meaning of the poetry to society. Action poetry can be framed as follows:

Action poetry is poetry put into action, a kind of poetic action-research that intends to change social life in a poetic way. As poetics relate to meaning-making processes, action poetry can be framed into didaction, an action that is aimed to change society in an educational way (Tochon 2000:1).

The actual oral performance of poetry dates back to the pre-literate societies. The poems were transmitted orally, employing repetition, alliteration and rhyme. Poetry predates <u>literacy</u> and has been recited or sung. Poetry has since developed into increasingly structured forms due to the development of writing and the printing press. In the pre-literate societies poetry was used to recall historical events or to praise the gods. Poetry is often closely related to musical traditions. Examples of oral poetry could be traced back to the rhymes of the ancient Greeks and the psalms of the Bible. The oral tradition of poetry thrived in Africa over the centuries in the form of folk tales, myths, funeral dirges and praise poems (Finnegan 2012:6).

The term "performance poetry" originated as a postmodern phenomenon. During the 1950s, the Canadian poet Cid Corman (1999) began to experiment with what he called oral poetry. This involved spontaneously composing poems into a tape recorder. Allen Ginsberg was to take up this practice in the 1960s. In the 1980s Hedwig Groski (2006) coined the term to describe her audio recordings that were globally transmitted via radio. Perhaps most famously, the writers of the Beat generation were noted for performance events that married poetry and jazz. Many contemporary British performance poets have been influenced by punk poets and reggae poets and hip hop. The current post-colonial¹²⁰ African communities are taking a growing interest in the art form of performance poetry (Mnensa 2010:iii).

One should also differentiate between the domain of Process Drama, as educational methodology, and that of Drama Therapy,¹²¹ an area of healing, developed mainly by Robert Landy (1986). Taylor (2003) posits that forms of drama and theatre stimulate awareness, open up alternatives, heal psychological pain, facilitate relevant

¹²⁰ Post-colonial African countries: This refers to the postcolonial period in Africa after colonialism took place. Post colonial literature is opposed to colonialism and often focuses on race relations (www.enotes.com/postcolonialism).

¹²¹ Drama as therapy is the "deliberate application in order to alter attitudes, change behaviour and help with confronting and dealing with psychological disorders or emotional or behavioural enlightenment" (Langley 2006:1).



discourse on important issues, and give a voice to the marginal and the voiceless. Drama Therapy has a specific intent to change and is applied by a qualified drama therapist who follows a specific model. Langley (2006:1) emphasizes the similarities between drama and Drama Therapy. She states that theatre, drama and Drama Therapy can all have therapeutic outcomes as they deal with participants' emotional insight.

In this study the strategy of dramatized poetry is the chosen methodology to foster anger management skills as social learning, and not to administer anger management therapy. Such therapy will be designed to psychologically engage a patient who wants to stop yielding to anger spells, whereas the teaching of anger management skills leans towards a training process in the domain of emotional competency life skills. It is, therefore, important to understand that the purpose of this study is not to use poetry as therapy, but only to draw on elements from Poetry Therapy's strategies in order to convey emotional competency skills. Therapy is used to solve a specific problem. The anger management emotional competency training empowers the participants with a life skill that can help them deal with a problem whenever and if it arises. As substantiated in depth in Chapter Three of this study, it can be valuable for the adolescent to be aware of the fact that it is possible to manage her anger and to be aware of her own anger displays. The poetry therapist is a professional medical healer of a patient who struggles with anger. The National Association of Poetry Therapy (NAPT) bestows professional credentials to Bibliopoetry therapists who have met its stringent criteria. According to Boone (2006:1), Poetry Therapy can be defined as a form of expressive arts therapy that is being used increasingly by psychologist and other mental health workers, perhaps because of the healing value of its emotional expressiveness (Boone 2006:1).

Reiter (1997:169) posits that Poetry Therapy and Bibliotherapy both apply literature for emotional and moral growth. The facilitator of an anger management programme is a drama practitioner who teaches emotional competency to empower participants to know how to handle their anger skilfully. The participants of a Process Drama programme are in no way seen as patients with anger problems. Process Drama conventions, however, such as dramatized poetry, may employ certain Poetry Therapy strategies as preventative education.



When the outcomes of Poetry Therapy as explained by Reiter, (1997:171) are compared with the goals set for emotional competency training, they are found to overlap in some instances. These are, for example, the enhancement of self-awareness, interpersonal relationships, reality orientation, self-expression, self-esteem, positive thinking, communication, stress regulation, and finding and making meaning (Reiter 1997:171). Perlin (2009:xvii) states that Bibliotherapy need not be limited to mental illness only, but can be applied to solve a range of social and interpersonal problems. The methodology of dramatized poetry can be used as a vehicle to train the performer/participants in the emotional competency skill of anger management. The programme therefore proactively prepares the adolescent to manage the emotion of anger when necessary.

4.7 Motivating the use of dramatized poetry as a Process Drama convention

4.7.1 Why this study employs the literary art form of poetry as Process Drama convention

Central to this study is the application of poetry as a catalyst to develop insight into anger management skills for adolescent girls. The following section investigates the characteristics of the literary art of poetry. The choice of poetry as a means to facilitate deeper emotional learning is explained in the following sections.

4.7.1.1 **Poetry serves as a metaphor of meaning**

A poem employs metaphors of meaning that can transcend preconceived beliefsystems and communicate openly and creatively with the receiver. The studies of Lakoff and Johnson (1980) investigate how metaphors are significant tools that learners can use to develop ideas and understand abstract concepts. Marzano, Pickering and Pollock (2001) advocate the importance of understanding the key role of metaphors in learning and meaning making. Ihanus (2005:77) explains that creative metaphors in poetry evoke alternative experiences, in other words, poetry



opens up associations with the given metaphor. Ferris and Stein describe the strength of the metaphor in expressive art as follows:

Based on metaphor and symbol, myth and enduring stories widen the field of one's perception. Drawing on the etymology of metaphor, meaning to transfer or cross over, the expressive arts build bridges between past and present, between one's own story and the heroic journey it represents (Ferris & Stein 2002:42).

The power of the metaphor in poetry lies in the creation of imagery that can break down existing belief systems and break dysfunctional thinking patterns to promote change. It forces the individual to surrender some control of their thinking to the organized experience portrayed in literature (Reiter 1997:173). It enables the reader to experience something verbalized or depicted through the image of the metaphor that is perhaps shameful or "unspeakable" (ibid). The metaphor in poetry is multilayered. It can give a different perspective on an issue that is less confrontational and threatening to the participant. Poetry has the ability to conceal and reveal through the use of metaphor. The participant has the choice to discuss personal issues through the metaphor of poetry and is not obliged to discuss issues that are "too close to home" (Boone 2006:2). One can therefore regard the dramatization of poetry as a "distancing technique" utilized by the Process Drama methodology of metaxis when the learner is both subjectively identifying herself with the poem and simultaneously reflecting on the meaning of the poem. The poem serves as a conversation piece that can draw some opinions or feelings from a participant who is not prepared to speak about her personal experiences. The poem can therefore speak for the person and represent her feelings and thoughts. The poem becomes a metaphor to create an alternative ego-state¹²² for the reader.

Hellar (2009:23) explains that when engaging in poetry, the participant interprets the characters or the voice of the poem as that of her own voice. This leads to an empathetic bonding with the voice in the poem that can elicit emotional reactions. Such an experience has the power to go beyond personal boundaries and one's own frame of reference, creating a new awareness of the virtual reality of the poetic presence, and this can alter the cognitive mind map (Hellar 2009:22). Hirsch

¹²² "Ego states are a consistent pattern of thinking, feeling and behaviour" (Spenceley 2013) that can become the "self" of the person.



(1999:289) confirms that metaphors create relations between things that the reader has not noticed before and through these new relations, new thoughts are created. "Metaphor(s) offers alternative ego states" (Hellar 2009:22). Poetry, as well as any other literary genre, has the power to create awareness. Awareness can be described as the total experience of the individual on a physical, sensory, intellectual and emotional level (Yontef 1979:29).

4.7.1.2 Poetry enhances intra-personal growth

Perlin (2009:xvii) states that using poetry to explore feelings differs from literary studies as it does not analyze the poem on a literary level, but rather explore the personal meaning of the poem. Poetry has the capacity to communicate and produce multiple meanings on a personal and social level. Chavis and Weisberger explain as follows:

When we read or hear a poem, our senses, hearts, minds, and souls all participate in the act. Because poems elicit responses at so many levels, they often function as vehicles for enlightenment and healing (Chavis & Weisberger 2003:2).

Boone (2006:3) maintains that numerous anecdotal case studies have proved that poetry is a powerful tool to facilitate the emotional healing of adolescents as it reduces the participants' feeling of isolation. Reiter (1997:171) states that adolescents benefit from reading and writing poetry because poetry creates an avenue for the expression of emotions. Poetry can provide an acceptable space for venting potentially explosive feelings. Furman et al. (2007:303) confirm that poetry is a valuable resource in understanding the lived experience of the adolescent as poetry explores the developmental realities of human beings throughout their lifespan. The anti-isolation power of poetry is confirmed by Hellar (2009:23) who maintains that poetic language is charged with emotional language that communicates with the reader on the cognitive as well as the affective levels. As Reiter (1997:173) explains: "I suffer' said the man, 'Not you alone', said the poem". Process Drama presents various levels of identification with the pretext or the poem. In Process Drama the facilitator leads the participant to the taxonomy of personal engagement in the meaning frame and the taxonomy of engagement in the



expressive frame. Through this scaffolding process the facilitator can test how Process Drama moves to deeper levels of meaning and expression in order to create empathy for the various characters in the drama (Morgan & Saxton 1987:21).

Poetry concentrates with a condensed focus on an issue. Dunlop (cited in Bresler 2007:1257) states that "(p)oetry addresses a need among us, a form of close attention, an acute listening to the world. (...) Poetry revitalizes language, for it is the art of using words charged with their utmost meaning". As Bolten (2004:596) explains in his book review, *Poetry Therapy by Mazza*, (p)oetry offers a succinct form, and use of image which can have the power to take the writer right to the heart of the matter. Combine this with some rhythm, as comforting as a heartbeat, and lullaby-like repetition of sound and you have a powerful mix (Bolten 2004:596).

Unlike prose, a poem is constructed in a rhythmic pattern so that it can reach the unconscious¹²³ levels of thought and feelings, and in so doing it intensifies the meaning of the words in order to use it to express specific rather than general ideas. These thoughts and feelings often express needs, as Dunlop (cited in Bresler, 2007:1257) suggests: "(P)oetry becomes a source of humanism in dark times". The outcry of human passion in a rhythmic incantation strengthens its emotionality. Poetry therefore serves on an intra-personal level, revealing emotions to the receiver through the power of metaphor and words that have been studiously chosen.

4.7.1.3 Poetry enhances inter-personal growth

Poetry also opens up the inter-personal communication platform for social selfdisclosure. Mazza (2003:17) reveals poetry as a catalyst for self-disclosure that facilitates social interaction and validates feelings.

The concept of universality in the discourse of poetic literature should not be literally interpreted. The fact that poetry supposedly elucidates universal feelings does not

¹²³ The subconscious is used in many instances as a replacement for the unconscious mind. Freud (1978:19) explains as follows: "If someone talks of subconsciousness, I cannot tell whether he means the term topographically – to indicate something lying in the mind beneath consciousness – or qualitatively – to indicate another consciousness, a subterranean one, as it were. He is probably not clear about any of it. The only trustworthy antithesis is between conscious and unconscious."



make it a strategy to benefit the agenda of a dominant group or specific worldview. The participant can read a poem that explains a specific feeling someone else has experienced. The participant may be able to identify with the poem as it communicates that one is not isolated when feeling similar emotions. It lifts one from isolation and destroys loneliness (Mazza 2003:17). If the poem is read by a group it creates a communal interest between people and opens up an opportunity to share thoughts and feelings about certain issues.

The concept universal¹²⁴ in dramatized poetry brings about empathy with the feelings of others or creates an empathetic platform for the latent feelings of those working within the parameters of a poem and the social context in which learners operate. Perlin (2009: xviii) confirms that poetry offers a platform for self-disclosure in a group and that it serves as a means of expression for emotional afflictions. This may not have been shared if the vehicle of the poem was not present. Poetry that is explored in a group can therefore generate new cognitive insight into emotional states and may open up avenues to explore coping skills. Hellar (2009:23) advocates the power of poetry to enhance social interaction with the environment as it creates solidarity with others. The immediacy of the poem creates a shared metaphor that forms a connection between participants. Poetry can therefore, possibly, be a valuable tool to investigate emotions and emotional manifestations such as anger.

Poetry contains metaphors of meaning that has the inherent power to deepen the learning process. It creates a personal awareness of one's own emotions, as well as a collective awareness of the emotions of others. Poetry opens up learning spaces for both meta-cognition and meta-emotion.¹²⁵ The next section contains a discussion on how the addition of the Process Drama convention of dramatized poetry deepens the awareness of the poetic experience. This section elucidates the rationale behind the application of poetry as a literary work. The next section focuses on the

¹²⁴ Dorothy Heathcote uses the term "dropping to the universal" to explain how the facilitator of a drama programme should lead the participants to comprehend on a deeper level that it is not only about individual suffering, but also about apprehending situations from a universal perspective (Wagner 1999).
¹²⁵ The meaning of meta-emotion is synonymous with meta-cognition; it means to have insight into one's own emotions.



methodology of *dramatized* poetry to support learner engagement with the learning material of an anger management programme.

4.7.2 Dramatized poetry as a methodology to intervene in an anger management programme

Dramatized poetry augments the implementation of poetry as a literary art form. The following section affirms that dramatized poetry opens up avenues for learning through its physicality, enhances emotional competence and stimulates creative energy as a multimodal learning process.

4.7.2.1 The Process Drama convention of dramatization of poetry as physical action for learning

When creative drama is used as a means to express poetry, the awareness of the poetic experience is enhanced through the engagement of the motor-cerebellar system. The brain-based principle that all learning is physiological is explained in Chapter 5.3.2. Perlin (2009:xviii) suggests that in order to dramatize the poem or enact the poem through the convention of dramatized poetry, one can first employ a step-by-step process to analyze the meaning of the poem.

Perlin (2009) and Reiter (1997) propose that the reader should integrate the poem into his or her own life. They do not explicitly suggest that physical action should be part of the process, although it is an option in Poetry Therapy. For the purposes of this study the process of incorporation will be used literally. The exploration of the poem through voice and body has the potential to intensify the poetic experience. This last stage leads to an intense integration of the feelings of the individual's own reality with the mediated reality in the literature.

This transformation process from "page to stage", from the literary art form to the kinaesthetic art form of dramatized poetry, challenges the participant/performer holistically. Munro and Coetzee (2007) propose a model that promotes the



multimodal integration of body, mind and emotions when engaged in the act of dramatization. According to the Revised Whole-Brain Model of Munro and Coetzee (2007:103), as presented in Chapter 5.4.6, the integration of body, mind and emotions is paramount. During the creative enactment process of poetry, the abilities of the participant/performer from all four quadrants of different thinking styles are engaged through body as well as emotions. In this manner, the dramatization of poetry can deepen the learning process by involving the body, mind and emotions of the participant/performer holistically because it creates discourse between the metaphorical quadrants.

4.7.2.2 Dramatized poetry enhances emotional intelligence

The application of dramatized poetry can enhance the strategy to stimulate emotional competencies. Employing poetry without dramatization limits the experience of the participant to physically express the emotional meaning of the poem. Through physical expression the learning process is deepened. One not only feels the emotion and understands the meaning of the intellectual meaning of the metaphor, but one also sees and feels it in motion. The convention of dramatized poetry complements the outcomes of the emotional intelligence model as described by Mayer and Salovey (1997:10). According to Mayer and Salovey (ibid), emotional intelligence aims to facilitate the identification, understanding, expression and management of emotions on intra-personal and interpersonal levels. When a poem is therefore employed to create insight into the management of anger as an emotional competency, the physical expression of the poem, amongst other factors, can develop the participant's ability to identify a range of different primary and secondary emotional expressions in the poem. When the dramatization takes place the physical and auditory images of emotions are explored and expressed.

The poem is analytically and creatively explored in order to express the metaphors of the poem by means of the medium of the Process Drama convention in space. The social engagement and disclosure of the participant's understanding and experience of the poem in group relation can open up avenues for a better group understanding

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of the poem. The participant is less isolated in his or her experience of anger when finding common ground with others who are involved in the enactment process. Reiter confirms (cited in Hellar 2003:3) that "paradoxically, poetry is the celebration of singularity and plurality, oneness and togetherness, uniqueness and universality all at once". The inclusion of dramatization in poetic explorations can enhance the awareness levels of the experience.

4.7.2.3 Dramatized poetry stimulates creativity

Not only can the convention of dramatized poetry enhance emotional competencies, it can also stimulate creativity. The stimulation of creative thinking leads to enhanced problem-solving skills (as presented in Chapter Six). The purpose of this study is to enhance the competency of anger management in the adolescent female. Adding a creative level to the learning process may challenge the participants to approach their own anger from a different perspective. Research has shown connections between the creative expressions of art-making, communication skills and the development of student creativity (Bresler 2007:1257). Creativity stimulates the skill to find new solutions and generate various new strategies when approaching familiar concepts to develop novel ideas. Sternberg's research (2003) posits that creativity is one of the most important abilities that a learner can acquire.

It can be concluded that dramatized poetry as a convention of a Process Drama methodology a) applies the whole body-mind and emotions in the learning process – which is the best practice for adolescent learning; b) expresses emotions verbally and physically and in so doing heightens the emotional awareness that stimulates emotional competency; and c) stimulates creativity during an exploration process, involving the body, the mind and emotions. This section endeavours to explain the benefits of poetry as a literary convention of Process Drama, as well as a dramatized convention of Process Drama, in order to focus on the benefits of both of these genres for an anger management programme. The next section demonstrates in table form how the building blocks of the methodology of Process Drama coincide



with those of the convention of dramatized poetry and the basic concepts of the learning material of an anger management programme.

4.8 Summary

The following table indicates how the methodology of Process Drama and the convention of dramatized poetry connect with the learning material of anger management.

Building blocks of the Methodology of Process Drama	Building blocks of the convention of dramatized poetry	Basic concepts of the learning material of anger management skills
Process Drama methodology operates in fiction and in reality	Poetry opens up avenues into the fictitious worlds of the text in which the participant can experience other realities than his or her own	Process Drama creates a safe space where the participant can explore the consequences of anger through fictitious material and reflect in real time on his or her findings
Process Drama as critical methodology	Poetry works with abstract metaphors and meaning that stimulate critical thinking skills	One has to be able to think rationally about one's anger and should be able to analyze one's anger
A learner-centred methodology	A learner-centred convention that places the learner in the position of ownership of the learning material	The participant's own anger behaviour forms part of the learning material
Process Drama is a methodology that fosters empathy through role play	Poetry elicits empathy as it is an affective medium that deals with one's own feelings ¹²⁶ and those of others. The participant can identify with the voice in the poem and in so doing empathize with	In order to manage one's anger one should empathize with others. Process Drama as methodology presents occasions where the participant can identify with the anger of

Table 2A comparison between Process Drama, dramatized Poetry and
learning material of anger management

¹²⁶ The relationship between affect and empathy: According to Preston and DeWaal (2002) empathy consists of cognitive and affective components. Hoffman (1988) states that empathy is a vicarious affective reaction based on one's cognitive understanding of another person. Empathy can therefore be more cognitively inclined when one affectively understands the feelings of another, or it can be affectively inclined if one responds emotionally to another's feelings (Duan & Hill 1996: 261 - 271). Affective understanding underpins the understanding of one's own emotions and feelings, whereas empathy deals with one's understanding of the emotions of others.



	the voice in the poem	others in order to understand their own anger better
Stimulates meta-cognition and multi-perspective thinking	Enhances personal growth as the learner learns more about his or her own feelings and thinking, as well as viewing issues from different perspectives	To be able to manage one's anger implies meta-cognitive skills. The participants have to be able to analyze their own thinking and see conflict situations from more than one perspective
Process Drama is a collaborative learning methodology	Dramatized poetry implies dramatization in ensemble	Anger and angry feelings influence social relationships in a negative way. It is therefore imperative for the participants to learn how to control their own anger as it can have negative social consequences for themselves and others
Process Drama is an embodied teaching and learning methodology	Dramatization of poetry is a creative and physical process in which meaning is expressed and experienced through actions	Anger is experienced in and through the body
Process Drama is an experiential methodology that can simulate angry situations in which the participant can safely practise anger management skills without damaging relationships	The convention of dramatized poetry creates avenues to experience the anger of others in a practical way as the act of dramatization mediates the emotions of anger	Anger is displayed in real-life situations. A methodology that can create situations of mediated anger in which the participant can safely practise anger management skills without damaging relationships can be valuable

Chapter Five confirms the effectiveness of Process Drama as a methodology from a brain-based educational perspective. The purpose is to scientifically investigate how and if Process Drama contributes to the overall development aspects of the adolescent learner; in other words, how the methodology of Process Drama enhances emotional and cognitive insights, deepens recall, stimulates social skills, and whether it challenges the learner with regard to life skill learning material. These questions are addressed in the next chapter in a discussion on how Process Drama strategies adhere to twelve brain-based principles based on neuroscientific education.



CHAPTER 5: HOW THE CONVENTIONS OF PROCESS DRAMA ADHERES TO THE PRINCIPLES OF BRAIN-BASED EDUCATION

5.1 Introduction

The focus in Chapters Two and Three falls on how the brain generates emotions of anger and related emotions. The brain development of the adolescent female is discussed, as well as the way she displays her anger. The methodology of Process Drama as chosen methodology to convey anger management strategies is presented in Chapter Three. Process Drama strategies are described as follows: Process Drama is a critical, experiential methodology, operating simultaneously in fiction and reality, fostering empathy with a learner-centred approach and a collaborative, embodied style that enhances meta-learning via metaxis. This chapter explores the methodology of Process Drama according to brain-based principles of learning and investigates how the methodology complies with various neurologically substantiated, educational principles. The strategies of Process Drama, as discussed in the previous chapter, are therefore viewed in the light of neuroeducational principles. Brain-based principles integrate with long-standing and current pedagogical theories in guiding facilitators to make informed educational decisions (Jensen 2008). According to Sousa (2006), neuroscience has shown how the brain processes, interprets and stores information and this has positive implications for education.

This chapter interrogates whether Process Drama endorses neuroscientific educational principles and also probes concepts related to adolescent learning, such as meta-cognition, collaborative learning, self-regulation, student ownership and guided reflection (Crawford 2007:viii). In recognizing the adolescent's need for active and experiential learning, social interaction and personal learning management, Process Drama offers a whole-body,¹²⁷ challenging, collaborative and democratic learning experience (Crawford 2007:x). Seen in the light of neuroscientific educational principles, adolescence is an opportune time to challenge learners with

¹²⁷ Neurologists agree that the attention of adolescents is captured through sensorimotor experiences (Kolb 2000; Tilestone 2004; Davis 2001; Wilson 2001).



complex learning material as they experience a growth spurt regarding their brain development (Wilson & Horch 2002:57-61).

Substantiating Process Drama's effectiveness and applicability through the use of brain-based educational principles will greatly benefit the anticipated empirical outcomes of this study. Brain-based education and the methodology of Process Drama both have the objective to replace textbook learning with experiential and meaningful learning strategies. Duman (2006:2) argues that a variety of experiences, such as role play, the use of metaphors, music, drama and art can stimulate learning. This is confirmed by Jensen (2001) who states that the kinaesthetic arts¹²⁸ stimulate the brain as they are based on neurological principles of learning.

Finally, all the different strands under discussion are summarized in a table at the end of this chapter to present a synopsis of how the methodology of Process Drama integrates with brain-based principles and the adolescent female learner's developmental profile. The chapter commences with an introductory discussion on brain-based education.

5.2 Introduction to brain-based education

Over the last two decades education based on neurological principles has developed as a valid, scientific field (Hanna 2005). Slavkin (2004:38) defined the discipline of brain-based education as any teaching technique that utilizes information about the human brain to organize how lessons are constructed and facilitated. This practice emphasizes how the brain learns naturally (Slavkin 2004:38).

The connection between cognitive and biological science and education has become a focus in pedagogy (Sousa 2006:3). According to Jensen (2008:4), brain-based education implies learning strategies based on principles derived from an

¹²⁸ Jensen (2001:71) states: "Kinesthetic arts can be dramatic (dance, drama, mime, theater, musicals)", and he links them to Howard Gardner's (1999) bodily-kinaesthetic intelligences, enhancing "critical neurobiological systems" such as the perceptual-motor system, cognition and emotions. Process Drama as a derivative of drama can potentially stimulate bodily expressions, emotions and cognitive growth. (There are two different spellings of "kinaesthetic", but this is of course acceptable as the first is American and quoted, and the second your preference.



understanding of the brain. Jensen (2008:134) posits that the brain-based learning process is an activity in which the search for meaning is innate. Meaningful learning is defined by De Jager (2006:8) as a process that presents creative problem solving through the acquisition of skills and knowledge in order to reach an outcome of understanding and new meaning making.

Brain-based education approaches the learning process not only from a neuroscientific perspective, but includes behavioural, psychological, social and educational viewpoints in its quest to find optimal learning strategies. Brain-based education follows a multidisciplinary approach. This is confirmed by Damasio (2001:1) who states that the relation between brain systems and complex cognition and behaviour, can only be explained satisfactorily by a comprehensive blend of theories and facts related to all the levels of organization of the nervous system, from molecules, and cells and circuits, to large-scale systems and physical and social environments (Damasio 2001:1). Thus, meaningful learning can only exist if the whole person is integrating the learning content on a physical, cognitive, social and emotional level.

There are, however, researchers who are critical of brain-based education. Some of these researchers argue that the brain is too complex a structure for teachers to apply these seemingly simple principles. Bruer (2006) suggests that teachers should ignore neuroscience and rather pay attention to the work of psychologists and cognitive scientists. He indicates that in neuroscience there are too many popular simplifications and that too many theories on how the brain learns are based on animal brain research. The findings of brain-based educational research, however, are based on the work of cognitive neuroscientists and confirm the work of psychologists. Tokuhama-Espinosa (2011), a leader in Mind, Brain and Education Science (MBE), argues that cross-germination of knowledge has derived from the discipline of cognitive science, neuroscience and psychology, and can synthesize to develop a novel theoretical structure for learning substantiated by all three fields. Educators may, for example, observe that peer teaching reduces stress in the learning environment and leads to better retention. Evidence is found in the psychology field that cooperative learning reduces stress (Rubin & Herbert 1998;



Kerka 1999; Henderson & Buising 2000). The neuroscientific field has produced evidence that learning is enhanced when there is an atmosphere of relaxed alertness, low in threat and high in challenge (Lupien, Maheu, Tu, Fiocco & Schramek 2007).

The rationale why this study investigates how Process Drama as methodology adheres to brain-based principles is introduced in the following discussion. This study has so far gathered information about how the brain generates emotions, how these emotions influence the body and how anger is presented in the brain and body. Brain development has also been taken into account in the discussion on the development of the adolescent. In the study the brain is regarded as the locus of knowledge regarding emotion generation and human development, and is consequently also the foundation on which a comprehensive framework for teaching and learning is built. Over the past three decades new technology has led to an increase in information about how the brain learns (Politano & Paquin 2000). The foundational principle of brain-based learning is that human learning occurs in the integrated organism of the body and the brain (Jensen 2001:73). Learning is therefore an active, holistic activity. Process Drama comprises the same kind of learning activity in which mind and body are integrated in the learning experience. Furthermore, Process Drama regards emotional involvement in the learning process as imperative for the learning experience, whilst brain-based learning principles recognize emotion and cognition as one entity that influences learning and memory (Politano & Paquin 2000:19). Thirdly, both Process Drama and brain-based learning regard meaning making in the learning process as a higher priority than merely receiving and processing information. The learning activities in both the methodology of Process Drama and drama activities are often viewed as kinaesthetic art. The brain-based approach is geared towards investigative, exploratory learning which places the learner in the centre of the learning process to find and make meaning (Jensen 2001:77). Lastly, Process Drama adheres to the brain-based principle that meaningful learning is achieved through social collaboration (Politano & Paguin 2000:16). These factors serve as rationale to probe deeper into the subject of braincompatible learning in order to validate Process Drama as best practice for adolescent life skill learning.



Brain-based education is a pedagogical approach based on an accumulating body of experiential evidence (Jensen 2008:2). Sufficient research has been conducted to indicate that brain-based principles have confirmed many long-standing interdisciplinary theories of teaching and learning. In the next section the twelve principles of brain-based education and strategies (Caine, Caine, McClintic & Klimek 2005) as prime choice for adolescent learning129 are discussed. As brain-based principles integrate with each other, a recurrence of some concepts can be observed.

5.3 The principles of brain-based education complying with Process Drama conventions and the development phase of the adolescent female learner

The brain-based principles are discussed on the basis of research by, amongst others, Feinstein (2009), Crawford (2007), Sylwester (2007) and Sousa (2006). Their research focuses specifically on brain-based principles that take adolescent development factors into account. The brain-based principles, as suggested by Crawford (2007:25) who relates them specifically to adolescent learning, comply with the twelve basic principles that are laid down by Caine, Caine, McClintic and Klimek (2005). Crawford focuses on how the brain-based principles relate to adolescent learning patterns, whereas Caine and Caine concentrate on the principles as general parameters for learning. The twelve brain-based principles by Crawford (2007) and Caine and Caine (1991) are explicated in the following table:

Table 3The twelve brain-based principles according to Caine and Caine
(1991) adhering to the adolescent female's development

The brain-based principles according to Caine and Caine (1991)	The brain-based principles adhering to the adolescent female's development (Crawford 2007)
1. Learning is a physiological event as the	Crawford (2007:14) proposes that learning

¹²⁹ The term adolescent refers to the adolescent female.



brain submits to physiological rules	experiences for adolescent learners should engage them physically and create strategies for interactive participation
2. The brain learns best in a social, collaborative environment	Crawford (2007:14) states that the adolescent's social needs thrive in structured group interactions
3. Making sense of experiences is an innate survival-learning process of the brain	The adolescent female learns best when the learning material is relevant and current in content (Crawford 2007:5)
4. The brain searches for meaning through patterning	The adolescent learner needs to relate new experiences to prior learning in order to make sense of the new material. At this development stage the adolescent craves stimulating and meaningful learning opportunities (Crawford 2007:6)
5. Emotions influence our learning because emotions and cognition can not be separated	The adolescent learner needs to make emotional connections when learning (Crawford 2007:4)
6. The brain simultaneously processes wholes and parts as it can function on several levels at once	The fact that different parts of the brain can be learning at the same time has become increasingly relevant when applied to the developing adolescent brain (Crawford 2007:11)
7. The brain perceives what is directly in its field of focus while simultaneously focusing on that which lies beyond its attention	Educators of adolescent learners are encouraged to capture these learners' attention through novelty and sensorimotor activities (Crawford 2007:6)
8. Learning takes place in the conscious and the unconscious mind	Adolescents should be provided with meta-cognitive, creative and reflective experiences in order to process the learning material as learning is both a conscious and unconscious process (Crawford 2007:6)
9. There are two important memory styles, namely the spatial and episodic memory that endeavours to add meaning to an event, and systems for rote learning	Crawford (2007:14) argues for the employment of the spatial, episodic memory system that makes learning more meaningful for the adolescent. Crawford (ibid) states that to memorize irrelevant information does not enhance adolescent cognition
10. Learning takes place parallel to the developmental phase of the learner	Adolescent development tendencies should be taken into account on a personal, intellectual and social level (Crawford 2007:11). The adolescent should be confronted with challenging learning experiences
11. Learning is inhibited by threat and takes place optimally when the individual is in a challenging environment	According to Crawford (2007:7), the adolescent learns best when in a relaxed environment of acceptance and respect. The learning material should excite the adolescent learner and challenge

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	her optimal abilities
12. Although brains contain the same functional systems, each brain's systems are uniquely integrated	Crawford (2007:4) argues that the cognitive needs of the adolescent female learners are distinctive

In the following section the brain-based educational principles are discussed. Each discussion is followed by information on how Process Drama conventions adhere to these principles. In Chapter Eight a detailed analysis demonstrates how the Process Drama conventions¹³⁰ of role play, Mantle of the Expert and dramatized poetry have been applied as primary conventions in the empirical examples, and how they practically adhere to the principles of brain-based education.

5.3.1 The brain-based principle: all learning is physiological

The brain-based principle that all learning is physiological is based on the premises that the brain and body is one entity and that learning is a whole-body and brain concern, as discussed in Chapter 4.4.4. There is comprehensive evidence that physical activity improves cognitive functions. A study by Schmidt-Kassow, Deusser, Thiel, Otterbein, Montag, Reuter, Banzer and Kaiser (2013:1) indicates that light to moderate physical activity during encoding benefits the recall of new items. There is a growing trend away from the traditional textbook teaching style to implicit and experiential learning (Jensen 2001:74). Reber (1993:88 – 110) suggests that implicit learning implies more hands-on, practical, experiential and demonstrative learning that involves physical activities. Such learning activities engage a great variety of brain systems, and more than traditional learning does with textbook-oriented teaching processes (Jensen 2001:72). Schmidt-Kassow et al. (2013:1) argue that several studies provide evidence that light exercise promotes cognition and recall by enhancing neurotransmitter activity and oxygen saturation. Jensen (1998:83)

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¹³⁰ In the empirical programme other conventions have also been applied. The main focus, however, is on the conventions mentioned here.



substantiates the improvement of learning as a physical concern offers the hypothesis that the motor system is involved in learning processes.

The motor system, consisting mainly of the cerebellum, is not only largely responsible for movement, but is also involved in the cognitive and emotional life. The cerebellum¹³¹ takes up one tenth of our brain mass and contains half of the neurons in the brain. Schmahmann and Caplan (2006:290) maintain that one should not limit the cerebellum's function to motor coordination. The cerebellum is also responsible for learning and emotions. Movement boosts the cerebellum's connection to the frontal cortex (Jensen 1998:83). Physical activities facilitate the release of neurotrophins in the brain that enhance growth and interconnectivity between the cerebellum and the prefrontal cortex. This interconnectivity enhances the brain's ability to solve problems (Sousa 2006:73).

Any physical activity increases the blood flow to the brain areas, helps to regulate moods, stimulates the working memory's functions and helps with stress release (Crawford 2007:14; Jensen 2008:41; Sousa 2006:73). Griesbach, Hovda, Molteni, Wu and Gomez-Pinilla (2004:129 - 139) confirm that physical exercise can boost the release of the chemical, brain-derived neurotrophic factor¹³² (BDNF) that increases the ability of neurons to communicate or fire together. Sousa (2006:74) posits that sporting activities and activities such as drama can potentially enhance cognitive performance, as well as the long-term potentation¹³³ (LTP) of memory in the hippocampus. Learning is therefore well integrated with physical functioning. Any sporting activities, drama or other forms of kinaesthetic activity can serve as both pleasurable and cognitively stimulating (Sousa 2006:74). Illeris (2005:92) conclusively postulates that learning begins with the body and takes place through the brain, which is also part of the body, and only gradually the mental side is separated out as a specific but never independent area of function (Illeris 2005:92). The following section indicates how Process Drama adheres to this brain-based principle of education.

¹³¹ Refer to Appendix A for a description of the cerebellum.

¹³² Refer to Appendix A for a description of the brain-derived neurotrophic factor.

¹³³ Refer to Appendix A for a description of long-term potentiation.



Process Drama conventions – for example, role play, Mantle of the Expert (MoE), tableaux and specifically dramatized poetry – can enhance what Gardner (1993, 2004) defines as kinaesthetic intelligence. When Process Drama conventions apply physical activities and hands-on practical actions that integrate the whole body and brain in time and space, learning can hypothetically be improved. Process Drama supports kinaesthetic intelligence as participants pursue meaning physically, vocally and emotionally. Nicholson (2005:9) confirms that active and physical engagement in drama enables students to develop new understanding and forms of knowing which may not be so accessible in other, more traditional¹³⁴ ways of learning (Nicholson 2005:9).

Hannaford (1995:97-98) maintains that thoughts and feelings can be shaped by movement into actions and words through which ideas can be communicated. As Process Drama provides a learning opportunity that integrates body, mind and emotions in a positive environment, it can consequently promote synaptic growth. The way in which the brain is cognitively stimulated by incorporating physical activities during learning procedures is a complex interplay between various brainbody systems. In order to execute a movement, body-nerve impulses are sent to the appropriate muscles. Each impulse creates a cortical reaction. Each muscle has to move at a specific time to activate a movement sequence. A specific pattern for a specific movement is called a cerebral code or a spatiotemporal pattern (Calvin 1996). One can therefore assume that Process Drama conventions that involve intense physical actions can stimulate the brain – when one activates the body, one is using more of the brain (Jensen 2001:72).

Rokotnitz (2011:78) explains that when a participant performs an action, her body engages with the content of the action in ways that her conscious mind cannot. Rokotnitz (2011:78) states that learning through the body intensifies the learning process. Crawford (2007:25) indicates that physical activities, such as role play, improvisation, dance, dramatization and tableaux, are of great value to the adolescent's neural development. The adolescent female has to come to terms with her "new" body. Positive physical experiences help to encourage the acceptance of a

¹³⁴ Traditional ways of learning refers to the typical handbook learning where the learner is not physically involved in the process but only listens to the teacher as a "talking head" presenting information.



newly integrated physical and intrapersonal identity. The adolescent female can therefore benefit from the brain-based principle contained in Process Drama, namely that all learning is physiological. Learning is not only physiological but also enhanced when social collaboration is involved.

5.3.2 The brain-based principle: the brain-mind is social

Social collaboration stimulates learning (refer to Chapter 4.4.6). Campbell, Campbell and Dickinson (2004:159) posit that social or collaborative learning (see Process Drama as collaborative learning in Chapter Four) enhances achievement, accelerates learning, improve retention and recall, resulting in positive attitudes towards learning. Sousa (2006:117) argues that peer influence can be negative or it can curb negative influences and become a motivating force. Peer influence is fostered by mirror neuron activity in the brain (Blakeslee & Blakeslee 2007:163; described in Chapter 2.2.4 and Chapter 3.3.5). People learn by mimicking each other (Hannaford 1995:57; Sousa 2006:115). Social integration leads to an increase in synaptic connections of neurons and the generation of new connections (Caine et al. 2005:50). Continuing research on these mirror neurons demonstrates that people react on and gain knowledge from interpersonal behaviour. People are affected by the habits, routines, language and principles of those in the same social group (Caine et al. 2005: 51; Sylwester 2007:16; Sousa 2006:117).

A prerequisite for successful collaborative learning is individual accountability (Campbell et al. 2004:159). The principle that the brain-mind is social presents the opportunity to learn effective group conduct. Process Drama creates a space for learning in a social environment in negotiation with the facilitator who ensures that the learning process is focused and effective. Specific roles of responsibility should be assigned to the various group members. Ordered sharing is one concept of effective group conduct proposed by Caine et al. (2005:42). This technique is employed in a relaxed and stimulating environment where participants really listen to each other, communicate and give feedback on insight attained.



Jensen (2008:203) confirms that the philosophy of collaborative learning must be incorporated in a brain-based curriculum through the appreciation of diversity, the ability to express oneself in a complex social world, teamwork, cooperation and conflict resolution. The concept of social learning adds value to the brain-based principles and adheres to the intrinsic social structure of Process Drama.

Process Drama as methodology presents an opportunity to interact on a social level with peers. Nelson and Finneran (2006: xi) suggest that drama presents ways to enable adolescents to explore problems in safe surroundings and by using metaphors to render different viewpoints on a matter. The creative requirements of a drama methodology are to express emotions and ideas in a relaxed environment of acceptance and support. In such an environment social contact and bonding can create a culture of friendship and group cohesion (Jensen 2001:80). Group interaction, offered by the convention of, for example, dramatized poetry, coincides with the need of the adolescent to fit in and belong. Crawford (2007:8) states that the adolescent is motivated to learn when there is social interaction and when she is given a fair amount of responsibility (refer to Chapter 4.4.5). The adolescent learns better when she is allowed to interact in a group. Caine et al. (2005:49) state that the result of social collaboration on learning is significant and cannot be ignored in the educational community. The adolescent needs to be seen, heard and belong in order to become a mindful¹³⁵ individual.

The notion that social acceptance and inclusion in a group is of great importance to the adolescent female has been confirmed by researchers of various disciplines (Louw et al. 2004:449; Crawford 2007:3, 11). Ramachandran and Oberman (2006:64) explain that the adolescent's mirror neurons shift focus from family influence to mirroring the behaviour of their peer group and what is suggested through the media. Sylwester (2007:81) acknowledges that the adolescent brain craves exploration and seeks out autonomy and interactivity.

The engagement of participants in the process of conventions, such as dramatized poetry, MoE and role play, can stimulate an empathetic awareness amongst the

¹³⁵Being mindful is a state of "being aware of one's sensory experience in the present moment" and is a state of experiencing "curiosity, openness, acceptance and love" that can improve one's wellbeing (Siegel 2010:259).



participants (refer to Chapter 4.4.3). Empathy, according to Arnold (in Morgan & Saxton 2006), implies both affective attunement and cognitive engagement that manage a response towards another person's emotional and cognitive states. Hoffman (2000:4) reiterates the fact that affective awareness occurs when one responds to emotions in terms of oneself, whereas empathetic engagement takes place when one responds to one's emotions in terms of others. The participant may develop an empathetic understanding of the plight of others that may find themselves in similar human distress as the character the participant is portraying. Through such affective and cognitive¹³⁶ engagement the brain connects meaningfully to learning material that holds some emotional value for the learner. Emunah (1995:161) argues that drama, in a social context, helps participants to express feelings through movement and voice in such a way that empathy with each other's plight is enhanced. Jensen (2001:80) explains that interaction with peers in kinaesthetic art activities in a learning and working environment lays the foundation for acceptable social behaviour in the life of the adolescent. O' Toole et al.'s (2009:86) research concludes that dramatic strategies offer "whole-class peer teaching" and "new social networks" that contributed positively to the social and empathetic development of the learners.

Another aspect that contributes to the development of the adolescent learner is the brain-based principle that the search for meaning in the learning process is innate; this is discussed in the following section.

5.3.3 The brain-based principle: the search for meaning is innate

The search for meaning is innate in human beings (Jensen 2008:134). Learners want to understand what they are learning and why they are learning it. Process Drama presents such a critical learning opportunity (refer to Chapter 4.4.2). In1998, Adler posits in his theory on learning that one learns something if one needs to obtain the knowledge for survival. Thus the brain first registers familiar information

¹³⁶ Hoffman (2000:4) explains that empathetic engagement is a two-way process that engages the cognitive and affective understanding of another's situation.



while simultaneously responding to new material as a survival principle. Jensen (1998:93) states that relevance is an important factor in learning. The brain can relate to new information when it contains something that is familiar to the learner. The learning material should be connected to existing patterns in the brain in order for it to relate to the information. As learning is personalized and placed in human context through Process Drama conventions, such as role play or improvisation, the learner becomes familiar with the meaning of the learning material through experiential engagement. This engagement process can follow a pattern where emotions are first identified and then affectively understood in terms of one's own experience by means of the character one presents. The understanding of one's own emotions in relation to the character one portrays may lead to empathetic understanding, as discussed in the previous section, is one of the main outcomes of Process Drama. A learner who is engaged in the material on an emotional level finds it easier to access the meaning of the learning material (Jensen 1998:93).

Facilitators of learning programmes should capitalize on the principle that the search for meaning is innate and challenge the learners to explore the meaning of learning material through speculation, questioning, experimenting and hypothesizing. This offers participants the opportunity to simultaneously engage with the complex detail of an issue, but also be able to look at the bigger picture with more integrated and deeper understanding (Thomas & Mulvey 2008:241). Efland (2002) posits that complex learning is possible through artistic confrontation. As Process Drama depicts immediate situations of human life, the awareness of the characters and situations is enhanced and in this way the perception of the situations is intensified. This may lead to a better understanding of the complexity of the situations (Somers 1996:108).

The dramatic convention of dramatized poetry, as well as other conventions of Process drama, corresponds with the principle that meaning making is innate to learning. Eisner (2008:212 in Narey) argues that drama creates practical experiences to explore life in order to create meaning. During the creative process of dramatic enactment one is constantly searching for meaning through concrete and abstract concepts. As concepts are improvised or dramatized in time and space, in



other words, expressed through body and voice, abstract concepts are made concrete and concrete images can be understood in abstract terms.

In Process Drama the facilitator has the opportunity to lead the participants through the taxonomy of personal engagement¹³⁷ (Morgan & Saxton 1987:24) into a frame where meaning and meaningful discoveries can be made. Morgan and Saxton (1987:23) state that "since meaning involves thought and feeling, before any learning can take place there must be interest". In order to interest participants in learning material, Crawford (2007:5) suggests that emotional and cognitive connections with previous experiences should be made. According to Crawford (2007:5), the adolescent learns best when the learning material makes sense in a larger context, confronting relevant real-life content. Crawford reiterates that the subject matter should be meaningful to the adolescent learner and make a difference in her life. In other words, if the learner can personalize the content as relevant to her life and understood in terms of her own emotions, it may lead to empathetic understanding of the meaning of the emotions and feelings of others.

The process of meaning making in Process Drama seeks to accommodate prior learning and awakens the interest of the participant. Thereafter the participant is led into a symbolic world of make-believe where the relevance of life is explored and expressed emotionally and cognitively (Morgan & Saxton 1987:24). Reflection, deroling and debriefing always conclude the process in this methodology. The participants are interrogated informally but intensely to give their opinions of their experiences and to voice their own conclusions of their perceived meaning of the learning material (O'Neill 1995). Process Drama conventions adhere to the brainbased principle that making meaning is innate to learning. The following paragraphs investigate how the search for meaning is conducted through patterning and building on the concept that the search for meaning is innate to learning.

5.3.4 The brain-based principle: the search for meaning is conducted through patterning

¹³⁷ See Chapters Six and Seven for detailed discussions on the taxonomy of engagement, as posited by Morgan and Saxton (1987).



Patterning entails the meaningful and consequential sorting out and classification of information (Hannaford 1995:87). Meaning making entails searching for logical and meaningful patterns (Caine et al. 2005:149 – 150). The brain is focused on recognizable patterns; it can perceive and generate patterns. The brain refuses to accept pointless and meaningless patterns that are forced upon it. Educational lesson plans¹³⁸ should therefore recognize the importance of prior knowledge in order to help the learner to identify existing patterns to accommodate new knowledge. As explained in the previous section, Process Drama facilitates the use of prior knowledge in the introductory process to Process Drama episodes (O'Neill 1995).

The following discussion provides more information about the types of patterning that can influence learning processes. Illeris (2005:93) explains the different types of patterns that are acquired throughout a one's life. When a pattern is originally established it is called cumulative learning. This kind of learning is mechanical; for example, one learns the digits of a pin code, or a telephone number that can only be recalled through a process of automation and conditioning. The second kind of patterning is assimilative learning where a pattern is linked to an existing pattern or scheme (Illeris 2005:94).

Thirdly, accommodative patterning takes place when a new subject is learned by means of accommodative or transcendent learning. This type of learning implies that one breaks down sections of an existing scheme to be able to accommodate new knowledge; thus one reconstructs what has been understood and gains new insight (Illeris 2005:94). Exploring abstract metaphors and ideas in plays, poetry, role play or improvisation by means of enactment is a reconstructing process (refer to Chapter 4.6). The embodiment and envoicement of ideas transform old insights into new ones.

In Process Drama participants do not only deal with tangible issues but have to acquire insight into and question social behaviour, abstract philosophies and

¹³⁸ Fisher (cited in Sunal, Wright & Bland 2004) states: "Evidence supports Anderson's (1990) claim that students who engage in explicit knowledge construction should be better able to retrieve and apply their knowledge than students who do not."



interpersonal relational conflicts. Adolescence is a period during which the ability of learners to think abstractly increases (Stang & Story 2005:7). Process Drama has the potential to stimulate abstract thinking patterns in adolescents as they search for meaning in their engagement with learning material (as explicated in the following discussion).

The adolescent brain is a malleable pattern-seeker, endeavouring to organize information and craving active engagement in the learning process via discussions and question and answer sessions (Crawford 2007:19). The creative profile of the various conventions of Process Drama invites the participants to analyze content, understand meaning and search for ways to embody and envoice abstract meaning concretely in order to express their viewpoint of the subject (refer to Chapter 4.4.2). Caine et al. (2005:150 – 151) state as follows: "Once learners begin to think at the level of concepts and symbols, they begin to understand that the curriculum is actually interconnected to represent human experience."

Heathcote and Bolton (cited in Taylor 2003:102) maintain that drama is not merely the dramatization of stories, but is about people being confronted with challenging situations. Thomas and Mulvey (2008:240) suggest that the arts propose possibilities for the development of patterning in order to create habits of mind and build communication channels amongst learners. Process Drama places the participants in a fictitious situation of tension and conflict. The participants should then find a solution for the problematic situation by creating a new way of thinking which they can use again when confronted with a similar situation in real life (refer to Chapter 4.4.1 where metaxis is discussed). In the Process Drama of the empirical examples the learners had to identify how negative communication patterns can influence conflict resolution and how the identification of the needs of others in the communication process can help with assertive communication.

Crawford (2007:16) argues that the adolescent's thinking patterns develop from a concrete style to an abstract thinking style. The ability to think more hypothetically, to make use of deductive interpretation, symbolic reasoning, logical analysis, meta-cognition and futuristic planning should be encouraged during adolescence (refer to Chapter 4.4.7). In this study the programme on anger management seeks to foster



physical expression and emotional insight into the expression and experience of the emotion of anger through the creation of fictitious realities. Such a programme offers the possibilities of anger management and assertive conflict resolution to the participants in such a way that they have to discover its application for themselves. Through self-discovery the participants will take ownership of the solution and new patterns of thinking are established. A new habit of mind can be created during a Process Drama programme. Participation in a creative drama process, such as dramatized poetry, stimulates abstract thinking, logical analysis, meta-cognition and futuristic planning. The next section analyzes the principle of how emotions drive meaning, attention and memory.

5.3.5 The brain-based principle: emotions are critical to patterning and drive attention, meaning and memory

Emotions are brain activities (refer to Chapter 2.2.2). Emotions are a driving force in every human being. Rokotnitz (2011:82) states that emotions are not present in one single site in the brain, but are found in several sites related to different emotional patterns. Emotions are imperative to living and learning as emotions are incorporated into every idea, choice and reaction. Damasio (2000:41) explains that emotions motivate goals, reason, and logic according to his somatic-marker hypothesis. Damasio states that a person can make rational decisions based on knowledge and logical insight, but if emotions get in the way, they obstruct rational decisions regarding social and personal matters. He states (2000:41) that "emotion is integral to the processes of reason and decision making, for worse and for better".

Jensen (2008:82) confirms that the human brain is highly receptive to emotional states.^{139.} Negative emotions can be detrimental to one's rational thinking and a lack of emotional involvement can cause flaws in thinking processes. LeDoux (1998:173) argues that some situations are too crucial to depend on cognition alone, for example, a situation of danger. In such circumstances, the emotions are employed to direct and lead a person. Each emotion provides one with a unique way to react,

¹³⁹ In Chapter Two the emotional circuit of the brain is discussed.

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based on previous experiences. Caine et al. (2005:90) state that "(e)motions, therefore, are deeply engaged in the development of a sense of self and are bound up in a person's beliefs". Macmurray concludes as follows:

The emotional life is not simply a part or an aspect of human life. It is not, as we so often think, subordinate, or subsidiary to the mind. It is the core and essence of human life. The intellect arises out of it and is rooted in it, draws its nourishment and sustenance from it, and is the subordinate partner in the human economy (Macmurray 2005:142 in Jarvis & Parker).

Process Drama as a methodology exposes the adolescent girl to learning opportunities in which she can learn about emotions through "actual (though mediated) experiences, notably the empirical experiences, gained in role playing, imitation and simulation" (Rokotnitz 2011:79). Process Drama is an emotion-friendly, emotion-enhancing methodology that is compatible with the adolescent female taking a great interest in emotions at this stage of her life (Sax 2005) (refer to Chapter 4.4.3). The adolescent female needs to learn how to manage her rich, contradictory emotional life. The following division investigates how this principle adheres to the methodology of Process Drama with the adolescent female in mind.

The methodology of Process Drama offers an opportunity for participants to understand complex emotions through mediated emotions that are intended to stand for the emotions in role (Konijn 2000:59). In Chapter 4.4.1 the methodology of placing the learner in fictitious realities and mediating emotions is explained. It is the goal of the facilitator to lead the participants into the meaning frame of thought and feeling, and to the expressive frame where thought and feeling can be interpreted or communicated (Morgan & Saxton 1987:21). It is in this fictitious world of the Process Drama that the participants can emotionally engage and "live through" the roles they are taking on (Andersen & Qvortrup 2004:81). Nicholson (2000:18) suggests that "living through" the roles in the drama to engage with the emotional meaning of the work requires intense planning by the facilitator. Well planned Process Drama structures offer opportunities in which mediated emotions can be experienced, practised and expressed. Nicholson (2000:18) confirms: "(A)lthough role play often looks as if it develops spontaneously, for it to work successfully the lesson needs to be carefully crafted." The learner gets acquainted with her own emotional identity, expressions and management of herself and others in a non-threatening



environment. According to Jensen (2001:79), drama conventions encourage the learner to act out strong emotions such as anger, fear or grief in a safe environment. Such expressions have stress-reducing effects and in turn may lead to the development of emotional competency.

It is in the fictitious world of the Process Drama that the learner can experience a state of double consciousness or metaxis (Bolton in Andersen & Qvortrup 2004:81; refer to Chapter 4.4.1 where metaxis is explained). This means that the participant can experience and feel and simultaneously be consciousness of herself, enabling herself to think about what she is feeling. This emotional engagement in the fictitious world and being able to distance oneself from the fictitious reality serve as a tool to help analyze and understand the emotions in the role play. Through the fictional world of the metaphor, emotions and feelings can be explored from different viewpoints beyond the performer's known world and reality (refer to Chapter 4.4.7 where the strategy of multiple perspectives is explicated).

These emotional experiences can also be described as empathetic experiences (refer to Chapter 4.4.3). Neelands and Goode (2005:10) and Taylor (2000:71) have indicated that empathetic imagination is embedded in dramatic enactment strategies. This means simply that through improvisational role play and other conventions, such as dramatized poetry or mime, the participant can experience the feelings in the fiction of the role and gain understanding of how it feels to be in another person's place. In this regard Rokotnitz (2011:17) explains that empathy is "to experience involuntary emotional identification" to match the emotional state of another person. By engaging physically in the activity of expressing the non-verbal forms of feelings and emotions through mime, dramatization or improvised activities, the participant can be engaged and emotionally captivated by feeling what the character feels. The embodiment of the outer form of the feeling or emotion serves as an impulse for the inner experience of the feeling or emotion.

Winner and Goldstein's research (2012:37) focuses on the enhancement of empathy in adolescents through drama. Their findings demonstrate that plasticity in empathy can be enhanced by role play. They state that "social cognitive skills such as empathy and theory of mind are crucial for everyday interactions, cooperation, and



cultural learning ..." (Winner & Goldstein 2012). Blatner (1996:151,170) states that dramatic strategies can be employed as an effective method for developing the skills of empathy. Neelands and Goode confirm:

It is hard to be cruel once you permit yourself to enter the mind of the victim. Imagining what it is like to someone other than yourself is at the core of our humanity. It is the essence of compassion and it is the beginning of morality (Neelands & Goode 2005:44).

Process Drama can expose the adolescent female to emotional competency learning. Wolfe (2001:4) suggests that "emotion is a primary catalyst in the learning process" of the adolescent brain. Hall (2005:142) declares that one cannot divide emotions from the intellect and that it is of paramount importance to recognize the role of emotion in the process or learning. Feinstein (2009) maintains throughout her work on the emotional life of the adolescent that emotions overshadow the rational when it comes to their intra-personal awareness. Just as the adolescent's brain is a work in progress (Giedd et al. 1999), so is the self-concept of the adolescent. Educators should take this into account and focus on emotional competence skills building as part of the curricula in order to engrave positive thinking patterns on the adolescent brain. With regards to the concept of brain plasticity (refer to Chapter 2.3.2), research confirms that when a stimulus is reinforced, the cortical synapses are strengthened. New information can break the grip of old habits and routines as new connections are applied by creating new thought patterns. New life skills can replace older habitual patterns of thought.

For the purposes of this study the participants have to learn how to be assertive in order to manage their anger and related aggressive emotions. Successful assertive negotiation depends on the ability to understand another person's viewpoint and needs in order to create a mutually beneficial situation (Wilding & Milne 2010). It is therefore important that the social cognitive skill of empathy is introduced through Process Drama conventions in an anger management programme. In the following section the fact that the brainmind processes parts and wholes simultaneously is discussed.



5.3.6 The brain-based principle: the brainmind processes parts and wholes simultaneously

In order to investigate the aforementioned brain-based principle, a clear definition of the brain in relation to the mind should first be introduced. According to Siegel, the concept of the mind is defined as follows:

"Mind" relates to our inner *subjective experience* and the *process* of being conscious and *aware*. In addition, mind can also be defined as a process that regulates the flow of *energy and information* within our bodies and within our *relationships*, an *emergent* and *self-organizing* process that gives rise to our *mental activities* such as *emotion*, thinking and memory (Siegel, 2010:1 Chapter One: Kindle version).

Mind is embodied by the brain and the body and embedded in interpersonal and intra-personal relationships through a constant flow of energy (Siegel 2010:1). The brain, in conjunction with the mind, processes parts and wholes simultaneously. In this discussion the term brain denotes mind and vice versa. The brain is arranged in such a way that a particular area has a particular function, but all parts work together to be able to react to life. Jensen (2008:19) explains that various different brain areas interact symbiotically with each other in microseconds. The whole brain has to be functioning in order to operate sufficiently.

The whole-part brain activity can be further explained as follows: the brain has interconnected structures, but certain areas function in a situational mode (Hellige 2002:683). Herrmann (1995:38) explains that "(t)he ability to function situationally is crucial to a person's effectiveness. (...) One needs to be able to turn off parts of the brain situationally so that those parts that are needed can function without competition or interference".

This function of the brain is called iteration and is the interconnected function of the brainmind. Hermann (1995:38) states that "(i)teration is the back-and-forth movement of signals among the brain's specialized centres that takes place to advance work on a task". This mental process can entail the non-verbal observation of material, as well as the verbalization of the observation. Caine et al. (2005:xii) suggest that the integrated involvement of the learner in body, mind and emotions is central to education and learning. The interconnectivity of the brain is stimulated when involving learners in multi-tasking, such as a dramatic improvisation of a



dialogue between two people. During such an activity the verbalization of a conversation, the creative design of the conversation, the emotional delivery and the physical expression of the non-verbal context are all engaged in at the same time. The methodology of Process Drama is a multimodal method that stimulates parts of the brain and the whole brain (or mind, for that matter) simultaneously.

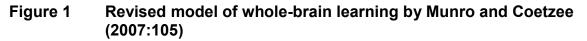
As indicated before, the objective of this study is to use dramatized poetry as one of the conventions of the methodology of Process Drama to present an anger management programme for adolescent learners. In order to optimize the learning process the brain-based principle of whole-brain learning has been employed (see Herrmann 1995:417) with the addition of the updated model of Munro and Coetzee (2007:105).

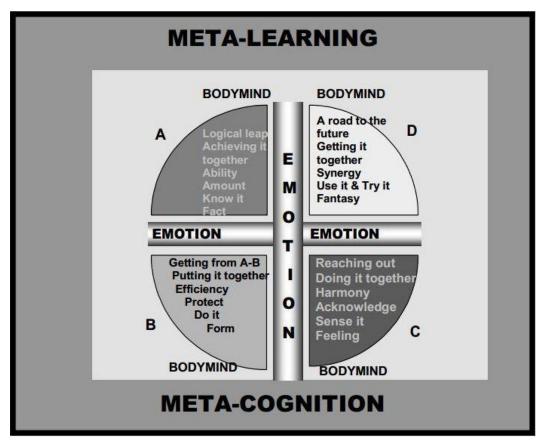
During the application of the methodology of Process Drama there is a constant interaction between the two brain hemispheres as well as a connectivity between the cerebral and limbic systems in each of the hemispheres. Herrmann's¹⁴⁰ Whole-brain model (Herrmann1995:36) symbolizes this interconnective activity between all four sections of the brain. Whole-brain learning (Herrmann 1995; Neethling & Rutherford 2005) offers a metaphorical four quadrant approach to the wholes and the parts of meaning making. The four metaphorical brain quadrants are referred to by Herrmann (1995:36) in short as fact, form, feeling and fantasy.

Munro and Coetzee (2007:105) advocate an adapted whole-brain model that was specifically designed with the dramatic arts in mind and serves to indicate that learning thrives when it complies with the brain-based principles that learning is emotionally driven and physiological. As the participants are engaged in one or more of the metaphorical quadrants, namely thinking, planning, relating and dreaming or envisioning, they are simultaneously and constantly moving in the bodymind through and with emotions. The body, emotions and cognition cannot be separated in the expressive mode of the performance of poetry or any other Process Drama convention. It is foreseen that the Process Drama convention of dramatized poetry moves simultaneously and autonomously through all four of these metaphorical quadrants.

¹⁴⁰ Herrmann's Model of Whole-brain thinking of 1995 is a landmark work that is referred to directly instead of making use of secondary sources.







One can state that the methodology of Process drama, as well as the convention of dramatized poetry, is a whole-bodymind, multimodal activity during which the brainmind processes parts and wholes simultaneously.

Theories of the development phase of the adolescent female correspond to the principle that the brain processes parts and wholes simultaneously. As explained by Herrmann (1995:38), for example, in the female brain the impulses from neurons in one hemisphere to another move up to 10% faster than in males (Herrmann 1995:38). The corpus callosum of the young female adolescent matures up to three years earlier than that of the young male adolescent (refer to Chapter 3.3.7). This explains why young females are operating comfortably in intuitive, non-linear fields and are able to verbalize what they think or feel. Poetry can therefore be implemented effectively as a convention to facilitate a programme on anger management for girls. In the next section another principle proposes that the brain



can function on different levels simultaneously because learning involves both focused attention and peripheral perception.

5.3.7 The brain-based principle: learning involves both focused attention and peripheral perception.

The brain soaks up data in its immediate sphere of attention, but is also aware of information that exists beyond the direct focus of attention. Even unconscious¹⁴¹ feelings and moods or belief systems can influence the direct absorption of information. Therefore it is imperative to be aware of the fact that all facets of the environment play a role when learning occurs. Constant claims are made about adolescent learners' heightened awareness and accelerated brain growth. Their attention is attracted by the changes in peer relationships and the demands of increased technological communication devices. It is therefore important that educational facilitators should understand how the attention system of the brain operates.

Peripheral perception is the ongoing process of awareness that occurs automatically and involuntarily. According to Plude, Enns and Brodeur (1994), the first process of attention involves the alignment of sensory receptors with specific locations in space. This is the primitive orienting reflex that automatically probes one's attention to shift to changes in the environment. The brain is constantly and automatically scanning the environment for stimuli. The reticular activating system (RAS) filters thousands of stimuli by excluding unimportant data and focusing only on that which is relevant. The unconscious brain manages this initial decision-making process. Jensen

¹⁴¹ The principle that learning is both conscious and unconscious is based on the top-down expectations and the interrelation of these expectations against the bottom-up data. Attention is focused on a cluster of information. A complementary, resonate state is reached between what is expected and what is there in the outside world. Conscious states are resonant states that trigger learning of sensory and cognitive representations. The processing stream of "what" – the cognitive and sensory stream - obey top-down matching and learning laws that are complementary to spatial and motor processing of the "where" of the brain. Stability is reached in the brain when certain maps are no longer appropriate and are deleted (as happens with short-term memory). Procedural memory, however, is supposed to be unconscious because the matching process between top-down and bottom-up does not resonate due to inhibitory factors (Grossberg 1999:1). LeDoux (1998:29) describes the unconsciousness are functioning without our awareness. (... and ... What is the second functional structure?) LeDoux (1998:55) states that the dynamic unconscious is where emotional memories are contained and emotional processing are operating without our cognitive awareness. LeDoux (1998:64) states that "the emotional consciousness is where much of the emotional action is in the brain".



(1998:42) argues that attention requires an increase of information flow – thus brain activity – into a specific target area of brain pathways. An increase in specialized brain activity means an increase in attention (Byrnes 2001:76).

There are, however, other factors that influence the brain during the initial filtering process to determine the relevance of information. According to Wolfe (2001:82) three of these factors are

- novelty, as the brain focuses on a new, incoming stimulus;
- intensity, for example, loud sounds or bright colours;
- movement;

Novelty, intensity, movement and meaningful and emotionally loaded content can increase the interest of the adolescent in the learning material. Multi-sensory stimulation, as well as down-time for reflection, should be part of lesson plans as it can manage the focus of the adolescent learner (O'Neill 1995:131). New and complex concepts require more downtime than familiar concepts that are only revisited.

Byrnes (2001:77) argues that attention can be automatic or controlled. Studies on development have revealed a pattern of increasing control over selective attention from childhood to early adulthood (Byrnes 2001:78). Vygotsky (1978) proposes two kinds of attention, namely natural and higher order attention. Higher order attention coincides with higher order thinking (HOT) and entails concept formation, meta-cognition,¹⁴² problem solving, creative thinking and questioning. HOT means that one can apply information and think about it, analyse it and use it to reach an outcome and not only repeat information (Thomas & Thorne 2008). The key factor that aids the transition from natural attention to higher order attention is the ability to "self-talk". Byrnes (2001:80) explains Vygotsky's theory as follows: "one form of language called *inner speech* helps children to regulate and control their behaviours (including their attentional focus), and avoid being distracted". Educationalists should take special interest in the so-called controlled attention because to manage attention effectively can maximize retention.

¹⁴² Meta-cognition is a thinking process that enables one to think about one's own thinking, or is "awareness or analysis of one's own learning or thinking" (http://www.merriam-webster.com/dictionary/metacognition).



According to the Attentional Model developed by Aston-Jones, Rajkowski and Cohen (1999), one is paying less attention when nor-epinephrine levels are low and more attention when the levels are higher. When a learner is hyperactive or stressed, the nor-epinephrine levels are too high and the learner's focused attention is impeded (as discussed in Chapter 2.2.5.1). This indicates that it is important to regulate stress levels for classroom purposes and also when dealing with the regulation of one's anger.¹⁴³

Two other factors that strongly influence whether attention will be sustained or not are meaning and emotion. Sustained attention is paid to information that stimulates one's interest and captures one's emotions, and although it is new information, the information can be integrated into previously activated networks. Educationalists should capitalize on this brain-based principle of focused attention that can transform into a "flow" experience¹⁴⁴ in order to create deep-structured learning. The methodology of Process Drama as a vehicle to teach anger management offers the opportunity to fully engage the learner on an emotional, physical and cognitive level (refer to Chapter 4.4.4 where Process Drama as embodied learning is discussed).

There is neurological proof that the older the learner, the greater is the maturation of the frontal-parietal network; this implies a longer attention span (Byrnes 2001:90). Adolescents experience an increased growth of interest in all that is going on around and in them. They are socially more involved, question the status quo more with an increment of insight into abstract concepts, are more aware of their own emotions and thoughts and are sexually more aware of the impression they make. When dealing with adolescents who are at a stage of their development where synaptic firing is heightened, an educator should make definite efforts that attention-holding strategies are accessed.

¹⁴³ Wesson (2000) explains that the brain operates on alternating cycles of high attention and downtime. During downtime the brain engages in processing, questioning and revising one's understanding. Klein, Pilon, Prosser and Shannhoff-Khalsa (1986) found that learning is affected by a change in blood flow and breathing during these cycles. Learning should take place in tandem with the brain's rhythmic cycles of activation and meditation (Jensen 1998:44).

¹⁴⁴ Csikszentmihalyi (1990:4) explains that in some situations one can be so absorbed in an activity that one loses sense of time and place. This state is called a "flow" experience (Csikszentmihalyi 1990:4). Such experiences occur often when engaged in activities that allow for free expression, such as art, games or other active learning experiences.



The adolescent experiences a period of synaptic growth (Wilson & Horch 2002; refer to Chapter 2.3.2) which mostly takes place in the prefrontal cortex where the executive activities, for example, the controlling planning, memory and the regulation of moods are situated. By applying the findings from the brain research by Wilson and Horch (2002:59), one can guide the development of the adolescent brain by posing in-depth questions to focus their attention and encourage them to find more than one outcome in their quest to solve problems. The technique of in-depth questioning was recommended by the Drama in Education expert, Dorothy Heathcote (in Johnson & O'Neill 1984), as well as Morgan and Saxton (1991). These models have been refined by Freire's (2003) liberating, problem-posing model of pedagogy that is often applied by various forms of TiE and DiE and became, in many instances, a fundamental tenet of TiE (Jackson & Vine 2013:296). Freire's model (2003) recommends that both facilitator and participant become co-investigators in the process of constructing knowledge with the objective of solving problems (refer to Chapter 4.4.5 on learner-centred learning and 4.4.8 on experiential learning). This dialectic model opens ways for the participants to become practically involved in the work through reflective action and active reflection, and in so doing focus the attention of the adolescent (Jackson & Vine 2013:296).

The methodology of the convention of Process Drama, with specific reference to dramatized poetry, is a multi-sensory¹⁴⁵ methodology that practises experiential and reflective learning (as explained in Chapter 4.7.2) the participants are enroled in the experiential dramatization of poems. They first acquaint themselves with the connotation and denotation¹⁴⁶ of the poem in order to relate cognitively and emotionally to the content and to personalize the content. This activity of enrolement still takes place outside the fictitious reality of the poems (O'Toole 1992:114). Hopefully, through the experiential phase of dramatizing the poems, they become empathetically engaged in the fictitious reality of the poems. They may reflect on this fictitious reality from inside this reality; in other words, the participants may find themselves simultaneously involved in the fictitious reality and reflecting outside that reality; this is called a state of metaxis, as explained in the previous chapter (O'Toole

unvertices and materials

 ¹⁴⁵ Dramatized poetry is a multi-sensory convention of Process Drama that incorporates the intensity of emotions, the expression of movement and communicates new and original thoughts.
 ¹⁴⁶ Connotation is the ideas associated with a word, whereas denotation presents the literal meaning of a word.



1992:13; refer to Chapter 4.4.1). After a Process Drama convention session a reflective task may be executed outside the fictional content of the poetry. Dramatic conventions such as role play, improvisation or dramatization of poetry can simultaneously stimulate the learner's senses, emotional involvement and cognitive attention. Focused attention and peripheral perception are both enhanced by Process Drama.

The methodology of Process Drama supports the factors that influence attention, such as novelty, intensity and movement (Rokotnitz 2011). The Process Drama convention of dramatized poetry offers a creative approach to the experience of literature and the exploration of various themes dealing with social and educational problems, such as anger. The conventions of creative processes are combined with relaxation techniques and energizers in order to focus attention and create a relaxed atmosphere in which creative freedom can be expressed. Process Drama allows for moments of focused attention and moments of quiet reflection. One should reiterate the fact that the application of dramatic conventions needs careful planning that is framed and focused on engaging the participant to "live through" the experience and not merely imitate or act it out, as suggested by Bolton (1986:101). Process Drama conventions abide by brain-based principles to focus attention and increase the interest of the adolescent in the learning material, which is abetted by the novelty of creativity, the intensity of emotional involvement and the expression of movement (refer to Chapter 4.7.2.3 where the Process Drama convention of dramatized poetry and creativity is discussed). The next brain-based principle explains another dualistic aspect of the brain-based principles, namely that one learns consciously as well as unconsciously.

5.3.8 The brain-based principle: learning is both conscious and unconscious¹⁴⁷

¹⁴⁷ For the purposes of this study I only refer to the conscious and unconscious mind, omitting references to the subconscious mind or the pre-conscious mind as these concepts fall outside the scope of this study. Stafford-Clark (1965, 1997:137-139) describes Freud's terminology of consciousness as presenting that of which we are fully aware. Our pre-consciousness stores our memories accessible by recall. The unconscious brain harbours primitive urges influencing our behaviour without us being fully aware of these drives. The unconsciousness holds repressed memories with strong emotional undertones, no longer available to the consciousness. Also see footnote number 16.



This brain-based principle endorses the previous principle regarding attention as a conscious and unconscious process. For the purposes of this study, this section justifies how this principle can be included in the educational construct of the kinaesthetic, dramatic art form of Process Drama.

Learning involves conscious and unconscious processes. Much learning is unconscious because experience and sensory input are processed below the level of awareness (Destrebecqz & Cleeremans 2001:343). Understanding may not transpire immediately during a learning session, but may develop hours or even months later. Educators should facilitate this unconscious processing of experience by learners. This implies incorporating reflective, creative and meta-cognitive activities to assist the learners to process ideas, skills and learning experiences. Caine et al. (2005:213 – 215) explain that teaching is mainly a matter of materializing the invisible.

Creative processing employs an unconscious incubation period in order to maximize the creative outcome (refer to Chapter 4.7.2.3 where the Process Drama convention of dramatized poetry as creative convention is discussed). The conscious investigative period for creative processing should be loaded by sufficient information and a conscious focus on the problem (Destrebecqz & Cleeremans 2001:347). During the next process of unconscious incubation¹⁴⁸ (unconscious processing), the content, idea or problem is internalized in the unconscious mind. No outer activity presents during this phase. The mind nurtures and develops new concepts unconsciously, and after a period of time conscious and creative insight is gained. This unconscious process can be further explained through the neurobiological research of Vandervert (2009).

Vandervert's (2009) research provides substantial evidence that the processes of the working memory are accommodated and diversified by the cerebellum. The cerebellum's cognitive-modelling functions are then fed back to the frontal lobe's working memory control centres where creative and innovative thoughts are formed¹⁴⁹ (Vandervert 2009:295). Vandervert's theory explains the role of creativity and innovation in general problem-solving thinking processes and all creative, kinaesthetic activities (Vandervert 2009). Creativity moulds associative elements into

¹⁴⁸ The incubation concept, as part of creative thinking, was described as early as 1926 by Wallas.

¹⁴⁹ See footnote 16



new combinations in order to solve problems. The unconscious incubation period of creative thinking is processed during the REM sleep phase (Cai, Mednick, Harrrison, Kanady & Mednick 2009:10130 – 10134).¹⁵⁰

The abovementioned information leads to the conclusion that the neural pathways which connect the cerebral cortex, the hippocampus and the cerebellum, contribute to the skilful manipulation of ideas. The physicality of learning is connected to the cognitive process (Vandervert 2009:295). Practical, interactive and experiential learning, with enough downtime to process thoughts and ideas, should be encouraged as a natural outcome of how the brain learns. To benefit from the unconscious incubation periods during creative processing, Process Drama workshops should ideally be scheduled over a period of time. This also provides the unconscious mind with the time needed to process Drama conventions as creative processes that occur both in the conscious and the unconscious minds. In the creative process answers to problems therefore arise when one is not consciously assessing the problem (Caine et al. 2005:213 - 215).

The methodology of Process Drama incorporates creative, physical, reflective and meta-cognitive processing that involves conscious and unconscious brain activity. The strategy of kinaesthetic learning is described by Jensen (2001:74) as "(k)nown for ease of learning; a great deal of implicit learning can happen from role-modeling, nonconscious acquisition, trial and error, experimentation and peer demonstrations". According to Caine et al. (2005:217), the arts in general are effective in assisting students to gain insight and expose learners to creative, unconscious periods of learning. The brain needs to take various aspects into consideration, speculate, improvise and intervene with the content, intent and the medium. One can conclude that "creativity is both inventive and reflexive; it is a process in which students

¹⁵⁰ During the period of rapid eye movement sleep (REM), namely when dreams occur, reaction from the hippocampus to the neocortex is suppressed by high levels of acetylcholine in the hippocampus (Caine et al. 2009:10130-10134). Low levels of acetylcholine and nor-epinephrine in the neocortex assist the neocortex to spread associational activities without the control of the hippocampus (Hasselmo 1999:351-359). This is in contrast to waking consciousness, where repeated connections in the neocortex are repressed by higher levels of nor-epinephrine and acetylcholine. The neocortical structures reorganize associative hierarchies during REM sleep and this process enhances creativity by reinterpreting previous semantic representations (Caine et al. 2009:10130-10134). In the creative process answers to problems arise when one is not consciously assessing the problem (Caine et al. 2005:213-215).



engage in critical interrogation of both dramatic form, their ideas, feelings and values which they seek to symbolize and represent" (Nicholson 2000:7).

This unconscious learning style agrees with the adolescent's development phase that craves novelty, action, practical and meaningful learning, as well as the need to reflect or incubate on abstract ideas. The next brain-based principle is the retrieval of learning material from the unconscious brain. Understanding the principles of memory can assist educational facilitators in their quest for optimal learning in their participants.

5.3.9 The brain-based principle: there are at least two approaches to memory, namely, archiving individual facts or skills or making sense of experience

Caine et al. (2005:188) posit that the two basic memory systems that are important for educational purposes are the system recalling relatively unrelated information, the taxon system, and the local system. The local system has an episodic profile which does not need rote learning and allows instant recall of situations and experiences. Gillani (2003:286) explains that the taxon memory, also referred to as the semantic memory system, is non-contextual and not integrated with prior knowledge. To retrieve information from the taxon system is difficult when needed for problem solving.

The contextual, situational-based local memory system of the brain forms neural maps in the hippocampus of the environment. The maps are reconstructed if new information is combined with prior knowledge. As memory becomes internalized, the retrieval process becomes easy. When it comes to problem solving, the expert learner has already internalized the knowledge while the novice attempts in vain to use a variety of approaches (Gillani 2003:286). In order to develop a learner-centred methodology, factual knowledge should be internalized to capitalize on the best practice for recall. The only way to determine if learners comprehend and can recall what they have learned, is if they can demonstrate it in some way or other. This is compatible with Boud, Cohen and Walker's (2000:8 - 14) description of the learning



mode of "active experimentation" (as mentioned in Chapter 4.4.8), based on the original research on experiential learning by Kolb (1984).

For optimal learning the facilitator should know how to apply effective systems and procedures to boost recall. To reiterate, the methodology of Process Drama offers conventions that address learner-centred thinking for problem solving. Heathcote challenged her participants to learn through catharsis, to solve problems of "a real man in a real mess" (Bolton 2003:59). In this way the participants can become experts in a field of knowledge and shoulder the responsibility to come up with solutions to problems when she designed the convention of the Mantle of the Expert (MoE) (Bolton 1995:76,188). Process Drama conventions help people to retain information through experience. Through Process Drama, semantic memories are internalized by novelty, association, similarities or contrasts in order to make sense of an experience. Traditional book-learning should be made relevant by integration strategies in order to transform it into the long term memory system.

The brain-based strategy of Caine et al. (2005), called orchestrated immersion, positions the learner in the learning experience by appealing to all her senses, cognitive perceptions and physical actions. Orchestrated immersion utilizes the fact that emotional memories intensify and strengthen synaptic pathways (Jensen 1998:108; as discussed in this Chapter 5.3.5) and thus combines the individual facts or skills with the sense-making process. Intense emotions call for intense retrieval. Negative emotions are more easily recalled, but any emotion-laden experience is more easily recalled than a neutral experience. This concept of making sense of the experience adheres to Kolb's notion of experiential learning (Kolb 1984).

Experiential learning, of which Process Drama is a prime example, adheres to the brain-based principle of internalization to enhance memory systems (refer to Chapter 4.4.8 where Process Drama as experiential learning is discussed). Factual knowledge is transferred through interactive activities to internalize it as personal, local, event-type experiences (Kolb 1984; Moon 2005) in a meaningful context. Factual knowledge is emotionally solidified through the presentation or enactment of the work and internalized by sensory expressions through movement and journaling.



Experiential learning methodologies, such as Process Drama, are employed in a relaxed atmosphere of acceptance and fun, and thus maximize recall and learning.

It is deduced from the above that the visualization and physical expressions of dramatic scenes enhance the episodic, local memory of the learner/performer as the content is more strongly imprinted on the brain (Kotulak 1997:4). One remembers facts better if one has voiced or embodied the content and experienced it on an emotional level. Immersion in real-life situations and conditions with a hands-on approach, in other words, active experimentation, aids memory (Jensen 1998:106).

The facilitator of a Process Drama has to lead the participants sequentially from one level of engagement to the next until a state of ownership is reached (Morgan & Saxton 2006:28). Ownership through deeper engagement is reached through a process of negotiation between the facilitator, participants and subject. The facilitator should stimulate interest by giving the participants "food for thought", enticing them to want to be involved in a task, challenging them to become responsible for the task, facilitating them to understand the task, and hoping they will want to share, communicate and interpret their task in collaboration with the group. The facilitator also aims for an outcome where the participant is willing to evaluate, reflect on and ponder their task (Morgan & Saxton 2006:28). The Process Drama methodology offers make-believe realities where ownership is taken by the participants, the episodic memory has been stimulated and information is retained. As the participants enter the fictitious reality, they enter an episodic situation which can be stored and recalled as an episodic memory. In other words, the stimulation of the episodic memory takes place when the participant accepts the parameters of the episodes or situations in the make-believe world (refer to Chapter 4.4.1 where Process Drama as a methodology of two realities is explained). Arnold (in Morgan & Saxton, 2006:27) confirms that "effective pedagogy is enhanced by context in which there is an engagement between thinking and feeling, on personal, interpersonal and intra-personal levels".

As discussed in Chapter 5.3.5, emotional experiences strengthen memory pathways. Shafer, lordan, Cabeza and Dolcos (2011) state that "emotional events tend to be better remembered than non-emotional events". When the participant is engaged in



the fictitious world of the Process Drama, powerful emotional reactions are aroused in the emotional brain circuit which can be retrieved with more ease than after nonemotional events.

Process Drama conventions, such as the dramatization of monologues, poems or dialogues, present the opportunity for the semantic memory system to be strengthened. It is seldom that a subject offers the possibility to stimulate one's ability to memorize words and language structures. Language structures are enhanced by repetition. In the empirical examples the participants had to memorize the poem in order to dramatize its content. A strong memory system can be advantageous for any educational process (Jensen 1998:104).

Lastly, the spatial embodiment of meaning in Process Drama can incorporate the procedural memory system¹⁵¹ and stimulate the perceptual-motor skills (Wolfe 2001:114). The learner can experience how physical procedures during the presentation of the dramatized work aid her recollection of the content. The methodology of Process Drama can activate multiple memory systems that can "dramatically improve our chances for retention and recall" (Jensen 2001:40).The brain-based learning principles are all integrated in the next principle as all the principles should always take the development phase of the learner into consideration. Exposure to learning material and methodologies should always be age-specific, as presented in the next section.

5.3.10 The brain-based principle: learning is developmental

Hannaford (1995:83) states that "(I)earning is a progressive, constantly changing process that serves to enrich and expand our understanding throughout life". All humans have a common, basic pattern of development, but every individual has a unique element to her development and develops at her own pace (Hannaford 1995: 81). Caine et al. (2005:164 – 65) argue that there are predetermined sequences of

¹⁵¹ The procedural memory system performs processes below our conscious perception. Procedural memories are automatically entered, for example, if we want to read, ride a bicycle or tie our shoe laces. It is a long-term memory, implicit and learned by repeating an action over and over until we automatically remember the procedure (Squire 2004).



development from birth to old age that open up opportunities for laying down basic foundations for later learning. When dealing with adolescents in the learning environment all the aspects of their development tasks should be acknowledged. Feinstein (2009:165) explains that "[a]dolescence is a pivotal time in a person's development. The changes teens experience determine much about who they are – their work ethic, interests, self-esteem, morality – and who they will become". Therefore adolescence is regarded as one of the most change-sensitive periods during human development (refer to Chapter 4.4.5 where Process Drama as learner-centred methodology is discussed).

The adolescent brain is described by Weinberger, Elvevag and Giedd (2005:1), as "a work in progress" (refer to Chapter 2.3.2). As Weinberger et al. (2005:12) explain, these synaptic changes influence the adolescent's ability to become a mature and responsible adult. Periods during which the brain is restructured are sensitive to local environmental factors.

This implies that everyday routine occurrences can alter the synaptic structures of the brain, for example, learning a new language, learning to play an instrument, participating in sport or attending any kinaesthetically oriented activities. As this study focuses on enhancing the anger management skills of adolescent females, it is encouraging to know that this development phase of adolescence offers a window of opportunity for enhancing emotional competence, in this case, anger management. Feinstein (2009) suggests that adolescence offers an opportunity for interpersonal skills learning.

Feinstein (2009:3) reiterates that adolescence offers a window of opportunity for emotional management, building relationships and developing communicative abilities as adolescents are intensely motivated to develop skills in these domains. Feinstein (2009:3) posits that "(t)he activities teens invest their time and energy in influence what activities they'll invest in as adults". Crawford (2007:12) confirms that the activities in which the adolescents are involved are crucial in determining which neural structures will survive and which will not.

Adolescents show a preference for peer-related, social learning (refer to Chapter 4.4.6 where Process Drama as a collaborative methodology is discussed). Crawford



(2007:3) states that they learn well in an interactive, collaborative environment. Process Drama offers such an environment of interactive learning where the structures of communication goes beyond the mere exchange of information and reaches levels where values and insights are exchanged (Kao & O'Neill 1998:9). Through Process Drama methodologies the participants have to negotiate meaning in their newfound roles in fictitious realities. This process stimulates communicative abilities and social interaction.

The adolescent has an innate hunger for learning and stimulation because their cognitive abilities and emotional awareness expand during this phase. Crawford (2007:5) states that the adolescent learner craves learning material that is relevant and meaningful regarding real-life issues that relate to their realities. They prefer learning situations in which they are cognitively and emotionally stimulated and that draw information from a variety of resources. Process Drama as methodology uses a pretext filled with information to help the participants solve a problem or investigate an issue. This pretext launches the participant into a fictitious world where she can engage with the taxonomy of the meaning of the situation or text (Morgan & Saxton 1989). In a study on the making of meaning in Process Drama, O'Toole (1992:88) states that the participant is drawn into a meaning-making process through role play where learning is experienced on both cognitive and affective levels and then personalized. Process Drama has the potential to realize the adolescent's need for cognitive and affective stimulation.

This principle that learning is developmental therefore adheres to the methodology of Process Drama as it takes age-related material and age-specific methodologies into consideration. Process Drama conventions should capitalize on the adolescent development phase by challenging the learners with exciting learning material in a relaxed atmosphere. This principle integrates with the next principle, namely that learning is enhanced by challenge and inhibited by threat.

5.3.11 The brain-based principle: complex learning is enhanced by challenge and inhibited by threat



One of the most important aspects of a challenging brain-compatible learning environment is to create an atmosphere of acceptance and low threat. Such a condition can be described as the optimal state of "relaxed alertness" (Caine et al. 2005:4-5). By definition it entails a state of low threat and high challenge. The condition is present in a learner who feels capable and self-assured and is interested and inherently stimulated, as suggested in the previous section (ibid). The brain loses access to certain sections when threatened and a narrowing of perceptual fields is experienced. According to Caine et al., the following has been observed regarding intensely stressful situations:

The hyper-vigilant students can be expected to become increasingly aggressive, as they shift along the continuum from arousal to terror. On the other hand, students who tend to internalize their responses move along the dissociative continuum and increasingly lose contact with reality (Caine et al. 2005:33).

Learning is therefore affected by negative stressors as distress can affect the bodymind physically and create barriers in the flow of learning (De Jager 2006:19).

Jensen (2008:44) confirms that moderate stress increases focus and learning, whereas chronic stressors have a negative physical effect on the brain. Jensen (2008:44) warns that cortisol affects the memory system negatively when chronic stress is experienced. The hippocampus contains proportionally more receptors for stress hormones than any other structure of the brain. The hippocampus forms new memories and is linked to the indexing function of the brain. It makes connections and matches new knowledge with existing knowledge. Under stressful circumstances it reverts to a state of helplessness and closes off. The stressed person falls back into well-entrenched behaviours. The hippocampus will only fully function again during a state of low threat and high challenge (Caine et al. 2005; Sousa 2006:150).

Greenough and Anderson (1991:231 – 247) argue that learning should be a realistic challenge with an attainable degree of difficulty and therefore different instructional strategies should often be implemented to increase the novelty of the learning experience. Jensen (1998:33) posits that feedback creates challenging interaction that elicits learner involvement. The brain is designed to operate on feedback.

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Jensen (1998:33) explains that "our whole brain is self-referencing. It decides what to do based on what has just been done. Without our magnificent system of feedback we would be unable to learn". According to Jensen specific, immediate feedback is the best practice for brain enrichment (Jensen 1998:33).

Process Drama conventions involve physical and creative expressions that stimulate thinking and capture the learners' attention. Hidi and Renninger (2006:111) state that "(t)he level of a person's interest has repeatedly been found to be a powerful influence on learning". Process Drama conventions are and should be practised in a relaxed atmosphere with mutual acceptance in the ensemble. The conventions per se, as a way to "play" in a world of no threat, can contribute to the participants' relaxed alert mental state.

It can be concluded that the physicality of Process Drama enriches and enhances the brain functions of learners (refer to Chapter 4.4.4). Medina (2008:7) posits that physical activities increase the oxygen flow to the brain, reducing free radicals and increasing mental sharpness, whilst offering resistance to the detrimental effects of stress. When capturing the interest of learners through the taxonomy of engagement (Morgan & Saxton 1989), the learners are involved on cognitive, emotional and physical expressive levels in the learning process. This methodology follows the scaffolding¹⁵² approach in order to lead the participants logically from the one phase to the following.

It is important that the adolescent who is already in a developmental phase of change with its own anxieties should experience no unnecessary further threats. Crawford (2007:11) suggests that the adolescent learner should enjoy a safe and supportive classroom environment. Sousa (2006:154) posits that a safe environment must be supported by class rules, positive affirmations, high expectations, efficient praise and humour. Panju (2008:56) suggests that a negative environment stimulates survival reactions that block the learners' perception of the learning material.

¹⁵² Scaffolding is a term created by Vygotsky for his learner-centred teaching practice which enables the learner to build new information networks through interaction with a variety of people and resources (Parslow 2009).



Process Drama conventions can challenge learners by providing enriched cultural experiences that comply with the brain-based principle of exposure to complex learning material in a non-threatening environment. In such an environment of acceptance and relaxation the next brain-based principle comes into play, namely that each individual is unique.

5.3.12 The brain-based principle: each brain is uniquely organized

The combination of an inimitable genetic heritage and distinctive experiences result in every person's brain and composition being arranged in a highly individual way. People live according to their own unique perceptions (Caine et al. 2005:226). Human beings are similar and different at the same time. The adolescent female will thus be able to learn more efficiently when her individual uniqueness is celebrated and engaged (Caine et al. 2005:225). The brain presents strong individual differences. The following section investigates various examples of theories claiming the uniqueness of the learning brain. Each example is followed by a discussion on how Process Drama adheres to the specific theory of unique brain attributes.

Learners have preferences regarding their different sensory modalities and this implies that information should be offered to learners in at least three of the main sensory modalities. According to Tileston (2004:13), almost 87% of the learners in a classroom do not perceive their learning material only through the sense of hearing. The material should therefore be presented in visual or kinaesthetic format in order for these learners to absorb information faster and more efficiently. Process Drama provides a way of implementing a variety of sensorily diverse learning styles. Improvisation and role play can stimulate both visual and auditory awareness. Learners with a kinaesthetic preference are stimulated by creative dance, mime and tableaux conventions because the learning material is explored through movement. Furthermore, recall of data can be enhanced through engaging multiple senses in the learning material by experiencing imaginative, fictitious worlds in which the senses are exploited.



Caine et al. (2005:226) suggest that there are different learning styles. They refer to Sternberg and Kaufman (2005:596) who differentiate between three primary types of intelligences, namely analytical, practical and creative intelligences. Sternberg and Kaufman (2002:596) argue that multiple intelligences are not stimulated in traditional educational systems as teaching tends to favour rote learning over creativity. In his work on multiple intelligences, Gardner (1993:8) suggests that there are eight main intelligences that develop differently in individuals. The intelligences are intertwined and if a person develops capabilities in one intelligence, the whole group of various intelligences may be stimulated. This motivates educators to support learners to implement and discover all of their intelligences and confirm the uniqueness of each brain. Process Drama can develop many of Gardner's intelligences. The conventions present particularly strongly in intrapersonal, interpersonal, spatial, kinaesthetic and linguistic intelligences. Process Drama as methodology activates these innate human intelligences often neglected by traditional methodologies. In Chapters 4.4.1 and 4.4.4 Process Drama is discussed as a methodology of reality and fictitious reality, as well as embodied methodology.

Hermann's whole-brain thinking model (1995:36) explains how different learners have different thought-processing preferences:

- the left cerebral mode presents the logical, analytical, fact-based, quantitative A quadrant of thinking processes;
- the left limbic mode presents the organized, sequential, planned and detailed B quadrant of thinking processes;
- the right limbic mode presents the interpersonal, feeling-based, kinaesthetic and emotional C quadrant of thinking processes;
- the right limbic mode presents the holistic, intuitive, integrating, synthesising D quadrant of thinking processes.

Although learners have to access all four metaphorical brain quadrants to operate effectively, they can prefer one quadrant above the other.

The way different learners prefer different modes of thinking illustrates the brainbased principle that each brain has unique attributes. According to Munro and Coetzee (2007:106), a variety of learning preferences and learning styles can be



accommodated through the interaction between the metaphorical quadrants. Process Drama as methodology stimulates interaction between the four metaphorical quadrants because the activity of dramatization offers learning spaces for the body, mind, imagination and emotions in social collaboration (also refer to Chapter 5.3.6 for an explanation of Herrmann's model).

Caine et al. (2005:226) refer to the differences in personality styles that influence the learning abilities of individual learners, and in particular the personality style indicator known as the Myers-Briggs Type Indicator. They suggest the following (Caine et al. 2005:226): "Personality styles are more generic individual perspectives or 'lenses' that also shed light on how individuals process experience." In Process Drama the individual participant has to personalize the learning material. The methodology offers processes for individual discovery, opinions and expressions as the participants endeavour to make meaningful contributions to the dramatic situations as if the situations were real (O'Toole 1992:88). Process Drama has the potential to accommodate a variety of personality styles in the pedagogical process. It also provides opportunities for meta-cognition and meta-emotions;¹⁵³ thus a learning space is created for the participants for meta-cognition through Process Drama.

Learning is physiological and influenced by unique gender differences. According to Chadwell (2010:8), the debate of gender in education includes the following four factors: student performance by gender, differences of socialization styles between males and females, hormonal influences and biological brain differences. Hormonal differences, for example, influence cognitive performance during adolescence. Jensen (2008:36) suggests that female and male adolescents apply different problem-solving styles that should be taken into consideration when attempting to meet the gender-specific needs of learners. Sax (2005:106) declares that "(t)here are no differences in what girls and boys can learn. But there are big differences in the best ways to teach them". Sax (2005:9) postulates that one should utilize the scientific facts about the innate differences between male and female adolescents. Jensen (2008:34) concludes that "we should not confuse equality of opportunity with equality of outcome".

¹⁵³ As meta-cognition refers to your knowledge about your own learning, meta-emotions refers to your knowledge about your own emotions.



The brain-conscious facilitator who applies the methodology of Process Drama has to take the uniqueness of each learner's learning style into consideration. For the purpose of this single-gender study of adolescent females,¹⁵⁴ the following section investigates the uniqueness of the female adolescent brain in the learning environment. Sax (2005:904) states that the female superior temporal cortex and frontal cortex mature sooner than her visio-spatial areas. Female adolescents develop faster than their male peers in their acquisition of language and verbalization (Louw et al. 2004:189). From the age of 13 female adolescents can react to questions regarding their emotions, whereas young males will struggle to verbalize theirs. Adolescent males also struggle to verbalize their negative feelings whereas female adolescents are able to process their feelings and voice their thoughts via the frontal cortex. Brizendine (2006:8) highlights this difference by describing the female adolescent's brain preferences as follows: they prefer verbal communication, intimate friendships without conflict, read facial expressions and gauge emotions in tone of voice.

Female adolescents are comfortable with face-to-face contact during interpersonal activities. They support each other's emotional lives and the dynamics of their social behaviour. Sax (2005:84) states that adolescent females have a preference for social groups of three or four females. Conversation is the main activity in which they engage. Collaborative learning is therefore a positive outcome for adolescent female learning. These factors have been taken into account for the design of the empirical programme on emotional competency for adolescent females.

The compatibility of Process Drama for adolescent female learning is confirmed by the drama practitioner, Gallagher (2001). She posits that Process Drama takes the female adolescent's aspirations into account by offering a "personal and collective" and reflective learning experience to be exploited (Gallagher 2001:5). She addresses the question of equity and reiterates the fact that a female-only gender class presents an opportunity for girls to find their own voice and express themselves without having to conform to or take into consideration the norms of the male gender (Gallagher 2001:32).

¹⁵⁴ This discussion coincides with the discussion of the various characteristics of the female adolescent during this development phase in Chapter 5.4.10.



In order to capitalize on the best practice for adolescent female learning, the learning should be collaborative, verbal, emotionally open and employing inductive thinking. Role play and real-life examples or stories may be implemented to convey meaning. Seeing that this study uses poems about emotions of anger and angry feelings makes it assumedly more accommodating for adolescent females than adolescent males. The Process Drama convention of dramatized poetry offers challenging creative opportunities through reflective discussions and creative work in ensemble.

The notion that all learning is a whole-bodymind experience and unique to each individual learner is philosophically defined by Jarvis:

(Now I see learning as) the combination of processes whereby the whole person – body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses) – is in a social situation and constructs an experience which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual's own biography (Jarvis 2005:7).

One can conclude that each brain has its own unique structure. Damasio (1995:154) describes this exclusiveness as containing three different levels of being: the protoself of which people are not consciously aware as it exists moment by moment on multiple levels in the brain; the core self, or traditional self, that produces a stream of consciousness which does not easily change; lastly, the autobiographical self is based on memories of the past and expectations of the future (Damasio 1995:17). This affirms the fact that the brain is very complex as each individual has her own neural patterns representing her ultimate uniqueness. Brain-aware educationalists therefore have to take the uniqueness of each learner's learning perceptions into consideration. In order to follow the brain-based principle of uniqueness, the educator should offer learning material in different styles, from different perspectives and with different intelligence preferences and practical abilities to challenge the learner's creativity.

5.4 How the brain-based principles coincide with the methodology of Process Drama and the development of the adolescent female



The following table summarizes how the brain-based principles interrelate with the methodology of Process Drama and the development needs of the adolescent female in order to combine the various strands of this chapter.

Brain-based principles	Methodology of Process Drama	The adolescent female learner
1. Learning is physiological	The methodology of Process Drama is kinaesthetic (refer to Chapter 4.4.4).	The methodology of dramatized poetry can stimulate the brain through movement and relaxation, offering the development of lasting brain structures to the learners.
2. The brain-mind is social	The methodology of Process Drama is collaborative (refer to Chapter 4.4.6)	The tendency for developing female adolescents is to learn via social collaboration; they want to interact with an adult and their peers in an interactive learning. programme
3. The search for meaning is innate	The methodology of Process Drama implies meaning making as an inherent outcome through concrete and abstract exploration (refer to Chapter 4.4.2)	Adolescent learning occurs when the learners can make emotional and cognitive connections with prior knowledge of experiences. They learn best when the learning material is relevant to real-life content and can make a meaningful difference in their lives
4. The search for meaning occurs through patterning	The methodology of Process Drama constantly strives to construct new patterns of meaning through envoicement and embodiment (refer to Chapter 4.4.4)	The adolescent female seeks to understand and employ her newfound ability of thinking about abstract concepts. She loves to participate in active group engagements of the learning process by means of discussions and question and answer sessions
5. Emotions are critical to patterning and drive one's attention, meaning making and memory	The methodology of Process Drama presents the content of the learning material on an emotional level (refer to	Emotion is a primary catalyst in the learning process of the adolescent brain. Emotional content drives the adolescent's attention and memory systems.

Table 4The interrelatedness of brain-based principles, the Process Drama
methodology and the development profile of adolescent girls



	Chapter 4.4.3)	During this stage the prefrontal area is still in a development phase that controls the affective systems. Learning to deal with emotions is a priority in the adolescent female's life
6. The brainmind processes parts and wholes simultaneously	The methodology of Process Drama is a whole-bodymind, multi-modal activity. It incorporates parts of the brain and the whole brain separately and simultaneously (refer to Chapter 4.4.7)	The adolescent female experiences development in hemispheric interrelation. The corpus callosum of young female adolescents matures up to three years earlier than the male adolescent's. Young females are comfortable regarding intuitive, non-linear functioning. They can verbalize their feelings and thoughts
7. Learning involves both focused attention and peripheral perception	The methodology of Process Drama is a multi-sensory methodology that practises experiential learning through highly energized practical activities and allows for focused attention and peripheral perception (refer to Chapter 4.4.4)	Adolescents experience heightened synaptic firing and a growing interest in all that is going on around and in them. Novelty, intensity, movement, as well as meaningful and emotionally loaded content can increase the interest of the adolescent in the learning material
8. Learning is both conscious and unconscious	The methodology of Process Drama as a creative activity needs to stimulate conscious activities, as well as the incubation periods of unconscious reflection, in order to create meaning (refer to Chapter 4.7.3)	The adolescent's development phase craves novelty, action, practical, meaningful learning and the need to reflect on abstract ideas. The methodology of Process Drama presents an opportunity for creative thinking and learning on a conscious and unconscious level
9. There are at least two approaches to memory: archiving individual facts or skills or making sense of experience	The methodology of Process Drama can apply the episodic memory system by immersing the learner in the reality of the dramatic situation. The semantic memory is strengthened by the repetition of linguistic structures (refer to Chapter 4.4.1)	The adolescent brain is capable of archiving large amounts of facts. Furthermore, the brain's ability to learn complex, abstract principles and new linguistic patterns needs to be stimulated
10. Learning is developmental	The methodology of Process Drama always focuses on the development phase of the learner (refer to Chapter 4.4.5)	In this heightened development phase the adolescent's brain is still progressing towards maturity and any life skills on emotional competency can be valuable. A
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		programme on managing strong emotions, like anger, can be valuable to the adolescent. An anger management programme can empower the adolescent female with life skills. She should be able to identify, understand and manage her emotions. The emotion of anger can override the emotional control stations of the brain (for example, the orbitofrontal cortex and anterior cingulate cortex) if the triggers of this emotion are not identified in time. To understand the mechanisms of anger can help management
11. Complex learning is enhanced by enriched environments and inhibited by threat	The methodology of Process Drama can produce many enriching learning opportunities in a relaxed atmosphere of acceptance and low threat (refer to Chapters 4.4.2 and 4.4.4)	Adolescents experience a period of high cognitive connectivity. They enjoy cognitive stimulation in group interactions
12. Each brain is uniquely organized	The methodology of Process Drama accommodates the individual uniqueness of learners by presenting the learning material in different styles, from different perspectives and with different intellectual preferences and practical abilities in mind (refer to Chapter 4.4.8)	When engaging the adolescent female in a learning environment one should take the gender- specific factors into consideration as each gender presents its own unique strengths. In order to capitalize on the best practice for adolescent female learning, the learning should be collaborative, verbal, emotionally open and may employ inductive thinking. Each brain is unique and therefore the programme takes the different learning styles of the participants into consideration. The methodology of Process Drama presents visual, kinaesthetic, auditory, emotional, cognitive and social learning opportunities and in so doing acknowledges individual learning preferences

The following chapter discusses the learning material that has been implemented for the anger management programme from the perspective of emotional competency and cognitive behaviour therapy.



CHAPTER SIX: EMOTIONAL COMPETENCE TRAINING FOR ADOLESCENT FEMALES

6.1 Introduction

The neurological mechanisms of emotions and specifically anger, the emotions of the female adolescent, the methodology of Process Drama, as well as how Process Drama conventions relate to brain-based learning principles, have been discussed in the previous chapters. This chapter commences with an introduction to emotional intelligence (EI) and emotional competency (EC), and attempts to show how the concepts of three main models of El overlap. Emotional competency (EC) is examined from an educational and neurological perspective in order to explicate the relevance of the learning material for this study. This is followed by an affirmation of the importance of the development of EC skills with the adolescent female. The learning material, based on some aspects of Cognitive Behaviour Therapy (CBT), is scrutinized in order to substantiate the relevance of CBT as the provider of the learning material for anger management. Information is provided on how the interventions of CBT integrate with the conventions of Process Drama. The conclusion of this chapter links the various strands of this study, namely emotional intelligence (EI), emotional competency skills (ECS) and dramatized poetry to indicate how all these aspects interrelate to form a brain-compatible anger management programme for adolescent females.

6.2 An introduction to emotional intelligence and emotional competence skills

As evidenced in the previous chapters, especially Chapter Four, Process Drama relates to the affective aspect of human behaviour and Process Drama conventions are embedded in emotional experiences. Emunah (1994: xvi) states that understanding the role of emotions can aid a person to comprehend human behaviour and that drama invites us to "uncover and integrate dormant aspects of ourselves, to stretch our conception of who we are, and to experience our intrinsic

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connection with others". Drama can thus serve as a platform for internalized emotional learning that enhances EC. This integrates well with educational programmes that endeavour to stimulate EI and EC in learners.

It is the mission of educators worldwide to integrate EI, EC and education, and this has been confirmed by Wolfe (2003), Crawford (2007) and Weare (2010). Anger management as subject forms part of the international EI and EC educational scenario. Hall states as follows:

The notion of EQ as an active partner of IQ which has the power to drive, shape and determine human potential means that educationalists must take the development of EQ in the learner more seriously (Hall 2005:142).

In order to position the behavioural skill of anger management, the construct of EI (emotional intelligence)¹⁵⁵ is introduced. EI, a practical intelligence (Cassady & Boseck 2008:6), can be denoted by reviewing the main models of the construct, all of which, at the most general level, refer to the ability to recognize and regulate emotions in ourselves and others.

The presentation of an emotional intelligence model should, for the purposes of this study, emphasize the importance of emotional learning for the adolescent female. Beard and Wilson (2002:118) expound the importance of EI as a way to deal with negative feelings and conflict. They posit that it teaches learners to be more aware of their own emotions and those of others and how to manage these feelings appropriately.

Knowledge of the four main facets of EI, namely self-awareness, social awareness, self-management and relationship management (Goleman 2011: Introduction: Emotional Intelligence Framework, Kindle version) can equip the facilitator who employs dramatic strategies to convey anger management skills with greater insight into the construct of emotions.

6.3 A discussion of the three main models of El

¹⁵⁵ EI is an emotional intelligence model, whereas emotional competency refers to the ability to act in an emotionally intelligent way and will be discussed further in this chapter.



The first model of EI is that of Peter Salovey and John Mayer (1997:10) who define EI as follows:

The ability to perceive accurately, appraise and express emotion; the ability to access and/or generate feelings which facilitate thought; the ability to understand emotion and emotional knowledge; the ability to regulate emotions to promote emotional intellectual growth.

Mayer and Salovey (1997) define EI from the paradigm of a new intelligence. The term EI resonates well with the concept of multiple intelligences coined by Gardner (1993), for example logical and verbal intelligence, musical, spatial, kinaesthetic and personal intelligences. The notion of these intelligences has shifted the perception of intelligence away from "How smart are you?" to the question "How are you smart?" (Cassady & Boseck 2008:4). Being able to measure emotional intelligence implies that intrapersonal and interpersonal intelligences can be accredited with "the same degree of academic respectability as that which we currently afford, say mathematics or languages" (Hall 2005:142).

According to Cassady and Boseck (2008:8), EI presents four different branches, namely to identify and express emotions, to assimilate emotions in thoughts, to understand emotions, and to reflectively regulate emotions. EI can be categorized as a distinct intellectual construct as cognition is used to understand emotions. At the first level, the focus is on the ability to identify emotional stimuli. On the next level, emotional knowledge is applied where the individual demonstrates the ability to understand and analyze emotional data. Finally, on the highest level, emotional regulation presents as the ability to utilize the knowledge at the lower levels in the hierarchy, and to guide cognition and emotional behaviour in order to be successful (Cassady & Boseck 2008:11). For the purposes of the empirical examples, the identification of the emotions of anger is relevant.

The second model is the ESI or emotional-social intelligence model designed by Bar-On (2006). Bar-On (2006:14) defines this model as follows:

Emotional-social intelligence is a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands.



This model implies that to be socially and emotionally intelligent one should be able to understand and express oneself, relate to and understand others, and to effectively cope with life's demands. Bar-On (2006:14) posits that self-awareness and insight into one's strengths and weaknesses form the basis of emotional competency. Thoughts and emotions should be communicated in a non-destructive manner, and social awareness is imperative for constructive interaction. One should be able to deal with change, daily problems and have the ability to make effective decisions. To do this, one needs to manage emotions and be optimistic, positive and self-motivated (Bar-On 2006:14). The model functions on five different levels, namely an intrapersonal level, interpersonal level, adaptability, stress management and general mood components (Stys & Brown 2004:12; Hughes & Bradford 2012). The empirical aspects of this research will be based on learning material that endeavours to reach outcomes such as intrapersonal and interpersonal awareness and the management of anger.

The third model was developed by Daniel Goleman and called the Goleman's Emotional Competencies model (Goleman 1998:26). Goleman (1998:317) defines emotional intelligence as follows:

'Emotional intelligence' refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships.

The model consists of two main areas, namely recognition and regulation. One should be capable of self-awareness and be socially aware. Self-awareness as competence entails emotional awareness, accurate self-assessment and self-confidence, whereas social awareness, as competence, refers to empathy, service orientation and organizational awareness. The regulation of emotions implies the management of self and relationship management. Self-management entails self-control, trustworthiness, conscientiousness, adaptability, achievement drive and initiative. Relationship management consists of the development of others, influence, communication, conflict management, leadership, change catalyst, building bonds, teamwork and collaboration (Goleman 2011).

Boyatzis (Boyatzis, Goleman & Rhee 1999:343) includes a set of emotional competencies within the construct of the recognition of emotion and the regulation of



emotion. He posits that emotional competencies are learned capabilities and not innate talents. Boyatzis et al. (1999:343) state that one can be born with a tendency to be emotionally intelligent which determines one's ability to learn certain emotional competencies. These competencies appear in clusters that support each other. The clusters are divided into facets such as interpersonal and intrapersonal awareness, stress management and adaptability.

These three main models of EI are also linked with other models of emotional abilities, such as the emotional competency models. The depiction of the various models indicates how the EI models overlap and how certain important aspects of emotional knowing repeatedly appear in the models. The three models serve as a criterion for the empirical examples that deals with emotions and their identification, expression, understanding and assertive management. The following table presents the clusters of Bar-On's ESI-model (emotional intelligence as a mixed intelligence, meaning that personality traits and cognitive abilities determine the outcome of behaviour and not only emotion and cognition). It includes Mayer and Salovay's Emotional Intelligence model, namely MSCEIT (which defines intelligence as a pure cognitive ability), as well as the model of Goleman, the Emotional Competency Inventory model (a mixed model that tests emotional intelligence as a competence) (Allan 2011).

Table 5	The following table indicates how the various emotional
	intelligence models overlap regarding emotional knowing (Allan
	2011)

Areas of emotional recognition and emotional management	Bar-on's ESI-model	Mayer and Salovey's MSCEIT	Goleman's Emotional Competence Inventory (ECI)
Intrapersonal	Self-awareness Self-expression	Perceiving emotions	Self-awareness
Interpersonal	Self-awareness Interaction	Facilitating thought	Social awareness
Stress Management	Emotional management	Understanding emotion	Self-management



	and control		
Adaptability	Change management	00	Relational management

The similarities observed in viewpoints of these models affirm the most important aspects of emotional knowing and emotional perception, namely to be aware of emotions in oneself and others, to understand and be able to interact with your emotions, to be able to manage emotions and adapt your emotional expressions on an interpersonal and intrapersonal level. For the purposes of the empirical examples, these competencies should be kept in mind for the design of the learning material with regard to the identification of anger, understanding of anger, management and expression of anger. The next section investigates the controversy surrounding emotional intelligence as part of the spectrum of intelligences before aspects of emotional competency are examined.

6.4 Answering to the controversy surrounding the validity of El

The differences between the various emotional intelligence constructs, for example the MSCEIT model of Mayer, Salovey (1997:10), the ESI Bar-On model (Stein & Book 2001:21), the ECI mixed model of Goleman (1995), have besieged EI as a source of definitional ambiguity (Cassady & Boseck 2008:8). The definitions, for example, range from pure cognitive factors to the inclusion of many personality traits. As seen in the abovementioned section, these models overlap in content and can communicate contradictory information about the validity of their outcomes in some cases. Controversy exists around the validity of the self-report measurements and the ability measurement tests (Mayer, Salovey & Caruso 2004:197). A great deal of criticism is aimed at the naïve popularization of the concept and the self-report scales (Cassady & Boseck 2008:9). Hedlund and Sternberg (2000:136) argue that the problem with emotional intelligence does not lie in the concept, but in the lack of consistency in how the concept is defined and employed.



Yet, seen in the light of the fact that EI is an intelligence that has most recently been identified, there should be tolerance for its dynamic growth (Mayer et al. 2004:197). Research in this field has been expanding dramatically and numerous studies have been conducted that scientifically predict the validity of EI (Arden 2010; Goleman 2011). For the purposes of this study the validity of EI competency training or training adolescent females to manage their anger will be based on proof, firstly, that EI is a valid construct and secondly, that emotional competencies can successfully be learned. Stys and Brown (2004:50) state that there is ample neurological evidence validating the fact that EQ is a "separate and distinct idea from IQ".

Bar-On, Tranel, Denburg and Bechara (2003:1790) emphasize that their research sanctions the existence of various emotional abilities that contain a form of intelligence which is distinctly different from the Intelligence Quotient (IQ). The sections in the brain that constitute emotional intelligence comprise a neurological circuitry that links the limbic area of emotion to the prefrontal cortex, the executive centre of the brain. Goleman (2011: Introduction, Kindle version), Arden and Linford (2009: Chapter six, Kindle version), as well as Keating (2004:45 – 84) posit that this brain circuitry validates the mechanisms for EI, based on neural imagining and lesion studies. Chapter 2.2 of this thesis maps details of the existence of this separate emotional brain circuit. The emotional brain circuit comprises the amygdala, somatosensory insular cortex, the anterior cingulate area, the orbitofrontal area and the dorsolateral pre-frontal cortex.¹⁵⁶

There is clear scientific evidence that the emotional circuit of the brain functions symbiotically with that of the cognitive section of the brain.¹⁵⁷ The ability to effectively manage emotions is thus influenced by the emotional circuitry of the brain (Arden & Linford 2009, Kindle version; Arden 2010). Stys and Brown (2004:51) indicate that "within the circuit between the amygdala and the medial prefrontal cortex lies the ability to regulate negative affect". This observation implies that an anger management programme can propagate emotional regulation as it could be effectively executed by the emotional circuit of the brain.

¹⁵⁶ Refer to Appendix A: Chapter Two for description of all the neurological terminology in this paragraph.

¹⁵⁷ Refer to Chapter 2.2.1



Arden's (2010) research confirms that one is to a certain extent able to rewire the neurological pathways of the brain through strengthening the synaptic pathways in order to restrict the overpowering effect of the amygdala. Arden and Linford, suggest the following:

Understanding the neurobiology of attachment and relationship – how the brain insures the continuity of early patterns of relating and at the same time has the capacity for changing them (Arden & Linford, 2009: Preface, Kindle version).

It is important for the Process Drama facilitator to be aware that synaptic remodelling can transform neurological pathways in order to moderate overpowering emotions in order to know that anger management is possible. Arden and Linford (2009: Chapter One, Kindle version) explain the significance of the brain to myelinate. Myelination appears in areas of the brain where new skills are developing. Glial cells¹⁵⁸ form a thick fatty substance that coats axons and facilitates transmissions from brain cell to brain cell (Arden & Linford 2009: Chapter one, Kindle version). This process encourages increased reliance on new experience-dependent learning. Arden & Linford (2009: Chapter one, Kindle version) posit that "(s)ome research estimates that the prefrontal cortex does not become fully myelinated until the second decade of life". This reiterates the fact that adolescence offers a window of opportunity for experienced-dependent skill learning, such as emotional competency skills.¹⁵⁹ The following section defines emotional competency and explains what emotional competency skills imply. It is important for a facilitator to be able to draw a distinction between emotional intelligence, as innate presence, and emotional competency, as functioning ability, as the one concept reflects on intelligence and the other on ability.

6.5 Emotional competency skills

Emotional competency implies that a person has acquired the ability to manage emotional and social situations on an intrapersonal and interpersonal level. The academic term emotional competence is defined by Elias, Zins, Weissberg, Frey, Greenberg, Haynes, Kessler, Schwab-Stone and Schriver (1997:2) as the ability to

¹⁵⁸ Refer to Appendix A for a description of Glial cells.

¹⁵⁹ Refer to Chapter 2.2.3.2.



understand, manage and express the social and emotional aspects of one's life in ways that enable the successful management of life tasks such as learning, forming relationships, solving everyday problems, and adapting to the complex demands of growth and development (Elias et al. 1997:2).

Saarni (1999:2) defines emotional competence as an operational capacity that enables a person to function well as a human being. Weare and Gray (2003:17) posit the term emotional competence as a term that is familiar to those who work in the educational professions. They describe the term as a practical concept, partly cognitive and partly emotive. They propose that a wide range of skills can be categorized under the term emotional competence which makes its application more concrete. These skills have been listed, for example the competency of developing self-esteem, a positive self-image, the competency of emotional identification and awareness, of expressing feelings verbally and physically, or the competency of emotional management, resilience and empathy (Weare & Gray 2003:78).

The various skills referred to in the abovementioned section imply that emotional competency is not only a reference to the individual's capacity to be emotionally intelligent, it also extends beyond the individual and by its very nature involves a social element. Emotional competence as social construct should be incorporated into experimental learning groups where the synergy of the group enhances the learning experience (Prilleltensky & Prilleltensky 2003:197 – 210). Cassady and Eissa (2008:6) define social competence as the "ability to integrate thinking, feeling and behaviour to achieve social tasks and outcomes valued in the host context and culture". Emotional competency, which is directly proportional to emotional intelligence, can be stimulated, developed and increased through skills building (Bar-On, Maree & Elias 2007:xiv). This process in turn affects social competence as social competence are interrelated. Emotional competence are interrelated.

For the purposes of this study the term emotional competence is the preferred and applicable term rather than EI. The aim of the study is to develop the ability of adolescent girls to manage the emotion of anger. This ability refers to a learned life skill rather than an intelligence. The emphasis is thus on the process of developing



EC as an ability and not an intelligence. Being competent, in this scenario, refers to the application of an acquired skill rather than being innately emotionally intelligent. This study positions emotional intelligence as the umbrella term, encompassing competency skills. Emotional intelligence ultimately includes competencies or abilities (Mayer & Salovey 1997:10). The next section confirms the validity of emotional competency training from two perspectives, firstly, educational and secondly, neuroscientific.

6.6 Emotional competency skills can successfully be learned

This section deals with two perspectives on emotional competency learning, namely an educational perspective and a neurological perspective. Both viewpoints justify why Process Drama can be effectively employed for emotional competency learning. The conventions of Process Drama modulate a make-believe environment where the competencies can be explored as if it is the real world. The empirical examples have created an awareness in the participants that anger management is possible and that they should be more mindful of the emotions and feelings that can lead to anger and angry behaviour, as well as its consequences.

6.6.1 The educational perspective

To what extent is emotional competence a skill that can be acquired and taught? The strongest support for the validity of teaching emotional competency skills derives from Social and Emotional Learning (SEL) programmes (Zeidner, Roberts & Matthews 2002; Goleman 2011) and the Self-science Programme (Maree & Elias 2007:9). SEL programmes and other similar programmes have been integrated into school curricula in the UK and USA and contain themes such as emotional awareness and regulation. According to the research of Zins, Bloodworth, Weissberg and Walberg (2004:3), there is evidence that these programmes have supported learners to achieve better academic performance. Maree and Elias (2007:5) confirm that emotional competencies have an impact on social interaction and scholastic



performance, self-actualization, leadership and subjective wellbeing. Maree and Elias (2007:9) conclude that the Self-science Programme, with its viability rigorously tested, proves an increase in emotional and social intelligence in post-test assessments. Zins et al. (2004:3) suggest that the integration of social and emotional learning in school curricula can address and promote outcomes for critical social and emotional challenges. They do, however, propose that all the various existing programmes are too fragmented (Zins et al. 2004:5) and advocate the implementation of whole-school programmes to address the mediators of emotional competence, such as self-management and motivation. Employing Process Drama as methodology with its collaborative learning programmes could permeate through a community and address the problem of fragmentation through peer learning (O'Toole, Burton & Plunkett, 2004). Process Drama places the responsibility of the learning in the hands of the participant, creating ownership of the learning material and could, hypothetically, have the educational ripple effect of peer learning.

Zeidner, Matthews and Roberts (2009:365) pose the question whether emotional competence can be trained and examine its usefulness and applications in education. They (ibid) do not dismiss emotional intelligence as a pseudo-science, but suggest that emotional abilities will lead to significant behavioural improvement if applied as whole-school programming integrated into curricula. Zeidner et al. (2009:365) posit that in the future workshops can raise awareness, but there are limitations to the extent behavioural change can be accomplished in the school community.

Parker, Saklofske, Wood and Terri (2009:239) examine the role of emotional intelligence in education. Their findings (ibid) indicate that there is a growing empirical link between emotional competence and academic success that leads to an increased interest in programmes that can enhance emotional competencies in elementary and secondary schools. Shanwal and Kaur (2008:165) suggest that emotional intelligence can be "nurtured among children and adults. There is definite evidence of changes in levels of ei through learning and life-experience". They suggest (ibid) that students should be assisted in finding conflict solutions and managing their emotions. Caruso (2008:12) proposes that emotional intelligence, as an ability, appears to be predictive of behaviour outcomes that can influence

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academic and work performance. Weare (2004:53) states that research concludes "unequivocally that whole-school approaches are essential when attempting to tackle emotional and social issues at schools".

Against the background of the aforementioned evidence, one can conclude that adolescence is a phase in need of emotional competence life skill input. Adolescents are known for their inclination towards risk taking (Nelson, Leibenluft, McClure & Pine (2005). They place peer-integration high on the list of their value system and are inclined to please peers rather than the adult system, as discussed in Chapter 3.2.3. Adolescents can benefit when being trained in emotional competency life skills. According to Erasmus (2007:45), emotional competency for adolescents can serve to protect them against negative conduct in themselves and in others at school.

Independent research maintains that emotional competency should be implemented as preventative programmes for violence in schools. Smith (2001:13) proposes that the prevention of violence at school can reduce negative behaviour and foster higher levels of emotional and social competence. Emotional mentoring can form an important part of relationship management, according to Maree and Ebersöhn (2002:266). Richardson (2002:57) suggests that safe learning environments provide young adolescents the opportunity to reach their full potential. As discussed in Chapter Four, according to brain-based principles, learning cannot flourish in an atmosphere of threat and emotional negativity. Bodine and Crawford (1999:28) suggest that more and more educators and learners find themselves victims of disruptive, disrespectful and violent student cultures. They experience feelings of deep frustration and hopelessness. There are various efforts to design and implement strategies to improve the emotional wellbeing of adolescents in schools on an international level, for example, the solution-focused approach of Sklare (2005). The South African school curriculum endeavours to curb negative behaviour through the subject of Life Orientation where learners could, for example, explore how to deal with difficult emotions (South African Department of Education 2005). This empirical examples investigate the effect of a Process Drama programme on anger management for school-going adolescent females.



Based on the abovementioned research, the study makes the assumption that emotional competences can be enhanced by creating an awareness of the existence of other options to process anger, aggression and stress, through the methodology of Process Drama. It also proposes that, through learning, adolescents can choose to be assertive and understand the needs of others rather than only concentrate on themselves.

The neuroscientific perspective will now be discussed.

6.6.2 The neuroscientific perspective

The human brain grows new neurons that can become functional (refer to Chapter 2.3.2). As a person engages in new learning, the brain remodels itself (Kempermann, Wiskott & Gage 2004:186). Hannaford (1995:27) states: "The plasticity and exquisite organisation of the nervous system give us a window on the potential for life-long learning and healing". Jensen (2008:198) asserts that due to neuroplasticity, the brain's structure, patterns and functions can change positively, but, unfortunately, also negatively.

Neuroscientists Merzenich and Tallal (cited in Syka & Merzenich 2003) verify that when the most efficient skill-building protocol is used, educators can make positive and significant changes in their learners' brains in a short time. To confirm the abilities of the plasticity of the brain, Doidge (2007:288) quotes Merzenich who asserts that humans can learn complicated skills that involve intricate brain adaptations throughout their lives.

It is therefore possible to teach new emotional competency skills to adolescents regarding their anger management. The prerequisite is that learners should be motivated, the material clear, practical and simple and their memory enhanced by repetition (Goleman 2011). Siegel (2010: Chapter One, Kindle version) states conclusively, that (w)e can learn to loosen the grip of habit and engrained aspects of what we call personality to become more mindful. We can learn to monitor our



internal word – in mind and brain¹⁶⁰ – and then modify it so that we can cultivate presence as not only an intentionally created state, but as an enduring trait in our lives (Siegel 2010: Chapter One, Kindle version).

The aforementioned reiterates the fact that emotional competency can be learned. In the next section, the profile of the adolescent female, her anger and her amenability to an anger management programme will be discussed. This specific anger management programme is an approach with which an adolescent girl can develop the skills that enable her to identify, understand, express and manage her own emotions and those of others. She should, in the first place, be able to identify her own emotions and understand them. This task of emotion identification can be difficult as her own cognitive abilities, which should give insight into emotional experiences, are not yet fully developed.

6.7 The importance of emotional competency skills, such as anger management, to adolescent females

The following section emphasizes the importance of emotional competency training for adolescents as a sub-category of emotional intelligence with special reference to adolescent females and their anger management skills. Nelson et al. explain anger as follows:

(A)n intense emotional response to frustration or provocation characterized by heightened automatic arousal, changes in central nervous system activity and cognitive labelling of the physiological arousal as anger (Nelson et al. 2006:119).

Nelson et al. (2006:125) argue that adolescents' anger and subsequent reactions to the emotion are regulated by the way they perceive, process and mediate environmental situations. Certain events can stimulate or trigger their anger feelings, such as frustration with problems, annoyance, inequity, verbal assault or physical assault (Wilding & Milne 2008: Part One, Kindle version). These triggers lead to the cognitive processing of the events.

¹⁶⁰ See Siegel'S (2010) definition of the mind in Chapter 4.5.6.1.



Cognitive processing can be distorted if the adolescent has poor problem solving abilities, reacts with high compulsivity, poor consequential thinking or has a high anticipation of hostile intent. If the emotion of anger is aroused and labelled, the following behavioural reactions can be observed: verbal, physical or passive aggression, such as withdrawal or submission (Nelson et al. 2006:125). If the situation has been cognitively well interpreted the adolescent might react in an assertive way.

Regarding the emotional development of adolescents, neurological research claims that adolescents differ from adults in their ability to identify and understand emotional messages. Yurgelun-Todd (2002:2) found that, compared to adults, the adolescents' frontal lobes, the seat of rational orientation, are less active during emotion identification processes. The amygdala, on the other hand, a structure in the temporal lobe that is involved in the discrimination of fear, anger and other emotions, is more active. According to this investigation, adolescents often misread facial expressions. Those under the age of 14, for example identify sadness, anger or confusion instead of the expression of fear. The frontal cortex is not being brought to bear on the task of identifying the correct emotions as in the case of the adults (Yurgelun-Todd 2002:2). One can conclude that the development task of social independence and independent decision making can be difficult and stressful for some adolescents regarding the identification of emotional messages and might lead to conflict.

As far as the ability of expressing one's anger in an assertive way is concerned, a great number of female adolescents are exposed to role models that encourage negative aggression instead of positive assertiveness. In fact, O'Lenic and Arman (2005:55) state that a "plethora of research has supported the hypothesis that exposure to violent media is causally related to subsequent expression of aggression, as well". Carpenter and Ferguson (2012) confirm the typical Western trend that 'girl power' is on the increase due to media messages, cartoons and films. The role models are propagating violent behaviour and aggression as typical female behaviour.



The female adolescent should be able to display emotionally competent behaviour to prove that she can manage her own anger and those of others. Nelson et al. (2006:119), however, suggest that there are multiple factors for anger and aggressive behaviour during adolescence which works against a healthy style of anger management. They state, for example, that genetic influences can count for almost 50% of aggressive behaviour. Other factors such as family circumstances, for example divorce, isolation, abuse, lack of parental supervision or neglect can lead to the negative display of anger (Thompson, Rudolph & Henderson 2004). Wiley (1998:37) confirms the importance of consistent parental support and guidance as crucial to the development of a well balanced adolescent.

The adolescent female still needs the guidance of older persons in order to assist her in becoming able to manage her own emotions, let alone those of others. Antisocial family behaviour and parental criminality can be a cause of adolescent anger or aggression, as well as environmental influences such as poverty, neighbourhood criminality, peer and media influences (O'Lenic & Arman 2005:55). Clearly, an adult facilitator must contribute positively to an anger management programme.

There is growing concern that adolescent females do not have the proper life skills to know how to manage their anger assertively. According to Underwood (2003), adolescent girls lean more toward relational aggression than boys. It can be concluded that adolescence is a more vulnerable time for girls than boys. Wood (2007:165) postulates that research confirms that "parents positively reward verbal and physical aggression in sons and positively reward interpersonal and social skills in daughters". Boys present strongly in overt aggression, whilst female adolescents express their aggression in more covert ways. Female adolescents will hide their aggression, initiate peaceful outcomes or use a more subtle form of attack to injure or control the social standing of the victim in order to protect their self-esteem (Wood 2007:165).

According to Li (2006:161), female-to-female relational aggression is a growing concern, especially in the form of cyber bullying. Female adolescents, who most often are the perpetrators and victims of relational aggression, experience



detrimental effects upon their personal, social and academic development, and their career planning.

Adolescent girls present lower levels of emotional competence in areas of mental health, risky sexual behaviours, general health, dietary behaviours (Steiner et al. 1998), and stress (Litt 2002; Rudolph 2002) than their male counterparts, as discussed in Chapter 3.3.7. Female adolescents experience heightened interpersonal relationship stress due to their greater reliance upon peers' emotional support and intimacy compared to boys. Female adolescents may experience conflict on interpersonal relationship levels that can cause anxiety and depression (Rudolph 2002).

Several factors have thus been found to contribute to the importance of emotional competency training for adolescent females. To reiterate: the female adolescent's executive functions, in most cases, are still developing. She is therefore not always able to identify the emotions of others adequately. She may be subjected to violent messages in the media and might be genetically prone to aggressive behaviour. She may be exposed to poor family factors, without emotional support or to environments where female to female aggression is rife. Her own stress levels may also instigate the presentation of anger or angry feelings.

The following section describes and discusses the design of learning material to be used in an anger management programme for the middle adolescent girl. As indicated in Chapter Two, this study draws from Cognitive Behaviour Therapy (CBT) and Rational Emotive Behaviour Therapy (REBT) to compile learning material for a programme on anger management. The abovementioned therapies are not new theoretical frameworks, but are systems that interrelate well with meta-cognitive methodologies such as experiential learning, underpinned by the brain-based principles of learning. The study holds that CBT and RBT integrate with Process Drama strategies as they incorporate reflection, self-discovery and relaxation in their methodologies. These are not new theoretical concepts per se, but accepted strategies of well-planned learning processes. CBT, RBT and Process Drama deal with emotional behaviour. CBT and RBT's learning material on anger management integrates well with the methodology of Process Drama in this programme on anger



management. The use of these strategies will be substantiated primarily by the field of neuroscience as Process Drama is a brain-based methodology, as indicated in Chapter Five.

6.8 An introduction to the learning material for the anger management programme

6.8.1 Cognitive Behaviour Therapy and Rational Emotive Behaviour Therapy

The application of the interventions of CBT and REBT has been explained in Chapter 2.5.6.This section presents a more in-depth discussion authenticating specifically the value of the strategies described in these therapies in the use of an educational anger management programme.

REBT falls under the therapeutic tradition of CBT as the most long-standing cognitive therapy (Neenan & Drydan 2010:1). As CBT as an approach contains REBT, this discussion will mainly use CBT as a term reference based mainly on the work of Neenan and Dryden (2010). The origins of CBT can be traced back to the philosophy of Stoicism as promulgated by Robertson (2010:7). The CBT theory posits that people have the freedom to make their own choices regarding internal and external factors (Wilding & Milne 2010). Another distinctive theoretical feature of CBT is the belief that people are both rational and irrational, but have to strive harder to be rational than irrational. A CBT viewpoint is that people are capable of change over time and that there should be a strong emphasis on pro-activity regarding behaviour. CBT is based on the ABC Model of thought processing (Wilding & Milne 2010). A person's response to A (an event) is C, mediated by her thoughts and beliefs at point B. When a person takes a rigid stance towards an event, her negative thinking patterns release negative emotions. The core of the therapy is to assist the person to think in a flexible way to overcome irrational negativity. She should adapt and rather seek a positive, more realistic solution. CBT employs cognitive skills to alter negative emotional patterns, coinciding with the emotional competency theory



of Elias et al. (1997:2) that proposes that emotional competency is an ability that one can obtain through skills building.

Emotional competence places the emphasis on the human ability to learn emotional skills. Elias et al.'s (1997:2) definition of emotional competency underscores the human ability to be able to understand and manage emotions. CBT supports this concept as it maintains that one should understand the motives behind actions and then, by analyzing them, change one's thinking patterns positively.

The biological foundation supporting cognition verifies the use of CBT as an approach, and, by implication, REBT as learning material for the Process Drama anger programme. The following examples, drawn from cognitive neuroscience, serve as scientific proof that both CBT as approach and as therapy, as well as REBT, complement the core principles of neuroscience. LeDoux (1998:265) recognizes the importance of the steering of amygdala activity through the temporal lobe memory system and the numerous cortical areas of the conscious awareness by accessing explicit knowledge. This matches the core principles of both CBT and REBT. McKay (2005:4) confirms the validity of REBT and CBT on a neuroscientific level and explains that the mind has the ability to focus the power of the brain to create new neural pathways.

CBT, as a strong precursor to the practice of emotional healing, is confirmed in the work of of Sielig (2010), Brown (2010), Arden and Lindford (2009), Goleman (2011), Medina (2008) and Cozolino (2010). Cozolino (2010: Chapter Two, Kindle version) maintains the co-existence of psychology and neuroscience and also explains how neuroplasticity generates new learning. Arden and Linford (2009: Chapter Two, Kindle version) state: "The genes that support temperaments are not static or fixed. A child's brain is sensitive to enriched or deprived environments, and children are highly motivated to adapt to attachment figures." Sielig (2010: Chapter five, Kindle version) confirms the relevance of CBT and recommends it as a brain-based therapeutic programme. The most frequently used therapeutic approaches for anger, and considered to be the most effective, have a basis in CBT (Kassinove & Tarfrate 2002; Childre & Rozman 2003). For the purposes of this study, the learning material for anger management is drawn from a CBT programme designed by Wilding and



Milne (2010) in light of the fact that CBT complies with the principles of how the brain processes emotions and cognition.

CBT and REBT are specifically relevant for the regulation of anger as employed in the learning material of this study. Under the general CBT therapeutic tradition, the two most frequently recognized and specific approaches are those of Beck (2000), namely the Cognitive Behavioural Therapy and the Rational Emotive Behavioural Therapy of Ellis (Ellis 1977). Wilding and Milne (2010: Part One, Kindle version) posit that Beck's CBT and Ellis' REBT have strong educational outcomes as the emphasis is on self-discovery. The main goal is to destroy self-defeating thoughts and belief systems and form alternative, life-enriching viewpoints. Thought records are kept in order to review progress and internalize information. The relevance of the aforementioned information has been applied in the learning material of the empirical examples. The empirical programme lists negative thought patterns to assist the female adolescent in identifying it.

The two approaches, REBT of Ellis (1977) and CBT of Beck (2000), have distinct similarities, such as the identification of events and situations leading to the triggering of an emotion, such as anger and the replacement of irrational, inaccurate thoughts with rational thoughts (DiGiuseppe 2009:96). Wilding and Milne (2010: Part One, Kindle version) explain that in the case of anger, negative emotions will be experienced, such as irritability, disgust, insult, impatience and resentfulness. The thoughts aligned with these feelings are to assume the worst, seeing the problem as enormous, thinking how unfair others are, thinking how unfairly one has been treated, and how one has been used. The body's reaction to these feelings and thoughts can be described as an adrenalin response. Thus one can't concentrate well, is short of breath and has an increased heart rate. The behaviour that follows these reactions can be that of destructive anger, for example fighting, arguing, making a lot of noise, sulking, snapping, swearing, putting others down or being sarcastic.

Both REBT (Ellis 1977) and CBT (Beck 2000) endeavour to intervene between feelings and thoughts in order to curb negative behaviour (DiGiuseppe 2009:96). Ellis (2003:225) confirms that the two approaches are similar in many aspects, but



differ in learning styles. The REBT approach is didactical and persuasive in order to help the change their values and assumptions. In CBT the client-therapist relationship is interactive (DiGiuseppe 2009:106). The therapist leads the clients to reflect and explore their own thinking and to discover inaccuracies in their thinking for themselves. Nelson, Finch and Ghee (2006:127) suggest that Cognitive Behavioural Therapy interventions are best grounded in a collaborative relationship of 'you and I' against the common opponent, for example anger/aggression. The reason for mentioning these interventions of CBT is to indicate how they coincide with and support the conventions of Process Drama, and in that way (Arden & Linford 2009: Chapter one, Kindle version) confirm the relevance of the conventions in educational anger management learning. The following discussion only refers to CBT as the umbrella term for the two specific cognitive therapies of Beck (2000) and Ellis (1977).

6.8.2 How the interventions of CBT for anger treatment coincides with the conventions of Process Drama

The following interventions for the treatment of anger problems, specifically in adolescents, are mainly drawn from Charlesworth (2008:2) and confirmed by various other researchers.

6.8.2.1 Relaxation training

A variety of modalities, including progressive relaxation (the systematic tightening and relaxation of the muscles), or yoga and meditation are employed. McKay (2005:4) reiterates the importance of breathing exercises to refocus and relax. He describes a state of relaxed alertness and calm as imperative for the correction of anger and angry feelings.

Mckay (2005:4) states that mindfulness means that one can develop a clear, serene and compassionate mental state. McKay (2005:5) explains meditation as a state of mental self-control, of having clarity, insight, compassion and serenity. During the

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workshops of the empirical examples this intervention has been employed, not only as a routine activity of Process Drama, but, in this case, specifically to expose the learner to total relaxation and demonstrate how it can assuage one's anger.

6.8.2.2 Reflecting assignments

Charlesworth (2008:3) states that CBT endeavours to change how one thinks (Cognitive) and what one does (Behaviour). These changes can help one to 'feel' better. CBT focuses on present problems and difficulties. Whilst it is often useful to discuss the past and understand how one's past has influenced one's life, CBT mostly focuses on exploring ways to improve one's mental wellbeing. A Process Drama workshop offers reflection as one of its most important structural activities.

The adolescent participants may be instructed to engage in self-monitoring through journaling (O'Lenic & Arman 2005:56). Journaling, according to Wilding and Milne (2010:Part One, Kindle version) in their work on CBT and anger management, enhances memory, makes self-observation more concrete, focuses the learner on the task and serves as a record for future reference.

Engaging in journaling is a convention of reflective learning that is routinely applied as a methodology in Process Drama. Reflection as a learning activity is also a confirmed brain-based strategy suggested by Jensen and called feedback (Jensen 1998:33). This affirms that the learning material of CBT is well attuned to the methodology of Process Drama (Wilding & Milne 2010: Part One, Kindle version). The journaling in Process Drama was done at the end of the empirical examples to focus the participants' attention on what the programme has meant to them regarding their anger management, whilst providing them the opportunity to articulate their feelings.

6.8.2.3 Assertiveness training



In CBT assertiveness exposes the participants to the differences between assertion, aggression and passivity, and can integrate the learning process through role play or improvisations (O'Lenic & Arman 2005:56; Charlesworth 2008:2).

In the Process Drama workshops of the anger management programme this intervention is crucial to emotional competency training. In order to be able to learn how to manage one's anger, one has to understand how to communicate assertively. This concept was specifically addressed through the convention of role play where the participants had to write a dialogue between the mother and daughter displaying an assertive communication style.

6.8.2.4 Distraction techniques

CBT programmes suggest that relaxation techniques can assist adolescents to be more aware of the physical triggers of anger. Distraction techniques can help them to distance themselves from the situation, for example breathing, counting, removing themselves physically from the situation or through using humour and imagery. Imagery can help them to envision the scene in a different way, or place themselves in a more peaceful imaginary situation (Charlesworth 2008:2). Brown (2010) confirms that play or constructive downtime and sleep are solutions for stress.

This empirical programme employed meditation as a technique to help the participants relate to their bodies' expression of anger. After a heated debate about anger styles the participants were calmed through a relaxation activity that demonstrated to them how one can distract angry feelings through total passivity.

6.8.2.5 Problem-solving skills

Adolescents can be taught problem-solving skills in order to help them cope during anger-provoking situations (DiGiuseppe 2009:105). An example of such a skill is the ABC technique (Stein & Book 2001:32). The CBT and REBT programmes always include references to the faulty assumptions and conclusions that can trigger anger,



for example over-generalizing, mind reading, labelling, all or nothing thinking, always or never thinking, catastrophizing or fortune telling, which means to always expect the worst, a sense of guilt, thinking with one's feelings, personalising, and blaming (McKay 2005:61; O'Lenic & Arman 2005:57; DiGiuseppe 2009:105).

One of the main pedagogical aims of Process Drama is to stimulate problem solving skills (Weltsek-Medina, 2008). The learning material of the Process Drama anger management programme employs the conventions of writing in role, as well as role play to convey a range of negative communication patterns to the participants. Through these techniques the participants have to identify negative thought patterns and create dialogues of such conversations. This exposed them to a first-hand experience of how faulty assumptions can instigate anger.

6.8.2.6 Social skills training

Interpersonal skills can empower adolescents to understand and identify the emotions of others and how to deal assertively with them (DiGiuseppe 2009:105). Nelson et al. (2006:126) suggest that adolescents can develop the necessary skills to effectively manage their anger which then result in more adaptive behavioural reactions. Pollock and Kymissis (2001) suggest that adolescents need to be empowered with life skills that help them to deal with their anger. Pollock and Kymissis (2001) maintain that group therapy for anger management has the potential to be just as effective as individual treatment as it decreases the adolescent's feelings of isolation around the problem of anger. Liebmann (2004:133) states that "[g]roup therapy, as one component of a multimodality approach, does have an important role to play in the treatment of troubled adolescents". O'Lenic and Arman state (2005:55): "Although not every teen is an angry young man or woman, all teens can benefit from learning healthy anger management".

Nelson et al. (2006:117) argue that physical alterations and aggressive acting out, in general, decrease from childhood to adulthood. They (ibid) posit that, overall, adolescent aggression is susceptible to change and systematic interventions. Nelson



et al. (2006:117) suggest that in serious cases of anger displays, constant interventions can teach adolescents to approach their anger in more constructive ways.

Process Drama is embedded in collaborative learning, negotiation, dialogue and collective decision-making or action. The empirical programme is designed to stimulate interactive group learning through scenarios such as debate, role play, choral work, dialogue and tableaux. The participants have to take responsibility in an ensemble and collaborative ownership for their learning.

6.8.2.7 Bibliotherapy and Art Therapy

The adolescents can explore the concept of anger through stories and poetry (Charlesworth 2008:2). Riley (2004:43) suggests that metaphorical expression is a very strong vehicle to open up an intrapersonal relationship between the facilitator and the participant in a therapeutic session. Riley (2004:30) gives an example of a sixteen-year old adolescent's drawing of her anger. The adolescent describes the identification and expression of her anger in the drawing as follows:

When I get angry – I feel torn inside, I feel guilty for feeling this way. I get headaches, I feel very strong forces, as though they're exploding in my head. I cannot express my anger openly.

Arden and Linford (2009: Chapter Four, Kindle version) state that talking about emotions, such as anger, sadness or loss, helps to activate the left prefrontal cortex and shifts the balance from an overactive right hemisphere to an appropriate bilateral balance. Arden & Linford (2009: Chapter Four, Kindle version) state "(e)ven the process of naming felt emotions can calm the amygdala". The process of naming an emotion can activate the prefrontal lobes and break the tendency of the amygdala to overreact. O' Lenic and Arman (2005:56) explain that expression through artistic mediums such as poetry or movement is often a better communication channel than verbalization.

O'Neill (1995) suggests that Process Drama could be launched into an 'as if' reality that employs literary pre-texts. In Process Drama programmes dramatized poetry is



employed to explore the body language of anger and the emotional effects of anger on vocal tones as one varies the tone of the voice in order to express different emotional meanings. The participants could explore the world of the poet's anger and thereafter write their own poetry, expressing their feelings in metaphors, without revealing personal details. This keeps their most personal feelings and experiences private.

Charlesworth (2008:2) proposes that Bibliotherapy can be a way to intervene in CBT programmes for adolescents and advocates the benefits of the application of metaphors as interventions. The convention of dramatized poetry integrates well with Bibliotherapy as an intervention. According to White (2004:55-87), art educators globally view art as metaphorical gateways for inner healing in a world of violence and poverty as it propagates some qualities of humanity, such as individuality and universality.

The convention of dramatized poetry has been introduced as the Process Drama methodology in an anger management programme and originates from the domain of Applied Drama. The CBT introduces Bibliotherapy and other forms of artistic metaphorical vehicles as interventions.¹⁶¹ The convention of dramatized poetry is an artistic vehicle and can therefore also be classified as a Bibliotherapeutic device.

For the purposes of this study, the terms and strategy will be used interchangeably. The terminology will mostly be applied according to the dominant domain area in which it is based. The learning material for an anger management programme is based on the CBT interventions. The next section interrogates the value of dramatized poetry as a convention in a programme that applies the learning material of CBT on anger management.

6.9 Conclusion

¹⁶¹ Jenson, Clark and Burrow-Sanchez (2009:247) define the word intervention according to the psychological domain as "the systematic application of research-validated procedures to change behaviour through either the teaching of new skills or the manipulation of antecedents and consequences".



This table indicates how the various strands employed in this study, namely emotional intelligence, emotional competency, CBT, Process Drama and dramatized poetry are interrelated. These strands are woven together to form a coherent, brain-compatible anger management programme for adolescent females.

Module	Description	Outcome	Neuroscientific validity
Intelligence Category El	The programme falls under the EQ section of intelligence. The programme endeavours to enhance the anger management skills of adolescent girls	Managing the emotion of anger	El is compatible with neuroscience: there is an emotional circuit in the brain that accounts for emotionally intelligent thinking
Competency Category EC	The programme will hypothetically enhance the emotional competency of the adolescent learner regarding her anger management skills	Managing the emotion of anger	EC can be learned according to the evidence of the neuroplasticity of the brain
Learning Material Category CBT Interventions	The programme will use the CBT's learning material for the anger management programme with a view to training cognitive skills to manage feelings of anger	Managing the emotion of anger	CBT is an accepted therapy in neuroscientific psychology (Sielig 2010) based on the evidence of the neuroplasticity of the brain
Methodology of Process Drama through the convention of dramatized poetry	The programme will employ the methodology of the convention of dramatized poetry in order to heighten the emotional awareness of anger and angry feelings. Feelings will be used to understand cognition about anger	Managing the emotion of anger	The methodology of the convention of Process Drama namely, dramatized poetry as an enactment strategy is compatible with the principles of brain-

Table 6	Interrelations of various strands employed in this study
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	based education

6.10 Summary

The conventions of Process Drama and specifically of dramatized poetry employed as methodology for an anger management programme can, hypothetically, enhance the emotional competency and creativity of the learner. The application of the whole body, mind and emotions in the learning process, intensifies the learning process to reach a deeper level of understanding and meaning-making. The integration of the body, mind and emotions in one learning experience has the potential to involve the participant fully in an anger management programme and can intensify the experience in order to make it more memorable. The next chapter explains how this integrated methodology practically demonstrates the accumulation of all the aforementioned approaches in the six workshop session plans of the empirical programme.



CHAPTER SEVEN: WORKSHOP SESSIONS FOR THE ANGER MANAGEMENT PROGRAMMES

7.1 Introduction

Previous chapters contend that the methodology of Process Drama can serve to convey the learning material of an anger management programme holistically by incorporating emotional, cognitive and physical experience to foster emotional competence. The previous chapters also maintain that the methodology of Process Drama is based on brain-based principles of learning. The research also argues that the adolescent female can benefit from anger management skills during this tumultuous stage of physical, social and identity change. This chapter describes the three workshops during which the methodology of Process Drama is integrated with the learning material towards anger management as an emotional competency to present to the adolescent female participant.

This exploratory research methodology presents workshops to three different groups or case studies. The research endeavours to make a unique contribution to Process Drama as a brain-based methodology and to benefit the emotional competence of the adolescent female. The methodology of the Process Drama convention of specifically dramatized poetry offers a convenient platform for facilitating emotional competence. The poems, as discussed in Chapter Four, draw the participant with emotional rhythmic patterns, musical assonance, alliteration and visual comparisons into their worlds. The cognitive meaning of the poem is integrated with the emotional format of the poem. The participants will be challenged to add sound and movements to the meaning of the poem. In so doing, bodymind and emotional learning can take place. This can offer a holistic experience of the feeling of anger and its consequences.

Not only does the convention of dramatized poetry capture the attention of the adolescent girl, but all the various Process Drama conventions, such as the Mantle of the Expert, writing in role, tableaux, role play, as well as thought tracking and mime, create opportunities for learner-centred, collaborative and implicit learning. The teacher facilitates the process and the participants discover the meaning by



involving the whole body, mind and emotions in the process. The participants identify with experiences in the safe environment of make-believe realities. They do not have to reveal personal issues as the process leads them away from themselves to a fictitious world. When they are brought back to reality, they are free to draw their own comparisons and identification with the fictitious world. This study highlights the importance of three different educational outcomes, namely:

- How can the educational branch of Applied Drama, under which Process Drama methodology is categorized, contribute to the outcome of the workshop?
- How does the Process Drama conventions, and especially the convention of dramatized poetry, contribute to the adolescent female's emotional competence skill of anger management?
- Lastly, how do all these strands Applied Drama, the conventions of Process Drama and dramatized poetry comply with the principles of brain-based education?

This chapter consists of six session plans containing the anger management learning material, the learning activities, pedagogical rationale for those activities, as well as a description of how the theory of Process Drama is integrated into the action plans. The foreseen outcomes of each session are presented after the session. The six session plans were originally designed for 120 minute sessions. Due to the fact that the original plan for the workshops could not be realized, each session was shortened to 90 minutes.¹⁶²

¹⁶² The reader will note that some activities are numbered, for example, "Session 1: Activity 0". These are activities that can still be incorporated into the sessions if there is more time available.

7.2 Six session plans

SESSION ONE	
Learning Area	Life Orientation ¹⁶³
Phase	Senior Phase
Grade	9 (also applicable to Grades 8 and 10)
Subject-specific aim	Dealing with difficult emotions
Learning activity	Anger management
Session number	1
Session theme	The who, the what, the where, the how.
Duration	120 minutes
LO Learning Outcome	Learning Outcome 3: The learner will be able to use acquired life skills to achieve and extend personal potential to respond effectively to challenges in her world.
Assessment standard	We know that the outcome has been reached when the learner responds appropriately to emotions in challenging situations.
Facilitator	Celia van den Berg; referred to in the sessions as facilitator, TiR and facilitator-researcher.

¹⁶³ The information about the outcomes and assessment of Life Orientation is sourced from the Revised National Curriculum: Statements (R-9) Schools. Teacher's guide for the development of learning programmes, policies, guidelines. 2003. Pretoria: Department of Education.

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Methodology Process Drama: This methodology applies a series of dramatic conventions to explore themes or issues from different perspectives. The methodology introduces the participants to a make-believe world where various kinds of perspectives on an issue are explored (Landy & Montgomery 2012:19). Hatton and Anderson (2004:17) state that Process Drama generates a social world in which issues can be explored through role playing. This is a structured methodology seeking to solve a problem whilst the participants and facilitator are in a state of metaxis (being simultaneously in the real and the fictional reality). The participants and the facilitator enter into a contract to find solutions to their problem in the real and in the fictional world by using dramatic conventions (O'Toole 1992; Neelands & Goode 2005). In other words, the participants are looking at reality through fantasy. In the fictional world the participants are safely rehearsing for life (Wagner 1999). The participants are granted an opportunity to simultaneously be in the real and the fictional reality. This offers a distancing technique that may help them to critically reflect on a hands-on experience without having to bear the negative consequences of the real world (Morgan & Saxton 1987:131). During each session the facilitator will indicate how the Process Drama endeavours to deepen the levels of inner understanding and outer manifestation of inner understanding. Morgan and Saxton (1987:21) frame these as the taxonomy of personal engagement in the meaning frame and the taxonomy of personal engagement in the expressive frame. In this way the facilitator can assess how the Process Drama moves to deeper levels of meaning and expression in order to create empathy for the various roles in the drama. Role play in Process Drama is set to create an emotional and mental level of identification with the functions of the roles, in this case the mother and daughter, in order to bring change in the perception of the issues discussed (O'Neill 1995:70). O' Toole and Haseman (1989:7) describe the way role-taking takes place in Process Drama as follows: "(A)s we adopt the appropriate attitudes we say we have taken on the role of the character". Hopefully, in these workshops, the identification with the role of the character on a deep level can bring about a change in the participant's perception of anger. Nicholson (2005: 6) argues: "Most practitioners working in Applied Drama are motivated by individual or social change and there is, therefore, a similar interest in the effects and usefulness of the work."

Discussion of the Process Drama convention of rituals that will occur in the six sessions

Three different rituals will be employed during the sessions: the ritual of relaxation, the ritual of enroling and de-roling into the role drama and the ritual of rap. Generally speaking, the rationale behind these repetitive strategies is as follows: each time the ritual is performed in the expressive frame, the participant is physically engaged in the action of the ritual. These rituals have the inherent power to crystallize or summarize the meaning of the material; it can lay down some physical routines, as in the case of the ritual of relaxation, and indicates when the participants are in role and when they are out of role.

a) The repetitive value of the ritual of relaxation is to lay down a series of exercises that can be used in a stressful situation to relax the person. After repeating the exercises as often as possible, the participants will hopefully be able to use it to calm themselves down to prevent an outburst of anger; in other words, it can serve as an anger management tool. The other reason why this ritual is valuable is to ensure that the participants are in a state of relaxed alertness before the session begins. It may energize them, help them to get rid of the stress of the day and serve as a method to focus them on the session at hand.

b) The second ritual will be that of enroling and de-roling. These terms are often used in Process Drama to indicate when the participants are stepping into a role and to indicate when they step out of their roles. It is important that participants who identify deeply with the emotions of a character are given permission to detach themselves from these emotions to enable them to analyze the experiences of the role they present in a more objective way. Landy and Montgomery (2012:34) confirm that Process Drama offers more than one mode of learning, namely identification through dramatization, as well as distance and reflection.

In order to transport the participants into a make-believe world that serves as a metaphor for the real world, the facilitator strikes an agreement with the participants to accept the illusion of the fictitious world. For this Process Drama the facilitator creates a half-circle with Chinese umbrellas (as the characters in the fictitious world are Chinese). This half-circle presents the aesthetic world where, as explained by Boal (1995:20), "dead people are alive, the past becomes present, the future is today, duration is disassociated from time, everything is possible in the here and now, fiction is pure reality and reality is fiction". The participants enter into a contract with the facilitator to agree that the aesthetic world of make-believe is a learning space where reality can be investigated through fantasy. They should also understand that stepping out of this space means that they can explore more objectively through reflection and discussion. At the end of the Process Drama the same umbrellas will serve as symbols of protection against anger. Each triangular segment of the umbrella will stand for an element of anger management. The participants will each be given an umbrella to take home to remind them physically of the different aspects of anger management.

The fantasy world in the Process Drama creates a safe space where sensitive issues can be explored without involving the personal problems of the participant. In order to indicate clearly when the aesthetic world is entered, the group will encircle the umbrellas and enter the space at a point where they receive some props as a symbolic indication of putting on other roles. When they exit the space they will exit on the other side and take off the symbolic props and/or costume pieces to show that they are no more in role. The ritual of enroling and de-roling creates the perception that the aesthetic space is a special area, or another reality.

c) The rap ritual at the end of a session serves as a way for participants to distance themselves from the session material. The rap ritual is a way to determine if they can capture the essence of the session. After the session the basic theme of the session can be summarized in a rap rhyme. If time permits, at the end of the next session the participants write another poem summarizing the basic message of this session. Each time the rap is repeated from the beginning. This will also help to lay down the content of the previous sessions and will help them to memorize certain important aspects of anger management. Such aspects can include the

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type of feelings that lead to anger, the consequences of anger on relationships, the fact that anger is owned by the one who experiences it, ways to curb anger by controlling one's thoughts, and the fact that anger can be managed. Morgan and Saxton (1987:131) explain that a ritual "binds meaning together for the group". The rap ritual can at the end of a session help to bring closure to the social part of the session, after which the participants will be engaged in journaling.

Session section	Session activities	Pedagogical rationale	Process Drama convention	Materials
Session 1: Activity 1. Preparation of the venue	Teacher activity: Preparation of the venue	Jensen (2006:207) recommends that the environment stimulates learning. All possible resources should be integrated in the learning process in order to make learning a multi-dimensional experience, for example, PowerPoint presentations with visual material, music, journals and posters. Variety draws attention, for example, for these sessions, symbols of Chinese people, as well as symbols of lifestyle in the 1950s. The presence of these symbols can help to create an inquisitive frame of mind in the participants. Visual material can aid memorization. Posters with important information on the subject should be on the walls of the venue during every session. These serve as reminders of the content of the sessions (Jensen, 2008:52). Music will be used to create a relaxed	"Setting the space" is a term that is generally used in Applied Drama to create belief in the fictitious world of the drama. Heathcote (Wagner 1999:65 - 67) suggests that one creates belief in the fictitious world by using movement, mime, props, costumes, photographs, art works and music to make the fantasy world more real. For the purposes of these six sessions, twelve Chinese paper umbrellas are put in a half-circle in order to create an aesthetic space where the participants will be in role, as the extract from <i>The Joy</i> <i>Luck Club</i> involves a Chinese mother and daughter.	An exercise mat for each participant (the mats can be made of bubble wrap material). Chairs Data projector PowerPoint as resource Plugs Laptop Journals Pens Paper

atmosphere. It is important that the adolescent, who is already in a developmental phase of change that brings its own anxieties, should experience no further unnecessary threats (Crawford 2007:11). Music can create a learner- friendly atmosphere. The de-roling takes place after they leave this space in order to help them to get detached from their roles and to analyze their actions in role.	CD Player CD ¹⁶⁴ Posters for wall Name tags Bean bag Prestik/Poster Putty: a removable adhesive putty to mount applications such as placards. Various forms Chinese Props: Paper umbrellas (12), Chinese costumes, Teapots etc. <u>1950s style props</u> and costumes: 1950s style dresses, handbags and scarves. Pictures presenting the
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¹⁶⁴ CD with relaxing music for meditation e.g. Night Music 3. Classical favourites for relaxing and dreaming. Naxos 1989.

				1950s lifestyle.
Session 1: Activity 2a. Getting to know the map of our journey	The facilitator welcomes the participants and thanks them for their willingness to participate. The facilitator gives a general overview on PowerPoint of the six anger management sessions. The facilitator reiterates the fact that they are part of a research project and their presence and engagement are important. The journaling activity ¹⁶⁵ is introduced.	In workshop presentations it is always better to introduce an overview of what is going to be done beforehand. If the participants have an idea of what is expected of them, they tend to be more relaxed (Jensen 2008:44).	The introduction to the content of the six anger management sessions creates an opportunity for the participants to get to know the facilitator and to "read" the facilitator's style as relaxed and informal. This creates an atmosphere of openness and trust. Bundy (2003:179) states that trust breeds trust, the more the participants trust each other the more they would accomplish.	PC Data projector, Remote control PowerPoint presentation
Session 1: Activity 2b. Getting to know the rules of their journey	 The facilitator explains the rules: Please attend all six sessions except in case of death. Only talk in the talk circles when the bean bag lands in front of you. Please use numbers as codes when writing 	Rules provide boundaries between which one can operate safely. The rules are there for disciplinary purposes when necessary, and to build a relationship of trust amongst each other. The group has to know that journals are private domains. Each member of the group has a right to privacy and respect. The one rule states that they are responsible for making the workshop work. This rule hands the ownership of the	The introduction to the rules of the workshop serves as a way to introduce the learners to one of the main principles of Process Drama, namely that the participants should accept the fact that they, and not the facilitator, will be responsible for the drama (O'Neill 1995: xiv). This cultivates a feeling of commitment to the workshop and the Process Drama.	PC Data projector Remote control PowerPoint presentation Poster Prestik (see description in activity one)

¹⁶⁵ Questionnaire to establish preworkshop knowledge of participants.



	 about other people in your journal. Keep confidential information confidential. Respect our two working spaces: the one is our make- believe world and the other is used for contemplation of what occurred in that world. It is your workshop, not mine. It will only work if you make it work. The girls may suggest more rules. There should not be more than eight rules. They write the rules on a poster and paste it against the wall. The rules are then expressed with suitable movements. 	workshop over to them and will hopefully foster commitment. They are invited to add more rules; this emphasizes the fact that the success of the workshop is their responsibility. Sousa (2006:154) posits that a safe environment must be abetted by class rules, positive affirmations, high expectations, efficient praise and humour. Expressing the rules through movement can help to create a relaxed atmosphere and serve as an energizer.	The fact that the participants have to express the rules physically is an activity that is less cerebral and engages the group immediately in the expressive frame of identification with the work (Wright cited in Hatton & Anderson 2004:79). This expressive activity can also serve as an ice breaker that creates a relaxed and creative atmosphere.	
Session 1: Activity 3. Ice Breaker: The "if I could be" game	Write your name on a name tag and link your name with a positive word that rhymes or alliterates with your name, for example: Sizzling Suzy, Happy Helen.	To get to know each other's names. To create an opportunity to get to know a little more about each other. To create an opportunity to focus on anger. To create a set-up where lateral thinking is	Process Drama is a social activity. It is important that the members of the group are introduced to each other to integrate the individuals as a group. As stated in Schneider, Crumpler and Rogers (2006: xiv), Process Drama is a collaborative	PC Data projector Remote control PowerPoint presentation



	Each participant fills in the "If I could be form" (See Appendix B for sample form). No one writes their names on the forms. The facilitator collects the forms. The participants read each other's forms and guess who is who.	 the norm and the concept of make-believe is welcomed. To create an environment of fun and relaxation. To create an atmosphere of acceptance of each person's unique personality. To indicate how we are the same and different from each other – so will our anger also be an expression of sameness and uniqueness. This activity also serves as a basic means of assessment of the communication skills of the participants, as well as their levels of self-esteem. 	activity that involves negotiation processes and the ability to empathize with the viewpoints of others.	Mat Pen "If I could be" forms Name tags Bean bag
Session 1: Activity 4. Freeze frame expressions of different manifestations of anger	Enrolement: The participants walk around the umbrella circle and step into the aesthetic space at the entrance point. They depict various modes of anger. It helps to convey to them that they should make statues of people who are angry, each time in a different way.	This exercise gives the participants a hands-on experience of the convention of improvisation. Encouragement from the facilitator also enhances their self-esteem to express their feelings physically. This exercise forms a launching pad for the other role dramas to follow. This activity gives the facilitator an opportunity to observe how willing the participants are to engage in the 'as if' fiction frame. The facilitator can also observe the potential of the expressive skills of the participants.	This activity gives the participants a practical experience of the process of enroling, de-roling and being in role as part of the main rituals of the Process Drama. According to the theory of Morgan and Saxton (1987), the taxonomy of personal engagement in the meaning frame and the taxonomy of engagement in the expressive frame deepen the learning process of the participants. In this activity the participants have to engage in a physical task in the expressive frame, as well as cognitively in the meaning frame. They have to commit themselves to a creative process and should be willing to	PC Data projector Remote control PowerPoint presentation Bean bag Poster Pens Prestik (see description in activity one)

			communicate the meaning to others (Landy & Montgomery 2012:19). This can lead to a deeper involvement with the content and stimulate their perception of how their anger is expressed physically.	
Session 1: Activity 5. List what angers you	The participants exit the aesthetic space at a certain point in order to leave the area where they depicted various types of anger in role. A talk circle discussion helps the de-roling process as suggested by Herzberg (2003:2). They list the things that anger them most and write them on a placard that is pasted on the wall.	An assessment of the participants' knowledge of anger is obtained in talk circle discussion. The value of talk circle ¹⁶⁶ discussions lies in learning to await your turn, respecting the person who is talking and learning to listen to each other. The facilitator should know on what level the participants perceive their anger – these discussions will be an indication of their level of knowledge about anger management. The participants start to focus on the role anger plays in their lives. The facilitator encourages the participants to answer questions about the value of anger; the most important question is "Is all anger bad?"	Talk circle discussion is an important activity in Process Drama. Through penetrating questioning, the facilitator stimulates the participants to think about their understanding of anger by asking: "Do you think all anger is bad?" Morgan and Saxton (1987:79) suggest that the facilitator not judge the answers as either right or wrong, but rather develop more questions that help the participants come to their own conclusions (O'Neill 1994:139).	Bean bag Poster Pens Prestik(see description in activity one)
Session 1: Activity 6. How anger is experienced in the	The facilitator hands out drawings of the outline of a person's body.	The rationale of this activity is to prompt the participants to think about their physical experience of anger.	During this discussion the facilitator asks probing questions to lead the participants to understand the way in which anger is presented in the	Drawings of an outline of the body

¹⁶⁶ The Talk Circle concept was designed by R.N. Caine, G. Caine, C. McClintic and Klimek 2005. 249

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body. (* During the practical sessions this was moved to next session)	The facilitator poses the following question to the participants: "In what parts of your body do you feel anger?" Participants indicate with a pencil where in their bodies they experience anger.	They arrive at the fact that the fight or flight system is triggered when angered. The PowerPoint presentation of how anger presents in the body is to explain the effect of negative emotions on the body and brain.	body and how one's thinking processes are marred by angry feelings (O'Neill 1994:139). The participants are asked questions that require them to think beyond their initial answers (Morgan & Saxton 1987: 72), for example,	PC Data projector Remote control Prestik (see description in activity one)
	The facilitator then discusses by means of a PowerPoint slide where anger is experienced in the body.	The outcome of this discussion is important as it forms the basis of anger management. When one wants to manage one's anger, one's realize that in the process of being angered one cannot always think clearly.	"Do you think one should make final decisions about an issue when you are angry?" "Do you think one should walk away from the person who angered	PowerPoint presentation Bean bag Poster
	After this discussion the facilitator explains via a flow chart on PowerPoint how anger presents in the brain by focusing on the fact that when anger is experienced, adrenaline floods the brain and the ability to think logically with the pre-frontal part of the brain is lessened (Giedd et al. 1999).		 you rather than keep on talking to them?" "Do you think one should explain first why you are leaving the person at this stage?" "Do you think one can think clearly when you are angry?" "Do you think you are able to listen well to what another person is saying when you are angry?" 	Pens
Session 1: Activity 7: What words describe the different kinds of angry feelings we get?	The facilitator poses the question: "What different kinds of angry feelings are there?" Participants form small groups. They discuss the variations of angry feelings.	Testing the prior knowledge of the participants about the various kinds of angry feelings in order to know on which level their general knowledge about anger operates. This is a small group discussion format in order to a) focus their attention with on anger management;	Small group discussions afford the participants an opportunity to bond with each other before the rap poetry is created. Process Drama is a challenge to team work and this discussion gives the group an opportunity to get to know each other better in the workshop environment (Landy & Montgomery	Poster with types of anger. PC Data projector Remote control Prestik PowerPoint

	Their answers are written on a poster and pasted against the wall. In a PowerPoint presentation the facilitator shows a list of the various types of anger which are, according to Parrot (2001:34, 35), aggravation, irritation, agitation, annoyance, grouching, grumping, exasperation, frustration, anger, rage, outrage, fury, wrath, hostility, ferocity, loathing, scorn, spite, vengefulness, dislike and resentment, disgust, revulsion, contempt , envy, jealousy and torment. The list remains on the screen.	b) introduce small group discussions and c) observe how well they work together in teams.	2012:19).	presentation
Session 1: Activity 8. Write a rap about angry feelings	The participants are asked to return to their small groups and write a rap poem listing the angry feelings in a rhythmic way. The participants rehearse in their small groups to present their rap rhymes with expressive movements.	This exercise has several pedagogical objectives: To express various angry feelings in order to illustrate their understanding of these different aggressive feelings as part of one of the main outcomes of Emotional Competence: The ability to vocally and physically express emotions. To get to know the types of feelings associated with anger in order to be able to identify their own anger and anger-related feelings.	Dramatized rap: This exercise is a way to cultivate the interest of the learners about angry feelings in a fun way. They are now challenged to commit to creating a poem from their own perspective about all the feelings of anger. This exercise links with the taxonomy of personal engagement as mentioned by Morgan and Saxton (1987:22): Engaging, being involved in a task, and committing as the development of a sense of	PC Data projector Remote control Prestik (see description in activity one) PowerPoint presentation

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		To encourage self-expression in a group. To obtain indicators of how much the facilitator can expect from the group on the level of creative participation and body and voice integration. To introduce the concept of putting words into action as dramatization of poetry forms an important part of this study. To assess the group's ability to work in teams.	responsibility that will be further developed in the next phase by pulling the learners into the expressive frame through the first rap ritual of the session.	
Session 1: Activity 9. Presenting the rap rhymes about angry feelings	The facilitator asks the groups to sit facing the half-circle of umbrellas, called the aesthetic space. The facilitator gives one rap group after the other an opportunity to present their rap poems. Each time the participants enrole as rap performers by walking around the half-circle and entering the space to perform.	The educational value of this exercise is manifold: The participants learn to identify the names of various feelings of anger. Repeating the rap rhymes aids the memorization of various feelings of anger. They get an opportunity to perform in front of each other, encouraging peer learning. The participants are introduced to the conventions of dramatization of poetry and rap.	This exercise gives the participants yet another experience of the concept of enroling in role performances and de-roling out of role. The ritual of how to use the aesthetic space is introduced practically. O'Neill (1995:149) explains the significance of rituals in role dramas and indicates that they have a complex structure. It helps the participants to become more objective regarding the material but at the same time stimulates some emotional reaction to the material.	
Session 1: Activity 10. de-role after Rap rhymes	After the rap poems have been presented, the rappers de-role by exiting at the exit point of the half-circle of umbrellas.	The participants de-role as rappers in order to calm down.	de-roling is an essential part of Process Drama.	

Session 1: Activity on journaling about angry feelings (* During the practical sessions this activity was done at the end of the session)	The participants find their own space and write down their impressions about what they have experienced about anger during this session. They may also draw a picture of anger if they do not want to write. The journaling process in this session is of paramount importance to the facilitator who applies the research method of triangulation. The feedback of the participants in their journals is consequently a qualitative measurement of the success of the identification of the participants with the material on anger management.	This exercise is given to internalize and personalize the subject of anger and to introduce the concept of silent reflection.	Reflection out of role: Through the process of journaling out of role the participants can distance themselves from the session and think about what they have experienced (O'Neill 1995:130). This may help them to internalize the material as suggested by Morgan and Saxton (1987:22). Internalizing is the recognition of the relationship of the task to the self, and is revealed as a change of understanding. In the journaling process they get the opportunity for intra-communication (Morgan & Saxton 1987:22).	Cd player mats cd journals pens	
The facilitator's reflection in planning phase	Possible outcomes.				
1. Life Orientation	In this session the difficult emotion of anger and related aggressive feelings are introduced in order to equip the learner with skills that enable her to deal with these emotions.				
2. Process Drama	In this session the participants get to know each other in order to build the relationship of trust in which the Process Drama operates. The convention of dramatized poetry/ rap poems renders an opportunity to express and get to know the different feelings of anger. The dramatized poems in rap format also serve as a ritual throughout the drama. The participants can therefore be introduced to this concept. The rationale for using rituals is to find an economic way to repeat the essence of the learning material in a session in order to boost				



	memory.
	The taxonomy of personal engagement takes effect on different levels in this session. In the meaning frame the participants' interest can be invoked through the environment; secondly, they can engage with the material through physical tasks (of the expressive frame), such as to express the rules, drawing what makes them angry, and also by writing a rap poem. They can commit themselves physically and intellectually to the tasks of creative writing and rapping. Finally, they have the opportunity to internalize the meaning of the material about anger and interpret it for themselves. All these levels of engagement with anger are intended to form a launching pad for the next session that deals with the consequences of anger on relationships.
3. Emotional competences	In this session the emotional competency of the identification and expression of a variety of angry feelings can be explored and expressed.
4. Brain-based education	The two main outcomes in this session that accord with brain-based education are that all learning is social and all learning is physiological.
	In this session the participants get to know each other as a group and give physical and vocal expressions of various types of angry feelings.
SESSION TWO	
Learning area	Life Orientation
Phase	Senior Phase
Grade	9 (also applicable for Grades 8 and 10)
Subject-specific aim	Dealing with difficult emotions
Learning activity	Anger management
Session number	2
Session theme	The consequences of anger in relationships



Duration	60 minutes
LO Learning Outcome	Learning Outcome 3: The learner will be able to use acquired life skills to achieve and extend personal potential to respond effectively to challenges in her world.
Assessment standard	We know that Learning Outcome 3 has been attained when the learner responds appropriately to emotions in challenging situations.
Facilitator	Celia van den Berg
Methodology	Process Drama

Session section	Session activities	Pedagogical rationale	Process Drama convention
Session 2: Activity 1a. How anger is experienced in and through the body	 The facilitator, in a slow and relaxed manner, gives the following instructions in order to help the participants meditate on their own anger: 1. Slowly breathe in and out. 2. Feel how the tension flows from your body. 3. Relax totally. 4. Feel how you sink deeper and deeper into the floor and keep on breathing slowly in and out. 5. Visualize a scene where you got very angry. 6. Visualize your surroundings, the object of your anger or a person with whom you were in conflict. 7. Experience how the anger floods your 	This exercise of relaxation and meditating on anger help the participants to explore situations in which they were angry and bring them to the fore. This virtual experience of their own anger aids them when they are confronted by their own anger and can later in the session empathize with the inner speech of the character June in the extract from <i>The Joy</i> <i>Luck Club</i> . Hopefully the participants have also been made aware of their bodily reaction to their	This movement exercise not only helps to create awareness of anger in the expressive frame, but also transfers the participant to the meaning frame of anger, namely, where anger presents in the body (Wright in Hatton & Anderson 2004:79).
	body. 8. Feel how your body reacts to this anger. 9. What does it do to your muscles, your breathing? 10. Slowly let	anger. This again can help them to be authentic when embodying anger in their tableaux of June's situation.	

	go of this feeling. 11. Feel how it flows out of your body. 12. Turn away from the situation in your mind. 13. Start to breathe normally in and out. 14. Feel how your body relaxes. 15. Listen to the music in the background. 16. Visualize a pleasant place 17. Relax. 18. Feel how your body is totally relaxed. 19. Observe a few minutes of silence.		
Session 2: Activity 1b. How anger affects the body	The facilitator points out that anger affects our whole body and initiates a discussion on how angry feelings can flood the brain with cortisol and adrenaline and change our perceptions, actions and sense awareness. The facilitator illustrates this with a visual presentation in order to make the scientific information more accessible to the participants.	The scientific knowledge with illustrations captures the attention of the participants. It serves as the best way to convince the participants that one should not even try to speak to someone and negotiate when one is very angry. It serves as the best way to explain why one should first wait before reacting to what the other person has done. It also explains why people in such a state can destroy relationships and say or do things that they do not really believe to be true.	During this activity the participants had the opportunity to reflect on the influence of anger on the body; reflection being one of the crucial aspects of Process Drama (O'Neill 1995).
Session 2: Activity 1c. Create different statues of anger- related emotions	The facilitator establishes the ritual of moving into the creative space to be in role and to move out of the space to de- role again.	This is done in order to introduce them to the later exercise where they have to create images from <i>The Joy Luck Club</i> . It also forms part of one's ability to express and identify emotions in the emotional competence frame.	Process Drama takes place in a make- believe space leading the participants to empathize with the characters through conventions. This activity enhanced the participants' awareness of emotion and movement in order to be more spontaneous in the coming dramatic activities.
Session 2: Activity 2. A museum experience: introduction to the	The facilitator gives information on the background of the characters in the story of the pretext by inviting the participants to enter a museum of America's Chinese community in the	The pedagogical objective of the pretext is to serve as a springboard into a make- believe world. In this world anger can be explored through role-taking. The rationale behind this exercise is to create belief in	The introduction to the pretext endeavours to attract the attention of the participants. By introducing the Chinese sub-culture in America in the 1950s as people following the American dream, places the story in a time



pretext	1950s, as well as providing some information about China's history during that time. The participants observe as much as possible and then share their discoveries with each other in the talk circle.	the world of the pretext.	context. A display of Chinese objects is designed to attract the attention of the participants. The rationale behind this is to create a level of belief in the imaginary world of <i>The Joy Luck Club</i> . It helps to stimulate the imagination of the participants as an introduction to the pretext (O'Neill 1995: xiv; Bowell & Heap 2013:69).
Session 2: Activity 3. Reading an extract from <i>The Joy Luck</i> <i>Club</i> by Amy Tan	The facilitator asks for volunteers to read the abbreviated story about June and her mother from <i>The Joy Luck Club</i> (see Appendix B). The extract is about a conflict situation between June and her mother. One participant reads the dialogue of the mother and another the dialogue of her daughter, June, while a third reads the part of the narrator, June. Each part is indicated in the script. Each participant receives a copy of the script. See Appendix B for the text. (*This was planned but not executed. In the actual sessions the facilitator read the story to the participants as they lacked the requisite reading skills).	The pre-text serves as a springboard for effective learning (Gallagher, 2001:47). This story depicts the conflict of a mother and her daughter. The mother's expectations for her daughter are high. The daughter wants to find her own identity. This extract was chosen with the adolescent girl in mind. At this stage in her life the adolescent might experience some conflict with people in authority. Some of the adolescents may identify with this scene whereas others may have friends in the same position as the main character, June. The text creates a very realistic depiction of anger where the motives of both parties can be clearly understood. This script has a strong emotional quality and can serve to draw the participants into a make-believe world (O'Neill, 1995:45).	Pre-text: O'Neill (1995:19) regards the pretext to the Process Drama as vitally important. This is the moment where the participants are introduced to the imaginative world. The pretext has a strong emotional quality in order to engage the participants in the imaginative world and build their belief in this world. As the participants pay attention, watch, listen and react to the given information and extract from <i>The Joy Luck</i> <i>Club</i> (Morgan & Saxton 1987:23), their levels of curiosity will be stimulated and they will start to move on to the first level of the taxonomy of personal engagement namely, interest.
Session 2: Activity 4. Creating tableaux of June and her	The facilitator enroles the participants into the make-believe world of <i>The Joy</i> <i>Luck Club</i> and ask them to step into the	In this way the participants create a tangible reality of the fictitious story in order to experience the roles of June and her	Tableaux in role refer to a process in which the participants create still images of moments of the pretext. The term tableaux is



create still images (tableaux) of various moments in the pretext story. The following incidents can be depicted:perspectivedepi (198• June ¹⁶⁷ practising to bow in front of the audienceJune ¹⁶⁷ practising to bow in front of the audienceIt is a way to engage the participants emotionally and physically in the roledepi (198	regorized as a "dramatic strategy of piction" by Morgan and Saxton 987:110). This strategy can be employed the facilitator to physically express stract thoughts. This will engage the rticipants further in the meaning frame of Process Drama. A tableau can also be led a freeze frame, statue or still life Neill 1995:126).
Session 2: Activity The participants are now working in role During this phase the participants take on The	e participants are in role and engaged in a

¹⁶⁷ Note: everybody can play the role of June or they can take turns to be June, the audience or the mother.

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Thought tracking the characters in the pretext. (* In the actual session this activity was not performed due to a lack of time)	as they plan and execute the sequences of the tableaux. The facilitator then enters the same world as the participants and asks them to divide into pairs and improvise the dialogue of the mother and daughter. They facilitator may ask them to tell her what they are thinking in role at that moment. This Process Drama convention is called thought tracking.	 the roles of the people in the pretext. They have an opportunity to physically express the roles and their feelings. This opportunity calls on their abilities to focus on the inner emotions of June and her mother. When the facilitator asks the participants what they are thinking a further level of involvement is triggered. The participants then share their thoughts in role. The facilitator first calls on their ability to understand the inner thoughts and rationale of the role play. Their abilities to understand the roles they are presenting, to empathize with the role that they present and act creatively to voice the thoughts in role engage the participant on an affective as well as a cognitive level. 	physical task. They have to commit themselves to the task in order to display the various scenarios of the extract to each other. According to Morgan and Saxton (1987: 30), their engagement in the meaning frame is intensified by engaging them in the expressing frame through a physical task of identification as they create still images of the incidents in the story (Wright as cited in Hatton & Anderson 2004:79). The convention of thought tracking introduced by the facilitator serves as a way to communicate the viewpoint of the characters in role. This convention is intended to deepen the level of engagement of the participant as they are vocally and physically and cognitively engaged in the moment of make-believe. Thought tracking can stimulate internalization. The participants have to match their inner-speech to the role they portray (Bowell & Heap 2013:90). They have to improvise what the person is thinking at that moment in the action of the make- believe world.
			- simultaneously being in the world of the story and the real world.

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Session 2: Activity de-roling. (* In the actual session this activity was not done)	The facilitator steps out of the half-circle and asks the participants to also move out of the half-circle at a specific point and de-role.	The participants de-role in order to detach themselves from the imaginary world of <i>The Joy Luck Club.</i> This process is enhanced by the following section where the participants can reflect on their experiences in role.	The ritual of de-roling is an important step in any Process Drama to be followed conscientiously.
Session 2: Activity Reflection (*ditto)	The participants take a moment to reflect on the meaning of the dramatic experiences of the day and make a few remarks or write an essay about their experiences in their journals, contemplating the consequences of anger in relationships, if time permits. The facilitator asks probing questions in this direction in order to stimulate the thoughts of the participants.	During reflection the participants can implicitly and explicitly engage with their own lives and their own feelings or moments of anger (O'Neill, 1995:4).	Reflection outside the Process Drama. Morgan and Saxton (1987:134) aptly describe this moment of taking the participant out of the action of the drama into the theme or the meaning of the drama (Bowell & Heap 2013:92). In this instance the participants contemplate the consequences of anger in a relationship.
Facilitator's reflection	Possible outcomes		
1. Life Orientation	In this session the participants are exposed to relaxation and breathing exercises in order to create an awareness of the feeling of relaxation. The outcome of this section is to be able to use relaxation as a means of anger management as anger is a difficult emotion to deal with.		
2. Process Drama	The intended outcome regarding Process Drama in this session is to draw the participants into a "dramatic elsewhere" (O'Neill 1995:45) where they can experience the anger of two characters through empathetic		

	identification. Secondly, in the Process Drama episode of this session the participants can physically envoice and embody the scenes in the pretext to view the pretext from a more personal perspective.	
3. Emotional competences	In this session the participants have to voice the sub-text of the characters' feelings. In order to be able to envoice the inner feelings of the characters the participants have to employ the emotional competency of being able to understand various emotions and feelings. They should be able to empathize with the characters.	
4. Brain-based Education	The brain-based outcome of this session is that all learning is engaged in meaning-making. In this session the participants try to understand the rationale behind the behaviour of the characters. This session also adheres to the principle that all learning is physiological. The participants physically portray the characters by depicting scenes from the pretext.	
SESSION THREE		<u> </u>
Learning Area	Life Orientation	



Phase	Senior Phase						
Grade	9 (also applicable for Grades 8 and 10)						
Subject-specific aim	Dealing with difficult emotions						
Learning activity	Anger management						
Session number	3						
Session theme	Anger styles	Anger styles					
Duration	60 minutes						
LO Learning Outcome	Learning Outcome 3: The learner will be a effectively to challenges in her world.	Learning Outcome 3: The learner will be able to use acquired life skills to achieve and extend personal potential to respond effectively to challenges in her world.					
Assessment standard	We know that Learning Outcome 3 has be situations.	We know that Learning Outcome 3 has been attained when the learner responds appropriately to emotions in challenging situations.					
Facilitator	Celia van den Berg						
Methodology	Process Drama						
Session section	Session activities	Session activities Pedagogical rationale Process Drama Materials convention					
Session 3 Activity 1: Test for total passivity (*To be executed after the Mantle of the	The participants briefly repeat the relaxation exercises that they have learnt in the first part of the session.	As this is actually one workshop, the participants will have an opportunity to repeat the relaxation exercises to help them to remember them better. These exercises serve as a way to calm oneself when one is	According Morgan and Saxton (1987:109), movement sequences can be seen not only as a way of team building, but also	Mats			

Expert activity)	The facilitator introduces the total passivity test of the Chladek Movement Theory 168 in order to show the participants how to measure their own levels of relaxation. They hold their arms in a vertical position, in balance with the point of gravity of the arm, and then let them fall. The way in which the arms fall, as well as the sound of the arms falling will indicate how relaxed these limbs are. They can also test the relaxedness of their legs by holding them in a vertical position and letting them fall. The third test is to check the torso by lying on the back and then rolling onto the stomach, leading the movement from the core.	angry.	a way to enter the meaning frame of the taxonomy of engagement. The participants know that they are learning a life skill to help them in stressful situations.	
Session 3: Activity 2. Mantle of the Expert: enrole the participants as members of the Immigrant Support Group	The facilitator now enroles the participants as members of the Committee of the Immigrant Support Group (ISG). As the enrolement takes place the participants will put on some of the hats of the 1950s era. The participants hold various positions as members of the committee: a) the chair of the committee, b) the secretary who writes a report about the meeting, c) four welfare workers who support the Chinese immigrants of the 1950s in America, d) four psychologists to advise the Support Group about the various	This Process Drama convention of the Mantle of the Expert (MoE) opens up possibilities for the participants to view the conflict of the mother and the daughter from various different angles. The participants are enroled in a superior position in relation to the facilitator in role, Mrs Brown. The teacher-learner roles are switched. The participants engage in ownership of the role drama and be responsible for the actions to follow. The facilitator in role can influence the drama from within when necessary.	This session will be engaging the participants in the expressive frame under the convention of the MoE. This convention places the responsibility of the Process Drama directly into the hands of the participants (Landy & Montgomery 2012:64). The convention of the MoE can be described as follows: The participants are enroled in the role of	Scarf Clipboards Pens

¹⁶⁸ Chladeck Movement Theory: Test for total passivity partly retrieved from Rosalia Chladek's movement system on www.rosalia-chladek.com

	 anger styles. In order to make the role play participant- driven the chairperson steers the decision making by consulting the psychologists and the social workers. The object of the meeting is to find a way to reconcile the mother and daughter. The facilitator takes on the role of a volunteer who reports that the daughter has run away from home. The school wants the Support Group to advise them. Should June be placed in a reform school or should she stay with her mother and father? The group enrole as the members of the ISG wearing some of the 1950s costume pieces. They enter the umbrella circle. As the objectives of the various groups are in opposition to each other, conflict is created in the group. This may serve as a springboard for more discussion on anger management. 		experts to solve a problem together (O'Toole 1992:119). The participants may be supplied with reading material and facts to help them solve the problem. In this case, the psychologists are supplied with material on anger styles which they convey during the debate to the rest of the group. The experts are called to a meeting that, according to Morgan and Saxton (1987:113), offers "more control as a general discussion". In this case the meeting takes the form of a debate. The Mantle of the Expert empowers the participants as responsible decision makers about the outcome of a "man in the mess" crisis (Landy & Montgomery 2012:64).	
Session 3: Activity 3. Role play of the ISG committee	The participants, in role as the experts in this Process Drama, have to decide whether June should go to a reform school or whether the mother and daughter can be reconciled. The procedure of the role drama will take the form of a debate. The chairperson	The participants are now affectively as well as cognitively engaged in the role drama. They have the opportunity to learn collaboratively. They may make mistakes from which they are protected in the "reality" of the make-	The participants are now personally involved in the drama. They have to solve a problem of people who are in a predicament, as Heathcote indicated (Wagner 1999).	Clipboards Pens Scarf Various 1950 costume

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ĺ	listens well to the case of the social	believe world.	The participants are	pieces
	workers who would like to send June to		engaged as they are	
	the reform school and to the		involved in a task and	
	psychologists who would first like to help		committed to the task	
	the daughter and mother with anger		because it is their	
	management.		responsibility to solve the	
	0		problem.	
	The volunteer (a role taken by the			
	facilitator) influences the chairperson to		The fact that they are now	
	vote for the social workers although the		in role in the expressive	
	psychologists have a strong case. This		frame of the Process	
	hopefully angers the psychologists and		Drama can create further	
	creates conflict in the group which in turn		identification with the	
	creates a hands-on experience of anger.		drama.	
	The secretary adds to the tension by		They are in role and	
	giving a time frame for the discussions.		representing an attitude or	
			the viewpoint of the	
			characters they are	
			portraying (Morgan &	
			Saxton 1987:30). They	
			present a committee who	
			has to make a life-	
			changing decision on	
			behalf of a mother and	
			daughter.	
			Commitment to the	
			objective of a role drama	
			can lead to internalization	
			(Morgan & Saxton	
			1987:29). It can become	
			an interplay between the	
			thoughts and feelings of	
			the participants and	
			empathy with the thoughts	
			and feelings of the role	



			they are taking. This stage in a role drama can create a moment of metaxis where the participants are aware of two worlds at once: that of their own identity in reality and that of the role they have taken on in fiction.	
Session 3: Activity 4. Meeting adjourned. De- roling	After a decision has been made by the ISG, the facilitator in role steps out of the circle and asks the chairperson to adjourn the meeting and exit the make- believe space.	According to Herzberg (2003:2), de-roling is confirmed by asking a set of simple questions such as: What do you think happened? What did you feel? So what are the implications and ideas that you hold about solutions for conflicts now that you understand various conflict styles? This may help the participants to view the situation objectively.	The de-roling process in a Process Drama is important as it gives the participants permission to be themselves again and to leave their emotional experiences behind. de- roling is therefore an act of debriefing or reflecting (O'Toole 1992:120).	
Session 3: Exercise for total passivity. See Activity 1 of this Session				
Session 3: Activity Make ready to enrole as rappers (* This activity could not be executed fully due	The group and facilitator discuss the rap poems that the three groups created previously. As a last ritual for the day the groups do their rap poems again but this time keeping the anger of the mother and	The participants now have a chance to repeat what they have learnt in Session One as well as in this session in order to help them to memorize the information.	Rap poetry is a distancing technique that can aid the participants in obtaining a more objective view of the emotions and situations in the role drama. They can now move into the	Rap poems

to a lack of time)	daughter in mind. In order to add another dimension, they try to add a line or two to their rap rhyme about the various anger styles and the consequences of anger. They are now ready to enrol as rappers in the half- circle of umbrellas.		and evaluate (Morgan and Saxton, 1987:29) what they have experienced in role.	
Session 3: Activity 0. Rap ritual in role (*ditto)	Every group do their rap poems in role as rappers after entering the aesthetic space at the entrance point.	This is a short exercise to link the information of the first session to the information of the second session. It also serves as a way of repetitive rote learning of all the different anger styles. It can also end the session on a positive note.	Ritual of rap poems: Morgan and Saxton (1987:131) describe a ritual as a frame that transforms the participants into the action. In this case they are presenting a rap poem that displays their summarized understanding of the concept of anger so far (O'Neill 1995:147; Winston, 1998:157).	Rap poems
Session 3: Activity Rap ritual: De-role (*ditto)	After the rap poems have been presented, the rappers de-role by exiting at the exit point of the half-circle of umbrellas	The participants de-role as rappers in order to calm down and be able to reflect in words or in line drawings.	De-roling is an essential part of Process Drama (O'Toole 1992:120).	
Facilitator's reflection	Possible outcomes.			
1. Life Orientation	In this session the skill of identifying the types of anger styles, as well as discussing the consequences of anger can be developed. This outcome adheres to the Life Orientation outcome			

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	that suggests that participants know how to deal with anger as a difficult emotion.	
2. Process Drama	In this session the Process Drama outcome is to empower the participants by engaging them in the dramatic convention of Mantle of the Expert.	
	The facilitator takes on a subversive role in the role drama in order to put the learners in a position of responsibility.	
	The essence of the new learning material is added on to the previous rap poems in order to create a frame through which the participants can learn the various styles of anger and the consequences of anger.	
3. Emotional competences	In this section the participants have to learn about the various anger styles and the consequences of anger in order to be able to identify and understand anger and angry feelings.	
4. Brain-based Education.	The brain-based outcome in this session is for the learners to be challenged with complex learning material about anger styles and to be able to identify the anger styles of the characters. This adheres to the brain-based principle that complex learning is enhanced by challenge and inhibited by threat.	
SESSION FOUR		



Learning Area	Life Orientation			
Phase	Senior Phase			
Grade	9 (also applicable for Grades 8 and 10)		<i>y</i>	
Subject-specific aim	Dealing with difficult emotions			
Learning activity	Anger management			
Session number	4			
Session theme	To learn about the consequences of anger	-		
Duration	60 minutes			
LO Learning Outcome	Learning Outcome 3: The learner will be ab effectively to challenges in her world.	le to use acquired life skills to achieve an	nd extend personal potential to r	espond
Assessment standard	We know that the outcome has been reache	ed this when the learner responds appro	priately to emotions in challengir	ng situations.
Facilitator	Celia van den Berg			
Methodology	Process Drama			
ession section	Session activities	Pedagogical rationale	Process Drama convention	Materials
Session 4: Activity A Relaxation (*due o a time limit this	Repeat the exercise for total relaxation of Chladeck as introduced in Session 3: Activity 1 in this section.			Mats

activity could not be executed in all the sessions)				
Session 4: Activity 1. Reflect on your own anger	The facilitator gives the participants some coloured pencils and asks them to make a line drawing of their own anger in their journals. They think of an incident when they were very angry and draw a graphic line in various colours of how they felt before the incident, during the incident and afterwards. They may write words on the lines to describe some of their thoughts and their feelings during the incident.	The pedagogical purpose of this line drawing is to focus the participants' attention on their own experiences of anger. It serves as a springboard when they reflect on their own anger at the end of the session.	The purpose of Process Drama is to bring the participant closer to her own understanding of a matter. There are no boundaries to what conventions one uses. A line drawing holds the potential of becoming a poem or even a dance or mime as it presents a metaphor or image that has the potential to encourage expressive movements (Potgieter 1987).	
Session 4: Activity 2. Summary of anger styles at a glance	The facilitator hands out pamphlets with a summary of the seven anger styles to remind the participants of the content of the previous session. The information is presented with emoticons (smileys) and shows the varieties of anger from implosive to explosive anger.	The pedagogical value of such a summary will help the participants to remember the content of anger styles better.	The participants had time to reflect on their own anger in the light of their newly found knowledge on anger styles. This reflection is non-verbal to open up an opportunity for those participants who prefer to communicate visually rather than linguistically.	
Session 4: Activity 3. Reading the poems	The facilitator introduces two poems ¹⁶⁹ to the participants.	The pedagogical message of this session is that one's anger can have the destructive consequences	The convention that is applied in this session is that of distancing. Morgan and	Scarf

¹⁶⁹ See Appendix B.



on anger	Each one receives a copy of the poems. The participants read and discuss both poems and tell whose anger in the pretext is depicted by "Anger" by Gavin Marshall (2008) and whose anger is depicted by "It's my anger that I own" by Gerda Le Roux (2011).	described in the poem "Anger" by Marshall. The second principle of anger that has to be conveyed in this session that of ownership as described by the poem "It's my anger that I own". One should realize that one is the sole owner of one's anger and that one gives others the permission to make one angry.	Saxton (1987:136) describe distancing as a means of a detouring feeling to arrive at a feeling. The two poems serve as analogies of the two anger styles: an explosive style and an implosive style. These styles depict the styles of the mother and of the daughter.	Clipboards The poems on anger by Gavin Marshall (2008) and Le Roux (2011).
Session 4: Activity 4. Presenting the poem on anger		The convention of dramatized poetry or choral poetry, as described by Morgan and Saxton (1987:122), renders an opportunity to the participants to be emotionally and physically engaged in the role drama. Both poems can be classified in this role drama as monologues or inner speeches of the mother and daughter's anger. The participants are given these highly emotional poems to express and in so doing explore the anger of the mother and the daughter in role as both poems are in the first person. The educational value of this identification is to trigger some empathetic thoughts about both characters in an experience that is simultaneously inside and outside of	Dramatized poetry: In order for the participants to experience the anger of the daughter and mother on a deeper level, the participants have to embody and envoice the poetry through dramatization. Rokotnitz (2011:81) builds a strong case for the value of dramatization as a Process Drama convention. She states that dramatic expressions affect our emotions deeply through movement. Rokotnitz (2011:82) further explains why the dramatization of, for instance, literature or a script accesses	Anger poem



		the role drama (metaxis). To lessen the temptation to "show" the poem rather than to "share" it, the whole group dramatizes the poem "Anger" in ensemble. The enduring value of the convention of dramatized poetry, together with the musical incantation of the rhythm and the rhyme, alliteration and assonance, have the potential to create a memorable experience.	emotional feelings implicitly: "The production, recognition and recollection of emotions require cooperation between multiple cerebral systems that extend into various parts of the body proper." The main objective of this session is to present the participants with two highly emotional poems in order to access their emotional perceptions. Gallagher (2001:8) posits that the body through movement "shapes cognition". The physicality of dramatization can enhance the experience of the anger in this instance within the safe parameters of the make- believe world.
Session 4: Activity 5. de-roling: The participants discuss their experience of the choral work	After the participants have repeated the dramatization of the poem a few times, they step out of the half-circle at the exit point and de-role. The facilitator asks the participants questions about their	As stated before, discussions and Q and A sessions can help the participants to de-role.	De-roling is an imperative part of any Process Drama.



	experience of the dramatized poems.			
Reading the poem "Who owns the anger?"	The facilitator asks the group to read the poem "It's my anger" by Gerda Le Roux (2011) again and to discuss how they can dramatize the poem as if they are the daughter's inner voice in the poem. The participants decide who is going to say which line and which lines should be done in ensemble. They practise the poem a few times. They present the poem with meaningful movements to enhance the meaning and feeling of the poetry.	in this case the theme "who owns the anger" should be highlighted.	In order for the participants to experience the anger of the daughter and mother on a deeper level, the participants have to embody and voice the poetry through dramatization (Wright in Hatton & Anderson 2004:79).	The poem "It's my anger".
Presenting the poem:	The participants enter the half-circle of umbrellas and dramatize the poem "It's my anger".	The pedagogical outcomes are the same as in the previous session where the poem "Anger" has been dramatized. In this instance it should be emphasized that every person takes ownerships of her anger.	Dramatization of poems.	The poem "It's my anger".
de-roling: Write a poem about your own anger	After the participants have repeated the dramatization of the poem a few times, they step out of the half-circle at the exit point and de-role. The facilitator asks the participants to write their own poem about their anger.	and her mother, they are now challenged to write a poem about their own anger. The meaning of the poem is internalized and personalized.	challenges the participants to objectify their own anger and this may help them to	Journals.
Facilitator's reflection	Possible outcomes:			
	The outcome of the learning area of life orientation is to "use acquired life skills, such as anger management to achieve and extend personal potential to respond			

	effectively to challenges of difficult emotions" ¹⁷⁰ such as anger. In this section the participant is exposed to the consequences of anger as well as the responsibility that a person should take ownership of her anger.		
2. Process Drama	The convention of dramatized poetry in this section renders an opportunity to the learner to identify the consequences of anger. The poetry employs the metaphor of a cage to express how anger can imprison the angry person. This metaphor is experienced and expressed physically and vocally through this convention.		
3. Emotional competences	The dramatization of poetry positions the participant in a learning mode of empathizing with the emotions of another person. The poem underlines the fact that every person is the owner of his or her own anger. The poem expresses the emotions of shame and frustration and the fact that anger can isolate a person. All these insights are experienced in a multimodal manner implicitly, explicitly, physically, vocally and emotionally.		
4. Brain-based Education	The brain-based principles that all learning is physiological and social, and that emotions are crucial to patterning, drive our attention, with meaning and memory complementing the convention of dramatized poetry (Caine et al. 2005).		

¹⁷⁰ The information about the outcomes and assessment of Life Orientation is sourced from the Revised National Curriculum: Statements (R-9) Schools. Teacher's guide for the development of learning programmes, policies, guidelines. 2003. Pretoria: Department of Education.



	The participants are exposed to the emotional, physical and social learning modes through the dramatization of poet	ry.		
SESSION FIVE				
Learning Area	Life Orientation			
Phase	Senior Phase			
Grade	9 (also applicable for Grades 8 and 10)			
Subject-specific aim	Dealing with difficult emotions			
Learning activity	Anger management			
Session number	5			
Session theme	Detecting negative thought patterns in cc	onflicting situations.		
Duration	120 minutes			
LO Learning Outcome	Learning Outcome 3: The learner will be effectively to challenges in her world.	able to use acquired life skills to achieve a	and extend personal potential to re	espond
Assessment standard	We know that Learning Outcome 3 has b	een attained when the learner responds a	ppropriately to emotions in challer	nging situations.
Facilitator	Celia van den Berg			
Methodology	Process Drama			
Session section	Session activities	Pedagogical rationale	Process Drama convention	Materials
Session 5: Relaxation	For this session the participants repeat their relaxation exercises.	This exercise of relaxation helps the participants experience how they can purposefully relax in order to change any negative moods or become even more positive than before.	This movement exercise helps to create awareness of relaxation through visualization in the expressive frame.	Mats CD CD Player

Session 5: Activity 1. Rap rhyme of negative thinking	This rhyme is a summary of some of the negative thinking patterns that one encounters. The participants detect all the negative thinking patterns in the rap rhyme according to Wilding and Milne's (2010) list. They then move into the circle of umbrellas and rap the rhyme.	The rhyme will serve as an energizer as well as a summary of negative thinking patterns. The participants can now have a chance to repeat what they have learnt in Session One as well as in this session in order to help them to memorize the information.	this process drama. The rhyme will be used as an indicator	A copy of rap rhyme and Wilding and Milne's (2010) list of negative thought patterns that block anger management. Paper for writing
Session 5: Activity 2. De-role: step out of the role of the rap rhyme presenter	The facilitator asks the participants to exit the aesthetic make-believe umbrella circle at the exit point.	As stated by Herzberg (2003), a discussion is also a form of de-roling and distancing. In this case the facilitator asks questions to assess the depth of the insight of the participants of negative thought patterns as depicted by the content of the letters. The facilitator asks probing questions like: Do you think negative attitudes and thought patterns are detrimental to all peace negotiations between people? Can you give me any real-life example of such negative thought patterns that one encounters regularly?		Pens Rap poems
Session 5: Activity 3. Detecting negative thinking patterns in the extract from <i>Th</i> e	The participants identify all the negative thought patterns in the extract from <i>The Joy Luck Club</i> . This exercise serves as preparation for the next activity where	The exercise gives the participants yet another opportunity to apply their knowledge about negative thinking patterns. It will strengthen their ability to	This exercise engages the participants in the meaning frame of the work. It gives them the correct vocabulary and	Pretext List of Negative thinking

Joy Luck Club			understanding for the next exercise where they will be writing a dialogue in role between June and her mother. It serves to help them understand the pretext even better (Cremin, Goouch, Blakemore, Goff & MacDonald 2006:273 – 291).
	instructions: Write a dialogue as if one of you is June and the other the mother. It is a day later and they are trying to talk to each other, but they are still locked in negative thinking patterns. Try and weave some samples of these negative thinking patterns into their conversation.	empathy. This is an emotional competence without which no moral thinking can take place. Seeing something from another person's viewpoint lies at the root of understanding. Applying negative thinking patterns in a conversation will aid the memorization of these patterns.	The convention of writing in role is motivated by the study by Cremin, Goouch, Blakemore, Goff and MacDonald (2006:273 – 291): "Writing in role from a particular stance which had been developed through drama appeared to strengthen their writing, since the convictions that the children developed and expressed in the drama were often retained in their writing, enabling the writer's point of view to be expressed clearly and with a degree of emphasis."
Session 5: Activity 5. Enroling the participants in their performance of dialogues built on negative thought patterns between June and her mother	dialogues, discuss them, decide who will be who, practise them a few times and	the fact that the participants can experience the anger of the characters in role on an emotional, physical and	Rokotnitz (2011:81) and Gallagher (2001:8) propose that deep emotional learning is stimulated through physical involvement of the body.
Presenting the	communication between June and her mother are presented in the circle of	The pedagogical value of the vocal and physical presentation of the dialogues resides in the opportunity to involve the whole person emotionally, physically and	



mother.	umbrellas.	cognitively in the meaning and expressive frame of the work.		
Session 5: Activity 7. Deroling the participants	The participants step out of the aesthetic circle of umbrellas when they de-role and participate in short discussions about the given presentation.	most important brain-based principles is to give feedback after a learning session. This makes perfect sense. One can only	Herzberg (2003) states that discussion is a form of de-roling and of distancing. These discussions were probed by questions such as: How do you feel about the way in which the mother tried to make peace?	
	Think about your own style of negative thinking. Do you ever say similar things when you are in a conflict situation? Do you know any other people who use these ways of communicating or thinking?	The participants can reflect and personalize the learning material of the session.	Journaling out of role.	Journals
Facilitator's reflection	Possible outcomes			
1. Life Orientation	In this session the life skill of detecting negative thought patterns that oppose the management of one's anger forms one of the aspects of the outcome to learn how to deal with a difficult emotion, such as anger.			
2. Process Drama	Again the ritual of the rap rhymes offers the opportunity to summarize the essence of the learning material on anger management. The convention of the Mantle of the Expert helps to empower the learners to access the learning material with confidence and creativity, namely how to detect negative thought patterns that can hamper anger management.			



3. Emotional competences	The identification of negative thought patterns that can cause negative emotional patterns is an important emotional competency.
4. Brain-based Education	In this section the main brain-based principle is that the brain is challenged by complex learning. The Mantle of the Expert as convention challenges the participants to explore negative thought patterns that work against anger management.
SESSION SIX	
Learning Area	Life Orientation
Phase	Senior Phase
Grade	9 (also applicable for Grades 8 and 10)
Subject-specific aim	Dealing with difficult emotions
Learning activity	Anger management
Session number	6
Session theme	To learn how to be assertive in a conflict situation instead of angry
Duration	120 minutes
LO Learning Outcome	Learning Outcome 3: The learner will be able to use the acquired life skills to achieve and extend personal potential to respond effectively to challenges in her world.

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Assessment standard	We know this when the learner responds appropriately to emotions in challenging situations. Celia van den Berg			
Facilitator				
Methodology	Process Drama			
Session section	Session activities	Pedagogical rationale	Process Drama convention	Materials
Session 6: Activity 0. Relaxation (*could not be done due to time limit)	The participants receive a sheet with emotion icons or emoticons. Each one indicates how she currently feels by encircling an emoticon. Each partner, without communicating with her partner, indicates how she perceives the other participant's emotion and encircle a suitable emoticon. For this session the participants repeat their relaxation exercises. The facilitator then gives them the following instructions in order to prepare them for this session: Each person finds a partner for this session. They do their own relaxation exercises, and the one participant forms the mirror image of the other. One partner lead the exercise and the other partner then take over and lead. The participants indicate how they feel after the relaxation on the emoticon sheet. They encircle how they perceive their partner's emotion. They can now reveal their emoticons to each other and briefly discuss how their feelings	This exercise of relaxation helps the participants to bond with each other in pairs, make eye contact and also experience how they can purposefully relax in order to change any negative moods or become even more positive than before. The emoticons make them aware of their feelings, as well as that of their partners, and whether their feelings have changed at all.	This movement exercise helps to create awareness of relaxation and teamwork in the expressive frame. This exercise will form the basis for the mother-daughter role play of this session. The movement exercise strengthens the non-verbal communication between the pairs.	Mats CD CD player Emoticons



	have changed, if at all.			
Session 6: Activity 1. What is conflict and what is assertive conflict resolution?	The participants read through the notes on assertiveness and conflict resolution. The following is discussed: What is the conflict between June and her mother about? What need does June have? What need does her mother have? Can you define the problem that they are up against? How can they create a win-win situation?	lays the foundation for enroling the participants to write in role. They	From a Process Drama perspective the participants are given expert information in order to create a scene between the mother and daughter through writing in role, applying the principles of assertiveness. The value of role play in Process Drama is explained by O'Neill (1995:80) who states that role play is mainly taking on the functional elements of the role. Role play does help the participant to move into the fictitious reality. The participant can gain objectivity during this process when reflecting about the role and can at the same time be subjectively engaged in the emotional expression of the role. This can enhance the insight of the participant about human behaviour.	Notes on assertivenes s
Session 6: Activity 2. enroling the participants as mother and daughter in writing dialogue in role	The facilitator asks the group to remain in pairs. The one participant represents the daughter, June, and the other the mother. They plan a scene where the mother and daughter try to overcome their conflict. Again they write the dialogues in role and apply the rules of assertive communication.	The pedagogical value of this section is to expose the participants to ways to resolve a conflict, as well as the obstacles to conflict resolution. The participants create outcomes to the conflict situations from which the other participants as audience can learn.	The participants are given a task to engage them in the meaning frame, as well as in the expressive frame in the role drama. They all make a commitment to complete the task.	Information on conflicting situations and role Cards Paper Pens

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Presenting June and	After the participants have prepared and negotiated how they are going to present their conflicts, they step into the role of the mother and the daughter and every pair gets a chance to present their conflict situations in the circle area in role.	The participants are required to role play the mother and the daughter in a conflict situation. The participants get a chance to implement their knowledge about anger management. They also have a chance to experience how not to react and act in a conflicting situation. They can observe each other and learn from the role dramas.	The participants by now have engaged in the meaning frame with the role drama and are committed to the task. The dramatization of the mother and daughter's conflict through role play strengthens their identification with the role and help them to present the attitude of the mother or daughter. Morgan and Saxton (1987:32) explain that when in role, the participants can risk exploring viewpoints that they might not have done otherwise. In Process Drama the participants can watch the others while they are in role. This process of being part of the audience and part of the action is a unique element of Process Drama. According to O'Neill (1995:141), this creates a balance between involvement and detachment in the participant.	Dialogue scripts
Session 6: Activity 4. The participants de- role by stepping out of the aesthetic make-believe circle	The facilitator first steps out of role by moving out of the aesthetic circle through the exit point. The participants are asked to do the same. They are asked to take their places in the talk circle. The group will reflect together about the conflict between the mother and daughter.	The participants experience the various outcomes of conflict resolution by observing and enacting the different reactions of people in conflict situations. It is important that the facilitator and the participants discuss each	According to Morgan and Saxton (1987:36), the facilitator is responsible for the smooth interaction between the expressive and the meaning frames in the taxonomy of personal engagement. The process of de-roling forms a bridge between the expressive	

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		dialogue directly after it is presented.	frame of the participant in role and the analytical frame of reflective discussion. The facilitator encourages meaningful contributions (O'Neill 1990:21). Morgan and Saxton (1987:79) suggest that challenging and critical questions can lead to deeper identification with the role drama.	
Session 6: Activity 5. Reflection and closure: What have you learned in this Session?	The participants are to write in their diaries and indicate what they have learned during the sessions. Each of them receives an umbrella. On the frames of the umbrella they find the basic elements of anger management written down. These umbrellas remind them of the possibilities of anger management and that one can overcome one's negative anger habits.	It is important that the participants internalize what they have learned. It is equally important for the facilitator to see with which aspects the participants have empathised and which aspects have not been totally successful in the training process.	As with any drama, Process Drama also needs closure. Appreciation from the side of the facilitator and encouragement are two of the main aspects that will be concentrated on in this session. The facilitator should be aware of the following fact postulated by Landy and Montgomery (2012:34) when discussing the outcomes of Process Drama: Process Drama does not always give answers to problems but opens up opportunities to discuss problems. The journaling therefore offers the opportunity, yet again, for the participants to think about what they have experienced and explored.	Journals Posters with significant contributions on conflict resolution by the group. Prestik (see description in activity one)
Facilitator's reflection	Possible outcomes			

1. Life Orientation	Assertiveness is one of the most important life skills to learn when dealing with difficult emotions.	
2. Process Drama	In this session the methodology of Process Drama offers the possibility to apply the principles of assertiveness in improvised dialogue scenes. The session also provides the chance for the participants to explore the consequences of the opposite style of communication, namely aggressive communication or passive communication. The session material explores physically, emotionally and cognitively through the methodology of drama.	
3. Emotional competences	The emotional competency of assertiveness can be practised in this session through improvised dialogue.	
4. Brain-based Education	In this session the learner is challenged to engage in complex learning. The participant is learning in a social context, her emotions are involved and she has to learn through physical, emotional and cognitive participation.	



7.3 Summary

This chapter presents the six sessions of the planned anger management workshop. The sessions are planned in detail to assist in the practical execution of the workshops. It renders a facilitator-friendly overview of the activities of each session, the specific outcomes aimed for and the resources needed for each session. The pre-planned lessons serve as a practical guide to assist me to evaluate the sessions according to the parameters of Process Drama, brain-based learning and emotional competency.

The next chapter reports on how these sessions were executed during the empirical examples. Chapter Eight also renders a detailed reflection on the outcomes of each Process Drama activity. The reflections cover outcomes such as how the sessions comply with the concept of emotional competency and the principles of brain-based education.



CHAPTER EIGHT: ANGER MANAGEMENT PROCESS DRAMA WORKSHOPS FOR ADOLESCENT FEMALES: THREE CASE STUDIES

8.1 General introduction

In Chapter Seven the lesson plans of the empirical programme are introduced. This chapter contains reports on the three anger management workshops presented to three different case studies. A critical reflection, evaluation and discussion of each workshop provide an account of the outcomes reached. Each workshop consists of six sessions containing several activities. A reflection on how the outcome of each activity adheres to the methodology of Process Drama is followed by a summary of how the emotional competency of anger management is addressed after each session. There is finally a discussion on how the principles of brain-based learning adhere to the practical Process Drama activities. The conclusion of these reflections is presented in the following and final chapter of this study to render an overview of the outcomes of the empirical, as well as the scholarly study, as a whole. The following section reports on the practical research.

8.2 A discussion on how the three workshops, with six sessions each, are aligned to the practical research environment

This study was originally planned around one case study with at least 12 English adolescent female participants. Due to logistical changes and to fit in with the schools' schedules, I had to adapt to the circumstances and present workshops in three different case studies, accommodating a total of 23 participants. The workshops of all three case studies were presented in English as planned. Each workshop consisted of six sessions. Workshop One was presented over a period of two weeks and Workshops Two and Three were presented in one day each. Each session was initially planned to be 120 minutes long, but had to be shortened to 90 minutes per session in order to accommodate all sessions in the time available. The workshop learning material had to be adapted accordingly.



Table 7A table to explain the variables regarding the three different case
studies

Field	Case study: Workshop One	Case study: Workshop Two	Case study: Workshop Three
Location	Private school	Drama studio	Drama studio
Scholastic background	Learners with slight learning difficulties and/or emotional problems	Learners are in gifted to highly gifted category	Learners are in gifted to highly gifted category
Prior drama experience	No prior drama experience	Prior drama experience	Prior drama experience
Time schedule	Presented over a period of two weeks	One-day workshop	One-day workshop
Size of group	10	6	7
Language preference	Bilingual: more English than Afrikaans speakers	Bilingual: more Afrikaans than English speakers	Bilingual: more Afrikaans than English speakers

As these workshops were to be presented in a shorter period of time than originally planned, some adaptations had to be made.

A short summary of the adaptations to the original planned workshops

- The ritual of rap rhymes was presented less frequently;
- the relaxation activity could only be presented twice but was nevertheless incorporated to demonstrate how one can manage one's anger with relaxation techniques;
- the Mantle of the Expert debate between the make-believe members of the Immigrant Support Group was changed in Workshops Two and Three. Tension was created as the chairperson sided with the social workers against the psychologists. This caused some mediated anger in the group that led to a hands-on experience of anger and how to manage anger;
- the journaling was presented as often as planned. The journaling was done during the middle and at the end of the workshops.



All three case studies adhered to the research question as discussed in Chapter One, namely:

In what ways can the adolescent girl's anger management skills be enhanced by a brain-based methodology, such as Process Drama, and specifically the convention of dramatized poetry?

All three case studies provided outcomes of how Process Drama conventions, and especially dramatized poetry, enhance the emotional competence of anger management. After each of the six sessions a reflection on how emotional competence was stimulated, as well as how the brain-based principles were adhered to, is provided.



8.3 Session One

8.3.1 Three Process Drama workshops on anger management and a critical reflection on the implementation of the methodology of Process Drama in this study

Session Number	1
Subject specific aim	Dealing with difficult emotions
Duration	90 minutes
Learning activity	Anger management
Session theme	The who, the what, the where, the how

Session 1: Activities	Activities of Workshop One	Activities of Workshop Two	Activities of Workshop Three	Reflecting on the implementation of the methodology of Process Drama in this study
Activity 1: Preparation of the location.	The location could not be prepared in advance as there were learners writing exams in the venue.	The location was well prepared for the workshop. The participants were on time, positive and eager to work.	The location was well prepared. The participants were on time and positive.	A well prepared venue plays an important part in the learning environment and it affects the flow of the learning process of the participants as well as the facilitation process of the practitioner.
				Process Drama is an embodied

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				methodology (Nicholson 2005:57) and in many instances the learning process is physical and therefore requires a 'movement- friendly learning space's. In Case Study One the learning space was limited and one could not predict the location for the next class. This had a negative influence on us and restricted the participants physically. The user- friendly space of Case Studies Two and Three contributed to the learning process.
Activities 2a and 2b: Getting to know the map and rules of our journey. A word of welcome, the overview of six workshops, and an	During all six workshops there were no disciplinary problems. The participants respected the fact that the journals were private domains and not one of them referred to family members or revealed anyone's name. They were not keen to express the rules physically. At least it	During all six workshops there were no disciplinary problems. This does not mean that the participants could not voice their preferences; they did, for example, refuse to use the name tags and did not want to express the rules in mime. They were apprehensive and self- conscious as they were from	As in Workshop Two, this group gave no disciplinary problems. This does not mean that the participants could not voice their preferences; they did, for example, refuse to use the name tags and did not want to express the rules in mime. They were apprehensive and self- conscious as they were from	The fact that there were no disciplinary problems could be explained by 1) the smallness of the groups and 2) the advantage of using a teaching methodology that, as posited by Geake (2009:163), increases enjoyment and a love for learning.
introduction to the rules of the workshop.	introduced them to another dimension of learning.	different schools and did not know each other well. They respected the fact that the journals were private domains and not one of them referred to family members or revealed anyone's name.	different schools and did not know each other well. They respected the fact that the journals were private domains and not one of them referred to family members or revealed anyone's name.	The discussion of the rules as well as the fact that I did not force the girls to mime the rules or wear the name tags opened a democratic communication channel between myself and the group. Bolton (1999:239) suggests that the teacher-learner structure fades to a more democratic facilitator-participant style in educational drama (as



				discussed in Chapter 1.3.2).
				This negotiation process, as introduced by the celebrated drama practitioner, Dorothy Heathcote, encourages the facilitator to construct learning contracts with the participants in order to involve them fully in the content of Process Drama (Carroll 1985).
Activity 3: <i>The '</i> if I could be' game as icebreaker.	This group had some reservations with being emotionally open towards each other in the beginning. I sensed that there were some group politics. I could observe this in their body language, especially in the way they had grouped themselves physically. They enjoyed the game. They had to read each other's lists and try to guess whose list it was. Some could immediately be identified because of their idiosyncratic preferences and others were unidentifiable. Most revealed that the colour of anger is red. Eiseman (2000:19-21) states that the colour red is associated with energy. Both anger and love evoke strong feelings and increase blood	They participated with enthusiasm in the 'If I could be' game. They enjoyed it and as the game went on they relaxed and laughed a lot. It seemed to me that the group got on very well. Some girls could immediately be identified because of their idiosyncratic preferences and others were unidentifiable. Most of them revealed the colour of their anger as red. The girls had to read the lists out loud. They all read very well and understood the concepts of similarities and sameness that were emphasized by this game. I told them that the different styles in our display of anger are reflected in the game.	They enjoyed the game, relaxed and laughed a lot. Their interaction indicated that their group had the potential to become a strong team. Some girls could immediately be identified because of their idiosyncratic preferences and others were unidentifiable. Again most of them revealed red as the colour of their anger. The girls had to read the lists out loud. They all read very well. They had fun, relaxed, communicated well with each other and understood the concepts of similarities and sameness that formed the basis of this game.	This icebreaker was used as a multipurpose device: it created the right ambience for collaborative learning as Process Drama offers a collaborative learning experiences where the individual learns from the input of the group and vice versa (Gallagher 2001:5). Crawford (2007) suggests that collaborative learning is an effective methodology when teaching adolescent girls. Burton and O'Toole (2009:86) promote peer teaching as a highly effective strategy to empower learners to solve complex problems. This icebreaker was a successful choice as it introduced the participants to each other in an informal way. They could get to

	flow that is displayed in a redness in the facial and neck area. Western culture associates this colour with love (passion) as well as anger. According to Dunn (2013), South African cultures perceive red as the colour of death and mourning and not love and anger. The girls in all three case studies associated red in a Western cultural way. The girls had to read their lists out loud. Almost all of them struggled to read out loud and some were nervous when having to do so.			know each other's likes and dislikes, dreams and preferences. It was a way to introduce the importance of diversity and sameness that manifested later in how each of them expressed anger in different ways. The icebreaker served well to 'warm things up' by creating a relaxed atmosphere where uniqueness and creative thinking could be celebrated.
Activity 4: Freeze frame expressions of different manifestations of anger. I used the positive energy of the previous activity to introduce some freeze frame or tableaux work. As I clapped my hands the participants had to freeze in their positions. It was repeated with variations on the theme.	This exercise indicated their levels of willingness to engage in dramatic activities. I observed that most of them were not really mindful of the dramatic moments they had created. I interpreted this not as a negative attitude towards the work, but more as a <i>laissez faire</i> style, a typical adolescent sub-culture style of 'coolness', not to be too intense when not sure of oneself. Some of them were just shy and started to laugh uncontrollably. I selected some of the activities with a view to building their self-	The girls were keen to express angry people physically. They were resourceful and worked well together. Their drama background helped them to express their anger in a freeze frame style.	They executed the activity very well. The group was well integrated and created statues of angry people. These participants were keen to express angry people physically. They were resourceful and worked well together. Their drama background helped them to express various types of anger creatively in a freeze frame style.	Through this exercise anger is physically explored by the convention of freeze frame as Wright (cited in Hatton & Anderson 2004:79): "Drama generates meaning through two interrelated elements, embodied experience and focused reflection upon the embodied experience. Each element informs and 'educates' the other." Furthermore, the exercise indicated how difficult it was for adolescents (Case Study One) to express themselves spontaneously and how easy it

	esteem.			was for the participants who were drama students to express themselves (Refer to Activity 9 of this workshop, Case Study One). One can therefore conclude from this observation that drama can transform participants from "spectators to social actors" with the willingness to voice their opinions, as suggested by O'Connor (2003:20).
Activity 5: List what angers you	I had assumed the participants would have major traumatic issues that anger them on their lists. They chose, however, to reveal only very general and not such serious incidents where people had irritated and angered them. They mentioned that they get angry when people hurt animals. I found it significant that not one of them openly mentioned any parental conflicts. According to research ¹⁷¹ most of the frustration and anger experienced by teens are about conflicting situations with parents (Sweeney 2001:84). Later one of the participants mentioned in a private conversation that one	These girls chose to reveal things in general that angered them. They did not reveal details of serious incidents that angered them. I happen to know that more than one of them went through life- threatening incidents. This indicates that the participants chose to be emotionally closed and that they might, because of some traumatic incidents, not be willing to reveal any private information. The girls remarked that their lists consisted of a lot of things that people do which angered them and not a lot of 'things' that angered them. They suggested people would get angry about the same things, but would not display their anger in the same way. They	These girls revealed some personal things that angered them, but no details of serious incidents. We discussed whether all anger is bad or not. We came to the conclusion that anger that protects one against harm is good, whereas destructive anger is bad. Examples were discussed, such as protecting one's younger siblings from danger. For example, one will get angry at one's siblings when they are putting themselves in harm's way when one is responsible for them. On the other hand, if one is angry with younger siblings when they enter one's room and look into one's drawers, one can be so destructively angry that one's relationship may be	Process Drama creates avenues for meta-cognition through dramatic conventions and questioning techniques (O'Neill 1995:105). Such questions stimulate reflective engagement, according to Morgan and Saxton (1987:71). This exercise prompted the participants to reflect about their own anger. Underwood (2003:138) suggests that adolescent girls will mask their real feelings to protect relationships as they value relationships dearly. This explains why the girls did not mention any

¹⁷¹ See Chapter 3.2.3 of this study.

of her parents frustrates her no end.	suggested that it is the small things in life that irritate one constantly and that make one mad.	damaged.	serious relational anger incidents in their lives. The reluctance to be more open about what makes these participants angry confirmed that it is much easier and safer when one is working with adolescent
			emotions to use the metaphors of stories and poetry to reach teen participants in a school group, than to force them to draw from their personal narratives. Nicholson (2005:72) explains that the physical embodiment of stories can help deepen one's own insight socially and personally. Mazza (2003:17) states that poetry opens up avenues for deeper interpersonal communication than would otherwise be possible.
			Nicholson (2005:5,16) suggests that Process Drama activities have the objective to bring psychological and social change. This exercise served as a way to confront the participants with their own anger in order to pave the way for the need of anger management in the next

				workshops.
Activity 6: Words for different kinds of angry feelings.	The participants first discussed their variations of anger and then shared them with each other in a talk circle discussion. Their examples of feelings that can be associated with anger were jealousy, irritation, frustration, hate, rage, uneasiness, scorn and wrath. I presented a list of anger-related words on the PowerPoint presentation in order to reveal other kinds of angry feelings to them, drawn from Parrot's list (2001:27) as discussed in Chapter Two.	Their examples of other feelings that can be associated with anger were frustration, hate, irritation, agitation, rage, fury, humiliation, jealousy and hostility. I presented a list of anger-related words to them on the PowerPoint presentation.	Their examples of other feelings that can be associated with anger were impatience, aggression, mad, irritation, exasperation and confusion. I presented a list of anger-related words to them on the PowerPoint presentation.	Process Drama is a leaner- centred methodology. The participants in this instance were asked to find their own examples of varieties of anger and angry feelings before a full list was given to them. The methodology complies with collaborate learning where talk circle discussions engage the interest of the learners in the subject, as suggested by Morgan and Saxton (1987:23). The exercise, tapping into their prior knowledge, formed the basis of the next activity during which they had to use the anger-related words to create rap rhymes.
Activity 7: Write a rap rhyme about	Group One:	Group One:	Group One:	The learners were invited to personally engage with the
various angry feelings.	When I get angry I feel rage,	Aggravation, irritation makes you out of sorts	Anger is bad, anger is sad anger is the reason you are getting mad	meaning of various types of anger and related feelings (Morgan & Saxton 1991:19). They had to think about it,
	outrage,	Dislike, disgust		communicate it and create a
	fury,	all terrible thoughts	you gotta express it	meaningful rhyme about the feelings. According to Illeris
	wrath !	Exasperation, frustration	you gotta confess it you gotta let it go	(2005:90), the act of learning is socially and cognitively linked to the search of meaning. Process



Which makes me mad!	Tends to make you sad	and go with the flow	meaningful learning by involving the participant cognitively and
	Ferocity, hostility	irritation	creatively in the content (De
Group two:	Damn, these things are bad	agitation	Jager 2006:8). The work proves that the adolescents had a clear
I am so angry right now	Envy, jealousy	grouching	insight into various angry feelings. This activity indicated
I just can't help thinking of the things you said	You don't like one another	grumping	the level on which these participants could operate
It's repeating itself over and	Contempt, torment	will keep that anger pumping	creatively, cognitively and expressively.
over again in my head!	You take it out on mother	so don't be frustrated, agitated	
	vengefulness, sadness	let the anger be released	
Group Three:	takes your joy away	and we all will have peace.	
anger spite and envy	Scorn and spite		
taratatatata	can ruin any day	Group Two:	
Frustration and exasperation		A aggravation	
taratatatata	Group Two:	agitation	
jealousy, disgust and dislike	Those people will feel my wrath	annoyance	
taratatatata	walking down that dangerous path	Grouching	
annoyance, rage, and fury	Screaming and kicking,	and grumping	
taratatatata	throwing things around!	Envy and exasperation	
that's the things that make you angry	The anger inside me makes a terrible sound!	Rage	
	Your lies give such disgust	Group Three:	



	Group Four:What do you do when you're upside downand jealousy and anger come aroundWhen you burst into rage feelings grow into hateWhen irritation swells like a balloonand grows like a full blue moonDo you stand and fight?Do you run and flee?What do you do with anger?A dam dadi dum dadi dee.	hating you becomes a must!	When I am irritated with my anger and rage I am full of spite and envy then I get frustrated and grumpy because of all the happy people I dislike that I am angry and I am jealous that they are not but I know that anger is not always bad and it is sometimes good to be grumpy	
Activity 9: Engaging the participants to present the rap rhymes about various angry feelings in the circle of umbrellas that symbolized an area of make-believe.	Some of the participants were very anxious when they had to read and present their rap rhymes to the group. Most of them did not show clear and creative body and voice integration and struggled to read the content. The rhymes indicated that the girls had a clear understanding of the implications and profile of anger and other angry	I observed that this group had no problem presenting and dramatizing their work as all of them had drama as a subject. Their poems indicated that they had a clear understanding of the implications and profile of anger and other angry feelings. They were able to apply different words denoting anger in their rap rhymes.	The participants presented their rap rhymes easily and with enjoyment, gestures and energy in the circle of umbrellas. I observed that this group had no problem presenting and dramatizing their work as all of them had drama as a subject. Their poems indicated that they had a fairly good idea of anger and other angry feelings. This	In Chapter 1.2 I refer to Callery (2001) who suggests that understanding is attained through 'doing'. As Process Drama does not seek to entertain but rather to understand, the various groups formed an audience for each other and could learn from each other's rhymes by observation (O'Neill 1995:118).

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feelings, but struggled to express the feelings provoked by the rhymes spontaneously.	group recognized the negative side of anger as well as the fact that anger can make one sad. They indicated that they had insight into anger management. They suggested that one should express anger (be assertive) instead of being frustrated and agitated. The rationale behind this exercise was to make them more aware of all the feelings that co-exist with anger. The rap poems also indicated that they had a real and clear understanding of anger and its effects on people.	Nicholson (2005:9) states that the physical involvement of the learner in the action of the drama renders new perspectives on the learning material that would not have been the case in textbook teaching. In this case the participants could experience the feelings by voicing and acting them out. Drawing from Nicholson (2005:9), I hope that this task engaged the participants in the expressive and meaning frames as proposed by Morgan and Saxton's taxonomy of personal engagement (1987:22).
		The participants had to internalize their knowledge of different types of anger and this might have extended their insight into the emotion of anger. The rap rhymes were presented and also discussed afterwards. Through reflection on the meaning of their rhymes the participants could extend their insight into anger. It was a process that involved peer leaning. The rap rhymes offered an opportunity to crystallize their understanding of anger and its

				expression as explained by Morgan and Saxton's taxonomy (1987:22).
Activity 10: De-role after the rap rhymes	After the rap poems had been presented by the rappers, they de-roled by leaving the circle of umbrellas. Once out of the circle of umbrellas they spontaneously started to discuss the rhymes and shared incidences of anger in their own life.	As in Workshop One.	As in Workshop One.	The process of de-roling offers continuous opportunities for reflection in the Process Drama methodology. It offers a way for the participants to distance themselves through reflection or group contemplation from the activity and discuss the meaning of the content (O'Neill 1995:xi). One can conclude that the convention of dramatized poetry was introduced through the expression of rap rhymes. It gauged the participants' ability to express themselves creatively and also served as a test of their prior knowledge of anger. The participants were personally engaged as their interest in this emotion was stimulated. They were challenged to do physical anger-related tasks in the expressive frame and had to commit themselves intellectually when they had to write a rap rhyme (Morgan and Saxton's taxonomy of personal engagement 1987:22). The content of their rhymes indicated that they 'lived into' the feelings of anger in order to create the rhymes and to express them. The workshop created a platform from
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	which the next workshop about	
	the consequences of anger in a	
	relationship could be launched.	



8.3.2 Addressing the emotional competency¹⁷² of anger management in Session One

During the first session a relaxed atmosphere of acceptance, respect, trust and creativity, aiming to create a democratic communication style had been established. This ambience is important when emotional competency skills are to be fostered. One has to open up avenues through which candour and honesty can pave the way to emotional openness. In Chapter 2.2.4 there is a clear indication that the brain functions optimally when certain chemical processes are in place. Stressful learning environments should be avoided. Carter (2000:103) posits that the neurotransmitter, dopamine, is secreted in a relaxed atmosphere of positive mindsets. According to DeAngelis (2008:30), oxytocin is produced when trust and acceptance are encouraged. The methodology of Process Drama should create an environment where 'tend and befriend' is the norm (Taylor, Klein, Lewis, Gruenewald, Gurung & Updegraff 2000:411–429). During the first session a relaxed atmosphere of openness and trust was created, not only between the facilitator and the participants, but also amongst the participants themselves. The participants conversed with each other, made jokes and appeared to be relaxed.

The girls were reluctant to express the rules physically in the first activity of the workshop should be interpreted in the light of their development phase, as well as proof that a democratic communication style was negotiated between the facilitator and the group. Adolescents are intensely self or image conscious in a group set-up, as observed by Albert, Elkind and Gingsberg (2007:72) and Crawford (2007:25). It was interesting to note that they were much less self-conscious after the icebreaker game (Activity Three) as it created an opportunity for the group to get to know each other better. They liked the game as it explored their likes and dislikes, dreams and preferences that suited their development phase of building their own identity (Albert, Elkind and Gingsberg 2007:72). This game created an atmosphere of openness and awareness towards each other and served as a platform from which further emotion explorations could be launched. The participants were interested in each other's lists.

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¹⁷² Although the session plans indicated that there should be a Life Orientation outcome, I decided to include this outcome as part of the emotional competency outcomes. 301



There was a lot of laughter as they read the lists to each other and they had fun trying to guess which list belonged to whom.

During Activities Four and Five the participants could contemplate what angers them and could explore facial and bodily expressions of anger. They could embody various feelings of anger and in so doing experience them physically and emotionally. It is through being able to identify emotions in ourselves that we are trained to identify the same emotional expressions in others (Goleman 2011: Introduction, Kindle version). The participants had to appraise the value of anger. Is all anger bad? The second and third case studies concluded that anger that protects is good but anger that destroys is bad.

The participants had to list different words for anger during the last three activities and write and express a rap poem about the various anger-related feelings. The content of the rap rhymes written by the participants clearly confirms the increase in personal awareness during adolescence (Rosenblum & Lewis 2006:274). One group identified the obsession towards someone who has angered one:

I am so angry right now I just can't help thinking of the things you said It's repeating itself over and over again in my head!

Social acceptance and relationships are of great importance for the adolescent female (Weisfeld & Woodward 2004:11-19). It also reflects the fear of rejection, abandonment, failure and humiliation that can lead to obsessions with angry feelings in the adolescent girl (Kendler, Gardner, Annas & Lichtenstein 2008:421 - 429). Two of the groups expressed the intensity of the emotion of anger, as described by Silk, Steinberg and Morris (2003:1869). One group indicated that the emotion of sadness is a result of the emotions of anger and that anger should be vented and not totally suppressed. These rap rhymes created insight into the participants' understanding of the emotion of anger. To have knowledge about their understanding of anger was of great value during the rest of the workshops as it indicated on what level the



participants perceived anger. Their poetry indicated that they had a clear understanding of the complexities and the intensity of this emotion.

One of the primary tasks of adolescence is the regulation of emotions (Adams & Berzonsky 2004:67). Hannaford (1995:168) posits that the importance of regulating emotions and emotional behaviour should be a top priority for those educating young people. The emotional competency of anger management benefits the adolescent female as she presents with strong emotional needs (Silk, Steinberg & Morris 2003:1869). Giedd et al. (1999) offer a strong case for impulse control during the adolescent years as they posit that the executive section of the brain that regulates emotions is still a work in progress. According to Silk, Steinberg and Morris (2003:1869), the adolescent experiences anger-related emotions intensely and frequently. It can be concluded that this session endeavoured to stimulate the identification of the emotion of anger and anger-related feelings, as well as investigate the expression of such emotions. This is the first step to be taken when one has to learn how to manage one's anger (Salovey & Mayer 1997:10), as described in Chapter Five.

8.3.3 The role of brain-based principles in the methodology of Process Drama in the three workshops¹⁷³

Caine, Caine, McClintic and Klimek (2005) state that learning is a body-mindemotion process. The whole person is involved in the learning process (Hannaford 1995:13). This reiterates the fact that learning is physical; therefore Process Drama workshops should be presented in a reasonably comfortable location to facilitate movement activities. This objective was attainable in Case Studies Two and Three, but the flow of the work in Case Study One was hampered when we had to make do with smaller or unexpected spaces.

This session adhered to the brain-based principle that the brainmind learns best in social context. The first and second activities of the introduction, the rules and the

¹⁷³ At the end of each session only those brain-based principles of the twelve available principles which presented the strongest were discussed.



icebreaker adhered to the brain-based principle that a curriculum should comply with diversity and collaborative cooperation (Jensen 2008:203). I tried to introduce a learning environment during these two activities of ordered sharing where we listened to each other and accepted each other's opinions in a relaxed atmosphere. Crawford (2007:8) suggests that the adolescent is motivated to participate when there is collaboration and responsibility. I therefore discussed the rules with the participants and asked them if they agreed and if they would like to add any further rules to the list. The icebreaker gave the participants a chance to get to know each other and to feel more relaxed in each other's presence. All the other activities were done in a group during this session which gave the participants an opportunity to learn from each other through peer teaching.

The brain-based principle that the act of learning is physiological was addressed by the expression of anger in freeze-frame formats and the presentation of the rap rhymes. These two activities were physical expressions of meaning. Rokotnitz (2011:78) explains that by performing actions one learns through the body and this intensifies the learning process. Although the participants in the first case study were not used to drama conventions they participated and their attention was focused by the novelty¹⁷⁴ of the learning process. These two activities familiarized the learners with the methodology and formed a platform for the rest of the physical activities expressed during the other five workshops.

The principle that the search for meaning is innate in human beings was adhered to when the participants had to list what angers them and when they had to write rap rhymes about various angry feelings (Jensen 2008:134). Crawford (2007:5) suggests that adolescents learn best when they can make cognitive connections with previous experiences and when the learning material confronts real life content. This session forms the basis for further learning about anger. It was therefore imperative that the participants relate with their own anger and gain insight into aspects of anger. They had to confront themselves with what angers them specifically in order for the rest of the learning material to be meaningful.

¹⁷⁴ See Chapter 4.5.7.1 on how novelty focuses attention.



The brain-based principle that the search for meaning occurs through patterning was addressed in the following manner: according to Hannaford (1995:87), patterning is the sequential sorting out of information according to logical and meaningful patterns. It is important that assimilative learning takes place by linking new concepts to existing prior knowledge (Illeris 2005:94). The participants had to list what angers them and which words express anger-related feelings in order to explore their own experiences and knowledge about anger. The creative activity to present their own rap rhymes can be described as the brain-based concept of transformed learning where old ideas are transformed into new ones by the verbalization, embodiment and envoicement of those ideas (Illeris 2005:94).

The brain-based principle that emotions are critical to patterning and learning, was adhered to in the freeze-frame activity. During this activity different anger-related emotions was explored. The brain-based principle that emotions drive attention, meaning and memory is confirmed by Sousa (2006:13) who explicates that strong emotional links in the lesson content strengthens the recall of the lesson to a greater extent. The principle that learning always involves a conscious and unconscious process means that understanding may not always occur directly during the learning activity, as explained by Destrebecqz and Cleeremans (2001:343) and cited in Chapter 5.4.8. Educators should plan to incorporate reflective and creative sessions of meta-cognitive activities to assist the learners to process what they have learned. Creative activities, such as making emotional 'statues' and creating a rap rhyme could stimulate meta-cognition, as well as meta-emotion. Another activity in Session One was the de-roling process after the presentation of the rap rhymes. During this session peer learning took place as the participants discussed the various rap rhymes, as well as incidences of their own anger. In this spontaneous discussion they mentioned that their parents irritated and angered them sometimes. By that time there was already an atmosphere of openness and trust amongst the participants that could not be observed at the beginning of Session One.

The brain-based principle that learning involves focused attention and peripheral perception was adhered to by applying the various factors that help focus attention in learning. These factors are novelty, intensity and movement, as discussed in Chapter 5.4.7, the methodology of Process Drama addresses this principle through



activities that involve creative input; thus novelty was addressed by creating a freeze-frame image of anger or writing a rap rhyme. The methodology of Process Drama is an embodied methodology (Nicholson 2005) and incorporates movement through physical presentations such as acting out the rap rhymes. Intensity involves calling upon multi-sensory immersion into the experience of the work. During this workshop the learners had to think, feel, express and use their imagination about anger-related feelings and incidences. The variety of activities focused their attention on the subject matter.

The brain-based principle that learning is developmental was observed by keeping the profile of the adolescent in mind when this workshop was designed. In Chapter 5.4.10 remarked that adolescents experience an increased interest in what is going on around them, are socially more involved, have more insight into abstract concepts, are more aware of their own identity and opinions and are searching for meaning. Wilson and Horch (2002:59) state that to help focus the adolescent learner on the subject at hand one should stimulate them by providing multiple options for problem solving. This workshop took the adolescent's development into account by offering real-life-related activities that were meaningful to them in a collaborative set-up where they could explore their own anger on emotional, cognitive and physical levels.

I conclude that this workshop was a practical experience of the connection between the arts and education where art strategies create effective learning opportunities with regard to emotional competency life skills, as well as stimulating adolescent brain development.



8.4 Session Two

8.4.1 Three Process Drama workshops and a critical reflection on the implementation of the methodology

Session number	2
Session theme	Anger management
Duration	90 minutes
Learning activity	Dealing with difficult emotions
Session theme	The consequences of anger in relationships

Session Two: Activities	Activities of Workshop One	Activities of Workshop Two	Activities of Workshop Three	Reflecting on the implementation of the methodology of Process Drama in this study
Session Two: The consequences of anger in relationships	The workshop started early in the morning and the girls were full of energy and well rested. I had time to prepare the hall before they entered.	This workshop was presented at the studio. Everything was well prepared.	As in Workshop Two.	See discussion of this section in Session One.
Activity 1a: Relaxation exercise	According to this group's perception of anger, it is manifested mostly in	According to this group's perception of anger it is	According to this group's perception of anger it is	This exercise involved the learner physically

combined with a visualization exercise of a personal experience of anger in order to know how anger is experienced through the body. The participants had to indicate on a drawing of the body where anger was manifested during exercise.	the hands, then the heart, the brain, and the stomach. We discussed the areas mentioned and concluded that it seems as if the whole body, body parts and organs are involved when we are angry. Our brains, as well as the peripheral areas like the arms, feet, shoulders and hands, are involved. Our senses, such as our eyes, and our organs, for example the stomach, heart and lungs, are involved. They also remarked that the mouth is involved when clenching one's jaws or grinding one's teeth.	manifested mostly in <u>the arms</u> , <u>shoulders</u> , <u>stomach and brain</u> . We discussed the areas mentioned and concluded that it seems as if the whole body, body parts and organs are involved when we are angry. Our brains, as well as the peripheral areas, and our senses are involved. It is imperative that the participants understand this concept, namely that anger is manifested in the whole body. They should be able to understand how the whole body can be flooded with cortisol and adrenaline and in so doing impair our cognitive ability to think logically.	manifested mostly in the <u>throat</u> , <u>stomach and hands</u> . We discussed the areas mentioned and concluded that it seems as if the whole body, body parts and organs are involved when we are angry. Through their own meditative experience of anger the group indicated on their drawings of the outline of the body where they experience the manifestation of angry feelings.	and cognitively to prepare them for the next activity. During the next activity the way anger is expressed and perceived in the body was discussed. This activity was also an opportunity for peer teaching. We discussed how the same feeling is presented differently in different people, but that we all can recognise the presentation as anger (O'Toole et al. 2009:86). The participants had an opportunity to experientially discover and reflect on their own physical experiences of anger. Through visualization the group could assess physically how their own anger was manifested. Process Drama activates creative thinking skills by using the imagination to employ "possibility thinking" (Craft, 2000:9). In this way Process Drama offers the platform for meta- learning; the
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				participants learn about their own thinking and feeling processes through imaginative situations.
Activity 1b: How anger affects the whole body. I pointed out that anger affects our whole body and discussed how angry feelings can flood the brain with cortisol and adrenaline and change our perceptions, actions and sense awareness. I did this by illustrating it with a visual presentation in order to make the scientific information more accessible to the participants.	The participants found the information very interesting and concentrated well. I did not expect them to be interested in the biology of the brain, but could see that the scientific facts stimulated them.	I stressed the fact that one can not think straight when angered and should rather withdraw from the situation for a period of time before one reacts irrationally and too strongly. The participants found the information very interesting.	The information was shared with the group in order to inform them how anger can 'overtake' us and needs to be controlled. I stressed the fact that one cannot think straight in such circumstances and should rather withdraw from the situation for a period of time before one reacts irrationally and too strongly. The participants found the information very interesting.	The interest of the participants was captured with the scientific information of how angry feelings are processed in the brain. This proves that the adolescent learns best when the content confronts real-life events in order to make meaning. It emphasizes the fact that adolescents are fascinated by new knowledge, for example arts, science, mathematics and history (Crawford 2007:16). The methodology of the Mantle of the Expert, as propagated by Bolton (1995), encourages the implementation of challenging material in order to stimulate the learner.
				This activity that attempts to show how

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				anger presents in the body and brain is based on the scholarly study by Sternberg (2002:397) that indicates that the secretion of adrenaline prevents prefrontal, logical thinking and stimulates flight or fight reactions (refer to Chapter 2.2.4). The activity furthermore relies on the scholarly study's explication of which brain regions are affected by emotions (Chapter 2.2.). The scientific explanation of the display of anger served well to inform the learners about the mechanisms of anger in this Process Drama.
Activity 1c: The group has to make statues of different emotions and present them in the creative space.	This time the girls were much more alert to what they were doing. They created various statues of emotions and showed a real sense of spatial awareness in this exercise. There was much less laughing and self- consciousness. The girls used various levels in their depiction of the statues. The participants were able to create interaction between their own expressions and those of others. This was done in order to	I did not ask this group of girls to depict statues of different emotions in groups and to present them in our creative space. I was anxious that we would run out of time and I had observed that they were mindful and quite capable of physical emotional expression in the previous activity, and related to each other, using different levels in space and expressing	I tried to establish the ritual of moving into the creative space to be in role and to move out of the space to de-role again. The girls experimented with different levels in space and different kinds of expressions of anger. They portrayed physical aggression and passive anger whenever they hid the anger. They did a scene in a school set-up where the teacher was angry with the learners. I	This established the ritual of moving into the creative space to be in role and to move out of the space to de-role again. Although this exercise is basic, the incorporation of movement and visualization has a great impact on the focus of the learner in more than

	introduce them to the later exercise where they had to create images from <i>The Joy Luck Club</i> .	emotions with confidence.	used this exercise to sensitize the participants about different expressions of anger and anger- related feelings, as well as different ways of displaying anger. They explored how some people hide their anger and others intimidate with their anger.	one way. They have to think what anger looks like and have to feel the tension and aggression that angry movements can create. Langley (2006:1) posits that drama can create awareness about one's own emotions, as explicated in Chapter 4.4.7.
Activity 2: A museum experience. An introduction to the pretext: <i>The Joy Luck</i> <i>Club.</i> The participants were stimulated by a display of Chinese dresses and 1950s Western ladies hats, Chinese fans and other Chinese objects. We discussed the visual information of life and traditions in China from before 1800 to 1950. The tradition of the bound 'lotus feet' that millions of women were subjected to served as a symbol of strict parental control in the Chinese tradition.	The participants were interested in the historic information about the Chinese and American women of the 1950s. They were appalled by the Chinese tradition of the bound feet that served to symbolize the strict parental and chauvinistic culture of this race. I also informed them that they should understand the hard struggle of survival these people had in China. I did not relate this to the South African situation. I wanted the participants to be able to experience the Chinese culture and the story as deeply as possible by immersing them fully in the situation. Caine et al. (2005) posit that orchestrated immersion is one of the basic elements of learning needed for meaning-making. The learners had to be focused on one aspect at a time before they could relate matters to the South African situation. The South African	The participants in this group were shocked when they heard about the strict rules and how submissive Chinese children had to be according to their culture and traditions. I explained that Chinese culture is about the group's survival and not about that of the individual. I explained the struggle of survival these people had regarding famine and war.	As in the previous case studies the participants were stimulated by a display of Chinese dresses and 1950s hats and Chinese fans. They looked through the information on the PowerPoint presentation of life and traditions in China from before 1800 to 1950 in China, as well as post-war America and the rapid development of the American Dream. They were shocked by the cultural discrimination.	This activity was an introduction to the pretext (O'Neill 1995:20). It should attract the attention of the participants. The rationale behind this was to create a level of belief in the fictitious world of the pretext, <i>The</i> <i>Joy Luck Club</i> . It was intended to stimulate the imagination of the participants and to help them understand the story about conflict between a mother and her daughter. As explained in Chapter 5.4.9, Process Drama immerses the participant in real life situations through fictitious realities. The

They read about the 1950s post-war, post- famine lifestyle in China to explain the American dream. They looked at photographs of advertisements in post-World War Two America to explain how promising the American life could have seemed in these depictions to immigrants from China.	situation is not relevant at this stage. It is important that they understand June and her mother's relationship and the cultural background from which their conflict stemmed.			participant enters the fictitious level of the pretext and as interest is created in the pretext situation, the participant can proceed to a following level. Participation in creative actions demands the solving of problems that can guide the participant to ownership of the task (Morgan & Saxton 2006:28). In this workshop the participants were showing a great deal of interest in the physical objects. They reacted strongly to the lotus feet images and asked a lot of questions about it. They were excited to read the extract from <i>The Joy Luck Club</i> after this introduction.
Activity 3: Reading an extract from <i>The</i> <i>Joy Luck Club</i> by Amy Tan.	We were running out of time and as most of the participants struggled to read well, I read the story to them. They were deeply touched by the conflict in the story. Some of them identified with the mother-daughter conflict more than others. Our Western society has mothers with great expectations for their daughters and daughters	One of the participants was feeling ill and passed out. She had to go home. To get the group focused again I read the extract from <i>The Joy Luck Club</i> to them making a strong emotional impact.	I asked one of the girls in the group to read the story of <i>The Joy</i> <i>Luck Club</i> . She read fairly well and the emotional impact of the story got through to the listeners. I did not follow my own advice of Case Study Two as it would have taken up too much time to ask the participants to read the extract with the correct emotional	The pretext definitely met the requirements of O'Neill (1995:20), namely that a pretext should have strong emotional qualities to draw the participants into the reality of the world of the work. O'Neill (1995:20)

searching for their own identity (Koppelman 1985: xxxiv ¹⁷⁵). The long silence after the reading indicated that the participants were touched by the content of this pretext. I observed their emotional reactions to the story. Some had tears in their eyes which indicated that they were emotionally engaged in the story.	activity would have been to let the participants read the dialogue between June and her mother in pairs. This would have ensured that the information of the pretext is well established. As time was a critical factor in this workshop I read the story and we discussed it in talk circle fashion. These participants were emotionally touched by the story.	engagement. They had to read it at least twice before they were able to convey the emotional depth of the story. The participants were emotionally touched by the story. They were very quiet and serious after we had read the story.	regards the pretext to the Process Drama activity of great importance. This is the moment where the participants are introduced to the imaginative world. The pretext should therefore have a strong emotional quality in order to engage the participants in the imaginative world and build their belief in this world. As the participants attended, watched, listened and reacted to the given historic information and the extract from <i>The Joy</i> <i>Luck Club</i> (Morgan and Saxton 1987:23), their levels of curiosity were stimulated and they started to move on to the first level of the taxonomy of personal Engagement namely, interest. They wanted to know more about the story and were keen to get involved in the following activity where
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¹⁷⁵ This reference consists of true stories over generations of conflict between mothers and daughters, claiming that expectations to conform to cultural rules create alienation between mothers and daughters and daughters (Koppelman 1987).



				tableau between June and her mother. This confirms the fact that total immersion in the fictitious reality of a work can stimulate interest in the work, and lead to a state where there is engagement between intrapersonal and interpersonal relationships, thinking and feeling, as suggested by Arnold (2006:115).
Activity 4: Creating a tableau of the dialogue between June and her mother from <i>The Joy Luck</i> <i>Club</i>	The participants were deeply engaged when they depicted the scenes from the story. Their facial expressions and quiet depiction of the characters were involved and touching. There were much less laughter and fewer jokes. The activity inspired the participants to be cognitively, physically and emotionally more involved in the conflict between June and her mother. They were executing the tableaux well. Unfortunately we did not have more time to explore the scenes with the convention of thought tracking as a follow-up of the tableaux.	The participants were physically and creatively drawn into the scene of conflict between June and her mother by having to depict tableaux of June and her mother's dialogue. Creating tableaux asks the participants to be able to draw the essence from the situation, and engaging them in the meaning of the Process Drama. The participants had to express the emotional struggle between the two parties visibly and could only use their insight into the non-verbal communication signs when people are in a conflict situation. We did not have time to explore the scene with improvized monologues or thought tracking and dialogues,	The participants had to step into the make-believe world of the pretext and create still images (tableaux) of various moments in the pretext story. They depicted the same incidents as in Case Studies One and Two. The participants were seated in the half-circle of umbrellas, thus entering the aesthetic space. They were deeply engaged when they depicted the scenes from the story. This exercise served as a way to experience and reflect more about the conflict between June and her mother and was well executed.	Creating tableaux asks the participants to be able to draw from the essence of the situation and engages them in the meaning of the Process Drama. The participants are in role and engaged in a physical task through accessing their imagination. Thomas and Mulvey (2008:243) describe the value of the imagination in art activities as follows: "Imagination – the ability to form mental images that are independent of present perceptions and the ability to create new

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			mana through
	due to our time restriction.		mages through eorganization of
			revious experiences –
			s critical to advanced
			tudy in any discipline".
			he participants had to
			ommit through their magination, physically,
			ognitively and
		e	motionally to the task
			n order to display the
			arious scenarios of the extract to each other.
		e	
		م	ccording to Morgan
			nd Saxton (1987: 30),
			neir engagement in the
			neaning frame is ntensified by engaging
			nem in the expressing
			rame through a
			hysical task of
			dentification. This onvention should
			leepen the level of
			ersonal engagement
		a	ind internalization of
			neaning to the
			articipant. Wright 2004:79) states that
			rama is created by the
		ir	nteraction between the
			hysical display and the
			ocused understanding f the physical
		U	



		enactment.
		By allowing the various groups of participants to observe each other creates a collaborative learning process of peer teaching and learning in Process Drama, as described by O'Toole et al. (2009:86).
		Process Drama offers an experiential opportunity by drawing on the aesthetic thought that is based on an emotional experience. By 'playing' in the make- believe world the participants become June's mother who wants her daughter to be a professional pianist. The participants depict the role of June who opposes her mother. This is presented in a symbolic, non-verbal embodiment of the character's expressions of their emotions. Morgan and

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				Saxton (1987: 20) explain that the aesthetics gives form to feeling: "Teachers who use drama must accept that in this kind of approach knowledge is not given, but made. Because it is an aesthetic medium the lesson will contain more than can be stated discursively and a diverse range of learning processes, both cognitive and affective, will be included".
Activity 5: De-roling: The dialogue between June and her mother from <i>The</i> <i>Joy Luck Club</i>	The participants exit the half-circle of umbrellas and discuss how they experienced the tableaux. The participants shared the fact that it felt so different when one is 'doing' June than when one is only reading her dialogue in the story.	The participants exit the half- circle at the exit point. We discussed how they experienced the tableaux. The participants shared the fact that they felt sorry for June. One of the girls mentioned that June's mother must be horrible because she smiled when June was sobbing.	See Activity 5b for this case study	Landy and Montgomery (2012:34) confirm that Process Drama offers more than one mode of learning, namely identification through dramatization, as well as distancing and reflection. The process of de-roling offers a time for the participants to reflect on their actions, share their thoughts out of role with each other and move from a level of expression to a level



				of reflection. During the process of de-roling in Process Drama the facilitator can ask penetrating questions in order to distance the participants from the experience at hand and stimulate reflection (Bolton 1986:19).
Activities 5b: Writing a monologue about June's feelings in role. Note: I deviated here from the original lesson plans and asked the participants of Case Study Three to write a monologue of June's feelings towards her mother. This was done to deepen the engagement and empathy with June.	See Activity 5a	See Activity 5a	Participant One: June's monologue: I hate it when my mother fights with me. She always thinks she knows what is best for me. I hate it when we fight and I am sorry that I told her these things. I didn't really mean them but I was just so angry with her that I couldn't think straight. I wish my mother would realize that I don't want to play the piano. I am really sorry, I don't want to hurt her feelings but she turns me into something that I am not.Participant Two: June's monologue: I sat on my bed in my bedroom, amazed by myself and was shocked How could I, as my mother's child, say such a thing? I felt mad, angry and dishonest. My mom will never look at me again. But somehow I was glad just to release all these feelings I had. I was kind of proud of myself. Now finally, she knows	Reflection on Monologue One:Monologue One:It seems as if the writer in role had a good idea of June's frustration with her mother. She acknowledged that she was so angry that she couldn't think straight. The fact that one cannot think rationally when angered is one of the building blocks for anger management. This participant identified with June and showed some sympathy towards the mother.Reflection on Monologue Two: This participant had insight

Partia mono- me to and it want on pr lam 1 myse l'regr rathe China moth is sac too. Partia She o some don't and n practi more becoi How to die about pushi leave She r into a be o Partia	icipant Three: June's pologue: Mom always wants to be someone that I am not it makes me so angry I just t to cry. Why do I have to go pretending to be someone that a not when I already humiliated elf in front of the whole world? gret that I have said I would er be dead like her children in na. I did not like to see my her like that, I hate it when she ad it makes me feel sad <u>icipant Four</u> : I hate my mom. can't force me to become bething that I don't want to be. I 't want to be a concert pianist mother can't force me to ctise. We are not in China any e and I have the right to ome anything I want to be. Y come she left the two babies is and then she cares so much ut me? She must just stop hing me around and she must re me alone. Let me watch TV. must stop trying to make me a pianist. I am never going to one!	into June's inner conflict and the fact that she could feel two feelings at once. To be able to identify that one processes two feelings at once is proof of emotionally intelligent thinking. On the one hand June is shocked by what she said to her mother and on the other hand she felt relieved because she could express her real feelings. The participant identified with June and had empathy for her mother. <u>Reflection on</u> <u>Monologue Three:</u> This participant clearly empathized with June as character. She was also able to depict the inner conflict of June. On the one hand June does not want to pretend being someone she is not and on the other hand she wants to please her mother. This participant identified with June's inner conflict and showed empathy towards the mother.
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If I don't want t don't have to, it is I understand that difficult conditions had a great loss, I reason for her to p If she was only m understanding tov feelings and my w we'd be having relationship. Yes wrong to say thes and I do feel bad simply had enoug supposed to be lo and sometimes it she is just thinking <u>Participant Six: Ju</u> <u>monologue:</u> I hate myself for b happened in Chin she still lives there She is doing to m to her there. I war life, not my mothe don't want to be a don't want to be n slave. I just want to once!	my right, isn't it? she came out of in China and but that's not bush it all on me. ore vards my ants maybe a better guess I was e things I had, about it but I h. A mother is ving and caring feels as though g of herself. <u>ne's</u> ringing up what a. But it is as if e. She never left. e what they did t to live my own r's idea of life. I piano player, I by mother's o be me. For <u>Reflection on</u> <u>Monologue Four</u> : This participant described the anger June still feels towards her mother. In this monologue it is as if June does not respect her mother at all for leaving the babies in China. She questions her mother's love for her. She does not have great sympathy for the mother. She just wants to be left alone. The participant identified with June and in this case did not empathize with her mother. <u>Reflection on the monologues of</u> <u>Participants Five and Six:</u> In both monologues
	Six:



	not really loving her deeply. She blames her mother for only thinking about herself. In both monologues June admits she was feeling bad about saying negative things to her mother, but she feels she has a right to feel like that. She feels she has a right to follow her own dreams and be herself just for once.
	This exercise proved that the girls empathized deeply with June's situation, but not so much with her mother's feelings.
	<u>General reflection:</u> This activity served to replace the idea of thought tracking as planned in Chapter Six. Writing in role is parallel to thought tracking as it stimulates empathy with
	a character. The activity places the participant in the meaning frame and encourages the participant to search for the motives behind the actions of the character.



	O'Neill states (1995:131) that the pretext should be followed by a careful selection of other structural devices such as "watching, inquiry, games and contests, appearances, roles within roles, public and private dimensions and rituals".
	The privacy of writing in role allows the participants to make text-to-self connections that helped them to understand and feel the anger of June, as well as connecting with their own life script of anger and angry feelings (Wright in Hatton & Anderson 2004:79). I maintain that although the participants in Case Study Three did not excel in their dialogues later in the workshop, they still had a better
	opportunity than the participants in the other two case studies to empathize with June and her mother through writing in role and



			presenting their monologues physically to the others.
Activities 5c: Presenting the monologues of June's feelings towards her mother.		The participants delivered well integrated interpretations of their monologues. There was empathetic resonance with June's character.	This activity was added to the original lesson plan to intensify their emotional engagement with June's feelings towards mother and serve as a springboard for the dialogues they had to create between the two at a later stage. Hopefully this activity intensified the empathy with June and rendered an opportunity to learn how others had depicted June in their monologues, broadening their base of insight.
			Change in cognitive insight and emotional understanding is, according to Bolton (1979:45), one of the most outstanding outcomes of Process Drama. This state of change insight can occur as the participant enters the world of 'as if' (Neelands & Goode



1	1
	2005:50). As stated in
	the scholarly study,
	Process Drama
	produces a learning
	mode called metaxis,
	namely that of the
	participant-in-role
	simultaneously looking
	from the inside out, and
	of the spectator-
	participant looking from
	the outside in (Wright in
	Hatton & Anderson,
	2004:79). Therefore we can conclude that
	during the Process
	Drama episode of this
	lesson, the participants
	embodied the scenes in
	the pretext and in so
	doing through the
	physical manifestation
	of the role obtained a
	more personal
	perspective on the
	motives behind the
	characters' anger
	through the physical
	manifestation of the
	role.



8.4.2 Addressing the emotional competency of anger management in Session Two

In this session the participants were initially exposed to relaxation and breathing in order to create an awareness of the feeling of deliberate relaxation. The outcome of this section is for the participants to be able to use relaxation as a means of anger management as anger is a difficult emotion to deal with. The second part of the relaxation exercise explored how one can, through meditation, experience anger and angry feelings in the body. The educational value of this exercise was twofold: the participants had to learn how and where anger presents in the body and how rational thinking is flooded by hormones when one gets angry. This reflects the research hypothesis posited by Sternberg (2002:397), namely that emotions capture brain functions, bodily urges, environmental changes as well as cognitive appraisals. One should then stop to communicate and only proceed with one's communication after one has had time to calm down (Stein & Book 2001). The participants had to learn how one can, by constantly thinking about an angry incident, strengthen negative feelings in the body and work against one's own health. As explained in Chapter 2.2.5.2, by thinking obsessively and contemplating an incident over and over again (as one does in most cases when someone has angered one), chemicals like cortisol and adrenaline can be secreted that can have a negative influence on one's emotional and physical health.

Exploring emotional expressions helps us to become more emotionally intelligent (Goleman 2011: Introduction, Kindle version). In this session the participants had to embody the characters' feelings. In order to be able to express the inner feelings of the characters, the participants had to employ the emotional competency of understanding various emotions and feelings. They should be able to empathize with the fictitious characters when expressing the emotions in tableaux or writing in role. Empathy is created by putting oneself emotionally in the other person's or character's shoes. The German psychologist Lipps (1880) posits that empathy is "einfuhlung", which can literally be translated as 'in-feeling' (in Lee & Anstruther-Thomson 1912:45). Keen (2007:4) explains empathy as a way to identify another person's feelings, the motives behind them and the ability to participate in the



emotional experience without being part of it. The fact that the learning material can foster the insight of the participants into emotional behaviour and stimulate their emotional competencies is advanced by several scholars in this research, namely Goleman (1998), Mayer and Salovey(1997), Gray and Weare (2003), Vernon (2006:2), Crawford (2007), Sylwester (2007) and Feinstein (2009). Mayer and Salovey (1997:14) state that reasoning about feelings and emotions is central to the accomplishment of good interpersonal relationships.

The participants had to role play some of the characters depicted in the literary extract. As explained by O'Toole (1992), this means that they had to respond naturally how they would have reacted if they were in the same situation. The identification with the character in a fictitious situation entered the episodic memory system and could enhance the ability to recall the content of the work, as described in Chapter 5.4.9. The extract from *The Joy Luck Club* also served as an example that anger can bolster one's courage to speak one's mind more readily than usual. June would not, under normal circumstances, have been able to confront her mother as she did in this section. The scholarly study on the profile of anger and aggression confirms the behaviour of June in the pretext, as indicated by Harmon and Jones (2001:798). This incidence could therefore open up yet another angle of insight into emotional behaviour when angered.

This session's learning material about anger management was based upon the assumption that the ability to manage emotions is influenced by the emotional circuitry of the brain, as suggested by Arden (2010), as well as by Arden and Linford (2009). This is confirmed by Stys and Brown (2004:51), (refer to Chapter 2.2.2: "Increased activity in the amygdala led to an increase in negative emotions. However, this activity is mediated by the medial prefrontal cortex, which produces neurons which inhibit the activity of the amygdala". One can conclude that the emotional competence of anger management can be learned, as attempted in this session. The next section deals with how the brain-based principles comply with the methodology of Process Drama in Session Two.



8.4.3 The role of brain-based principles in the methodology of Process Drama in the three workshops of Session Two

The brain-based principle that the act of learning is physiological was addressed by challenging the participants to experience anger physically through meditation and then report where in their body anger presented. They had to discover for themselves how anger manifests in the body and then report back by indicating on a drawing where their anger was felt. Although not all of the participants were able to meditate (use their imaginations) well enough to experience the feeling of anger physically, they could indicate where anger presents.

The brain-based principle that the search for meaning is innate and is part of our survival instinct was addressed by encouraging the participants to understand the rationale behind the behaviour of the characters. As the adolescent female is confronted with constant changes on a physical, emotional and social level (Jensen 2006:105), it can be meaningful for her to have the opportunity to learn to understand the emotion of frustration and anger. This is supported in this study by Adams and Berzonsky (2004: 284). It is valuable for the adolescent female to understand her own anger and be empowered with skills to manage her anger. She could explore the angry behaviour of another fictitious teenage girl - June - and empathize with the character and learn from the situation.

The brain-based strategy of "orchestrated immersion¹⁷⁶" (Caine & Caine 1991) means that the learner is exposed to learning environments that involve the learner as a whole person in the learning experience. The museum experience, as well as the pretext contain qualities of orchestrated immersion. The participants had to express the character physically, as well as reflect on the character's anger. The learner is drawn into the situation through cognitive, emotional and physical engagement.

Learning involves both focused attention and peripheral perception and both were attended to during the museum experience. The learners were given peripheral stimulation by having many Chinese objects on display to draw their attention and

¹⁷⁶ Orchestrated immersion is not a brain-based principle but one of the brain-based strategies advanced by Caine and Caine (1991).



were encouraged to give their focused attention to the work by involving them physically and emotionally in the tableaux and writing in role.

The fact that that emotions are critical to patterning as a fundamental principle of how the brain learns means that our learning is organized and influenced by our emotions. The participants could identify with the emotional situation of the pretext. The main character is an adolescent trying to establish her identity. The emotional level of the extract is high and relates well to Wolf's (2007:20) argument that "emotion is a primary catalyst in the learning process" of the adolescent brain (refer to Chapter 5.4.5). The emotional pretext drew the participants into the fictitious reality of Process Drama.

The above-mentioned activity also involves the brain-based finding that learning is developmental. The activity that depicts the conflict situation between June and her mother is typical of the adolescent development phase. The participants can identify with such a situation. Feinstein (2009:165) explicates that adolescents are focused on interpersonal relationships during this phase and should be challenged to investigate their social relationships and how to curb their temper during this phase.

By understanding June's situation in the pretext, the participants' episodic memory systems are entered. According to Jensen (1998:108), emotional memories strengthen synaptic pathways. Emotional situations are more easily remembered than neutral, cognitively laden experiences. Kotulak (1997:4) confirms that metaphors aid the memorization of complex experiences. The fact that the brainmind is social and learns best in a social context was adhered to in this workshop as collaborative learning took place during the tableaux. Various situations were created for peer learning as all activities were reflected upon during group discussions.

The educational brain-based prescript observed during this session is: complex learning is enhanced by challenge. The museum experience, tableaux, writing in role and presenting in role challenged the learners with rich metaphors drawn from their own experiences, physical objects and literary material. Kotulak (1997:4) states that the brain earnestly seeks information from the external surroundings through the sensory system and then again recreates this environment depending on how often and how sensory stimulating this exposure is (refer to Chapter 5.4.11). The



adherence to the brain-based principles as discussed in this session and in Session One will be repeatedly entered throughout the subsequent sessions.



8.5 Session Three

8.5.1 Three Process Drama workshops on anger management and a critical reflection on the implementation of the methodology of Process Drama in this study

Session 6: Activities	Activities of Workshop One	Activities of Workshop Two	Activities of Workshop Three	Reflecting on the implementation of the methodology of Process Drama in this study
Activity 2: Mantle of experts (MoE): enroling the participants as the Immigrant Support Group committee (ISG).	Each group had time to prepare three reasons to substantiate their recommendation and present it at the meeting which takes the form of a debate. As facilitator in role, which is a	The enrolment was done as in Workshop One. The same information was given and the same sequence of events was followed. In this case and in Case Study Three more emphasis was placed on	The enrolment was done as in workshop Workshops One and Two. The same information was given and the same sequence of events was followed.	The convention of the Mantle of the Expert (MoE) left the girls on their own to prepare their motivational reports. As the participants engaged in this form of role drama, namely as experts of a certain concern,

Note: The meeting took the form of a debate. The participants held various positions as members of the committee: a) chair of the committee; b) the secretary who writes a report about the meeting; c) three welfare workers who support the Chinese immigrants; d) three psychologists to advise the Immigrant Support Group about the various anger styles. As the Process Drama convention of the Mantle of the Expert (MoE) was the methodology of this workshop, the participants were supplied with the requisite information to enrole them as experts for the meeting. The main objective of the ISG meeting was to deliberate about and make		conflict. The facilitator in role influenced the chairperson to be negative towards the psychologists and positive towards the social workers. This increased the tension in this dramatic Process Drama episode and led to mediated anger.		they had to be responsible for their actions and able to substantiate their viewpoints through studying informational material. It is by taking ownership that learning material could be internalized, as suggested by Dorothy Heathcote (Landy & Montgomery 2012:64). They further describe MoE as a convention that places the learner in the centre of the learning experience by relegating the responsibility of the act to the learner. The participants had to study the content of the material on anger styles in order to be able to participate in a debate; in addition, they had to defend their research that asked for a subjective identification in role with their research material.
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recommendations to the School for Chinese Immigrants concerning June and her mother. The ISG had to decide on the best option for June and her mother: Should she go to a reform school for girls or should she stay with her mother? The psychologists had to take the stance that the mother and daughter's anger styles need to be analyzed and they should learn to communicate.				
Activity 3: Role playing the ISG committee Note: The group moved into the umbrella circle, wearing 1950s style hats and carrying clipboards with their preparation for the meeting. The chairperson welcomed them and the meeting started.	The role play did not fully reach the desired outcome. The psychologists in role had to explain much more about anger styles which did not occur as they were not given the proper time during the debate. I noted that I had to be clearer in my set-up of the role/drama debate to ensure that the information about anger styles is utilized more intensely. One girl in the social worker group suggested that all June has to do is to say she is sorry and then the	The ISG had to decide on the best option for June and her mother concerning their future. This decision would have serious consequences regarding June and her mother's future. As each group presented three reasons to substantiate their recommendation, the chairperson kept on taking the side of the social workers. She was prompted to do so in her role as teacher/facilitator, Mrs Brown. In this study the psychologist group started to	The participants were enroled when they had their hats on and took their places around the table. The meeting took the form of a debate. As each group presented three reasons to substantiate their recommendation and the chairperson kept on taking the side of the social workers, the psychologist group started to get very angry. The social workers enjoyed the fact that Mrs Brown (facilitator/teacher in role) and the chairperson were on their side. This role play was a success. The	The following discussion weighs the outcome of this MoE activity against the core elements of the convention as offered by Bolton (1995). In this Process Drama convention, the Mantle of the Expert, the participants had to take the responsibility for the action in the make-believe world of the drama. Participants and facilitator contracted to find solutions to their problem in the real and in the fictional world by using dramatic conventions. (O'Toole 1992; Neelands &

mother will start listening to	get very angry. The social	participants were emotionally and	Goode 2005). The participants	
mother will start listening to her. Obviously this participant felt that June hurt her mother's feelings when saying that she wished she were dead. It indicates that the girl had some sympathy with the mother. There were no deep moments of involvement in role in this case study. I could, however, see that some of the participants were mentally engaged as they started to discuss the moral implications of June's situation amongst each other. Nevertheless, this group did not pick up on the tension and the responsibility as I would have liked them to have done. They were a little apprehensive of the situation. I do not know whether it was because they did not understand the convention well enough or whether they were just not used to doing role drama.	get very angry. The social workers enjoyed the fact that Mrs Brown and the chairperson were on their side. This angered the psychologists so that we had to stop the role play at some stage and tell them that we actually planned to create conflict. One girl was so angry that I decided to let them all relax first in order to calm the group. Her cheeks were red with indignation and she struggled to stop arguing with the others.	participants were emotionally and cognitively engaged. This group was more controlled than the previous group. As the debate continued, however, they were all getting irritated with the other group who did not seem to care or listen to their remarks. The chairperson in this instance found it difficult to control the meeting and relied on Mrs Brown to assist her. When we eventually told the participants that the meeting was designed to anger them, they all admitted that they had become very irritated with each other.	Goode 2005). The participants were engaged in the meaning and expressive frames of the Process Drama. The participants were engaged in the long-term objectives of the characters in the imaginative world. They had to make a decision affecting June and her mother's lives deeply. This refers to the Heathcotian notion of 'man in a mess' in which the drama participants had to 'save' their fictitious characters (Wagner 1999b). The teacher in role, represented by myself, had to engage with the participants in the imaginative world. My role was to create tension in this world in order to motivate further action in the drama. In Chapter 4.5.1.1 the concept of teacher in role is discussed and the suggestion made that a certain status should be allocated to the teacher in role (Morgan & Saxton 1989:38). In this atuge to a lawar	
well enough or whether they were just not used to doing			certain status should be allocated to the teacher in role (Morgan & Saxton 1989:38). In this study I took on a lower status as an immigrant 'helper' and not as a psychologist or	
			social worker. I was still able to influence the chairperson. The second and third case studies in particular occasioned moments of deep involvement in the drama. Through being engaged in the meaning and expression	



				frames, the participants could 'live into' the situation and be captivated by the role drama of MoE. They experienced tension amongst each other as they did not agree on the outcome of the meeting. This created a hands- on learning experience in anger management.
Activity 4: The meeting is adjourned: De-roling. Note: The meeting was adjourned and the group took off their hats and had time to de-role and take up their seats in the talk circle discussion.	As we were told we had to pack up 15 minutes before the time, we could not engage in the ritual of the rap rhyme and had to bring the workshop to an end. As we moved the tables and chairs to their original positions, I tried to summarize the lesson as closure and to de-role the participants.	important to de-role them. I	We concluded that personal conflicts can lead to greater conflicts. A whole community can be drawn into the conflict between two people. They remarked that they all became very angry and that they were not listening to each other's viewpoints in the end. As in Case Study Two, the participants were mentally and emotionally engaged.	I regard this activity as fairly successful. More structure and control in the role drama could have helped the psychologist group to explain the anger styles better. The chair should have given them time to explain the anger styles and only then open the debate about June and her mother's conflict. In the case of Process Drama both the facilitator in role and the participants in role are placed in a creative mode of learning (O'Neill & Lambert, 1990:22). This research style can also be called reflective research. Gallagher (2001:14) frames the researcher teacher as a 'reflective practitioner' who therefore has to be in a constant state of metaxis and help the group to look from the outside in and from the inside

	descriptive of total emotional involvement. They did not make eye contact with me and were mentally and emotionally absorbed in the debate.	out of the drama. I conclude that a reflective practitioner should also be in a state of relaxed alertness, being mindful in order to be successful. Any unfavourable circumstance, such as a strict time limit, lack of experience or resources can hamper such a reflective practice.
		The Process Drama outcome of this lesson empowered the participants by engaging them in the convention of the Mantle of the Expert. The participants reflected on the event and commented that they became very angry because the chair could not create a fair deal and no one was listening to their point of view. The participants were responsible for the outcome of the workshops as they were placed in a position of authority.
		The facilitator in role adopted a subversive role in the drama to strengthen their stance of responsibility. The participants learned how to analyze various anger styles and how not to

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		deal with conflict in a
		conversation, as well as the
		importance of listening.
		importance of insterning.
		The value of role play in
		Process Drama is explained by
		O'Neill (1995:80) who states
		that role play transports the
		participants to a fictitious world
		where they can become the
		actors in the drama, as well as
		the spectators of their own
		actions. As explained by
		Jackson (2007:41), in
		identifying with the 'as if' reality,
		the participant performer is also
		aware of the fact that this reality
		is symbolic. This symbol of the
		real world opens up a space
		where critical learning can take
		place. The participants are both
		themselves and the persons
		they present and they can
		critically reflect on what is
		happening, what they are doing
		and the motives behind actions
		(Mckinnon & Lowry 2012:49). Ir
		the safe space of the role
		drama the group may discuss
		scenarios of anger and ways to
		manage their anger without
		exposing their personal
		problems. In this way an
		opportunity to debrief is created
		opportainty to debiter is created
		The role play was fairly well
		executed. The fact that anger
		executed. The last that anyer

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				was mediated in the participants during the meeting was an indication that they identified with the roles in the fictitious reality. I created tension by influencing the chairperson to be on the side of the social workers and not to listen to what the psychologists had to say. This created a false power base for the social workers and frustrated the psychologists as they experienced themselves as 'experts' with relevant factual knowledge to share and about how June and her mother should be reconciled. The fact that real anger was simulated created emotional involvement in the drama. The participants realized how difficult it is to manage conflict when many people are involved and how difficult it is to stay calm when one's need to be heard is not met.
Activity 1b: Test for total passivity and relaxation Note: The test for total passivity and relaxation as designed by Chladek ¹⁷⁷ was	Not done	The facilitator introduced the total passivity test of the Chladek Movement Theory 178 in order to show the participants how to measure their own levels of relaxation. They should hold their arms in a vertical position, in balance	The same exercise was done as in Case Study Two. The group enjoyed the exercise. They struggled to let their arms and legs relax totally, but in the	In the scholarly study I referred to Charlesworth (2008:2) who suggests that the following intervention should be applied to train the adolescents to manage their anger. He recommends progressive relaxation (the systematic

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with the point of gravity, relax as deeply as possible and let their arms fall. The way in which the arms fall, as well as in executing this exercise. This the sound of the arms falling on a wooden floor, will indicate these exercises and kept on how relaxed these limbs are. They can also test the relaxedness of their legs by holding them in a vertical position, relax deeply and let them drop. The third test is to check the torso's relaxed state by lying on the back and rolling from out the core onto the stomach.

The group enjoyed the exercise. They struggled to relax their arms and legs completely but in the end most of them succeeded fairly well. There was real enjoyment when they had to lie on their backs and roll onto their stomachs by activating the core. They were relaxed and the mood of the class changed from being emotionally upset to a feeling of wellbeing.

end most of them succeeded fairly well. Only one of the participants was fully successful group was very keen to practise trying to get it right. Afterwards they reported that they felt calm and relaxed.

tightening and relaxation of the muscles), yoga or meditation. After the MoE activity the participants were really upset about the outcome of their 'meeting'. I decided that it makes for an excellent opportunity to experience Chaldek's total relaxation technique. The literary review refers to McKay (2005:4) who describes a state of relaxed alertness and calm as imperative for the correction of anger and angry feelings. He states that mindfulness means that one can develop a clear. serene and compassionate mental state. The participants responded very well to this exercise and reported that they were feeling much more relaxed than in the previous exercise. I reiterated the fact that they should use this exercise as a means to curb anger or angry feelings. Their facial expressions and body language were proof of their relaxed state of body and mind.

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8.5.2 Addressing the emotional competency of anger-management in Session Three

The outcome of this session is to learn to identify the various different anger styles as one of the skills of anger management. The participants explored the anger styles through the convention of MoE and had an opportunity to learn how to use total relaxation of the body to change the emotional feeling of anger. The role play enabled the participants to experience mediated feelings of anger as they were placed in a conflict situation through the debate on June's future. They concluded that the single most important thing in a conflict situation is that people should listen to each other. This first-hand experience of frustration that leads to anger could add to their insight when dealing with future conflicts in their lives.

The psychologist group in the Mantle of the Expert Process Drama had to study the various anger styles and allocate anger styles to both June and her mother. This had to be discussed with the group. In Chapter 2.5.5 it is suggested that anger styles can be defined as ways of displaying anger repeatedly, sometimes effectively, but they can also be misused and become irrational (Potter-Efron 2005:19). The groups identified the mother's anger style as directly explosive and aggressive and June's style as indirectly explosive and aggressive. The participants concluded that June was suppressing her anger and then exploded in a nasty way whilst the mother was continuously aggressive as a task-orientated, manipulative and controlling person. The participants suggested that assertive communication between June and her mother could solve their conflict. These participants role played that they knew a lot about anger styles. In this way they took responsibility for their own learning and had to share their knowledge in a responsible manner with the rest of the group. In the role of expert the participants could become more knowledgeable. Rational Behaviour Therapy has educational outcomes and relies on self-discovery. As logical information is applied to curb negative attitudes, thoughts and feelings, anger can be managed more assertively (refer to Chapter 6.7). The single, most valuable outcome of this lesson was that the participants experienced real 'mediated' anger during the MoE activity leading to a hands-on experience of anger management through an activity of total relaxation.



8.5.3 The role of the brain-based principles in the methodology of Process Drama in the three workshops of Session Three

The brain-based educational outcome that complex learning is enhanced by challenge and inhibited by threat was observed in this session. The study suggests that an enriching learning environment is recommended by neurologists such as Diamond (1988) and Hannaford (1995:87). The learning process should be a realistic challenge with a degree of difficulty, constantly increasing the novelty of the experience (Greenough & Anderson 1991:231-247). The Mantle of the Expert convention places the participants in a position where they have to absorb new information, and through fictitious role play implement their knowledge. This constant challenge deepens the active learning process and creates meaningful connections with real-life situations. The emotional immersion in the role play increases the ability to recall the material again (Caine et al. 2005:5). The episodic memory is stimulated and the learners will, hypothetically, be better able to remember the various anger styles than they would have been able to do in the case of mere textbook learning. During the last workshop the learners were able to give feedback on 21 methods of controlling one's anger. This indicated that they were deeply involved during the session and could distance themselves from the role play experiences and reflect meaningfully on the outcome of the session. The methodology of MoE produced an enriched learning experience that involved the whole person in the task and adhered to the principle that complex learning is enhanced by challenge.

The fact that learning involves focused attention and peripheral perception (Caine, Caine, McClintic & Klimek, 2005) was attended to during the MoE activity. The MoE meeting called upon the participants to be intensely involved in the conflict of the role drama, but also to comply with the knowledge they would like to convey as experts. The fact that the participants were in role demanded their focused attention; that they were also able to view themselves from the outside in as role players in a drama created a state of metaxis. The brain can focus its attention on one aspect but simultaneously be aware of peripheral actions. As a parallel processor the brain can perform several actions simultaneously (Caine et al. 2005). This explains why the



participant-performer can experience and portray the feelings of another person in role, whilst also being objectively aware of what she is busy doing and thinking. This can open up an opportunity for critical thinking and learning through performance.

The brain-based principle that learning can be inhibited by threat was espoused in this session. During the MoE activity the learners had experienced mediated anger and had to calm down in order to be able to move on to the next activity. We know that stress triggers the release of the steroid hormone, cortisol (Feinstein 2009:1091–1099). In order to stabilize a challenging learning environment of low threat I gave them a relaxing exercise to do. The participants enjoyed the exercise and it served as an example of a way to manage their anger through deliberate relaxation.

The brain-based strategy of orchestrated immersion was observed in this session. The convention of MoE involves the learner on a cognitive, emotional, social and physical level. The participants had to process information, personalize it in role and then communicate it to the group in a debate format. The debate cast them in a role of social responsibility and drew them into an emotional situation. They had to defend their viewpoints in role. They were physically and emotionally acting to defend either the mother or daughter's case in the role drama. This fictitious situation mediated the emotion of frustration and anger as the chairperson intentionally did not lead the meeting appropriately. The group had to be de-roled afterwards. During the reflection the participants were giving each other feedback about their experiences in role. Jensen (1998:33) proposes that feedback serves as an enriching source for learning. Jensen's explanations are quoted as follows: "Our whole brain is selfreferencing. It decides what to do based on what has just been done. Without our magnificent system of feedback we would be unable to learn" (Jensen 1998:33). Immersing participants in a drama programme into a fictitious reality opens up emotional, physical, cognitive and collaborative avenues of brain-based learning.

The neurological fact that each brain is uniquely organized was integrated in this session's structure. Role play offers the creative freedom to unique and individualistic learning styles. Sternberg and Kaufman (2005:596) state that learners

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should be stimulated on practical and creative levels. Through the Mantle of the Expert Process Drama convention the visual learner can employ her imaginative skills; the intelligence of the spatially oriented learner is stimulated through dramatic avenues of expression; the analytical and sequential thinkers are drawn into the meaning frame of the work on a cognitive level of the debate; those who prefer to learn in social collaborative set-ups are stimulated through team work (Gardner 1993:8, Herrmann 1995; Caine et al. 2005:226).

The assumption that learning is physiological was endorsed in this session when the convention of Mantle of the Expert was employed. The participants had to embody the character physically. In this instance the Immigrant Support Group was represented by wearing 1950s style hats in order to create a fictitious dimension. Costumes serving as props help to create belief in the make-believe world. The participants are not only cognitively and emotionally involved but present the characters physically. Jarvis (2005:7) posits that learning is a whole-body-mind experience, unique to each individual learner, and it integrates the whole person in the learning process.



8.6 Session Four

8.6.1 Three Process Drama workshops on anger management: a critical reflection of the methodology of Process Drama

Session number	4
Session theme	Anger management
Duration	90 minutes
Learning activity	How to handle difficult emotions
Session theme	To learn about the consequences of anger

Session 4: Activities	Activities of Workshop One	Activities of Workshop Two	Activities of Workshop Three	Reflecting on the implementation of the methodology of Process Drama in this study
Note on location. Consequences of anger.	This workshop had to be presented in an extremely small classroom but we nevertheless managed to create movements and dramatize the poems. We did not have enough space to do the total passivity exercise, and I therefore replaced the exercise with a line drawing or	The workshop was done in a studio and the environment well prepared.	The workshop was done in a studio and the environment well prepared.	See Workshop One for comments.

	kinesio metaphor ¹⁷⁹ depicting their anger (Potgieter 1987). The only drawback was the class next door who hammered on the pre-fabricated walls. We were clearly too loud.			
Activity 1: Reflect on your own anger through a line drawing <u>Note:</u> The facilitator asked the participants to make a line drawing with colour pastels of an experience when they were very angry. It was an exercise to focus them on their own anger and how they experienced it as an introduction to the lesson. They had to draw a graphic, abstract image of how they were relaxed, got irritated and annoyed, and then erupted in rage with a downward curving line of how they felt after the	The participants expressed their moments of anger in asymmetrical forms and used the colours black and red often to express their anger. This specific experience of reflection via drawing could have been appealing to some of the learners who were not proficient in expressing themselves in words. They also had an opportunity to personalize the information of this lesson. The line drawings were supposed to help them to analyze a traumatic experience which they struggled to verbalize. This could have given the learners a means of expressing their emotions and a way to analyze their own feelings to make them emotionally more competent.	The participants could refer to the anger they experienced in the previous workshop. They had a good sense of the asymmetrical form of anger and that it can cause a density in the line drawing. Most of them used the colour red and other dark colours when they were depicting the feeling of anger, rage and frustration.	This exercise was not done as we lost time in the previous session with the total passivity test for relaxation.	The line drawings had to bring the participants into contact with their own personal experience of anger. A line drawing of one's anger or other feelings objectify one's moods and emotions visually and conceals the details of the incident through the abstract usage of line and colour; in other words, the line drawing mediates or symbolizes real feelings without having to explain them verbally or emotionally. This exercise created a platform for the participants who at the end of the lesson had to write a poem on their own anger. As Lerner and Steinberg (2004:73) posit, the adolescent can coordinate a wide range of brain activities into self- aware, self-guided and self- monitoring systems. Meta- cognition – thinking about one's own thinking - and meta-emotions – awareness of one's own emotions - are important development tasks during adolescence. Line drawings are

¹⁷⁹ A kinesio metaphor is a kinetic or moving image that depicts a concrete and/or abstract (emotional) idea or object (Potgieter 1987:4).

moment of rage.				tools to enter one's thinking about on a non-verbal, emotional level (Potgieter 1987). In order to make a line drawing one has to think about one's own emotional experiences during an incident that angered one. One has to reflect on one's thinking and feeling processes and through this one's meta-cognitive insight is stimulated.
Activity 2: Summary of anger styles at a glance.	In the previous lesson the psychologists had to explain the various anger styles. They only explained aggression and passive-aggression. I therefore prepared a single page summary of the anger styles so that the participants could understand the difference between seven different anger styles at a glance. There was very little written about the anger styles as I used emoticons to explain the various styles. I observed that this chart was much more accessible to the participants. We discussed it briefly and moved on to the next activity.	The same as in Workshop One.	The same as in Workshop One.	Meaningful engagement in the Process Drama can only be reached if planned. The participants should have resources that can add meaning to the context they are exploring. For the purposes of this study they have to understand the various anger styles in order to be able to reach the outcome of assertive negotiations. O'Neill (1990) provides a methodology in which emotional engagement in role can be intensified by offering information of both content and context to stimulate reflection.
Activity 3: Reading two poems on anger. Note: I gave the group two poems to	I asked the participants to explain the meaning of each poem. They stated that the first poem was about the destructiveness of anger and hatred for that anger and that	The same as in workshop One.	The same as in Workshop One.	The motivation for incorporating poetry in this programme on anger management endorses what Morgan and Saxton (1987:136) state, namely that one has to detour a feeling to arrive at

read and discuss. The one poem represented the thoughts of someone who has an aggressive anger style. It could stand for June's mother's anger. The other poem represented the guilt and sorrow of a passive- aggressive or aggressive anger style when someone lashes out in anger.	the second poem was about someone's lonely anger. I reiterated the fact that the first poem is someone regretting their aggressive anger style that has destroyed their relationships. The second poem depicts how anger isolates one and that one's anger belongs to oneself and no one else. I explained that they should read the poem "Anger" with June's mother in mind and that they should keep June in mind when reading the second poem.			a feeling. In reading the poetry of someone else one can distance oneself from one's own feelings to enter the world of another person. One may find analogies with one's own emotions and feelings in another person's poetry and there by gain insight into one's own anger. In this study two poems depict two anger styles: an explosive style and an implosive style which represent the styles of the mother and of the daughter in the Process drama's pretext. As both poems are written in the first person, they can be categorized as monologues, voicing private thoughts on anger.
				The participants did not have to reveal their personal anger styles and personal anger publicly. Chavis and Weisberger (2003:2) explain that when one reads or hears a poem, one responds cognitively, emotionally and with one's senses as the poem "elicits responses at so many levels" at once.
Activity 4: Presenting the	At first the participants recited the poem without any real	This group was immediately gripped by the content of the	At first the participants recited the poem without any real	I believe that both poems were experienced on a deeper level by

poem "Anger" by Marshall ¹⁸⁰ . We decided to voice the poem in a choral verse style.	feeling. I decided to ask each one which word/s in each line should be emphasized. This automatically stimulated some interpretative presentation without prescribing emotional interpretations to the participants. The poem has few visual symbols as such, but it has a lot of repetition that builds to a crescendo. The participants divided themselves into two groups: a group with lower voices and a group with lighter, higher voices. We decided to increase the volume at the end of the poem by adding one voice after the other. In the end the whole group participated. Later some participants started using their hands and facial expressions. We repeated the poem four times as they enjoyed the presentation thoroughly. When they presented the poem the impact of their voices in ensemble stirred them emotionally. They were entering a state of flow (as described in the research, citing Csikszentmihalyi 1990) where their interpretative expression of the poem involved them emotionally and	poem. They interpreted the poetry with strong contrasts in vocal expressions and were focused. The meaning and the feeling of the poem was well interpreted by this group. They did not, however, reach the same intense first-time experience of Case Study One.	feeling. As they focused and got to know the poem better some emotional integration took place and they expressed the poetry with intense feeling. We repeated the poem three times as they enjoyed the presentation. Here too, however, they did not reach the same intense first-time experience of Case Study One.	dramatizing the poetry than would have been the case if we had just read them in silence. The dramatization of the poetry was one of the most intense emotional, cognitive and physical experiences during this case study involving real identification with the work. Morgan and Saxton (1987:20) posit that drama provides opportunities to enter frames of feelings and thoughts "that can enrich the individual's inner world and increase his or her awareness and understanding of the outer world, as well as his or her competence and confidence in operating within it". Their own poems reflected the anger of the two poems, but they had added their own experiences of anger to it. Rokotnitz (2011:81) and Gallagher (2007:8) state that cognition is enhanced by movement. The poems were not acted out to impress or to "show off". There was no audience but us. There was no coaching except to ask them to stress the meaningful words and to divide into groups with light and dark voices. There was no choral master and no leader. The performer/participants
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¹⁸⁰ See poem in Appendix B.

	physically. For approximately ten minutes the group abandoned themselves to the experience. They created an aesthetic sound picture of the emotions in the poem "Anger" (Marshall 2008). They concentrated on the poetry in the meaning frame, as well as in the expressive frame. They were aesthetically engaged in the meaning, form and feeling of the poem. Morgan and Saxton (1987:21) structured this as the Taxonomy of Personal Engagement in the meaning frame and the Taxonomy of Engagement in the expressive frame. This intense body-mind experience was reflected in their own poems at the end.			collaboratively created vocal and bodily presentations that were their own collective interpretations of the poetry. Though entering the meaning frame and expressive frame of the poetry these participants could internalize and empathize with the content of the poems (Morgan & Saxton 1987). I base this observation on the fact that they could produce their own poetry on anger after this event in an integrated manner; their own poems reflected emotional and cognitive personal engagement (Morgan & Saxton 1987) rendering proof of their understanding of the poems about anger.
Activity 5: To de- role the participants and discuss their choral presentation of the poem "Anger".	During the discussion the participants reported that they 'felt' the anger of the poem. Note: I used this poem to initiate a discussion (that was omitted in the first workshop): Is all anger bad? They came to the conclusion that anger that harms, as confessed in the poem, can be bad, and that anger that wants to protect can	They said that they 'felt' the anger of the poem. They were very proud of their achievement. They said they felt anger and remorse while interpreting the poem. This indicates that the participant-performers were identifying with the voice of the person being angry in the poem while simultaneously also experiencing their own feelings	The participants said that the poem made them feel sad and that it was the life story of so many people with bad relationships.	Penetrating questioning results in thinking and response, a technique of Process Drama that is proposed by Bolton (1995). Morgan and Saxton (1991) suggest that questioning can provide further insight and reflection. I applied it to deepen the discussion of the poetry. Jensen (1998:33) stated that feedback after a learning activity

	be good.	of anger. The poem served as a symbol of an experience of anger with which they could empathize, projecting their own anger into the poetic experience.		is a very important aspect of teaching and learning as it stimulates reflection and insight.
Activity 6: Reading the poem "Who owns the anger?"	The poem was divided into sections and each group read and practised their parts. They stayed inside as a group. The room was far too small to accommodate various groups.	The group was divided into pairs. They went to different locations to practise the poem and to interpret the poem with movement.	As in Case Study Two.	I deliberately did not want to discuss the poem beforehand as I wanted the participants to analyze and discover the meaning in the poem themselves through the process of dramatization. The participants enjoyed the fact that they could express their own creativity and were enthusiastic in their performance of this activity.
Activity 7: Presenting the poem "Who owns the anger?"	Each group decided which words they would stress. The groups then practised their parts on their own. They had to whisper not to bother each other in the small classroom. I asked them to use gestures to express the words. This they did fairly well and enjoyed it. Some participants were more expressive than others and started to lead the others. We did the poem three times. This activity was successful. The participants were much	They split into small groups and went to other venues to design and practice the dramatization of the poems. The participants expressed the poem with meaningful movements. Their expressions could have been more integrated as full body movements were concerned; they used peripheral movements more than torso- integrated movements. This lesson was highly successful. The participants were much less inhibited and	Each group decided which words they would emphasize. The groups then practised their parts on their own for fifteen minutes. I could hear that they were committed to the task. The participants expressed the poem with meaningful movements. It was interesting to see how similar the interpretations of the poems were to Case Study Two. The participants almost did exactly the same movements and used the same type of floor patterns.	The dramatized presentation of this poem had a great impact on the participants on various levels. As the participant expresses the words vocally and in motion, she is engaged on various levels. There has to be committment and involvement on a cognitive, emotional and physical level. As explained by Rokotnitz (2011:81): "performance regularly affects neurological systems, effecting deep emotional learning that

	less inhibited and were free to express themselves. They expressed a lot of emotion when they did the poems. They were focused on the work and the poems they wrote after this exercise showed that they experienced the consequences of anger on an emotional level. Their poetry was an experience of anger, voiced and moved.	were free to express themselves. They expressed a lot of emotion when they did the poems. They were focused on the work and the poems they wrote after this exercise showed that they experienced the consequences of anger on an emotional level. Their poetry was an experience of anger, voiced and moved.		bypasses intellectual engagement". The participants enter the viewpoint of the voice in the poem and can experience and empathize with someone else's anger and in so doing increase their own emotional competency. During the presentations of the poem, "Who owns the anger?" I could observe how Gallagher's (2001:8) statement that movement informs and shapes cognition was expressed by the participants. They integrated the meaning of the words well with meaningful movements and in so doing became personally engaged in the work (Morgan & Saxton 1987:21).
Activity 8 Reflection through	Participant A:	Participant A:	Participant A:	I thought that the participants would show some resistance
journaling: write your own poem about anger.	Jealousy is a nasty thing, but I can't help myself. I know it must be selfish of me but I'd	Sorrow, madness, aggression, hate	Sometimes everyone is so dandy	when I instructed them to write a poem about their own anger. On the contrary, they displayed a
Note: There were 15	rather be selfish for the one I love!	- I've been hiding these feelings deep inside,	And I just can't help to get angry	positive willingness to participate. The participants all quietly took
minutes left for journaling. I asked the participants to	You are mine and mine alone. I	for much too long!	Sometimes it takes just a plug	their journals and started. They were clearly inspired by the incantation and vocabulary of the
write a poem about their own anger in	can't stop this anger when someone else is trying to get your attention. Don't you	But now I can't handle it any more,	And then the rest of my day sucks	dramatized poems. During the dramatization they became engrossed on a physical,
their journals.	understand? I'm not childish, I am not! I'm your better half you	these feelings need to get	To me, no one pays attention	emotional and cognitive level with the meaning, feeling and kinetic impulses that the poetry offered



know it.	away, need	that's why I am so aggressive	them. The mere fact that they could write these poems is pro
l just don't want to lose you. Please understand why I'm so	a way to escape!	there are so many things making me angry	of their level of personal engagement with the subject of
protective over you! Don't push me away, away from your	I hate it, I hate the way I'm	I am just going to take a deep	anger. I did not interfere or suggest anything in any way o
heart!	acting recently! I hate the way I'm treating my family and	breath	assist any participant during the activity.
I don't want someone else to take my place	friends!	till I am dandy!	
in your heart – no I don't.	I hate it when I'm mean, aggressive, mad!	Participant B	
		I threw it at you	
Participant B	But most of all I hate this		
It's my own anger	feeling, anger!	and did not realize what I should do	
	Anger has destroyed the real		
That drives me insane.I	me,	<i>My anger took me to another place</i>	
	Anger destroyed my		
	relationship with others,	and then I saw the look on your	
This rage has no life.	Anger destroyed my benninges	face	
The energy is strong a	Anger destroyed my happiness, joy, love	1	
The anger is strong.	<i>JOY, 10VC</i>	I am sorry	
I try to defeat it but it wins.	and trust towards other people!	I am sorry for what I said	
This anger oh this anger	Anger destroyed my life, and I only	for throwing things right at your head	
Go away.			
-	realize now that I could've	It was my anger	
l don't need you	chosen to		
		That just got worse	



and your danger.	handle it better!	nothing can be solved though anger.
You destroy my life	Participant B	Participant C
the horrors	Anger oh anger!	Anger makes you feel sad
you bring.	Why do you do this to me?	leads to actions that make you feel bad
You tear me apart.	Why do you make me feel like	
I don't know why	I'm lost at the sea	makes you want to scream
Anger just get away from me	I feel frustrated and aggravated	feels like
You are no help to me.	and also a little irritated.	nothing will help, not even ice cream
You aren't my friend.	I yell and I shout!	Bad words you mustn't saywant to come right out of your mouth
You hurt my friends.	I kick and I scream!	Rather keep quiet and solve
You hurt me.	Then I feel lonely, depressed, and sad	your problems
I hate you. Anger. Participant C	I hate this feeling!	right away
O dear, o dear	This feeling is making me mad.	Understand before being understood
this anger in me	Anger oh anger!	it is much better than throwing
that is like a blazing fire, why, o	Why do you do this to me?	someone with a block of wood
why do	Participant C	Share your feelings and communicate



I have this anger	A Dreadful feeling	then you don't have to be angry	
that is like a burning red	kicking and screaming	then you don't have to be angry	
colour	it makes me sad	at your mate.	
Sometimes this red	crying , becoming mad	Participant D	
burning anger explodes	The thing I dread, shivering, scared	the sound of anger	
in me and with no feeling inside	that makes me lose self-control	the feeling of hateit's something	
This anger of me is	anger	to which I can relate	
Like a dark room in my body	a lock on my soul	I felt this before	
Sometimes I don't show my anger	a dreadful feeling, kicking, screaming	sad, aggression, and many more	
Shame on me, shame on me	it makes me hate clenching,	there was a time it	
hiding in a cage of anger.	crying and moral debate	was so real	
Participant D	I hate my anger more than you	l can make you feel	
Anger is my pulling over, not in control.	anger	but then again	
	we are almost never through.	It takes a long time to heal	
Round and round in my head goes	Participant D	Sorrow compassion	
not feeling good	My anger is like a dark cloud	the feeling of disappointment	



feel sick as I stop	hovering above my world	Anger brings all the hate in you	
wishing I was in control	blocking my sunlight	Anger is a memory that can never be forgotten	
The day goes on not feeling better.	making the world cold	Participant E	
	My anger is like a mask		
As I was when I got up.	that 's hiding the rest of me	Non-assertive, passive behaviour	
Feel down, feel sad, feel worse than ever before	away	is very wrong	
	making me a dreadful monster		
knowing what has happened makes me madder than before	that's usually in child's play	Passive-aggressive behaviour hits like a gong	
Participant E	My anger is like a nightmare	Remember that being sad is not always bad	
No poem.	leaving no trace of happiness	Assertiveness is good	
Participant F	and having the feeling of loneliness	it is a great way of getting rid of	
The anger		anger the way you should	
It's like a ball of fire	where a smile is often rare	Don't blame others for the	
just as I admire	My anger is like an illness	things you do the same.	
-	till with no cure	Non-assertive, passive behaviour	
all my other feelings	that pops up		
my anger has no meanings		is very wrong	
I'll have to wait for another day	when most unwanted	Passive-aggressive behaviour	
	destroying everything that once	hits like a gong	



that my anger will come and	was pure	Participant F
take everything away	but	Anger isn't the answer
then I will be all alone	every cloud has a silver lining	It won't help
and then I will know	every mask can be pulled off	to let it out
the anger that I have	every nightmare has a happy ending	or make you feel any better
is here	every illness has a cure.	if it hurts someone you love
and it is really sincere	Participant E	Take a breath
Participant G	A poem about my observations	Maybe two
My anger is taking me down	of an angry person.	and if you feel like it
down deep down to the ground	More more	walk away
I hate it	not enough	and try again another day
I hate the anger	something inside me	take control
It's choking me	is yearning to appear big	take a walk
I can't breath	appear tough	shake it off
It's taking me down	the most primitive want	hit a box
deep deep down to the ground	the oldest need	anger isn't the answer



I don't know what to do	to be proven better than others	the answer is: assertiveness
I don't know where to go	the greed	and to understand
I am lost in my anger	not for power, nor for things	before being understood
it should just go away	but for supremacy	
and disappear piece by piece	Somewhere Darwin's theory is wrong	
day by day	those instincts that long gone	
Participant H	as bulls clash horns	
This anger is killing me inside	as lions must eat	
I'm losing my friends faster than my tears	the instinct inside me	
Why does this demon possess me	is every to compete	
this demon called anger	to beat	
I hate you	to win, that's the reason	
Just disappear before I do	for me	
My anger's like a devil wolf	acting some days like	
dangerous and untamed	the devil's twin	
can never be broken	spinning, running, out of control	
A blazing fire burning within me		
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can never be extinguished	scratching and hurting		
My eyes always hazel, now red cause of you, anger	anger taking its toll.		
I hate you till the end of time	Participant F		
I'm hot myself	Anger makes me feel so bad		
save me from myself	I try not to be mad		
before the blood is shared	but		
this anger causes me to be	sometimes I just sit and		
what	think about what might happen		
I don't want to be	If I let my rage to be over		
A murderer.	although my thoughts		
Anger Kills!!!	are sober		
	it's as if a drunk has taken control		
	then irritation controls my actions		
	consumed by the frustration		
	of not getting my way		
	and not being able to say my		



	say	
	Can't they listen to me?	
	Maybe I could make them see.	



8.6.2 Addressing the emotional competency of anger management in Session Four

This session addressed the essence of this study, namely to investigate how the Process Drama convention of dramatized poetry can enhance the anger management of adolescent females. Beard and Wilson (2002:118) explicate the benefit of emotional competence learning for adolescents. They state that exposing learners to emotional competence learning experiences can help them to "access and surface unconscious feelings, to control negative thoughts and anger and to reduce conflict". Hall (2003), (refer to Chapter 6.6) states that emotional intelligence can be regarded as an active part of intelligence and should be taught. In this session I endeavoured to instil insight into anger awareness, the expression of anger, the consequences of anger on relationships and the ownership of anger through the use of poetry. This outcome is compatible with the Salovey-Mayer (1997) definition of emotional intelligence and the proposition that emotions should be identified, expressed and understood. According to the definition of emotional competence by Elias et al. (1997:2), emotional competence presents as a social construct; it should, according to Prilleltensky and Prilleltensky (2003:197-201), be learned experientially in a group where the synergy of collaborative learning can be accessed. This session offered an experiential learning experience in group format through choral verse-speaking of the poem "Anger" and dramatized poetry of the poem "Who owns the anger?". Langley (2006:1) states that Process Drama conventions create insight into issues, attitudes and one's own emotions.

In this session the identification of emotions was explored by the participants by creating an abstract drawing of their own experience of an anger incident. This was done to proactively prepare the adolescent female participants to manage the emotion of anger if need be. Secondly, the workshop exposed the participants to two poems on anger. In this regard, Langer and Furman (2004a) state that: "poetry has become an increasingly valuable tool for social investigators utilizing expressive arts". In Chapter 4.6 and 4.7 the convention of poetry and dramatized poetry is addressed in detail. The participants had to read the poems in ensemble and express them vocally and physically. In order to be able to express or dramatize the



poetry meaningfully they had to understand the meaning and the metaphors of the poems on an emotional level. They had to identify with the voice of the poem in order to present it with empathy, meaning and aesthetic expression. This methodology is confirmed by Naray (2009:2) who maintains that art-based learning is based on meaning making. Narray (ibit) explicates that "learning is the process of making sense or creating meaning from an experience", as discussed in Chapter 4.6.1. Through the expression of the poetry the participants could explore the meaning thereof. The commitment of the participants to this presentational activity of the workshop and the level of their emotional dedication to these was observed in their own intense poems. They were stimulated by the Process Drama convention to cognitively and emotionally engage in their own meta-cognition and meta-emotional awareness of anger by writing their own poems. The metaphor of the poetry built connections between their own stories and those depicted in the poems as proposed by Ferris and Stein (2002:42). The poetry moved the participants to surrender some of their individual understanding of anger to take on the anger experience of the voice in the poems. By creating their own poems on anger after this event the participants could reflect on the contradictions and similarities between their own anger and that of the anger depicted in the poetry. A safe space for negotiation between their experience of the poem and their own realities was created in order to stimulate their insight into the emotional experience of anger. The choral versespeaking of the poem "Anger" and the dramatization of "Who owns the anger?" resonated with their own experiences and created "alternative ego-states" (Hellar 2009:22) that made them aware of the experiences of anger of other people (Yontef 1979:29). These expressions could hypothetically offer some emotional healing as they reduced the feeling of isolation (Boone 2006:3), providing a collaborative space for venting explosive feelings. The poetry magnified the focus on the experience of anger in a condensed way (Dunlop cited in Bresler 2007:1257).

The poems expressed anger and angry feelings and their consequences in a few lines. The poem "Anger" focused on the dire consequences of anger on relationships and the second poem "Who owns the anger" concentrated on the isolating effect of the emotion through the metaphor of a cage. The rhythmic patterns and alliteration were indirectly inspiring the participants to write their own poems. The poetry created



avenues for personal experiences in the universal space of the human story (Brady cited in Prendergast et al. 2009:xv). Dorothy Heathcote, the Drama in Education expert (in Wooster 2007:13), states that personal feelings are validated through dramatic activities. Poetry can therefore be collaboratively explored and expressed to open up a learning space in which anger and angry feelings can be addressed. This space can be experienced in a non-threatening way because every participant shares in the poem as a potent common denominator of a human emotion.

A discussion of the essential aspects of anger that are present in the participants' poems revealed the reality of their emotional worlds. In a sense the poems written by the participants (see their poems in tables above) can validate and/or justify the relevance of their need for anger management and show their level of their anger awareness.

Workshop One, participant A: This poem is about anger motivated by jealousy that is often embedded in teenage love. The writer calls for understanding. The last words in her journal reveal that she realizes that she should think before she fights with people who appear to be threatening her love life. The poem encourages one to ask how closely related anger is to the fear of loss. This poem emphasizes the fact that these two primitive emotions often work in tandem with each other, as Bowers and Sivers (1998:631) suggest. They indicate that the fear system is linked to the flight response, and that fight and freeze responses engulf the brain and block rational thinking.

The second poem of Workshop One, participant B: Here the writer is intensely aware of the horror, danger and destruction that anger brings. She confesses that anger hurts her and her friends. The personification of anger further strengthens the presence of anger in her life.

Workshop One, participant C: The writer of this poem uses the metaphor of a fire for her anger. She then uses the metaphor of a dark room where she hides her anger and confesses that hiding her anger leads to feelings of guilt.



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Workshop One, participant D: The participant who wrote this poem was going through a difficult time. Her boyfriend had just left her. She writes that anger leaves her out of control, makes her head spin, makes her depressed, sad and that she feels worse than ever before. The fact that this participant and many others mention that anger leads to sadness is a highly significant observation. Panksepp (1998:54) proposes that the sadness and pain that anger brings relates to the fact that anger as a strong primitive emotion is positioned close to fear and sadness. He suggests that any social loss or rejection causes panic, grief, separation distress and loneliness during all human development phases. He also maintains that angry feelings may be elicited when there is an interference with the SEEK system (the system that motivates and drives, amongst others, self-satisfaction, companionship and sex).

Workshop One, participant E: This participant depicts her anger as fierce as a ball of fire, as well as being a meaningless action. She laments the destructive nature of anger and the fact that it isolates the angry person.

Workshop One, participant F: Anger in this poem can pull one down, leads to helplessness, causes one to lose one's identity, overtakes one and makes one disappear. This perception is confirmed by the neurologist, Greenfield (2000:140), who posits that rage can make one lose the sense of oneself by losing one's logical cognitive control.

Workshop One, participant G: This is the most aggressive poem in the group. This participant describes her anger as a demon possessing her and making her lose her friends "like tears". She gets so angry that blood may be shared, she is hot, wants to kill and is transformed into a murderer. This is an alarming confession for a 14-year old to make.

Note: I hypothesize that in Case Study One the participants' first experience of dramatizing poetry led to a deeper and more sensitive engagement with words and feelings about their own anger. I sensed that they were possibly in a flow or flowing creative state (as described by Csikszentmihalyi 1990).



More or less the same themes displayed in the first workshop are present in the poems of the second workshop. This group depicted the emotion of anger in its very primal state. They explained anger as an urge that makes one want to be supreme and tough, and floods one like alcohol floods a drunk, making one lose self-control. It consumes and destroys one, turns one into a monster, makes one's life a nightmare, and steals one's happiness. Anger locks up one's soul, isolates one and makes one scream and kick, and then makes one feel sad and lonely. The poems stimulated the group to find their own vocabulary and insight to describe their own observations of anger and angry feelings. Again the theme of sadness is present in their poetry. These poems reveal that anger leads to self-hatred and guilt, and destroys one's identity, as well as one's relationships. Anger is compared to a dark cloud, mask and nightmare. Again anger is personified as a strong and powerful force taking over. One participant makes a very mature statement, namely that anger leads to moral debate. Another says every illness has a cure. The following was mentioned: "I only realize now that I could have chosen better". This writer realized that anger is a choice and that one should take ownership for one's anger (Wilding & Milne 2010). CBT programmes (Wilding & Milne 2010: Part one, Kindle version) stress the importance of the concept of taking responsibility for one's anger, and in this programme ownership of anger is one of the strongest issues. Remarkably, the style of the poetry in Workshop Three differs from the first two case studies. One observes a little light-heartedness in the poetry and in many cases a pedantic style is present, as in poems B, C, E, and F. Examples of pedantic statements are:

- nothing can be solved by anger;
- bad words you must not say, rather keep quiet and solve your problems right away;
- passive-aggressive behaviour is very wrong;
- the answer is assertiveness and to understand before being understood.

In my opinion, the poem of participant D shows personal engagement by concluding with the words:

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"Anger is a memory that can never be forgotten".

The more objective, pedantic style in the poems of the last case study is interesting and should not be played down when compared with the more emotional poetry of the first two case studies. The fact that 'lessons' are taught through the poetry confirms that adolescents in this development phase like to classify things as either black or white and show a strong moral inclination. Casey and Toepfer (2002:105) suggest that adolescents are idealistic thinkers. They can construct theories around ideal norms, but lack practical experience and can lose sight of reality in their interpretations. The last group's poems make anger management sound easy: take a deep breath and all problems are solved. I recommend that the poetry be discussed and pedantic answers to anger reflected on by asking the participants penetrating questions about the poems. I did not do this, however, because I did not want to reveal personal information.

The silence and seriousness with which the participants wrote their own poems were proof of their emotional involvement. In so doing they could explore anger in the safe conversations between themselves and the two poems. I conclude that the repeated value of the convention of dramatized poetry, the high intensity of emotions, as well as the musical incantation of the rhythm and the rhyme, alliteration and assonance, have the potential to create a memorable experience, as I stated before in the workshop plans. The convention of dramatized poetry created an opportunity to view the anger in the Process Drama from the mother's and the daughter's perspectives. The convention of dramatized poetry in this section renders an opportunity for the learner to identify the consequences of anger. The poetry created metaphors; for example, a cage, to explain how anger can imprison the angry person. This metaphor was experienced and expressed physically and vocally through the convention of dramatized poetry, and in so doing strengthened the participants' identification of the consequences of the emotion.

8.6.3 The role of brain-based principles in the methodology of Process Drama in Session Three of the three workshops



The brain-based principle that all learning is physiological was observed in the convention of Process Drama, namely dramatized poetry. The poems were interpreted and expressed vocally and physically and in so doing the participant had to be subjectively drawn into the work and had to internalize the meaning of the methodology could therefore described poetry. This be as а holistic body/mind/emotional experience (Caine et al. 2005). Jensen (2008:40) confirms that sensor-motor integration forms the basis of learning activities and stimulates brain growth. LeDoux (2002:9) explains that experiences modify synaptic structures as the brain is 'plastic' or changeable and learning occurs. Silverman (2011:29 - 34) suggests that physical experiential learning involves learners in concrete activities and if they have free time to reflect on their practical experiences, they can gain insight. During this session the learners had an opportunity to both experience mediated emotions of anger in a safe environment (Konijn 2000) and could reflect on their experiences through writing their own poems. The convention of dramatized poetry and creative writing was employed in this session in compliance with the pedagogical value of brain-based learning.

As most activities took place through group interaction the brain-based rule that social collaboration stimulates learning was observed. In Chapter 5.4.2 the importance of group interaction is scientifically explained by Sylwester (2007:16) and Sousa (2006:117). Research on the functions of mirror neurons indicates that people learn from each other during interactive situations. The participants were exposed to each other's insights into the poems and had to negotiate ways to express the poems in ensemble. This complements the developmental need of the adolescent female to fit in and belong to a group (Jensen 2001:80). The participants had to be responsible for the dramatic expressions of the poems. Crawford (2007:8) confirms that social interactive activities stimulate the adolescents to learn and O'Toole (2009:86) confirms that dramatic conventions strengthen peer teaching.

The principle that the search for meaning is innate was applied in this session (Caine, Caine, McClintic & Klimek, 2005). Naray (2009:2) posits that the process of making meaning is a multimodal activity and that arts-based learning facilitates this process. This art and learning activity evoked an intrapersonal and interpersonal



connectedness, creative insight and meta-cognition when the participants entered the metaphorical world of poetry. Both poems served as expressions of June and her mother's anger styles through which the participants could discover and compare their own anger styles and angry feelings. The participants could identify with the content of both poems as demonstrated in their dramatic expressions of them. They interpreted both poems emotionally and cognitively in a meaningful way. Eisner (2002:212) states that drama creates events that simulate reality. During the activity of reflection the participants could apply the relevance of the poetry to their own lives. The participants had to write their own poetry on their anger and in so doing make emotional and cognitive connections with the previous experience of the dramatization of the existing poetry (Crawford 2007:5). Adolescents learn best when the content of the work is relevant and meaningful to their lives.

The search for meaning occurs through patterning and the principle was adhered to during this session in the following manner: it is important that new information is linked to prior knowledge and that the information is presented in a logical fashion (Caine, Caine, McClintic & Klimek, 2005). The participants had to reflect on anger styles and were then presented with two poems on anger. They had to read these poems and indicate if they could apply an anger style to a poem. The next step was to interpret the abstractly written poetry physically through dramatization and then to reflect on their one anger by writing their own poems. Caine et al. (2005:150) are cited in Chapter 5.4.4 to explain that pattern perception is the shift from the concrete to the abstract. As described by Konijn (2000:59), in this specific session the dramatization of the poetry created a concrete experience of anger through mediated emotions in order to stimulate the participants to understand the consequences and attributes of anger abstractly. After understanding the poems on various levels emotionally, cognitively and physically - they could create their own poems and use abstract thought to make meaning of their own concrete expressions of anger. According to Crawford's (2007:16) observation, this activity relates well to the development of the adolescent, specifically that the adolescent's thought patterns develop from a concrete thinking style to an abstract style.

This session adhered to the brain-based principles that emotions are critical to patterning. Geake (2009:114) explains that feelings in the limbic system mediate the



decisions made in the prefrontal section of the brain. In the fictitious world of poetry the participant can engage emotionally, and through dramatization of the poetry, 'live through' the emotions and thoughts voiced by the poetry. Through this process the participant may become empathetically engaged in the work and this can in effect create insight into anger and angry feelings.

The brain can function in a particular area, but ultimately all the various functions need to collaborate to react to life within microseconds. As the left side of the brain processes parts of the language in the poetry, the right side processes "wholes" of spatial information such as the physical and vocal interpretations of the poems (Jensen 2008:19). This reiterates the fact that dramatic activities call upon the participant to be fully involved in the learning process. The adolescents' wandering 'cell phone-oriented' mind can now only focus on the creative, emotional and cognitive task at hand, as suggested in Chapter 5.5.6. Thus, the interconnectivity of the brain is stimulated and involves the learners in multi-tasking (Caine et al. 2005: xii), through participating in the dramatization of literary work.

Learning involves focused attention, according to Caine et al.'s (2005) brain-based principles. The Process Drama convention of dramatized poetry contains all three elements to enhance focused attention and high order thinking (HOT) (as discussed in Chapter 5.4.7), namely novelty, intensity and movement. The participants' attention was focused through the novelty of the convention of line drawing, the dramatization of the poems, as well as the instruction to write their own poems. The work stimulated intense emotional involvement and had to be executed in movement and sound. HOT implies that the participants had to be able to apply information, think about it, analyze it and use it to reach a creative outcome of insight (Thomas & Mulvey 2008). In this workshop the participants had to analyze the poetry, understand it and then express the meaning of the poems vocally and physically. They had to create their own poetry on anger as a means of reflecting on their personal anger behaviour or own perceptions of anger.

The principle that learning is both a conscious and unconscious action was adhered to in this session (refer to Chapter 5.4.8). Destrebecqz and Cleeremans (2001:343)



explain that many of our leaning activities contain sensory experiences where the input is processed on a low level of awareness. This means that some understanding of the material may occur at a later stage than the learning session. During the dramatization and vocalization of the poetry the senses of the participants were involved. It might be that the participants only discovered some of the meanings on deeper levels after the event. The value of the workshop lay in its making an impact on the learners through a highly intense experience of anger and angry feelings and to probe them to reflect and to remember what they have learned. This is not a result that can be measured but forms part of the notion that learning is implicit in many instances and unconscious.

Making sense of an experience stimulates memory according to brain-based rules. Gillani (2003:286) explains that situation-based memory systems are reconstructed if new information is combined with prior knowledge. As the participants read the poetry they had to remember their own experiences of anger. They had to express the poems, demonstrating that they understood them, and then apply the concepts of the effects of anger on their lives in their own poetry. The whole cluster of activities in this workshop stimulated the episodic memory system of the participants that could be more easily recalled than mere neutral cognitive information. To conclude: emotional memories embedded in episodic events, such as dramatized poetry, are more easily recalled than a neutral experience (Jensen 1998:108).

Diamond (2001) states that from a neurological viewpoint enriched learning experiences – connoting creative learning experiences – challenge interconnectivity of synaptic involvement in the brain. This session confirmed the brain-based principle that complex learning is enhanced by challenge and inhibited by threat. The fact that the poems had to be dramatized challenged the learners on the physical, spatial, creative, cognitive and emotional levels. Motor stimulation enriches the brain and stimulates thinking processes, as suggested by Jensen (2008:39). During the dramatization of the poetry the learners had to 'multi-task'. Jensen (2008:39) states that "[g]iven all the activations happening at once, physical performance probably uses 100 percent of the brain. There is no known cognitive activity that can claim this". Movement increases the levels of dopamine, serotonin and nor-epinephrine in



the body. This leads to a state of relaxed alertness that enhances creative cooperation. The collaborative creative environment in which the poetry was explored and expressed during this workshop confirms what Geake (2009:163) suggests, namely that enjoyment and social bonding of artistic activities can stimulate learning.

Lastly, the brain-based principle that each brain is uniquely organized was observed during Session Four. According to Tileston (2004:13), 87% of the learners in a classroom do not understand learning material only by hearing it. The dramatization of poetry involves the learner in many ways: they have to read the poem, use their imagination, vocalize the poetry and hear it. They have to contemplate how to dramatize it in their imagination (involving the parietal lobes) and then express the poems vocally and physically. They experience the poetry kinaesthetically. This methodology offers a multimodal process of accessing the various multiple forms of intelligence (Gardner 1993) in different ways. Each learner can be involved in a unique way in the learning process. Those with greater spatial awareness can give their input, whilst those with greater analytical and cognitive abilities can make their analytical contributions, whilst the more musically gifted learners will contribute ideas about the vocal expression of the poetry. Keeping the unique structures of the participants' brains in mind can challenge the facilitator of a Process Drama programme to present various conventions to explore meaning artistically in order to stimulate deep learning.

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8.7 Session Five

8.7.1 Three Process Drama workshops on anger management and a critical reflection on the implementation of the methodology of this study

Session number	5
Session theme	Dealing with difficult emotions
Duration	90 minutes
Learning activity	Anger management
Session theme	Detecting negative thought patterns in conflicting situations

Session 5: Activities	Activities in Workshop One	Activities in Workshop Two	Activities in Workshop Three	Reflecting on the implementation of the methodology of Process Drama in this study
Note on Session Five. thought pattern Detecting negatives in conflicting situations.	The fifth workshop was scheduled for late in the day. The prefab hall was very hot and the participants looked tired. Realizing that there are only two workshops to present, I	These workshops (One and Two) were done in one day and as this workshop was done in the afternoon the fatigue factor became a problem. During the late afternoon I had to keep the participants' concentration	The same as Case Study Two.	

	had to rework Workshops Five and Six to concentrate on the essence of the outcome, namely detecting negative thought patterns in conflicting situations and assertiveness.	with shorter exercises. As I had reworked Workshops Five and Six I could present all the activities successfully.		
Activity 1: Rap rhyme of negative thinking. Instead of a relaxation exercise, I started with an energizer that contained learning material that was essential for the lesson. It was somewhat humorous, depicting typical negative mindsets. They first had to analyze the rhyme and then spot all the negative thought patterns that were given to them as lesson material.	We repeated the rap rhyme four times and they enjoyed it thoroughly. Their energy had returned and they could spot the negative thought patterns easily. It was an easy exercise. This group was much more spontaneous in their presentation of the rap rhyme than in the previous presentation of the same genre. <u>Rap rhyme of Negative Thinking: underlined phrases</u> indicate the negative thinking patterns I am a <u>sweet kind angel</u> , but you make me boil <u>I blame you totally</u> for my stress and toil You <u>never ever</u> think of what I want to do You are so ignorant, you don't	This group indicated the negative thought patterns easily and enjoyed the rhyme and tried to put real rap movements and rhythm into the rhyme. They were engaged in the work and interested in the negative thought patterns. They cleverly classified the first sentence as magnifying. You are better than anyone else; you are a "sweet, kind angel".	This group was a little tired and did not respond as well to the negative thought pattern rhyme as the two previous groups. As the workshop proceeded they regained their momentum. They spotted the negative thought patterns well.	The rap rhyme offers the opportunity to summarize the essence of the learning material on anger- management. The conventions of writing in role and role play helped the participants to engage with the learning material on a cognitive, as well as physical and affective level. I used the learning material to do three things at once: a) to energize the learners, b) to teach them to identify negative thought patterns and c) to help them memorize negative thought patterns in a fun way. Jensen (2008:73) recommends that all learning that involves body-mind engagement, anachronisms and rhymes should be employed when one teaches facts. According to Morgan and Saxton (1987:29) such activities can move the participant into the meaning frame and help them summarize information, evaluate,

	have a clue! <u>I know what you think - can</u> <u>read your mind</u> you think I'm your puppet – Yes I Am Not Blind! You think I am lazy, <u>do nothing</u> <u>nowhere</u> well and my future <u>a</u> <u>catastrophizing</u> fortune to tell <u>Everyone</u> should understand, everyone should know if <u>nothing</u> comes of me			interpret and serve as a distancing technique. The learning material was conveyed in a humorous fashion. Process Drama activities stimulate interest and humour in many instances. The application of rap rhymes can energize and add feeling to neutral factual information
	it is to you that they should go <u>you have messed with my life,</u> with hate and strife now <u>I blame you</u> for <u>all</u> that is wrong in my life			
Activity 2: De-role: Leave the circle of umbrellas and de-role out of the rap	I asked the participants to exit the aesthetic make-believe	There was a lively discussion about negative thought patterns and how people get stuck in certain ways of thinking, especially in a family set-up where it is easy to say	This group discussed the fact that negative thought patterns can occur when one has preconceived ideas about others. They stated that being racist or chauvinistic is a way of	Morgan and Saxton (1991) urge teachers to draw their students into discussions by questioning techniques. They suggest that risk taking (in a positive sense), divergent thinking and creativity



distancing. This can be achieved by implementing Dorothy Heathcote's (1984) technique of asking pressing and probing questions in order to find means of solving questions of "man in the mess". They had to explain how negative thoughts can block creative options to solve problems.	what one thinks in a positive or a negative way.	negative thinking.	are boosted by open-ended questions that can lead to discussions. These discussions were lively and all wanted to participate. The adolescent female likes to learn via social collaboration and Process Drama offers such a learning platform (Louw et al. 2004:449; Crawford 2007:3, 11).
In this workshop I asked questions to gauge the depth of the participants' understanding of negative thought patterns: How you think negative attitudes and thought patterns are detrimental to all peace negotiations between people? Please give real-life examples of such negative thought patterns in our daily lives?			
The participants had a good idea what negative thought patterns are. They gave other examples too, such as magnifying – where people brag about what they have done and name-calling. They explained that name-calling is a way people use to degrade and belittle others. They acknowledged that it could			

	also be a term of endearment.			
Activity 3: Detecting negative communication and thought patterns in the extract from <i>The</i> <i>Joy Luck Club</i> .	We examined the extract from <i>The Joy Luck Club</i> and they had to indicate some of the negative thought patterns in the extract. The participants struggled somewhat to find the negative patterns in the extract. The participants had to be able to analyze the literary extract in which the negative communication patterns were not as evident as in the previous exercise. They had to know how to detect the negative thought patterns; they had to apply their knowledge by identifying the negative thought patterns. This created a building block for the next phase during which they had to write a dialogue in role including negative thought patterns.	The participants had no difficulty in identifying the negative thought patterns in this extract. Analyzing this extract formed a platform for the following activity, namely to write a dialogue between June and her mother.	The outcome was the same as in the previous group with slight deviations here and there. The participants had no difficulty in identifying the negative thought patterns in this extract.	The group had to examine the pretext of <i>The Joy Luck Club</i> again. This created another stimulus for further engagement with the storyline of the Process Drama. This exercise had to prepare them for the dialogue that they had to create between June and her mother in the next activity. Their insight into negative thought patterns had to be applied in another context in order to establish their knowledge of negative thought patterns that is imperative for anger management.

Activity 4: Writing -		Dialogua Ono:	Dialogue One:	Morroop and Souters (1007:04)
	Dialogue One: The type of negative style has been	Dialogue One:	Dialogue One:	Morgan and Saxton (1987:24)
of you is June and the other the mother. Note: I shared that it is a day later and June and her mother are trying to talk to each other, but they are still locked in negative thinking patterns. The participants had to try and weave some examples of these negative thinking patterns into their conversation.	 negative style has been indicated in brackets. June: Mom, I'm sorry I caused you pain and I will always listen to you and be obedient. (All or nothing thinking). (I said regretfully). (All or nothing thinking as one cannot promise to always be obedient) Mom: You were making me crazy for feeling this way and it's all your fault. (Blaming). June: (Yelling In a shrill voice) I came to apologize and you never accept it! (It felt like she had hit me). Mom: Go to your room! You are grounded for the rest of the 	 June: You expect me to be something that I am not. (Blaming) Mom: I expect you to be the best, so that you can make something of your life. June: But what if that is not who I am. I can't accomplish the things you want me to. Mom: You are such an ungrateful little child. (Name calling) Look what we have given up for you.(Blaming) June: I don't care! It was your choice. I am going to run away and become a prostitute! And then what will the Joy Luck Club say? 	will never speak to you again.(All or nothing thinking).	explain: "Once students have allowed themselves to be taken into the play, their creative ideas, attitudes and concerns for the roles are free to emerge. Their intense absorption in the work is apparent and internalization is possible". Writing in role offers an opportunity to internalize learning material; dramatizing the same strengthens this experience. The fact that the participants can create a dialogue through writing in role, gave them the opportunity to apply the negative thought patterns in a conflict situation They had to think from the mother's and from her daughter's perspective, as well as be able to weave negative thought patterns into the conversation. In analyzing their conversations, I am of the opinion that they were successfully applying what they
	year. And you never listen to	Mom: You are a disgrace to	Mom: You have never been a good daughter. And I also wish	had learned. Hopefully this
				exercise will help them to be able



me! (All or nothing thinking: you are grounded for ever, in other words, because you	the family. You always (all and nothing thinking) do this. I wished I kept the twins instead	that I weren't your mother. (All or nothing thinking). (Blaming).	to recall negative thought patterns in the future.
never listen).	of you. (Blaming).	June: I would be happy too, so just send me to that school – I	The fact that the participants could create a dialogue togeth
June: Mom, please!	Reflection: In this dialogue there is just no understanding	am ready. It would make me so happy!	through writing in role gave th the opportunity to apply the
Mom: Go away!	of each other's needs. There is blaming and aggression. No		negative thought patterns in a conflict situation.
Dialogue Two:	win-win situation could be created.	Dialogue two:	The participants had to engage
June: Mom, I am so sorry and I ask would like you to forgive	Dialogue Two:	June: Mom, I am sorry about	personally by writing in role from the perspective of a person w
me for my negative reactions. I know your dream is that I	June: I can't live my life according to your dreams.	what had happened. I feel really bad about it but it wouldn't have	is programmed to be negative They also had to react on the impulse of the other person's
become a professional pianist but please understand my situation	Mom: I never (all or nothing	happened if you just let me be who I am and not the obedient child you want me to be.	lines; they thus had to be able empathize with their characte
Mom: June you are still a child	thinking) expected that from you. I just wanted you to	(Blaming).	feelings when negative communication blocks their
in my home and while you are still in my home you will do as I	become something and don't end up as nothing.	Mom: It is not my fault that you are disobedient and you know	objectives. I wanted the participants to engage so fully the role that they felt the
say. (All or nothing expectations).	June: You always tell me	only an obedient child may live in this house.	frustration of trying to communicate when there is no
June: Mom, you just don't understand. I am not a child	what to do and plan my future for me! (All or nothing thinking and blaming).	June: We are not in China anymore, you want me to treat	win-win negotiation process to follow. Process Drama create learning spaces in which
any more. I am old enough to think for myself. (Assuming	Mom:. Well, I am only trying to		cognitive understanding can b practically applied.
Mom does not understand – mind reading).	help you, so that you don't fail!	dreams, not a Chinese girl	
Mom: June, listen to me! Listen to my situation. I only	June: Maybe you are the reason why I fail, because you put so much pressure on	whose mother made up her dreams.	
		Mom: If you don't like the way I	

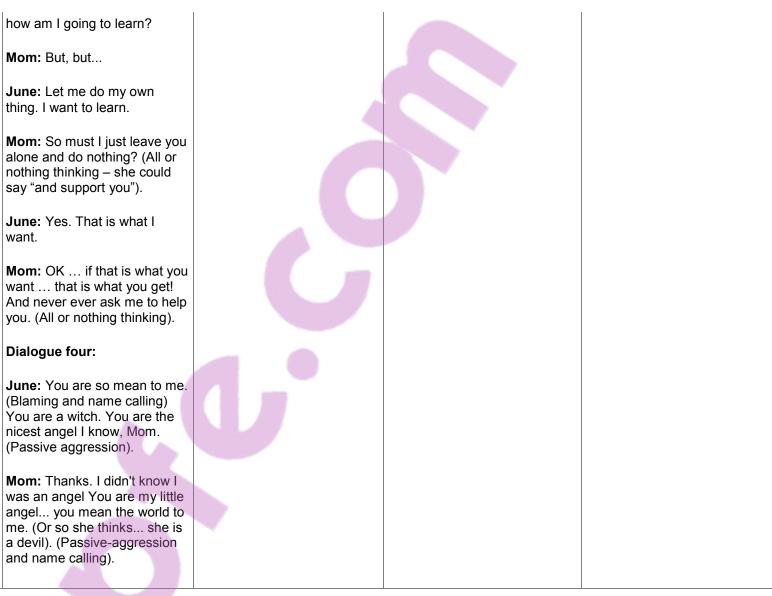


want what is best for you.	me.(Blaming)	raise you then you are not welcome in this house until you
June: No Mom, I came to say that I am sorry but, it looks as	Mom: That's the only way (all and nothing thinking) you can	are obedient. (Blaming).
if you just don't understand me. (Mindreading).	still learn and live according to our ways and traditions.	June: Fine!
		Dialogue Three:
Mom: What is there to	June: If that is the way you	
understand? All I wanted for	want to raise me, I'm going to	June: Mom, I am sorry for what
you was to be happy and to	leave this home!	I have said I didn't mean it,
only give the best I can to you.		but you never think of my
That is why your Dad and I	Dialogue Three	feelings and wants and
moved from China to America.	_	sometimes I think you only think
To give you a better life.	Mom: Why you no practising?	of yourself. Just because you
(Blaming and putting the other		did not have the opportunity that
person on a guilt trip).	June: I don't want to	I have today does not mean you
		have to throw it all on me.(All or
June: That I don't want to play	Momy If you want to be	nothing thinking).
the piano!	Mom: If you want to be	
	successful you need to practise	Mom: Excuse me, but you won't
Mom: OK! Stop it now!	practise	talk to me in that manner ever. I
-		am your mother. (All or nothing
June: Mom, please stop	June: I want to be an actress.	thinking).
yelling at me! (Bad behaviour	You never give me a chance	
when wanting to make peace).	to choose anything (All or	June: I don't want to be
6	nothing thinking).	obedient any more I am sick
Mom: I am not yelling! You		of it.
make me furious!	Mom: You are too young to	
	understand. You don't become	Mom: Have you lost your mind?
June: You make me furious!	anything in life. (Fortune	Who do you think you are,
You never listen to what I say!	telling).	talking to me like that!
(All or nothing thinking and		
mind reading).	June: ugh! I looked so stupid	June: You see that is exactly
mina reading).	in front of all those people. I	what I am talking about you
Momul had as many drasma	will always be stupid. (All or	think I am your slave (mind
 Mom: I had so many dreams	nothing thinking) And it is your	



for you (blaming, implying but you don't want to do my dreams). But just do whatsoever you want to do! (All or nothing attitude: if you don't want to do what I dream up for you, you can do any thing you want to. The mother could have said: June, if you don't want to play the piano, what do you want to do. Tell me and let us see if we can't find something that I can support you with that you enjoy and that will be meaningful to you in the future). Dialogue Three	fault (Blaming). Mom: No more games! Be obedient! (All or nothing thinking). June: Never! (storms out)(All or nothing thinking).	reading). You are the worst Mother ever! (All or nothing thinking). Mom: Leaves the room.
June: I hate you for making me do things I don't want! (Blaming).		
Mom: I just want to make your future better by helping you.		
June: I don't want your help. I want to do things on my own.		
Mom: I don't want you to follow in my footsteps of my teenage years.		
June: If I don't make mistakes		

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	June: Thank you, Mom. I am an angel and a weird girl. Have you abandoned my brother and sister? Did you Mom? Mom: You are right I did have two younger children. But when I came to America I deserted them. (Until you Missy Smarty Pants came to this earth and ruined my life.) (Passive-aggression and name calling).			
Activity 5: Enroling the participants in their performance of dialogues built on the negative thought patterns between June and her Mom.	The participants had to read their dialogues, discuss them, decide who will be who, practise it a few times and be ready to move into the area of make-believe, the aesthetic space of 'as if' and present their work in role.	As in Workshop One.	As in Workshop One.	The participants had to interact with each other by entering into the meaning frame and understand the motives behind their dialogues in order to interpret them and to be able to express them physically. The engagement through involvement in the expressive frame in Process Drama involving role play has been tried and tested and confirmed as a vehicle for deeper learning by a vast array of drama practitioners such as Bolton (1979), Morgan and Saxton (1987), Neelands and Goode (2005), O'Toole (1992), and Dunn and O'Toole (2009). This location had the effect of transporting the participants into the fictitious world of the pretext.

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Activity 6: Presenting the dialogue of negative thought patterns between June and her mother.	The participants did well in this exercise. They were engaged in dramatizing the aggression of the mother and daughter. After all the opportunities to present their work in the semicircle of umbrellas, the participants gained confidence and gave more of themselves in the presentations. They were more mindful of the roles they were playing and the content of the work. The last dialogue was frowned upon and later laughed about. I don't think that the meaning was clear to some of the participants. The two presenters presented it as a black comedy or a scene from a horror movie.	I could see that the role play engaged the participants in the meaning frame of the Process Drama and appealed to the participants on an emotional level. The participants were more engrossed in the poetry during the former workshop than when presenting these dialogues.	During this workshop the participants were engaged in the role dramas and expressed the roles emotionally, physically and meaningfully. There were moments of deep engagement in the conflict, especially in Dialogue Number Two.	It is interesting to note that the basic form of aggression between mother and daughter in all the dialogues was done in an active aggressive style which can be described as verbal, manipulative, relational, confrontational and direct. Dickson (2000:5) describes aggressive behaviour as someone who is competitive and without empathy.
Activity 7: De-roling the role play between June and her mother.	The participants stepped out of the aesthetic circle of umbrellas when de-roling and participated in short discussions about the given presentation. They concluded that men do not see things the same way as women do. This was a general discussion and no personal and private conflicts between family	The participants stepped out of the aesthetic circle of umbrellas when de-roling and participated in short discussions about the given presentation. This group said that anger made them sad and it is awful to fight with one's parents. They said they do not think June's mother really understands her.	The participants stepped out of the aesthetic circle of umbrellas when de-roling and participated in short discussions about the given presentation. They discussed the fact that the most difficult of all aspects of conflict is trying to make peace with someone when they don't want to listen to one and talk all the time or when they just sit there	Herzberg (2003) stated that discussion is a form of de-roling and of distancing. These discussions were probed by questions such as: How do you feel about the way in which the mother tried to make peace? This activity was a collaborative learning experience for the participants where peer teaching was at play, a technique highly recommended by John O'Toole



members were discussed.	saying nothing or walk away.	(in Burton and O'Toole 2009:7).



8.7.2 Addressing the emotional competency of anger management in Session Five

This session dealt with typical negative thought patterns in communication. Vernon (2006:2) is cited in Chapter 1.2.3.4 to explain that negative dysfunctional behaviours are the result of one's own negative thought patterns. The participants had an opportunity to learn how to detect such thinking and apply their insight by writing a dialogue with two characters struggling to communicate. The participants could learn that negative thinking opposes the management of one's anger. Smetana (1991) states that there is a high occurance of conflicts in adolescent females' lives and that they should be exposed to anger management. Ellis (2003) confirms that one can learn to think more rationally and omit negative thought patterns. This outcome complied with the major emotional competency outcomes of Life Orientation skills, namely to know how to deal with difficult emotions. The participants were exposed to the concept of negative thinking from different viewpoints; they could explore negative thought patterns in a rap rhyme, in a fictitious story and in writing dialogues in role. The dialogues explored negative thought patterns from the adolescent's viewpoint and from that of an adult. Learning to deal with emotions is of paramount importance in an adolescent's life. Feinstein (2009) confirms that adolescence is the best time to learn how to control one's temper and develop social and communication skills.

Identifying negative thought patterns is an important emotional competence skill to acquire if one would like to manage one's anger when communicating. The fact that the participants could experience the power of negative thought patterns created a hands-on experiential learning opportunity. They had to identify negative thought patterns twice and had to apply their knowledge by writing a dialogue focusing on them. They had to 'live through the dialogues' by acting them out. The value of this exercise is to aid recall when they have to identify negative thought patterns in real-life situations.

This specific activity was targeted at the adolescent female who is constantly in a negotiation process with her peers as well as with authority figures. Underwood



(2003) suggests that the adolescent female would rather hide her real feelings in a conflict situation than openly and assertively communicate her anger. She should be moving to an adult state of mind where she wants to take responsibility for her own actions. The adolescent is still moving from a very self-centred attitude that is not always in the interest of her parents (Berne 1992:25) to a state where she can empathize with the needs of others. As her claims for more 'resources' increase, she may demand more attention from her parents and test her limits regarding social events (Sweeney 2001:84). One can therefore conclude that the adolescent's quest for autonomy (clearly spelled out in the extract of *The Joy Luck Club*) may place her in conflicting situations with authority figures and this leads to anger. Knowing how not to communicate can assist her to become aware that one can also communicate assertively; this will be explored in the next workshop.

8.7.3 How the brain-based principles adhere to the methodology of Process Drama in Session Five

Please refer to this discussion at the end of Session Six. I have combined the two sessions regarding the brain-based principles to avoid unnecessary repetition as both sessions employed the same Process Drama conventions, namely writing dialogues in role and presenting the dialogues in role.



8.8 Session Six

8.8.1 Three Process Dramas

Session number	6
Session theme	Anger management
Duration	90 minutes
Learning activity	How to deal with difficult emotions.
Session theme	To learn how to communicate assertively when angry

Session 6: Activities	Activities of Workshop One	Activities of Workshop Two	Activities of Workshop Three	Reflecting on the implementation of the methodology of Process Drama
Session 6 Note: To learn how to communicate assertively when angry	This last workshop had to be completed in the computer class at 08h00. Everyone was well rested and positive. Unfortunately we lost 20 minutes waiting to get a classroom.	There was enough time to start this workshop with an energizer as in the previous lesson. The rhyme summarized the lesson content.	This group did not have time to participate in the last energizer	See Workshop One.

Activity 1: What is conflict and what is assertive conflict resolution?	I had planned to start with a relaxation exercise and a rap rhyme on how to solve conflict. We had lost time and had to start with the essence of the lesson. The girls were very keen to write dialogues and present them. It seemed to me as if the idea of 'acting out a dialogue' appealed greatly to them. They had to personalize the rules of assertive communication and then apply them creatively.	the group to pair off and together read through the notes on assertiveness and conflict resolution. I asked	I gave them the rules for assertive peacemakers and the rap rhyme to read together and ask them to write a dialogue between June and her mom and how they negotiated a win- win situation using the guidelines of assertive communication.	This activity was a preparation for writing an assertive dialogue between June and her mother in role. Only Case Study Two rapped their assertiveness information. The activity was an introduction to the next activity and because of their excitement to write a dialogue. To my own detriment I did not venture further into this due to time constraints. The outcome was disappointing. The dialogues did not portray the negotiation processes as I had foreseen them.
Activity 2: Enrolling participants as June and her mother in writing dialogue in role: making peace in an assertive way.	 Dialogue A: June: Mom, please listen carefully. I know now that I cannot do things on my own. I need your help. Mom: What were you saying? June: Mom, don't be like that. I know I was wrong I need your help. Mom: I'm sorry I have pushed you overboard. I now see what you mean. I didn't know I was so hard on you. June: Mom, I am so glad you 	 Dialogue A: June: Sorry about everything, Mom Mom: I just want to protect you. I don't want you to have the life I have had June: I know. I just want to make you proud. But I cannot do it by having to become someone that I am not. Mom: What do you mean? June: I can accomplish so 	 Dialogue A: June: Sorry about how I acted and what I said. I was in an emotional state because of my humiliating performance and I didn't think straight. Mom: I just could not believe you would talk to me like that. I am your mother. June: I am really sorry Mom, can we maybe try to do something I like, like sports. I would love it if you can just understand where I am coming from. 	Case Study One A: This dialogue showed a willingness on both sides to forgive each other and on both sides apologies were given but there was no recognition given for the real needs. The mother suddenly says she was hard on June and her character changes in the process. One would like to know what happened to her very strong ambition for her daughter to perform. Case Study One B: In this dialogue the mother loses and June wins. The writers got rid

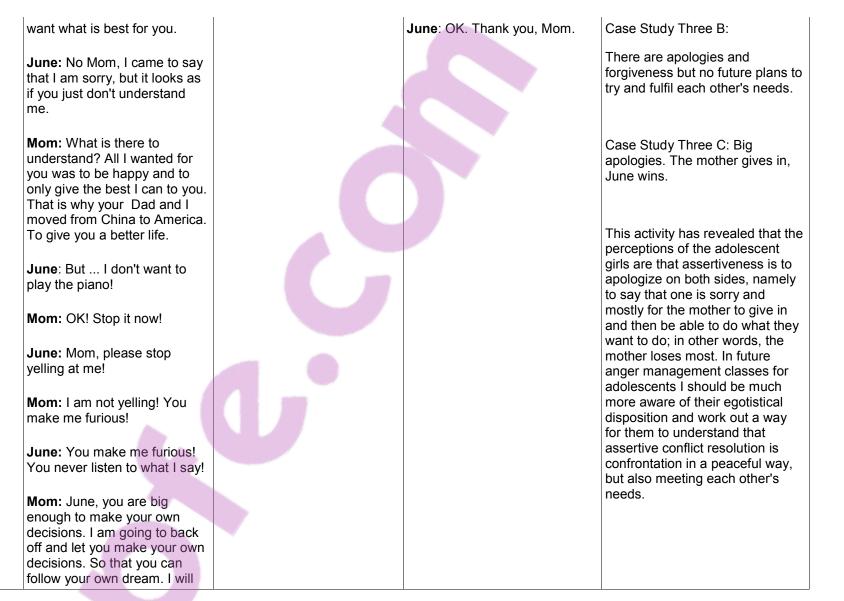
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	Mom: Oh. I never know that	Mom: I do honey, and maybe I was wrong I handled the situation in a wrong way	of the piano and in that way solved the problem. In real life selling the piano would not solve
relationship can be stronger.	you felt this way. I'll let you live your own life, but I am still going to be your mother.	June: I promise not to get angry so easily. If we can just work together.	the problem of misunderstanding each other's needs.
disappointed you.	Dialogue B: Mom: I am sorry. I am always	Mom: I agree and I am sorry too.	Case Study One C: The mother only wants what is best for June and decides to support her in her
Mom: June, you did not hurt me I love you too.	expecting too much of you. But I wanted you to understand and respect the	Dialogue B:	dreams. June's need is not to play piano, but then does not really offer anything that will fulfil
cane and ment hagging.	way I grew up.	June: I am really sorry, Mom for what I said because of how	her mother's needs. In my opinion this dialogue is again a win for June and a loss for the
Dialogue D.	June: I'll understand and respect the way you grew up but you should also have to	angry I was at you for forcing me to be someone that I am not. I couldn't think straight	mother. June does not offer anything back in return.
come in?	understand that I am growing up in a different generation and country.	Mom: I am sorry too, June – it	
June: No, go away.	Mom: Maybe we could find a	is time that you follow your own dream.	Case Study One D: An interestin negotiation took place in this dialogue. June wins as her
Mom: Please, I just want to hear your side of the story	way to live according to my traditions as well as your way of growing up.	June: Thank you mom for understanding that I have my own dreams.	mother will get rid of the piano. June offers to go with her to the shops where her mother can buy
	June: Thank you for understanding how I feel.	Mom: I know you would like that.	clothes for herself (mother) with her own money, not even with th piano money. A materialistic
Mom: I'll sell the piano!	Dialogue 3	Dialogue 3	trade-off has been made and everyone is happy.
June: (sad, crying, opening the door) Really Mom?	June: Can we talk?	June: Mom, I am sorry! I shouldn't have said all those mean things. I was wrong. I did	The other two case studies



Mom: Is that what you want?	Mom: Yes. I'll make some tea.	not mean all those things I have said. I just could not think	followed the same line of thinking
June: Yay! Will you do it for me?	J une: I need you to understand how I feel.	straight. I love you Mom and I will never wish to be dead or not your child again.	Case Study Two A: Apologies a offered. June tells her mother s wants to make her proud in
Mom: Only if you will listen to me.	Mom: OK. I will listen now. You can listen later.	Mom: It's OK, June, sometimes I get really mad too. But why	another way – but not by becoming a pianist. The mothe says: "Do whatever you want to
June: (Made up) I'll be	June: I realize that you only	were you so angry.	Mother loses, June wins.
obedient. I love you, Mom.	want the best for me. I don't	J une: Mom, being a concert	
Mom: I love you too. (hug)	have enough talent to become a pianist. I will be successful in other ways. Do you	pianist was never my dream. You forced me to practice every	Case Study Two B: There is no real negotiation. June can stop
Dialogue C	understand, Mom?	day and I understand one needs to be good but I really	playing piano and they can perhaps find a way to live in bo
June: Mom, I am so sorry and I ask would like you to forgive me for my negative reactions. I know your dream is that I	Mom: Yes I do, I only want you to survive and to protect you. For me to protect you, you must listen and respect.	do not want to be one. Mom: Oh I am sorry for pushing you so much. It was just my biggest dream for you.	Chinese and American tradition Case Study Two CJL:
become a professional pianist but please understand my situation	June: I am growing up in a different society than you. I don't deny being Chinese but I	June: I am sorry I have embarrassed you at the concert	June wins. All the mother want is respect. So talk "nicely to mo and have your own way".
Mom: June, you are still a	have to adapt to America.	and I promise if you let me choose what I want to do I will	
child in my home and while you are still in my home you will do as I say.	Mom: I understand, but you are still my daughter and must	keep trying until I can do it perfectly	Case Study Three A:
June: Mom, you just don't understand. I am not a child any more. I am old enough to think for myself.	respect elders. June: OK. Thank you, Mother.	Mom: June I am so sorry that you had to practise every day – whilst you disliked it so. You now have the freedom to decide what you want to do.	Apologies from both. June promises to manage her tempe and there is peace in the house but no real win-win process wa negotiated.
Mom: June, listen to me! Listen to my situation. I only			

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support you in whatever you would like to do.		
June: Thank you Mom! Really. Thank you very much. I love you.		
Mom: Come here, my child. Let me give you a hug.		
Dialogue D:		
June: Mom, we need to talk about the piano. Must we keep the piano or get rid of it?		
Mom: OK. Well, get rid of it and you don't have to play any more.		
June: Really, you don't mind if I get rid of it? Mom, you are really the best. Mom, do you have money?		
Mom: Yes I do, why do you want it?		
June : 'Cause I thought you would like to go shopping.		
Mom: Shopping for what?		
June: Clothes. For you. You are the best. I want you to		

	enjoy yourself. Mom: OK, I think it's a good idea. Let's go.			
Activity 3: June and her mother's win- win dialogue presentations.	The participants could not wait to present their scenes in this case study. There was a lot of demonstrating and hugging which created a positive festive mood as they portrayed June and her mother's peace negotiations. The participants were not shy or self-conscious any more. If there were more time it would have been a good idea to discuss the written dialogues and ask them to think about the fact that Mom in most cases does not gain anything really but June does. One could have applied Boal's Forum Theatre invention here, namely indicating that the participants were using unrealistic magical solutions to problems (Boal 1995). In Boal's Forum Theatre the audience could stop the actor's actions by calling out 'magic' to indicate that the actor's solution to a problem is unrealistic (Boal 1995). Alternatively, is it that they	dialogues whole-heartedly and believed in their own assertive communication skills. All of them thought that to make apologies is to create instant peace and joy. I do not think one of the participants thought further about what the future holds for June and her mother. Will the mother be happy with an average non-performer? How can the mother's personality change so fast? Here the instant gratification of June's needs was more important.	This group reacted the same way as the previous group. They sincerely felt that they had accomplished something. They did not view their assertive dialogues as superficial or unrealistic at all. As theorized by Boal (1995), one can refer here to the participants using a magic solution to a problem and not a realistic solution.	In the literature investigation in Chapter Five I cited the following about the adolescent belief- system: "It is this belief that others are preoccupied with his appearance and behaviour that constitutes the egocentric style of the adolescent" (Elkind 1967:1030). Elkind states that egocentric behaviour is an obvious trait of middle adolescence. Egocentric thinking is less prevalent during young adulthood (Elkind & Bowen 1979). It is interesting to note that these dialogues discarded the real needs of the mother and the adolescent needs were instantly gratified. No piano practice means happiness. There is no future vision or plan given by the adolescent as to her dreams and wants and no insight into the mother's needs. It is as if both participants in the dialogue could only see the daughter's needs and struggled to empathize with the mother's needs. Their attitude could thus be summarized as follows: "Mom is happy when I

	think that the mother should be happy when June does not complain any more and have her way? The win-win situation creates two winners as each one should benefit in the deal.			am happy!"
Activity 4: De-roling: Mom and June's win-win dialogues.	A short talk circle discussion was held. I had little opportunity to lead the discussion. The participants were talking to each other in a highly excited fashion discussing each other's portrayals of June and Mom. I just let it be.	A short talk circle discussion was held. The participants were tired by now and I could sense that they were not concentrating well any more.	A short talk circle discussion was held. The participants were focusing on the next activity of the day. They were not deeply involved in the discussion. I think they were tired having done so much in one day.	I will have to change the programme in order to successfully lead the adolescent girls to really understand assertive negations. The workshop material was explored physically, emotionally and cognitively through the methodology of Process Drama. The methodology offers a creative way to engage on an emotional and cognitive level. Through writing in role and role play the participants could explore assertive communication. Unfortunately the participants did not fully succeed in this outcome. They struggled to create credible conversations between the mother and daughter in which they had to negotiate according to both characters' needs in order to reach win-win agreements. One could have implemented the questioning technique proposed by Heathcote (1984) by asking pressing and probing questions such as:"Do you think the mother has won something in the

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		process? What has the mother gained in this situation? If you were in the mother's shoes, would you be satisfied that your daughter will be taking responsibility for her own future? What proof do you have that your daughter will be searching for a meaningful and successful outcome?"
		The participants made it 'easy' by trading a 'sorry' for a 'me too' instead of struggling to meet deep-seated needs. This is partly due to the facilitator who overestimated their insight into assertive negotiations, as well as the fact that these participants are still young teenagers. I also have to consider that the participants of all three case studies were tired, emotional or just wanting to finish and move on to the next activity in their private lives. I reiterate that if the participants had to study assertiveness in a textbook and then write a test about it, one would never have picked up that they actually do not fully understand what a win-win situation is. In this way the
		research study was successful as it revealed through Process Drama the embedded egocentric style of the 14 to 16- year old

				teen (Elkind, 1967:1030).
Activity 5: Journaling: What have you learned during the workshop? <u>Note:</u> The participants were required to write a few lines in their diaries and indicate what they had learned during the workshops. They were keen to do this and I gave them enough time to really think about what they had experienced.	 Comments by Group One's participants: My anger is a lot out of control, but I can stop it. The worst times my anger lashes out is when someone makes my anger worse. What I have learned in this class is that I should first listen to understand other people's situations before I start fighting with them. 	 Anger is something that I can control and it isn't always a bad emotion. You should think about what angers you and how you can manage it. It is not the right thing to suppress 	Participant One: What I have learned during this workshop This workshop was a fun way of learning how to control anger and to communicate with people by telling them how you feel. This was a really nice day and I really learned a lot about the different types of anger expression. And also how to cool down when angry in that weird way of rolling and testing if you are relaxed. I also learned about debate. It was great fun. Participant Two: What I have	Case Study One: I admit that some participants may only have said things because they wanted to please me and because they considered it the right thing to do. The only other feedback I got was from two teachers who told me that the participants came to them and thanked them for giving them some time off to attend the workshops which they really enjoyed. I think I may have overestimated the participants' ability to deeply understand the
	 I have learned how to suppress my anger in ways that I never could before. I have also learned in all the poems that anger is a bad thing. I have learned how to suppress my anger and not hurt the ones I love. When I become angry normally I refuse to listen to other people but this 	relax before you react so that you don't do or say things you will regret. You can relax by counting to ten. Giving someone the blame for everything that is wrong in your life will not make you feel better. It can even make you feel worse afterwards. Having someone you can trust to talk to will help you to unwind and think about the conflict. Polarized thinking can be very	I learned during this workshop I learned today what to do in a situation when I am angry with someone and what happens in the brain when I do get angry. I learned that one cannot think straight when you are very angry and that you should rather walk away. Before you leave them first tell them that you don't want to talk right now and that you don't want to say things that will hurt them. Then go home, relax, breathe deeply. I also learned the best ways to handle anger is to confront	negotiation process. The negotiation between the mother and the child was not well executed. They should have perceived that assertiveness can be affected by the levels of their self-esteem (Manis & Manis 2001) and willingness to listen and understand the needs of others. In this instance the participants were average in their identification with their roles. They were not fully engaged. It was the last school day before



 has taught me to listen and behave. I have learned that anger is a normal thing to feel and I 	dangerous for a young girl. You need to be easy on yourself and not always analyze yourself. It will only lead to negative thinking and anger.	someone and in the different ways you can talk to them. Participant Three: What I have learned during this workshop	the exams which started the next day. There was, remarkably, a mood of festivity between them. There was an absence of deep concentration on the work.
learned to control the way I handle my anger. I have seen different anger styles and what it is about. I also know why people get angry and how to handle it, like walking	The best thing to do when you are angry is to acknowledge the feeling and relax before you react. It was a very nice day and I learned a lot. Thank you!	I have learned that there is a positive way to get rid of anger. I also learned where my emotions come from. It meant a lot to me and in the future I will react differently to every	This 'real-school situation' was an excellent learning curve for me. The stark reality is that that which was planned in the safe parameters of academic thought, got tested by the real world of adolescents in a real South African school. I do not think that
away and giving us time to calm down. I also had a great time and will do it all over	Participant Two: What I have learned during this workshop	situation. I will also remember to wait for a day or wait at least 20 minutes before I react. I will definitely use the relaxing method in the future. I am glad	this case study was unsuccessful but I do think that it can be improved.
again. Thanks for everything you have taught us and I loved the fun things.	I learned that you should control your anger. By controlling your anger you also control negative thoughts such as blaming others, mind	that I know where my emotions comes from. I am also glad that I know the different types of anger.	Case Studies Two and Three had been more successful overall. These two case studies were well planned and conducted in a favourable location. The
What I have learned through anger class:	reading, and generalizing. I learned that when you are	Participant Four: What I have learned during this workshop	participants were acquainted with the basics of dramatic expression and they were more relaxed. It
How to control my emotions, such as anger. How to calm down in a bad situation. How to prevent conflict.	angry you can control your anger by understanding how the other person feels. I also learned that you should listen to the other person and what he or she has to say. And look at the situation from their point	I really liked to learn about negative thought patterns. And I am very glad I know how to handle my anger in an assertive way.	was done after they had written their exams. Although a one-day workshop does not give a lot of time for processing the material, I believe it was a more focused event. The participants in Case
My anger is no more cause I don't get angry any more. If I get angry I hit my pillow	of view. I also learned a lot from <i>The Joy Luck Club</i> . I learned that you shouldn't expect a lot from other people	Participant Five: What I have learned during this workshop I definitely learned how to	Study One had time to process the material, but also to lose touch with the workshop. They had to do the workshop in between classes as they were

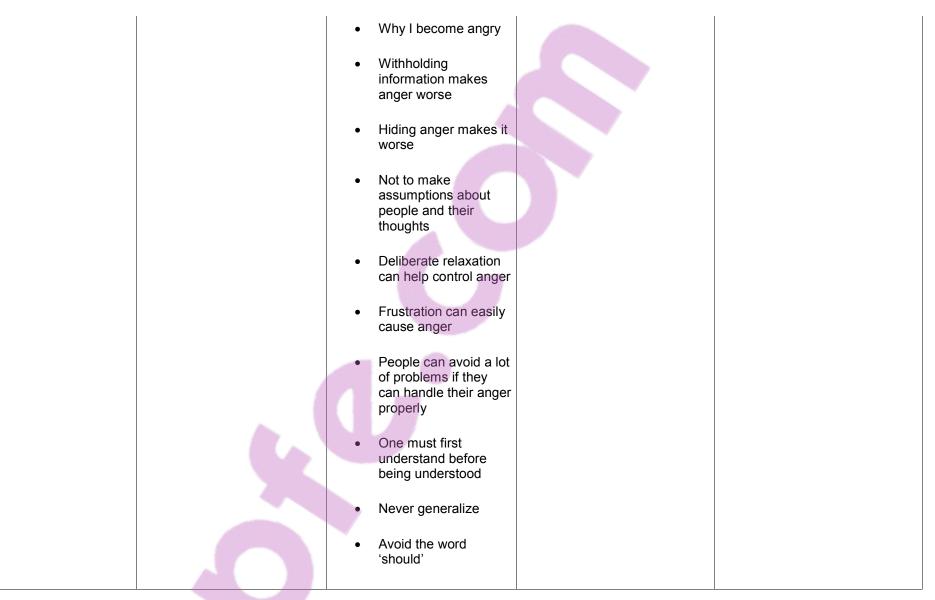
out of my life. I also enjoyed the lesson I learned here. I now enjoy life. I have learned that you can never make peace in an angry voice. If you look at the problem in a calm way it is so much easier to solve.	 because that leads to disappointments and that leads to anger. I also learned that you shouldn't 'bottle up' your anger because you would eventually 'explode'. And afterwards you would feel very bad. Participant Three: What I have learned during this workshop I never really thought so deeply about anger and anger management, so I really learned many new things about it. I learned how to handle anger better, what the causes is that leads to anger and also the way people react to anger and how they handle it in a wrong way. I also saw through our debate about June's future how easily people can make you angry and how easily you can get angry! I have learned that relaxing, talking situations through, and also poetry helps you to 	control my anger better. I also managed to learn that you should not think only of your ways and your side but you should ask: "Why is he acting the way he is?" I also learned that you get different styles of anger and now I can identify them and would know how to handle each. It was fun! Participant six: What I have learned during this workshop I learned how to handle my anger in the correct way. I learned how to talk to people who are angry with me. I liked to learn about the different types of anger, to know how it works and I also liked the information about the difference in culture of the Chinese people. It was great to learn about how you can calm yourself down with the relaxation technique where you lie on the floor and test if you are relaxed. The poetry and the rap poems was a good and fun idea to teach us.	busy preparing for the exams.
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manage anger better.
I enjoyed this course a lot and
learned a lot about anger!
Participant Four: What I
have learned during this
workshop
I've always thought that you
can't control yourself when
you're angry, but today I have
learned that you always have
a choice. Obviously, you'll be angry when someone hurts
something you love, but there
are other times when you can
choose how to react. You
should try to put yourself in the
other person's position and try
to imagine what are those
person's concerns, feelings,
thoughts and ideas. By doing
that you'll understand why the
person is acting a certain way.
You must understand before
being understood. We as
people also intend to make
our own assumptions by the
way people look etc. at you,
and that will lead to further
anger. Sometimes the best cure for anger is to wait a day
or write a letter to the person
that you are angry with, (but
do not give the letter to them)

before taking action.
Participant Five: What I have learned during this workshop
I've learnt about the different types of anger and found it very interesting. It can help one find ways to control and handle anger through talking
and letting people know that you are angry. It was nice doing the poems and rap about anger. In a way it helps you express your anger. It was
good to know how to identify anger and to know the variations of angry feelings. If you know what angers you it can help you to control those situations. The whole
experience was fun and a good way to learn how to manage your anger. It can also help you to help others control their anger.
Participant Six: What I have learned during this workshop:
Anger is subconscious

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There are different angry styles
That drama can help one to manage anger through reading and writing poetry and creating make-believe dialogues between oneself and someone else to try and understand them better.



8.8.2 Addressing the emotional competency of anger management in Session Six

This session dealt with assertiveness, a very important life skill when having to manage one's anger and communicate one's needs if there is another party involved. Brown (1998:12–13) builds a strong case for females to learn to voice their anger and obtain self-confidence to openly communicate their needs in society. The participants in this study understood that one should communicate one's own needs, but they did not fully understand that one should negotiate a win-win situation by taking the needs of others into consideration. This is clearly an indication of the fact that the adolescent thinking patterns are centred on their own needs and wants, which is on par with their development phase. Their perception of fulfilling the mother's needs is to pacify the mother through rendering an apology for their own behaviour and then to make their needs known. Their perception of the mother's needs is one-sided. They assume the mother's greatest need is only to see that her child is happy and not to obtain some meaningful outcome for the future development of her child. The participants in these case studies did not indicate that they understood the mother's need to know her child would be able to a) develop her talents, and b) survive as a responsible adult (Elkind 1967:1030). The participants did not investigate the needs of the mother in the fictitious situation. This is a clear indication that the emotional competence of the adolescent needs input about empathizing and understanding the needs of others, especially the needs of adults in positions of authority in their lives. Wilding and Milne (2010) state that empathy could be regarded as the main ingredient for assertive negotiation in the process of conflict resolution (refer to Chapter 4.4.3). The adolescent participants understood that assertiveness means that one is willing to negotiate from a platform of negotiation, peace and forgiveness but they did not understand that they should empathize fully with the other party. This session needs to be improved regarding the lesson on assertiveness. More time should be allocated to lead the participants to comprehend the full complications of negotiating in an assertive manner. The empirical examples strengthen the fact that the female adolescent should be trained in assertive

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negotiation skills in order to help her to overcome egotistical thinking patterns and to help her understand the needs of others.

The feedback of the participants was very positive and they indicated that this session taught them how to manage their anger. Cassey and Toepfer (2002:105) state that adolescents are idealistic thinkers who can construct ideal values on a theoretical level, but lack the practical experience when they are thrust into the realities of real-life conflict. More time to train them how to negotiate will enhance the impact of these sessions. One has to realize when designing a programme on anger management for the adolescent that one has to curb their assumptions that assertive communication is easy and make them aware of the needs of other people in positions of authority. Giving the female adolescent an opportunity to enhance her life skills regarding the most challenging emotion, namely anger, can only be beneficial to her. The next section renders a discussion on how the brain-based principles were adhered to in this session.

8.8.3 The role of brain-based principles in the methodology of Process Drama in Sessions Five and Six of the three workshops

The brain-based principle that the search for meaning is innate in the learning process (Jensen 2008:134) was adhered to in these sessions in the following manner. As concluded in Chapter 5.4.9, meaningful learning can only take place if the whole person is integrated in the learning process and understands the cognitive and emotional content and how it interlinks with practical life. In both sessions the participants had to understand negative thinking patterns and assertive negotiation, and then employ their insight in the form of dialogues between June and her mother. They had to assimilate real-life situations in order to demonstrate their understanding of the concepts of negative and positive negotiations. Although they could clearly differentiate between positive statements and those that are negative, they failed to fully employ assertive communication. Here the lack of meaning-making was inherent to their development phase. They still lacked the insight to fully comprehend the mother's need for planning the future survival of her daughter. They did, however, realize that assertive communication is possible when both parties



negotiate from a position of forgiveness and openness. In retrospect, I think that I could have role played the mother and used the convention of 'hot seating'¹⁸¹ in order to help the adolescents to understand that the mother has more serious needs than what they perceived. Again, placing the participants in a role drama clearly indicated the flaw in their emotional understanding of assertiveness and the flaw in the design of this programme on anger management. They could describe what assertiveness means on a cognitive level, but they could not employ it practically.

The brain-based principle that all learning is physiological was observed as follows: De Jager (2006:11) (refer to Chapter 5.4.11) explains that learning is a body principle. The participants had to depict the mother and the daughter in both role dramas of the two sessions. They enjoyed these activities fully and were keen to present their dialogues to each other. The enjoyment of dramatic presentations is both pleasurable and cognitively stimulating, as observed by Sousa (2006:74). Any learning activity approached with enthusiasm will be more readily recalled than negative experiences. It also indicates that the participants were in a relaxed yet alert state of mind when they had to create and present these role dramas. Nicholson (2005:9) confirms that physical engagement in role access forms of knowing and insight that other ways of learning cannot produce.

The following explains how the brain-based principle that the brainmind is social was adhered to in these sessions. During these sessions dialogues had to be created by the participants. Each one was personally liable for a specific role, either that of June or of her mother. Campbell et al. (2004:159) state that the prerequisite for successful collaborative learning is individual accountability. It places the learners in a position where they have to listen carefully to each other. Listening is one of the most important skills that should be exercised when ordered sharing is executed. Jensen (2008:203) posits that collaborative learning as a brain-based principle forms the platform for expressing oneself in a complex social world that hinges on negotiation and teamwork. The social interaction during the creative writing processes as well as

¹⁸¹ Hot seating: A participant in role is questioned about his or her history, motives, activities and behaviour in order to develop the Process Drama episode further. It is an improvisational method and recommended to investigate a character or characters, individually or in pairs. In this way a group's questioning skills are developed. <u>http://dramaresource.com/strategies/hot-seating</u>



presentations was done excellently. The participants took on the full responsibility to complete the creative dialogues in the set time and had to present it to each other for peer learning.

The principle that search for meaning occurs through patterning was observed as patterning entails the meaningful classification of information (Hannaford 1995:87). These sessions were based on a pattern of assimilative learning. The learners gradually acquired information through a) being introduced to negative communication patterns in a rap rhyme, b) assessing the negative patterns in the literary work, c) applying the negative thinking patterns by writing a conversation between a mother and daughter in role, and finally d) presenting these dialogues to their peers. By creating the dialogues and their presentations, the accommodative learning patterns suggested by Illeris (2005:94) were adhered to. The learning material had to be analyzed and utilized in a new manner through creative writing and presentations. Heathcote and Bolton (cited in Taylor 2000:102) state that drama can confront students with challenging situations where they have to employ understanding and insight in order to make meaning. Thomas and Mulvey (2008:240) posit that one builds patterns of habit of mind and communication between learners by confronting them with creative problem solving. The participants had to solve the conflict between June and her mother. They created solutions to the conflict situations based on the insight corresponding to the level of their development phase. The following paragraph describes how the brain-based principle that emotions are critical to pattering and attention was adhered to in these workshops.

Emotions are critical to patterning, and drive attention, meaning and memory. According to Wolfe (2001:20) this brain-based principle implies that "emotion is the primary catalyst in the learning process" (refer to Chapter 5.4.5). Hall (2005:142) confirms that intellectual insight cannot be divorced from emotional intelligence. It is not enough to merely give information about negative thinking and assertive behaviour without creating practical experiences during which these communication patterns can be personally and emotionally explored. Communication is an emotional concern. These workshops proved clearly that the adolescent female



participant thrives when having to create role dramas consisting of interpersonal communication. Feinstein (2009) contributes to this statement with her suggestion that the emotional life of the adolescent overshadows her rational thinking when it comes to relationships. In the make-believe world of the Process Drama the participants can experience the functions of the roles in the dramas and simultaneously be conscious of themselves. They can experience the effect of negative thought patterns and positive negotiation in the fictitious reality. They can compare their own parental relationships in private. The safety net of Process Drama forms gateways for emotional competency learning through a brain-based methodology.

The following discussion explains how the brain-based principle of the brain/mind processing parts and wholes simultaneously adheres to the work done in Sessions Five and Six.

The Whole Brain model of Herrmann (1995:36) explains the interconnectivity of the brain. This model incorporates the learner as an active agent in the learning process on the emotional, cognitive and physical levels (Coetzee & Munro 2004). The methodology of Process Drama in these sessions involved the learners on a logical and analytical level by asking them to analyze how many negative thinking patterns are in the rap rhymes and to indicate the negative thinking patterns in the pretext. They had to employ their intuitive understanding in order to create a negative and assertive dialogue between June and her mother. Their cognitive understanding of the dialogues was transformed into kinaesthetic dramatic art forms embodied in voice and space. These processes of sensing, feeling, imagining and presenting did not only take place in a specific sequence, but also in a non-linear way. Process Drama methodologies adhere to the brain-based principle that incorporates the interconnectivity of the brain.

Focused attention and peripheral perception was adhered to as a brain-based principle in Sessions Five and Six. During the presentations of the mother and daughter dialogues there were moments when some of the participants were so fully focused in role that they captured the others' attention by portraying the mother and



daughter in a believable fashion. The body-voice integration of the role players indicated that they were absorbed in the fictitious reality and these portrayals created empathy in the audience for either the mother or/and daughter. As observed by Emunah (1995:161) (refer to Chapter 6.2), the engaging process of drama can create live enactments that create empathy for the characters in role. Process Drama can focus the attention of learners in order to create emotional learning experiences.

During Sessions Five and Six the brain-based principle that learning is developmental was be observed. Hannaford (1995:83) explains that our ability to learn expands throughout life and that each individual develops according to his or her own tempo. Process Drama offers a personal learning experience through creative conventions like role drama where each individual can interpret negative and assertive communication according to their own understanding. This presents the adolescent female learner with an opportunity to take responsibility for her own learning that corresponds to her need to function on a more autonomous level (Lerner & Steinberg 2004:73). Feinstein (2009:165) suggests that adolescence is a change-sensitive period during which teenagers can be influenced regarding ethics and morality. They should be involved in activities that are meaningful in order to stimulate the establishment of prefrontal neural structures (Crawford 2007:12). The opportunity to be confronted with choice regarding emotional reactions and interpersonal communication in these two sessions is beneficial for adolescent development.

High profile researchers argue that the performing arts offer a very competent tool for future education (Griggs 2001). The interactive profile of Process Drama offers collaborative learning opportunities to participants. According to the brain-based principles as explicated by, for example, Jensen (2001), the arts form a platform for learning. This means that the learning process is holistic as it involves learning with the body, emotions and mind in a social construct. The performing arts present challenging situations in dynamic learning environments that stimulate the learners to think critically and be emotionally engaged.



8.9 Summary

This Process Drama programme on anger management offered many-sided outcomes on various levels. The adolescent female was confronted with her own anger without having to reveal details of her own private relationships. She could operate in a safe environment where anger was explored through role play and the dramatization of poetry. These Process Drama conventions immersed her in fictitious situations where the reality of anger could be explored metaphorically without jeopardizing her private life. The exploration through these conventions stimulated her emotional competency and her cognitive insight. The learning material exposed her to the identification of various anger-related feelings, the neurological expression of anger in the body, various anger styles, and the consequences of negative anger displays in relationships. She could learn that one has to take ownership of one's anger, how to identify negative thought patterns, and that it is possible to communicate assertively. She was exposed to hands-on learning methods of anger management such as the technique of relaxation. Seen in the light of the brain-based outcomes, this Process Drama programme was a multimodal and enriching experience. The fact that the effectiveness of the Process Drama conventions, such as role play and specifically dramatized poetry, were scrutinized by the brain-based learning principles builds a strong case for this methodology's success.

The empirical examples serve as a research process that scrutinized the praxis of the methodology of Process Drama conveying emotional competency skills. From the empirical examples pointers for the improvement of the anger management programme could be derived and are discussed in the next chapter that concludes this study. The last chapter therefore investigates the viability of the combination of the four research strands. These strands constitute the methodology of Process Drama, in adherence to the principles of brain-based education while conveying the learning material of emotional competency to the adolescent female in the middle adolescent development phase. The last chapter renders a critical overview and conclusion of the study. The analysis of the study culminates in thoughts for future empirical research.



CHAPTER 9: SUMMATION

9.1 Overview of the study

In the empirical examples I endeavoured to explore how the acquisition of emotional competency towards anger management, can be facilitated with middle adolescent females by means of the methodology of Process Drama. This chapter describes how various approaches propounded in the literature review determined the outcomes that were reached in the three workshops in the empirical programme. I do not refer to the outcomes of each specific case study, but provide a general overview of all the outcomes in this chapter. The duplication of certain concepts is the result of the integrated nature of the study and attest to the interrelationship of the various strands. The chapter applies the process of "cross-checking data from multiple resources to search for regularities in research data" (O'Donoghue & Punch 2003:78) which supports the responses to the main research question.

Throughout the thesis the emphasis is placed on the cause and effect of the adolescent female's anger, taking her cognitive and emotional brain development into account. The study examines how the brain processes emotion, and in particular anger. The literature review presents information of how the adolescent female's brain development complies with brain-based principles. The methodology of Process Drama is discussed and analyzed in order to indicate how it adheres to the neurological principles of learning. This study is underpinned by neurological research indicating that the emotional circuits of the brain are interlinked and cannot be separated from the brain's rational, cognitive control centres. Due to the plasticity of the brain emotional behaviour can be modified, as clearly indicated by neurologists such as LeDoux (2002) and Damasio (2000). An investigation into the learning material of anger management programmes further suggests that emotional competency can be taught. These notions served as a basis for the empirical examples which recorded many instances in which the various strands of research have been observed. Various strategies leading towards anger management were facilitated in the workshops by means of a methodology that involves the whole



person in the pedagogical process. This has been done from the perspective that the brain, body and mind are perceived as a single entity and function as one.

The thesis statement proposes that all human beings function emotionally and are often confronted with the emotion of anger (Damasio 2000; LeDoux 2002). The adolescent girl undergoes biological transformations of growth and psychological shifts that accompany the emergence of her sexuality. Knowing how to manage her anger can benefit her during this period of her life as well as in adulthood. The thesis proposes that Process Drama, as a brain-based approach to learning, correlates with the neurological changes of brain growth during this development phase. This concluding chapter reflects on the main research question: In what ways can the adolescent girl's anger management skills be enhanced by a brain-based methodology, such as Process Drama, and specifically the convention of dramatized poetry? It also provides an overview of the study.

In answering the main research question, several sub-questions have been explored. The various sub-questions connect contextually and offer a synthesis of the key findings projected by the study. This is followed by a comprehensive answer to each of the four sub-questions.

9.2 Discussion of the four sub-questions of the study

9.2.1 Sub-question One

Sub-question One (posed in Chapter One) is: How are emotions, and specifically the emotion of anger, generated in the middle adolescent female and how does anger influence her emotional life? Chapter Two defines adolescence as an emotional period. Research confirms that the female adolescent experiences an intense period of change on various levels of her development. On a physical level she has to accept her "new" physique. She cognitively undergoes a growth spurt leading her to question the status quo of value systems in her environment and this could lead to tension between her and authority figures who challenge her independence. On a social level, peer opinion also presents an increased challenge. Rejection or conflict



in this sphere can make her question her newfound identity. As she values relationships highly, it can be difficult for her to confront her peers and she may consider covert anger as a way to express her unhappiness.

As indicated earlier, researchers in the field of neurology describe the prefrontal brain development of the adolescent as not yet fully developed (Weinberger, Elvevag & Giedd 2005). The female adolescent can be inclined to higher risk taking and fewer logical thinking processes during this period. The neurological principles of the emotion of anger indicate that it causes an increase in adrenaline in the body that prevents prefrontal, logical thinking. Regarding the emotion of anger, the female adolescent may be challenged as anger presents as a strong emotion with destructive qualities. If the female adolescent's prefrontal logical thinking processes cannot overrule her emotional urges, she can be subjected to anger spells. The literature study concludes that the adolescent female can benefit from a learning programme on anger management skills to assist her to identify, understand and manage her anger better and to use this knowledge as a preventative measure when needed.

The tendency of this study to focus on neuroscientific theories that can be perceived to overwhelm the main aim of this study namely, how dramatized poetry as a process drama convention, facilitates anger management training for the adolescent girl. The study does allocate a lot of attention to neuroscientific aspects, for instance how emotions are generated in the brain and how the adolescent brain development is affected neuroscientifically. The elaboration to indicate how brain based learning could benefit the adolescent in a learning process and how process drama as methodology integrates with brain based learning were, in my opinion, a strong scientific indicator of why process drama as methodology can be successfully applied. The neuroscientific aspect of this study contributed to motivate the emotional component always at play in any process drama activity.

The research question in the next section deals with the methodology of Process Drama that can facilitate the learning process through which anger management skills can be acquired.



9.2.2 Sub-question Two

Sub-question Two is: How does the methodology of Process Drama facilitate the middle adolescent female's acquisition of anger management skills?

As explicated in Chapter One and Chapters Four to Eight, the methodology of Process Drama creates make-believe worlds, enriched with learning material which challenges the learner cognitively, emotionally and physically in the educational moment. The participant has to take ownership of the learning material through her own creative input and in so doing becomes cognitively, emotionally and physically involved in the learning process. The literature review suggests that the emotion of anger influences the body chemically, floods the brain and blocks rational thinking. Anger excites the emotions and this can have devastating consequences for relationships. Experiential learning provides opportunities to involve the participants' body, emotions and thoughts, leaving no place for a loss of concentration. Process Drama captures the whole person in the learning process by adhering to the notion that the more the person's senses are exposed in a learning experience, the greater the chances to retrieve what has been learnt. In addition, Process Drama creates a space to rehearse emotional competency skills in fictional contexts in order to map the consequences of actions and the influence of responses generated by anger towards others.

All the examples of the activities of the empirical programme present clear indications of how body, mind and emotions were integrated in the workshops and the learning process by adhering to the principles confirmed by the literature review. The immediacy of embodied learning was displayed by the methodology of Process Drama. The participants engaged with the theme of anger through various Process Drama conventions such as role play, tableaux, MoE, TiR, writing in role and dramatized poetry. The methodology of Process Drama led them to experience the mediated emotion of anger, physically, emotionally and cognitively, and in a safe environment. From this experience they could draw the conclusion that communication is imperative as a conflict solution. Since neuroscientific principles are rarely combined with process drama as methodology, I deemed it necessary to first present a thorough background of neuroscientific principles before I could

V=V=List of research project topics and materials

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proceed with the more known aspects of process drama in the educational field of Applied Drama studies.

One of the attributes of the methodology of Process Drama is the creation of empathy with the fate of others. The participants provided clear evidence that they understood how anger influences the life of the middle adolescent female (as presented in their rap rhymes and poems which were discussed in Chapter Eight) and that they can view both the influences and subsequent emotional reactions from multiple perspectives by placing themselves in the shoes of others.

The Process Drama conventions enabled the participants to understand the expression of anger and the consequences of anger and anger-related feelings. This inspired a need to acquire anger management skills. Their expanded cognitive abilities were challenged by their exposure to a complicated neuroscientific concept of the emotional system in the brain. The learning material intrigued them. They could understand the information from an embodied perspective, they were cognitively captivated and no one indicated that the information was too difficult to understand. They gave their full attention.

In the MoE activity mediated emotions offered the participants an opportunity to experience anger physically and emotionally. Strong emotions, like irritation, annoyance and anger, were observed during the debate of the ISG Committee about anger styles. Some participants struggled to stop fighting. Their intense experience of anger rendered me an opportunity to lead them through an activity of relaxation. They learnt how the body can, through total passivity, become relaxed and tone down feelings of anger and frustration, in other words, how anger can be managed.

The incident in which they remained confrontational demonstrated the benefit of metaxis. The participants were involved in a fictitious moment and experienced the situation subjectively, from the inside out and also reflected on their angry feelings from the outside in as they looked more objectively at themselves in role. The methodology of Process Drama offers an embodied experience, drawing the learners into a collaborative learning environment where they can learn from each other as they shoulder responsibility for the outcome of the learning process. This Process Drama activity successfully investigated the experience of anger and angry



feelings in a multimodal way without exposing their personal experiences and problems with anger.

The dramatized poetry activity was placed in the middle of the workshop schedule. It became a pivotal point of insight on which the last sections of the workshops depended. The participants were touched by the effect of the vocalization of the choral work on their emotions. One could sense how they were enchanted by the emotional effects of their voices, creating the remorse and frustration that seeped through the incantation and repetitive rhythmic sounds. The proof of the success of the convention of dramatized poetry - which endeavoured to enhance the competency of the participants to identify and understand their own anger better lies in the fact that the participants could, through the convention of writing their own poems, clearly express their insight into anger as a complex emotion. These newly created poems revealed moments of acknowledgement, insight and even remorse about the overwhelming effects of anger and anger-related feelings. The participants' poems echoed the set poems they encountered in ensemble. They were challenged to acknowledge what anger does to them personally in response to what was voiced in the set poems. One can describe this experience as 'confessions of the effects of anger'.

Having attained valuable insights about their own experiences of anger and angry feelings, the participants expressed a need to know how to manage this emotion. They were interested in anger styles and negative thought patterns, motivated by the devastating effects of anger on a personal level. This Process Drama teaching strategy of personal engagement with one's own emotions fits the development phase of the adolescent females who at this stage, according to the literature review, are more egocentrically inclined. The participants enthusiastically wanted to write about their own feelings (refer to Chapter Three).

The participants were influenced by the set poems' descriptions of anger in metaphorical terms. In their own poetic reflections they were able to create their own metaphors. Their poems opened up symbolic and metaphorical systems through which emotions were discovered and understanding deepened. They compared their anger to a dark room, a lock, a monster, a nightmare and a dark cloud. They stated



that anger and anger-related feelings cause one to feel lost, forsaken and overwhelmed. The emotional and cognitive experience of anger through poetry creates a need for an answer to the problem of anger, for the "man in the mess" (Bolton 1999:176).

Learning, according to the literature review, can create meaning from experiences and arts-based learning stimulates meaning making processes. Art and learning both explore problems and question existing hypotheses. Poetry can be a valuable tool to investigate emotions and emotional manifestations such as anger. The conclusion is that dramatized poetry can enhance the adolescent participants' insight, knowledge and the ability to identify anger.

9.3 Sub-question Three

In what way does the methodology of Process Drama adhere to brain-based learning? The validation of process drama strategies from the field of brain based learning contributes to the development of this field. In Chapter Eight I discussed the brain-based principles which underpinned each workshop session. Brain-based education proposes learning strategies that engage the participants in a relaxed, yet alert, atmosphere in which the whole person is immersed in the subject. The methodology of Process Drama complies fully with the twelve brain-based principles as offered by Caine et al. (2005). Process Drama is a creative, collaborative and democratic learner-centred process in which knowledge is acquired in ensemble. Stressful situations can influence the learning process through the negative effects of the secretion of cortisol and adrenaline; on the other hand, dopamine and oxitocin can, for example, lift the mood of the participants. I designed and presented this programme with the wellbeing of the participants firmly in mind.

The design and implementation of the empirical examples maximized the benefits of the Process Drama activities by exploiting brain-based principles. The symbiotic duality of Process Drama is compatible with brain-based principles because these theories subscribe to the learning strategy of immersion. In Process Drama the



participants are immersed in the fictitious world of the drama, but can simultaneously observe themselves from the outside. The Process Drama activities of metaxis create enriched multimodal learning modes in which the brain can process parts and wholes simultaneously. Metaxis allows the brain to function partly "in reality", partly "symbolically" in a fictitious world. This provides an enriched learning experience in which the interconnectivity of the cognitive functions, physical expression and emotional empathetic awareness are enhanced in the learning process. The empirical examples created several moments of metaxis in which the participants could identify with the characters of the drama in role, but also reflect on the motives of the characters or the consequences of their anger as articulated in the set poems.

Likewise, the brain-based principle that learning utilizes both focused attention and peripheral perception is applied in moments of metaxis. As described in the literature review, novelty, intensity and movement can capture the attention of learners. The participants can be physically, emotionally and cognitively immersed in role but also simultaneously aware of their surroundings, thoughts and the reactions of the other people in role. This dual awareness was experienced by the participants through the use of Mantle of the Expert moments. In the anger management workshops the participants stayed focused on the work as there were many instances in which their attention was captured by new activities, intense emotional involvement and physical action.

Processes in Process Drama draw on the holistic involvement of the participant in the learning situation. It is therefore inevitable that a Process Drama anger management programme should adhere to the brain-based principles, namely that learning is a physiological event and that emotions influence learning. Emotions strengthen recall and drive learning. Kinaesthetic and motor activities enable the students to enter other modes of knowing and learning, that is not possible when relying on traditional handbook learning. One learns by doing. The activities of the empirical examples created emotional and physical experiences in order to explore the theme of anger management as an emotional competency.

All these activities took place in an interactive, socially collaborative environment. Chapter 5.4.2 reports that the adolescent learns best in a social milieu. The empirical



programme is based on the brain-based principle that the brainmind is social (refer to Chapter Eight). Participatory and relational interaction broadened the perspective of the participants with regard to the viewpoints of others and promoted peer teaching. Team work and communication were enhanced during Process Drama activities. The participants engaged on a social and personal level and were enriched through their exposure to the values and insights of others. They could discuss issues regarding anger during the reflective sessions of the anger management programme. These discussions were most valuable and they came to the conclusion that being ignored is one of the most devastating experiences in a conflict situation. They shared a common ground of insight on the subject and group cohesion was strengthened.

The participants worked as a team on a creative level that bolstered their confidence. Their willingness to participate confirmed the brain-based principle that people mimic each other while learning and acquiring behavioural skills as a consequence of the mirror neurons in the brain.

The brain-based principle that the search for meaning is innate was taken into account during the planning of this programme. The empirical examples dealt with a subject that is relevant for the adolescent female, namely her emotional life. According to the literature review, adolescents are interested in relevant knowledge, as well as in themselves and their newfound identity. Process Drama is about meaning making. During the empirical examples the participants were engrossed in the meaning making process; they were endeavouring to discover their own relation with the notion of anger and anger-related emotions, as well as how other people perceive anger.

The brain-based principle that meaning occurs through patterning links well with the principle that the search for meaning is innate. The prior knowledge of the participants was first assessed, followed by a range of activities that led them into a process in which they could acquire anger-management skills. The practical anger management programme systematically made use of multi-layered experiences to facilitate a wide spectrum of emotional competencies of anger management.



The principle that each brain is uniquely organized was observed in the empirical examples. The methodology of Process Drama includes a variety of different intelligence modes and thinking styles that can accommodate various learning preferences. Process Drama acknowledges the uniqueness of each person's thinking style.

The brain-based principle that certain types of memory systems are important in a learning mode is integrated in the Process Drama methodology. Process Drama creates make-believe worlds that can first be experienced and then recalled by the episodic memory system. During the fictitious role play sessions several opportunities were created for episodic memory recall. I posit that the dramatic expressions of these episodes which adhered to brain-based principles enabled better recall than is possible through traditional seat-work modes only. The participants remembered the anger management strategies well at the end of the workshops, especially the participants of the second and third workshops.

In Chapter Five, in which I explain how the brain-based principles are integrated into the methodology of Process Drama, I referred to how the adolescent female's development phase conforms to principle that learning should take the development phase of the learner into account. The empirical programme confirmed that the adolescent participants enjoyed the social collaboration while they were working well in their groups. The anger management programme addressed a real-life issue which is, according to researchers, a prerequisite when teaching adolescents. Their expanded cognitive ability and larger capacity to incorporate facts were stimulated by the scientific and academic material presented in the programme. Their ability to think more abstractly was encouraged when they had to understand, interpret and express their own anger-related feelings and when they had to write in role. One can conclude that the empirical examples illustrated the brain-based principles well.

9.4 Sub-question Four



Sub-question Four is: How does the skill of anger management enhance the emotional competence of the female adolescent according to the methodology outlined in the empirical research?

I asserted in Chapter 6.6 that the emotional competency of anger management can be taught, a view that is supported by various renowned scholars in the field. It is also substantiated by the fact that the principles of emotional competence training are based on the neurological brain feature of plasticity. The literature review examines the possibilities of anger management training for the adolescent female and confirms that adolescence is an opportune time to be confronted with anger management skills. Vernon's (2006) study on the emotional education of adolescents introduces emotional skills learning as a teachable construct.

The empirical programme included several training levels of emotional competencies dealing with the emotion of anger and anger-related feelings. The methodology followed a layered approach, firstly identifying the participants' prior knowledge of their perceptions of anger, and then creating a firm platform of knowledge about the types of anger, the physical expressions of anger, appraisal of the value of anger, and the different linguistic expressions of anger. They explored how anger presents in the body and were confronted with a biological analysis of how this strong emotion, conceived in the amygdala, influences thinking processes in the brain through the secretion of adrenalin and cortisol. They were given opportunities to identify with the anger of a fictitious character in order to enhance their ability to empathize. Through the literary pretext they discovered how anger can bolster one's courage to speak one's mind more readily than one would have done in normal circumstances. They discovered the consequences of anger and anger styles. The participants experienced mediated anger through role play during the MoE activity which created an opportunity to let them experience the overwhelming effect of this emotion and the power of total passivity as a relaxation technique to release their anger.

Through the set poems and their own writing they could reflect on the consequences of their own anger and personalize it. The participants' poems revealed their emotional worlds and justified the relevance of their need to know how to manage



their own anger. Through their poems they could mediate their personal anger experiences without publicly revealing their private and personal issues. This affirmed the methodology as a vehicle to safely facilitate emotional competency skills in public environments.

The literature research in Chapter Six confirms that the adolescent girl can learn how to modify negative thoughts when in conflicting situations and act in a more rational way. The participants explored their negative thought patterns and wrote dialogues about them. The final activity of the anger management programme was to teach the participants how to communicate assertively in a conflict situation through writing in role and role play. This activity was the main shortcoming of the study and is discussed in the section that delineates the limitations of the study.

The learning material of the anger management programme matches the adolescent's development phase. The methodology allows for in-depth collaboration and reflection, a learning style that is preferred by girls. The programme was specifically designed for the female adolescent as she is verbally and emotionally more developed than her male counterpart. The poems written by the female participants confirmed the power of artistic expressions to help identify their own emotions better. The poems of the participants confirmed that they could identify the consequences and profiles of their own anger well.

I endeavoured to create a healthy social ambience in the workshops that recognized the importance of the emotional life of the learner, and more specifically her anger management skills. Dramatized poetry reflects some attributes of the culture of action poetry¹⁸² and moves closer to poetry's original intentions as an emotional and physical expression of feelings and thoughts.

9.5 The limitations of this study and recommendations for future research

¹⁸² Although dramatized poetry is not action poetry, both genres are about physical expression and communication. See the definition of action poetry in Chapter 4.6.



9.5.1 Assertiveness training

The last session of each workshop challenged the participants to create dialogues pertaining to assertive negotiation between a mother and her daughter. The participants were informed that empathetic awareness forms the basis of assertiveness. Their dialogues in role, however, did not display full empathy in the negotiation process. They perceived the mother to be satisfied as long as her daughter is happy. Their outcome suggested that "if I win, my mother automatically wins", not registering the mother's needs to assist her daughter in making responsible choices in future. This attitude mirrored the self-centred profile of the participants' development phase. The experience of being a mother was outside their frame of reference.

The explicit feature of Process Drama is that conventions of writing in role and role play determine whether or not a participant can apply a certain life skill. A participant may be able to cognitively and analytically explain what assertiveness is, but this does not guarantee that the participant knows how to apply the skill in a situation of conflict negotiation. Process Drama can disclose this valuable information to the facilitator/researcher in a direct and practical way. Unfortunately, this activity took place at the very end of the Process Drama workshops and I could not prolong the Process Drama workshops due to the end-of-year responsibilities of the participants.

9.5.2 Recommendation regarding assertiveness training

The convention of writing in role indicated that they were not able to empathize fully with the mother. To overcome this limitation, one can in future research investigate how the use of the convention of hot seating or forum theatre can sensitize the participants to the needs of their parents and other people in positions of authority. The participants can possibly benefit empathetically from the facilitator as TiR who represented the mother's point of view.

9.5.3 Time management



The programme of the first case study was presented over a period of two weeks and the two other case studies as one-day workshops with six sessions each. The workshop that was conducted over a period of two weeks was fragmentary. The second and third case studies were conducted in one day, resulting in the fact that the learning material on assertive negotiation could not be fully examined. The initial plan to present the case study over a period of two days was hampered by logistical problems. The empirical programme was done in a limited time frame and feedback on how the adolescents incorporated their knowledge in their practical lives could not be obtained as the volunteers had other obligations.

9.5.4 Recommendation to present the programme as a longitudinal study

This programme should ideally have been presented as a whole school project over a longer period of time. Weare and Gray (2003) suggest that emotional competency programmes should be longitudinal studies presented as whole school programmes. O'Toole, Burton and Plunkett (2004) confirm this with their successful programme on bullying. Their programme incorporated peer teaching and was a whole school programme conducted over a few years.

I therefore propose that to enhance emotional competency in adolescents, one may endeavour to involve the whole school community, include peer teaching, and verify the outcomes through various means of post-workshop assessments. The range of emotional competency skills can then be practically assessed by implementing preand post-workshop questionnaires. Such questionnaires can be used to assess what cognitive and behavioural shifts were made and thus determine the efficacy of the workshops.

9.5.5 Absence of cultural diversity regarding the participants



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It could be argued that this programme was not presented to a wide variety of South African cultures. I had to make use of volunteers and could not involve a whole school in the project due to logistical problems. The programme was presented at a bilingual, multi-cultural school but unfortunately only girls with English or Afrikaans as home language volunteered. Thus, although these findings can hypothetically be generalized to a broader context, it remains to be investigated rigorously.

9.5.6 Recommendation to present the programme to participants of other cultures to diversify the research project

The cultural limitations of this study could have been circumvented if this study were presented as a whole school project over a longer period of time. The study can then present a greater multicultural variety, representative of the South African rainbow nation, providing a wider range of reflections on anger. The brain is an integral part of any learning process and due to the programme's brain-based profile it could become a vehicle to engage with any multicultural society. Thus, as the programme takes brain-based learning into account, its application should not be limited to one culture only.

Emotional competencies can also be taught without being limited to cultural boundaries. Stein and Book (2001) confirm that emotional experiences do not differ between various cultures, only in their expression. This programme can be presented to a variety of diverse cultures as Process Drama offers open-ended outcomes and does not prescribe results in the research process. This methodology is learner-centred as the participants have to take responsibility for the outcomes of the programme. The teacher facilitates the process but not the outcomes. The outcomes are designed to incorporate cultural and individual differences in its application. This is due to the fact that the methodology, with its brain-based framework, incorporates the principle that each learner is unique.

The outcomes of the Revised National Curriculum Statement (NCS) of the Department of Education in 2012 (South African Department of Education 2012, referred to in Chapter One) accept that the social, creative and artistic learning areas



are part of the educational system. In the light of this, one can successfully integrate this programme on anger management with several sections of the curriculum. The convention of dramatized poetry with a view to enhancing emotional competences corresponds to several of the learning areas, namely with Languages, Life Orientation and Dramatic Arts. Dramatized poetry as convention of the methodology of Process Drama deals with language and communication, emotional competency, aesthetic expression and cultural exploration.

The approach towards anger management which was adopted in this study can be effectively applied in the Life Orientation learning area. The *South African Department of Education's The Teacher's guide for the development of learning programmes policy guidelines for life orientation* (2005:39) stipulates that [learners] are in the adolescent stage, which is marked by emotional and physical changes. The learner needs to continue his/her positive self-concept formation. Acceptance by the peer group is still very important. Learners need opportunities to develop further life skills. They need to develop their emotional intelligence to empower themselves to cope with challenge. (*South African Department of Education's The Teacher's guide for the development of learning programmes policy guidelines for life orientation 2005:39*).¹⁸³

As suggested earlier, a programme on anger management possibly holds the potential to be developed into a programme on conflict management that can incorporate aspects like media-related bullying, bullying, hate talk and self-mutilation.

9.6 Conclusive statements regarding this study

The research question focused on the enhancement of the emotional competence of anger management in the lives of adolescent females. The literature review and the outcomes of the empirical examples enable me to propose that it is possible to successfully use the methodology of Process Drama in an emotional competency training programme for anger management. The outcomes indicate that this

¹⁸³ These guidelines comply with the outcomes of the Life Orientation learning material of the CAPS documents of 2011 (CAPS, Life Orientation FET Grades 10-12 2011:10).



programme empowered the participants with a range of emotional competency skills with which to manage their anger. Unfortunately, the skill of assertive negotiation failed within the parameters of the set time limit of the empirical programme.

The methodology successfully introduced the participants on cognitive, effective and physical levels to a variety of anger-related emotions. The participants investigated life skills that exposed them experientially to the identification, expression, understanding and management of the emotion of anger, but not to assertive negotiation.

Process Drama offers an excellent tool for emotional competency training as it is able to train the participants while simultaneously assessing how the training is being personalized. I conclude that the adolescent female can learn emotional competency skills, but in its execution special attention should be given to assertiveness training and the identification of the needs of others. Process Drama conventions such as Teacher in Role (TiR), forum theatre or hot seating could assist the participants to better empathize with the mother in the negotiation process.

A longitudinal study can possibly give the participants more time to integrate and apply their new-found skills in the reality of everyday life and provide feedback on their experiences. An emotional competency programme should ideally be designed as a whole school project that incorporates peer teaching. Peer teaching, in the application of the principles of anger management, may ensure better retention of the learning material and create a deeper dimension of the learning content as it is more reality-based.

I employed a Process Drama methodology which observed brain-based principles and this added value to the anger management programme. My research investigation into the way emotions are generated neurologically and how the female adolescent experiences emotions, underpinned my understanding of the mechanisms of anger. This enabled me to confidently facilitate the programme for the adolescent girls to help them manage their anger and related feelings. In this thesis several disciplines were incorporated in the Process Drama programme in an



attempt to transfer emotional competency skills on an emotional, physical and cognitive level with the view to captivate the attention of the adolescent females in a multimodal manner.



APPENDIX A

Acetylcholine: (ACh)

Location: A neurotransmitter in the peripheral and central nervous systems.

Function: Inhibitory function. Slows the heart rate but can also have an arousal function at neuromuscular junctions. Acetylcholine stimulates the cells in the cortical areas and make them highly aware of incoming signals (LeDoux 1998:289; Weller 2002:4).

ADDS

Location: A chronic disorder affecting adults and children.

Function: It stands for attention deficit/hyperactivity disorder (ADHD). The symptoms are impulsive, overactive behaviour that influences the ability to sustain attention. This disorder is also accompanied by low intra- and interpersonal relationships and learning difficulties. Patients are treated with medication as well as behaviour therapies (Hannaford 1995:133-137).

Amygdala

Location: The amygdala is located bilaterally between the left and right temporal lobes and forms part of the limbic system (Ward 2006:312).

Function: The amygdala mainly responds to emotional inputs. It receives inputs from sensory modalities such as auditory, somato-sensory, visceral (including olfactory inputs) and visual areas. The amygdala projects to either the hypothalamus or the cerebral cortex. The amygdala causes a variety of emotions, for example, fear. It instigates strong emotions relating to survival and subjective feelings (Nolte 1999:556). The amygdala is responsible for some emotional memories with the hippocampus, as well as for emotional learning, such as reacting on reward and/or punishment (Ward 2006:312).



Anterior cingulate cortex (ACC)

Location: Formed around the corpus collossum, situated in the frontal part of the cingulate cortex area of the brain (Ward 2006:301).

Function: The ACC holds dual functions: a) as emotional processing with a wide variety of autonomic outputs such as the regulation of heart rate and blood pressure. It is also connected with the feeling of empathy; b) it has cognitive/executive functions such as decision-making, detecting conflict or detecting errors (Ward 2006:301).

Arborization

Location: A function in the neurons of the brain.

Function: Wellar (2002:31) states that arborization is the "branching terminations of many nerve fibres and processes".

Axons

Location: Part of brain cells or neurons.

Function: Every brain cell has mostly one axon that pulsates impulses to cells that have the same wavelength and does not prohibit connectivity. In the event of finding the right cell it sprouts connections called dendrites that can receive impulses from other neurons (Kotulak 1997:15).

Brain-derived neurotrophic factor (BDNF)

Location: These neurotrophins are found in the brain as well as its periphery.

Function: A neurotrophin is a secreted protein in human cells that can be encoded by the gene BDNF. BDNF stimulates the survival of neurons and growth in new



synapses. It is present in the cortex, basal forebrain and hippocampus and is important to enhance memory, Higher Order Thinking (HOT) and long-term potentation (LTP). It is an important player in the process of neurogenesis (Binder & Scharfman 2004:123-31; Robinson, Radziejewski, Stuart & Jones 1995: 4139-4146).

Brain plasticity

Location: Located in the neurons of the brain.

Function: Plasticity means that the neural patterns in the brain can change their functions to adapt to new stimuli. Plasticity is active during one's whole lifespan but decreases with age (Ward 2006:177).

Brainstem

Location: The brainstem is an organ in the brain that is located between the midbrain and the upper part of the vertebrae of the spinal cord. It comprises the medulla, pons, midbrain and central forebrain (Kalat 2004:85).

Function: The brainstem functions as a relay system between the spinal cord and the brain. The brainstem is responsible for motor functions between the brain and body as well as autonomic functions of the PNS (peripheral nervous system), such as breathing, digestion and heart rate, to name but a few (Kalat 2004:85; Waugh & Grant 2002:153).

Cerebral cortex

Location: The outer surface of the two brain hemispheres formed by gray matter or brain cells. From the cortex the axons of the brain cells reach inwards to form the white matter of the brain (Kalat 2004:94).



Function: The cerebral cortex plays a key role in our consciousness, thoughts, attention, retention and language as the centre of the higher functional activities of the brain (Weller 2002:80).

Cerebellum

Location: Small, round structure at back of the brain called the 'little brain'.

Function: The cerebellum is responsible for voluntary movements, as well as for posture, keeping one's balance, habit formation, attention and being sensitive to timing (Kalat 2004:242). New research, however, has found that the cerebelllum is integrated in many more aspects of human functioning, for example, memory, cognition, emotion and language.

Chemoreceptors

Location: A sensory nerve end on the body of a cell.

Function: These receptor cells are sensitive to chemical stimulation in the blood and can relay the stimulation to the central nerve system (Weller 2002:81).

Cingulate cortex

Location: Situated in the middle area of the cortex, above the corpus collossum. It is part of the limbic system. It contains the cortex of the cingulate gyrus.

Function: This structure receives messages from the neocortex and the thalamus. This area functions as emotion processor and emotion generator. It manages learning and memory, as well as the control of respiratory functions (Torta & Cauda 2011:2157).

Cortex (see cerebral cortex)



Dendrites

Location: In the neurons of the brain.

Function: Dendrites are slim, fibre-like extensions from the cell bodies of neuron cells responsible for receiving impulses from other neurons (Kotulak 1997:14).

Diencephalon

Location: This structure is situated between the two hemispheres and not visible from the outside.

Function: The diencephalon consists of the thalamus and the infundibulum, as well as the cerebral peduncle. This structure is responsible for important connections in the brain such as sensory, motor and limbic pathways. See the functions of the thalamus and hippothalamus for further details (Nolte, 1999:375).

Dorsolateral pre-frontal cortex

Location: Located in the pre-frontal cortex.

Function: Ordering or suppressing responses and a possible range of responses and managing the working memory (Ward 2006:285).

Endocrine system

Location: The endocrine system consists of the hormone-releasing glands in the body, namely the hippothalamus, pineal gland, pituitary glands, parathyroid glands, thyroid glands, thymus, liver, adrenal gland, kidneys, pancreas, ovaries, placenta (only during pregnancy) and testes.

Function: The endocrine system secretes hormones through the glands that are conveyed to various other organisms, influencing their activities (Kalat 2004:324).



fMRI

Location: not applicable.

Function: Functional Magnetic resonance imaging is the ability to observe brain structures in high resolution that can report on neural activity in the brain by a blood oxygen dependent signal and advance the ability to understand brain mechanisms. Researchers can detect which areas of the brain light up if their patients are performing certain tasks. Retrieved <u>http://www.fmri.org/fmri.htm</u> Accessed 7 July 2013.

Glucagon

Location: A polypeptide located in the pancreas (Wellar 2002:173).

Function: Glucagon stimulates the pancreas to move glucose into the blood and in so doing raises the blood sugar levels (Kalat 2004:309).

Glial cells

Location: Non-neural cells located in the brain. There are 10 to 50 times more Glial cells than neurons in the brain.

Function: There is a variety of glial cell types with the main function of detoxifying the excess of dead neuron cells, supporting the neuron cells by holding it in place, insulate the neurons from another and providing nutrition and oxygen to the neurons (Damasio 1995:324). Glial cells also assist with the myelination processes of the neurons (Hannaford 1995:71).

Hippocampus





Location: The name of the hippocampus is derived from the Greek word meaning sea horse. One is located in the left brain and the other in the right brain. It is situated between the cerebral cortex and the thalamus in the forebrain (Kalat 2004:91).

Function: The hippocampus is an important structure for the formation of some forms of memory and learning (Nolte 1999:554).

Hypothalamus

Location: This small organ, weighing approximately four grams, forms a small portion of the diencephalon between the thalamus and the amygdala.

Function: The hypothalamus is an important nodal point concerning functions stimulating emotions, the endocrine system, autonomic and somatic systems (Nolte 1999:539). It is connected to the limbic system, the pituitary gland, and motor and sensory nuclei of the spinal cord and brainstem (Nolte 1999:539).

Insula: See somato-sensory insular cortex

Interferons and interleukins

Location: In brain cells and periphery.

Function: Interferons are proteins produced by a cell to boost immunity by inhibiting the multiplication of invading viruses (Weller 2002:217).

Interleukins function as a group of proteins by relaying messages between cells. They incite certain white blood cells to kill any invasions in the immune system, are responsible for cell growth and form a buffer against inflammation (Waugh & Grant 2002:381).



Limbic system

Location: This system comprises integrated structures that are situated around the brainstem. These structures are the cerebral cortex, hippocampus, hypothalamus, olfactory system, the cingulate gyrus and the amygdala.

Function: The limbic system functions as the survival drive of our sexual drives, hunger and thirst, and strong primal emotions such as anger, panic and fear (Kalat 2004:88).

Long-Term Potentiation

Location: not applicable

Function: LTP or long-term potentiation is responsible for learning and memory in cells.

As stated by Bliss and Lomo (1973:331), it is a "long-lasting enhancement in signal transmission between two neurons that results from stimulating them synchronously".

Mammalian brain

Location: The paleomammalian brain consists of the septum, amygdala, hypothalamus, hippocampal complex and cingulate cortex and is regarded as the limbic system.

Function: This brain section is, according to MacLean's triune brain theory, the emotional and motivational brain responsible for the survival functions involving parental and reproductive behaviour (MacLean 1990).

Mirror neurons



Location: Mirror neurons are part of the mirror neuron network system found in the human brain in the following regions: occipital temporal lobes, parietal lobes, visual areas and two cortical areas that are mostly motor areas.

Function: Mirror neurons are responsible for our learning by immitation (Rizzolatti & Craighero 2004:169–192).

Myelination

Location: Myelin is formed around axons by glial cells with each action of connectivity with other neurons.

Function: The glial cells produce a fatty, white substance that forms insulating sheaths around axons and some dendrites to equip these with faster reaction time when relaying messages (Kalat 2004:109). Myelin protects the axons against damage (Hannaford 1995:20).

Neocortex

Location: The neocortex (neopallium) forms the outer mantle of the cerebral hemispheres. Function: It is responsible for higher order functions such as thought and language. It is involved in the perception of sensory data, motor functions and spatial reasoning (Lui, Hansen & Kriegstein 2011:18-36).

Neopallium brain

Location: This system in the brain is only found in mammals. It comprises the cerebral neocortex and plays a part in MacLean's triune brain theory.

Function: It functions in the higher order thinking areas and gives mammals the ability to speak, think abstractly, plan and perceive (MacLean 1990).



Neurons

Location: Neurons or brain cells located in the brain.

Function: Neurons are nervous tissue that transmits stimuli to the different parts of other structures in the brain and to the periphery. A neuron comprises a cell body with a nucleus, cytoplasm and an axon - usually only one axon - that relays signals from the cell body to other neurons. It has several dendrites, slim fibre-like projections that branch from the cell body to carry signals from other neurons to its axon (Kotulak 1997:15).

Nucleus accumbus/ventral striatum

Location: The nucleus accumbens is located in the basal forebrain. The nucleus accumbens and the olfactory tubercle form the ventral striatum (Schwienbacher, Fendt, Richardson & Schnitzler 2004:87–93).

Functions: It plays a part in the reward system. It is active in the presentation of laughter, addiction, aggression, fear and pleasure (Basar, Koray, Sesia, Groenewegen, Steinbusch, Visser-Vandewalle & Temel 2010:533-57).

Orbifrontal/ OBI/Ventralmedial area

Location: The orbitofrontal cortex (OFC) is located above the orbits of the eyes and is synonymous with the ventromedial prefrontal cortex, but has different neurological functions (Fuster 1997).

Functions: It is involved with decision-making, for example, comparing reward and punishment (Uylings, Groenewegen & Kolb 2003:3-17).

Osmoreceptors



Location: Neurons in the hypothalamus, stimulated by an increase in sodium concentration of extracellular fluid in order to secrete an anti-diuretic hormone by the pituitary gland.

Function: The release of this hormone by the osmoreceptors changes the osmotic pressure of the blood (Waugh & Grant 2002:345).

PET

Positron emission tomography (PET)

PET stands for Positron emission topography. This technology helps to determine how organs function on a molecular level. It can assess the underlying roots of disease and its symptoms. It can investigate brain and heart conditions, as well as cancer. PET scans have been employed since the 70s and is a painless and safe imaging technology. Retrieved <u>http://www.snm.org/docs/PET_PROS/PET.pdf</u>

Accessed 12 July 2013.

Prefrontal cortex

Location: The prefrontal cortex is situated in the front of the cortex.

Function: This area consists of three different surfaces. The surfaces are called the Brodmann's areas or the ventrolateral prefrontal cortex, orbitofrontal cortex and the medial cortex, each with their own functions (Ward 2006:285). The general functions of the prefrontal cortex, as listed by Ward (2006:286), are as follows:

- planning or decision making
- correcting errors
- containing novel sequences of actions
- judging difficult or dangerous circumstances



• over coming strong impulsive or habitual responses.

Reptilian brain

Location: The reptilian brain or basal ganglia is located at basis of the forebrain.

Function: In his triune brain theory MacLean suggests that the reptilian brain is responsible for instinctive behaviour such as dominance, territoriality and aggression (MacLean 1990).

Rostral anterior cingulate

Location: The rostral anterior cingulate cortex is situated in the cingulate cortex.

Function: The rostral anaterior cingulate cortex responds to error detection. The dorsal anterior cingulate cortex provides feedback on errors as well as detecting errors. The reaction is emotional and indicates that there are stress factors present in the detection of errors (Polli, Barton, Cain, Thakkar, Rauch & Manoach 2005:15700-5).

Sensory cortex: see somato-motor centres

Somatic Nervous System

Location: This system is part of the PNS or peripheral nervous system, situated outside the brain and the spinal cord.

Function: This system relays messages from the sensory organs to the central nervous system and from there to the muscles and the glands (Kalat 2004:80).

Somato-motor centres



Location: In various cortices and areas of the brain where visual, auditory, spatial, olfactory and touch sensations are perceived.

Function: The somato-sensory system senses a variety of different stimuli through the receptors in the skin and in the internal tissues, such as the vestibular system, that can sense balance and spatial perceptions. The brain maps a great number of parallel somato-sentory representations through the somato-sensory receptors (Kalat 2004:206).

Somato-sensory receptors

Location: Somato-sensory receptors are mainly situated in the skin.

Function: Somato-sensory receptors sense and relay messages of sensations and movement in the body, for example, touch sensations, pain sensations, itching and tickling sensations, as well as sensing the positions of the body in space, as executed by the vestibular system (Kalat 2004:201).

Somato-sensory insular cortex

Location: The insular lobe or hidden central cortex is not visible from the outside of the cerebral cortex.

Function: This small lobe presents a wide variety of different functions, for example speech production, pain perception and the processing of social emotions. Nieuwenhuys (2012:123) confirms: "the human insula presents a unique opportunity for performing an in-depth comparative analysis of the relations between structure and function in a typical sensory and a typical cognitive cortical domain".

Stem cells

Location: In the human body.



Function: These cells are unspecialised cells in the body. They multiply by cell division, even after periods of inactivity. They can be induced in other cells and become organ-specific cells with unique functions, for example in bone marrow cells (Tuch 2006:719–21).

Synapses

Location: A synapse is situated at the end of an axon, forming a gap between two neurons.

Function: Electric activity is transferred from the axon to a dendrite of another cell through a synaptic cleft by neurotransmitter molecules (Waugh & Grant 2002:143).

Subcutaneous tissue

Location: Third layer of the skin.

Function: This layer regulates the temperature of the skin and body. Every person has his or her own unique variant of the size of the layer. This layer of skin contains blood vessels, nerve tissue and fat cells (Waugh & Grant 2002:363).

Thalamus

Location: An egg-shaped structure that supplies up to 80% of the mass of the diencephalon and is located under the cerebral cortex.

Function: The thalamus is a pathway to the cerebral cortex. All sensory pathways are relayed to the thalamus. The anatomical circuits of the basal ganlia, cerebellum and limbic structures are integrated in thalamic relays. The thalamus functions as the regulator of motor functions and sensory preceptors of the brain. It is also involved in our sleeping and waking patterns (Nolte 1999:378).



Viscerosensory cranial nerves

Location and function: Visceral sensory fibers of cells are integrated with the receptors in the visceral structures, such as in the blood vessels or the tract of the digestive system (Nolte 1999:284).

Visceral Nervous System (VNS)

The VNS or involuntary nervous system is part of the Peripheral Nervous System and contains nerves that transport impulses from the CNS or Central Nervous System to the Viscera and from the Viscera to the CNS. It carries impulses from the cardiac nuscle, the glands and the nonstriated muscle.



APPENDIX B TO LESSON PLANS

From The Joy Luck Club by Amy Tan (Abbreviated).

A few weeks later, Old Chong and my mother conspired to have me play in a talent show which would be held in the Church Hall. By then my parents had saved up enough to buy me a second hand piano, a black Wurlitzer spinet.

For the talent show I was to play a piece called *Pleading Child* from Schumann's Scenes from Childhood. It was a simple, moody piece. I was supposed to memorize the whole thing. But I dawdled over it, I daydreamed about being somewhere else.

The part I liked to practice best was the fancy curtsy: right foot out, touch the rose on the carpet with a pointed foot, sweep to the side, left leg bends, look up and smile.

My parents invited all the couples from the Joy Luck Club. Auntie Lindo and Uncle Tin. Waverley and her two brothers. The first two rows were filled with children. They recited simple nursery rhymes, pranced in pink ballet tutus and squawked out tunes on their miniature violins.

When my turn came I was very confident. I remember my childish excitement. I had no fear whatsoever, no nervousness. I started to play. I was so caught up in how lovely I looked that at first I didn't worry how I would sound. So it was a surprise to me when I hit the first wrong note and then I hit another and another followed that. I played the strange jumble and this sour notes staying with me to the end.

When I stood up, I discover my legs were shaking. I swept my right foot out, went down on my knee, looked up and smiled. The room was quiet. I saw my mother's stricken face. The audience clapped weekly, and as I walked back with my whole face quivering as I tried not to cry, I heard a little boy whisper loudly to his mother, "that was awful," and the mother whispered back, "well, she certainly tried." And know I realized how many people were in the audience, the whole world it seemed.

I was aware of eyes burning into my back. I felt the shame of my mother and father as they sat stiffly throughout the rest of the show. Afterwards Waverley shrugged her shoulders. "You aren't a genius like me," she said matter of factly. And if I haven't felt so bad, I would have pulled her braids.





When we got on the bus to go home, my father was humming the buzzy-bee tune and my mother was silent. I kept thinking she wanted to wait until we got home before shouting at me. But when my father unlocked the door, my mother walked in and went into her bedroom. No accusations. No blame. I had been waiting for her to start shouting, so I could shout back and cry and blame her for all my misery.

But two days later, after school, my mother saw me watching TV. "Four clock. Turn of TV.". I didn't budge. I didn't have to do what my mother said any more. I wasn't her slave. This wasn't China.

"Four clock," she said once again, louder. "I am not going to play any more," I said nonchalantly. "Why should I? I am not a genius."

She walked over and stood in front of the TV. I saw her chest was heaving up and down in an angry way. "No!" I said. And now I felt as if my true self had finally emerged.

"No! I won't!" I screamed.

She yanked me by the arm, and lifted me up unto the hard bench. I was sobbing by now, and she was smiling crazily as if she was pleased that I was crying.

"You want me to be someone that I am not!". I'll never be the kind of daughter you want met to be!"

"Only two kinds of daughters," she shouted in Chinese. "Those who are obedient and those who follow their own mind! Only one kind of daughter can live in this house. Obedient daughter!"

"Then I wish I wasn't your daughter. I wish you weren't my mother," I shouted.

As I said these things I got scared. I felt like worms and toads and slimy things, at last.

"Too late change this," said my mother shrilly. And I could sense her anger rising to its breaking point.

And that's when I remembered the babies she had lost in China, the ones we never talked about. "Then I wish I'd never been born!" I shouted.'I wish I were dead! Like them!"

It was as if I had said the magic words. Alakazam! - and her face went blank, her mouth closed, her arms went slack, and she backed out of the room, stunned, as if she were blowing away like a small brown leaf, thin, brittle, lifeless.

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The "if I could be ..." form

Please do not write your name on this form 1. If I could be an animal, I'd be a 2. If I could be a colour, I'd be 3. If I could be a number, I'd be a 4. If I could be a song, I'd be 5. If I could be a country, I'd be 6. If I could be a flavour, I'd be a 7. If I could be a famous person, I'd be 8. If I could explore a territory, I'd explore 9. If I could be have a special talent, it will be to be able to 10. If I were a very rich person, I would buy..... 11. If I could help the world, I would..... 12. If I could transform to something/one

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13. If I could choose a career it will be..... 14. If I could be feel this feeling more often it will be the feeling of..... 18. If I could buy my best friend a present it would be a 19. If I could only 20. If I could give a colour to my happiest feeling it would be 21. If I could give a colour to my saddest feeling it would be 22. If I could give a colour to my anger it would be..... Anger by Marshall Whole group

This ill temper I have is making me mad I blow up and I don't know why

Group A

I wish for just a moment I could handle my anger right I wish for just a moment I could love you right I wish my attitude would just go away I wish my anger would stay at bay

Group B



This outlook I have on life needs to change This outlook I have should not say the same

Group A

I love you deep down inside I wish you would see That you my daughter, are the only princess for me 1.The anger I have deep in side

1 and 2.Comes out when I least expect it 123:This anger I have in me should just go away 1234:This anger I have is an annoyance 12345:This anger I have has messed my life up 123456:This anger I have is stupid 1234567:Anger you have messed up my love for you 12345678:Anger you have messed up my life 123456789:Anger you have destroyed who I am inside and out 12345678910:Anger you are the devil Anger you are all that is bad This anger I have in me has made me fight A fight that was not worth it

Group A: Anger you made me do the wrong things Anger you are the feeling that I would never miss Group B: Anger you have caused me so much sorrow All: Anger you have caused nothing but grief. Anger just go away

Its my anger ~ by Gerda le Roux

Its my anger

The anger that I own

Its the danger of my anger



Its hidden in my guts

but when I let it out

it cuts

you to the bone

Its like a blazing fire

a destructive liar

its like a purple tongue

its a green finger

its a jealous song

Full blown tornado

that never takes to long

When anger overtakes me

I loose myself in rage

this anger oh! this anger

puts me in its cage.

My anger became more

than me today

I turn my face

I hide away.

Shame on me

the hearts that bleed

shame on me

the fruits of my destructive seeds.

I could not save myself today



from this dark and broken way

This anger isolated me,

wasted, wounded me.

This monster called, Red Rage.

I am deserted in its cage.



LIST OF REFERENCES

- Aalsma, MC, Lapsley, DK & Flannery, DJ. 2006. Personal fables, narcissism, and adolescent adjustment. *Psychology in the Schools* 43(4):481-491.
- Ackermann, CJ. 1990. Identiteitsontwikkeling tydens adolessensie: 'n groep sekondêre skoolleerlinge se evaluering van die belangrikheid van lewensterreine. *Suid- Afrikaanse Tydskrif vir Opvoedkunde* 10:283-290.
- Ackroyd, J. 2000. Applied theatre: problems and possibilities. *Applied Theatre Researcher* 1. Brisbane: Griffith University, International Drama/Theatre and Education Association (IDEA).
- Ackroyd, J. 2006. *Research methodologies for drama educators*. Staffordshire, England: Trentham Books.
- Ackroyd, J. 2007. Applied theatre: an exclusionary discourse. Available <u>www.griffith.edu.au</u>. (Accessed 15 December 2013).
- Adams, CN. 2013. TIE and critical pedagogy, in *Learning through theatre: the changing face of theatre in education,* edited by A Jackson & C Vine. 3rd edition. London, New York: Routledge.
- Adams, GR & Berzonsky, MD. 2004. *Blackwell handbook of adolescence*. Oxford, UK: Blackwell.
- Adams, GR & Berzonsky, MD. 2006. *Blackwell handbook of adolescence*. Oxford, UK: Blackwell.
- Adler, A. 1956. *The individual psychology of Alfred Adler*. New York: Harper Torchbooks.
- Adolphs, R & Heberlein, AS. 2002. Emotion, in *Encyclopedia of the human brain*, edited by VS Ramachandran. 4 vols. USA: Elsevier: 181-191.
- Aggleton, P, Dennison, C & Warwick, I. 2010. *Promoting health and well-being through schools.* London: Routledge.

448



- Akin-Little, A, Little, SG, Bray, M & Kehle, TJ. 2009. Behavioral interventions in schools: evidence-based positive strategies. Washington: American Psychological Association.
- Alberts, A, Elkind, D & Ginsberg, S. 2007. The personal fable and risk-taking in early adolescence. *Journal of Youth and Adolescence* 36:71-76.
- Allman, JM. 1999. Evolving brains. New York: Scientific American Library.
- Amen, DG. 2001. *Healing ADD: the breakthrough program that allows you to see and heal the 6 types of ADD.* New York: Berkley.
- AMPS Survey. 2003A & B. Bryanston: South African Advertising Research Foundation (SAARF).
- Andersen, C. 2004. Learning in "As-if" worlds: cognition in drama in education. *Theory into Practice.* Special issue: developmental psychology: implications for teachers 43(4):281-286.
- Andersen, PB & Qvortrup, L(eds). 2004. Virtual applications: applications with virtual inhabited 3D worlds. London: Springer.
- Anderson, CA & Bushman, BJ. 2007. The general aggression model, in Understanding anger disorders, edited by R DiGiuseppe & RC Tafrate. Oxford: Oxford University Press.
- Andresen, L, Boud, D & Cohen, R. 2000. Experience-based learning, in *Understanding adult education and training.* 2nd edition, edited by G Foley. Sydney: Allen & Unwin:225-239.
- Annual International Conference of the Association for Children's Education

(1997: Portland, Oregon). *Children who desperately want to read, but are not working at grade level: use movement patterns as "windows" to discover why.* Paper presented by M Corso. (ERIC Document Reproduction Service No. CS 0122 660).

Annual Southwest Family Violence Conference (2nd: 2003: South Riverside County, CA). Alternatives to Domestic Violence and Prevent Child Abuse Council.
 Workshop, presented by BD Perry.



- Arden, JB & Linford, L. 2009. Brain-based therapy with children and adolescents: evidence-based treatment for everyday practice. [Kindle version]. New Jersey: Wiley.
- Arden, JB. 2010. *Rewire your brain: think your way to a better life.* [Kindle version]. Hoboken, New Jersey: Wiley.
- Aristotle. 1996. Poetics. London: Penguin.
- Arnett, J. 1990. Contraceptive use, sensation seeking, and adolescent egocentrism. *Journal of Youth and Adolescence* 19(2):171-180.
- Arnold, R. (1989). The drama in research and articulating dynamics, in Asking better questions by N Morgan & JM Saxton. 2006. 2nd edition. Ontario, Canada: Pembroke.
- Arnold, R. 2000. Empathic intelligence in pedagogy. Synergy 14. Institute for Teaching and Learning. <u>http://www.itl.usyc.edu.au/synergy/article.cfm?articleID=150</u> (Accessed 23 November 2013).
- Aston-Jones, G, Rajkowski, J & Cohen, J. 1999. Role of locus coeruleus in attention and behavioral flexibility. *Biological. Psychiatry* 46(9):1309-1320.
- Babbie, E & Mouton, J. 1998. *The practice of social research*. Cape Town: Oxford University Press.
- Babbie, E. 2007. *The practice of social research*.11th Edition. Belmont CA: Thompson-Wadsworth. 87-89.
- Bar-On, R. 2002. *Bar-On Emotional Quotient Inventory (EQ-i): technical manual.* Toronto, Canada: Multi-Health Systems.
- Bar-On, R. 2006. The Bar-On model of emotional-social intelligence (ESI). *Psicothema* 18(Suppl):13-25.
- Bar-On, R, Maree, JG & Elias, MJ. 2007. *Educating people to be emotionally intelligent.* Westport, CT: Praeger: 273-290.
- Bar-On, R, Tranel, D, Denburg, NL & Bechara, A. 2003. Exploring the neurological substrate of emotional and social intelligence. *Brain* 126(8):1790-1800.

450



- Basar, K, Thibaut, S, Groenewegen, H, Steinbusch, HWM, Visser-Vandewalle, V
 & Temel, Y. 2010. Nucleus accumbens and impulsivity. *Progress in Neurobiology* 92(4):533-557.
- Baumeister, RF, Smart, L & Boden, JM. 2007. Relation of threatened egotism to violence and aggression: the dark side of high self-esteem, in *Understanding anger and anger disorders,* by R DiGiuseppe & RC Tafrate. New York: Oxford University Press.
- Baxter, V. 2011. Unzima Lomthwalo (The burden is heavy) Satisfying everyone all of the time in drama and theatre as education. *South African Theatre Journal* 14(1):55-72.

http://dx.doi.org/10.1080/10137548.2000.9687701 (Accessed 13 August 2013).

- Baxter, V. 2013. Senzeni na? (What have we done?): educational theatre in Southern Africa, in *Learning through theatre: the changing face of theatre in education,* by A Jackson & C Vine. 3rd edition. London, New York: Routledge.
- BBC News. 2009. South African rape survey shock. <u>http://news.bbc.co.uk/go/pr/fr/-</u> /2/hi/africa/8107039.stm (Accessed 15 December 2013).
- Beard, C & Wilson, JP. 2002. *The power of experiential learning: a handbook for trainers and educators.* London: Kogan Page.
- Bechara, A, Tranel, D & Damasio, H. 2000. Characterization of the decisionmaking deficit of patients with ventromedial prefrontal cortex lesions. *Brain* 123(11):2189-2202.
- Bechara, A, Tranel, D & Damasio, AR. 2000. Poor judgment in spite of high intellect: neurological evidence for emotional intelligence, in *Helping adolescents manage anger*, edited by JR Charlesworth (Professional Counseling Digest ACAPCD-22). Alexandria, VA: American Counseling Association.
- Beck, AT. 2000. *Prisoners of hate: the cognitive basis of anger, hostility and violence.* NY: HarperCollins.
- Ben-Ze'ev, A. 2000. *The subtlety of emotions.* London: A Bradford Book. 451 List of research project topics and materials



- Berkman, ET & Lieberman, MD. 2009. Using neuroscience to broaden emotion regulation: theoretical and methodological considerations. *Social and Personality Psychology Compass* 3(4):475-493.
- Berkowitz, L. 1993. Towards a general theory of anger and emotion aggression: implications of the cognitive-neoassociationistic perspective for the analysis of anger and other emotions, in *Advances in Social Cognition*, edited by RS Wyer & TK Srull. Vol 6:1-46. Hillsdale, NJ: Erlbaum.
- Bernard, HR. 1995. *Research methods in anthropology: qualitative and quantitative approaches*. Walnut Creek, CA: AltaMira.
- Berne, E. 1987. What do you say after you say hello? London: Corgi.
- Berne, E. 1992. *Games people play: the basic handbook of transactional analysis.* NY: Ballantine Books.
- Bernstein, RJ. 1983. *Beyond objectivism and relativism: science, hermeneutics and praxis*. Philadelphia, Pennsylvania: University of Pennsylvania Press.
- Berry, C. 1982. Your voice and how to use it successfully. London: Harrap.
- Berry, C. 1992. The actor and the text. London: Virgin Books.
- Berry, C, Schmied, LA & Schrock, JC. 2009. The role of emotion in teaching and learning history: a scholarship of teaching exploration. *The History Teacher*. 41(4):437-452.
- Biggs, JB. 1985. The role of meta-learning in study processes. *British Journal of Educational Psychology* 55: 185-212.
- Binder, DK & Scharfman, HE. 2004. Brain-derived neurotrophic factor. *Growth Factors* 22(3):123-131.
- Blake, T. 2005. Education through drama. [Video recording]. Planning with Heathcote. NY: Insight Media; Manitoba: University of Winnipeg.
- Blakeslee, S. & Blakeslee, M. 2007. *The body has a mind of its own: how body maps in your brain help you do (most) everything better.* New York: Random House.
- Blanchard, PM. 2009. *The adolescent girl: a study from the psychoanalytic viewpoint.* [SI]: Cornell University Library.

452



- Blank kelner, L. & Flynn, RM. 2006. A dramatic approach to reading comprehension: Strategies and activities for classroom teachers. Portsmouth: Heinemann.
- Blatner, A. 1995, 2002. Drama in education as mental hygiene: a child psychiatrist's perspective. *Youth Theatre Journal* 9:92-96. Republished on website 2 August 2002.

www.blatner.com/adam/level2/dramed.htm (Accessed 24 September 2013).

- Blatner, A. 1996. *Acting-in: practical applications of psychodramatic methods*. 3rd edition. New York: Springer.
- Blatner, A. 2000. *Foundations of psychodrama: history, theory and practice*. 4th edition. New York: Springer.
- Bliss, TV & Lomo, T. 1973. Long-lasting potentiation of synaptic transmission in the dendrate area of the anaesthetized rabbit following stimulation of the perforant path. *Journal of Physiology* 232(2):331-356.
- Bloch, S, Lemeignan, M & Aguilera-T, N. 1991. Specific respiratory patterns distinguish among human basic emotions. *International Journal of Psychophysiology* 11:141–154.
- Boal, A. 1985. *Theatre of the oppressed*. New York: Theatre Communications group.
- Boal, A. 1995. *The rainbow of desire: the Boal method of theatre and therapy*. [London]: Routledge.
- Bodine, RJ & Crawford, DK. 1999. Developing emotional intelligence: a guide to behavior management and conflict resolution in schools. Champaign,
 IL: Research Press.
- Bohnert, AM, Crnic, KA & Lim, KG. 2003. Emotional competence and aggressive behavior in school-age children. *Journal of Abnormal Child Psychology* 31(1):79-91.
- Bolten, G. 2004. Poetry therapy: theory and practice, by Nicholas Mazza. [Book review]. Family Practice, the International Journal for Research in Primary Care 21(5):596. <u>http://fampra.oxfordjournals.org</u> (Accessed 15 December 2013).



Bolton, GM. 1979. Towards a theory of drama in education. London: Longman.

- Bolton, GM. 1984. *Drama as education: an argument for placing drama at the centre of the curriculum.* London: Longman.
- Bolton, GM. 1985. Changes in thinking about drama in education. *Theory into Practice* 24(3): Educating through Drama:151-157. [UK]: Taylor & Francis. http://www.jstor.org/stable/1477034 (Accessed 3 April 2011).
- Bolton, GM. 1986. *Gavin Bolton selected writings,* edited by D Davis & C Lawrence. London: Longman.
- Bolton, GM. 1992. New perspectives on classroom drama. London: Nelson Thornes.
- Bolton, GM. 1995. Drama for learning: Dorothy Heathcote's mantle of the expert approach to education. New York: Heinemann.
- Bolton, GM. 1999. *Acting in classroom drama: a critical analysis*. Oakhill, England: Trentham Books.
- Bolton, GM. 2000. It's all theatre. Drama Research 1:21-29.
- Bolton, GM. 2003. *Dorothy Heathcote's story: biography of a remarkable drama teacher.* Staffordshire, England: Trentham Books.
- Bolton, GM. 2007. A history of drama education: a search for substance, in
 International Handbook of Research in Arts Education, edited by L Bresler.
 [SI]: Springer: 45-62.
- Boone, BC. 2006. The impact of poetry therapy on symptoms of secondary posttraumatic stress disorder in domestic violence counselors. DPhil thesis, Texas A&M University, Texas.
- Boud, D, Cohen, R & Walker, D. 2000. Understanding learning from experience, in Using experience for learning, edited by D Boud, R Cohen & D Walker. Open University Press: 10-18.
- Bowell, P & Heap, BS. 2013. *Planning process drama: enriching, teaching and learning.* 2nd edition. Oxon: Routledge.
- Bowers, GH & Sivers, H. 1998. Cognitive impact of traumatic events. *Development* and psychopathology 10(4):625-654.



- Boyatzis, RE, Goleman, D & Rhee, K. 1999. Clustering competence in emotional intelligence: insights from the Emotional Competence Inventory (ECI)s,
 in *Handbook of emotional intelligence,* edited by R Bar-On & JDA Parker. San Francisco: Jossey-Bass: 343-362.
- Boyatzis, RE. 2007. *The creation of the Emotional and Social Competency Inventory (ESCI).* Boston: Hay Group.
- Brackett, MA, Mayer, JD & Warner, RM. 2004. Emotional intelligence and its relation to everyday behaviour. *Personality and Individual Differences* 36(6):1387-1402. Bradberry, T & Greaves, J. 2009. *Emotional Intelligence 2.0.* San Francisco: Group West.
- Bradberry, T, Greaves, J, Emmerling, R, Sanders, Q, Stamm, S, Su, LD & West,A. 2003. *Emotional intelligence appraisal technical manual.* San Diego,CA: TalentSmart.
- Brady, I. 2009. Foreword excerpt, in *Poetic inquiry: vibrant voices in the social sciences,* edited by M Prendergast, C Leggo & P Sameshima. Rotterdam: Sense Publishers.
- Bresler, L (ed). 2007. *International handbook of research in arts education.* Dordrecht, NL: Springer.
- Brizendine, L. 2006. The female brain. New York: Broadway Books.
- Brown, B. 2010. *The gifts of imperfection: let go of who you think you're supposed to be and embrace who you are.* [Kindle version]. Minnesota: Hazelden.
- Brown, LM. 1998. *Raising their voices: the politics of girls' anger.* 1st edition. Cambridge: Harvard University Press.
- Brown, LM. 1999. *Raising their voices: the politics of girls' anger.* 2nd edition. Cambridge: Harvard University Press.
- Brownlee, S, Hotinski, R, Pailthorp, B, Ragan, E & Wong, K. 1999. *Inside the teen brain*. <u>http://www.wac77.com</u> (Accessed 11 November 2010).



- Bruer, JT. 2006. Points of view: on the implications of neuroscience research for science teaching and learning: are there any? *Phi Delta Kappan Magazine*, May 1999: 648-657.
- Bundy, P. 2003. Aesthetic engagement in the drama process. *Research in Drama Education: The Journal of Applied Theatre and Performance* 8(2):171-181.
- Burgess Chamberlain, L. 2011. *The amazing adolescent brain: what every educator, youth serving professional, and healthcare provider needs to know.* <u>www.instituteforsafefamilies.org/pdf/.../The Amazing Adolescent Brain</u> (Accessed 17 September 2011).
- Burton, G & Dimbleby, R. 2006. *Between ourselves: an introduction to interpersonal communication.* London: Hodder Arnold.
- Burton, JM, Horowitz, R & Abeles, H. 2000. Learning in and through the arts: the question of transfer. *Studies in Art Education* 41(3):228-257.
- Burton, B & O'Toole, J. 2009. *Power in their hands: the outcomes of the acting against bullying research project.* [Abstract]. Australia.
- Byrnes, JP. 2001. *Minds, brains and learning: understanding the psychological and educational relevance of neuroscientific research.* New York: Guilford Press.
- Byron, K. 1986. Drama in the English classroom. London: Methuen.
- Cai, DJ, Mednick, SA, Harrison, EM, Kanady, JC & Mednick, SC. 2009. *REM, not incubation, improves creativity by priming associative networks*. <u>http://www.ncbi.nlm.nih.gov/pubmed/19506253</u> (Accessed 12 June 2010).
- Caine, RN & Caine, G. 1991. Making connections: teaching and the human brain.
 USA: Association for Supervision and Curriculum
 Development. <u>http://www.bbbforlearning.com/uploads/1/0/4/4/10446722/core</u>
 <u>principles of brain.pdf</u> (Accessed 15 June 2013).



- Caine, RN, Caine, G, McClintic, CL & Klimek, KJ (eds). 2005. 12 Brain/mind *learning principles in action: developing executive functions of the human brain.* Thousand Oaks, CA: Corwin Press.
- Cairns, RB & Cairns, BD. 1994. *Lifelines and risks: pathways of youth in our time.* NY: Cambridge University Press.
- Caissy, GA & Toepfer, CF. 2002. *Early adolescence: understanding the 10 to 15 year old.* Reading, Mass: Perseus Books.
- Callery, D. 2001. *Through the body*. London: Nick Hern.
- Callery, D. 2002. *Through the body: a practical guide to physical theatre.* New York: Routledge.
- Calvin, WH. 1996. The cerebral code: thinking a thought in the mosaics of the mind. Cambridge, MA: MIT Press.
- Campbell, A. 2000. *Antonio Damasio: the feeling of what happens*. [Book review]. <u>www.acampbell.org.uk/bookreviews/r/damasio-2.html</u> (Accessed 2 August 2013).
- Campbell, L, Campbell, B & Dickinson, D. 2004. *Teaching and learning through multiple intelligences*. 3rd edition. Boston, MA: Allyn & Bacon.
- Cannon, WB. 1929. *Bodily changes in pain, hunger, fear, and rage: an account of recent researches into the function of emotional excitement.* 2nd edition. New York: Appleton.
- Carroll, J. 1985a. Framing drama. *Educational Drama Association of New South Wales* 34.
- Carroll, J. 1985b. Literature as a dramatic event. *English in Australia* 72:56-68.
- Carskadon, MA, Wolfson, AR, Acebo, C, Tzischinsky, O & Seifer, R. 1998. Adolescent sleep patterns, circadian timing, and sleepiness at a transition to early school days. *Sleep* 21(8):871-881.
- Carter, L & Minirth, F. 1993. *The anger workbook: a 13 step interactive plan to help you.* [SI]: Thomas Nelson.
- Carter, R. 1998. *Mapping the mind.* Berkelev, LA: University of California Press.

457



Carter, R. 2000. Mapping the mind. California, LA: University of California Press.

- Caruso, DR. 2008. Emotions and the ability model of emotional intelligence, in *Emotional intelligence: theoretical and cultural perspectives,* edited by RJ Emmerling, VK Shanwal & MK Mandal. New York: Nova Science.
- Casey-Cannon, S, Hayward, C & Gowen, K. 2001. Middle-school girls' reports of peer victimization: concerns, consequences, and implications. *Professional School Counseling* 5:138-147.
- Casper, RC, Belanoff, J & Offer, D. 1996. Gender differences, but no racial group differences, in self-reported psychiatric symptoms in adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry* 35(4):500-508.
- Cassady, JC & Boseck, JJ. 2008. Educational psychology and emotional intelligence: toward a functional model for emotional information processing in schools, in *Emotional intelligence: perspectives on educational and positive psychology,* written and edited by JC Cassady & MA Eissa. New York: Peter Lang.
- Cassady, JC & Eissa, MA (eds). 2008. *Emotional intelligence: perspectives* on educational and positive psychology. New York: Peter Lang.
- Cavell, TA & Malcolm, KT (eds). 2007. Anger, aggression and interventions for interpersonal violence, in *Anger dysregulation* by RN Navaco. Mahwah, NJ: Erlbaum.
- Chadwell, DW. 2010. A gendered choice: designing and implementing single-sex programs and schools. Thousand Oaks, CA: Corwin.
- Charlesworth, JR. 2008. *Helping adolescents manage anger.* American Counseling Association: Professional Counseling Digest 22.
- Chavis, GG. 2011. *Poetry and story therapy: the healing power of creative expression.* London: Jessica Kingsley.
- Chavis, GG & Weisberger, LL. 2003. *The healing fountain: poetry therapy for life's journey.* St. Cloud, North Star Press.
- Chesney-Lind, M & Irwin, K. 2007. *Beyond bad girls: gender, violence and hype.* New York: Routledge.

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- Chesney-Lind, M & Irwin, K. 2008. *Beyond bad girls: the violent girl hype.* New York: Routledge.
- Chesney-Lind, M & Shelden, RG. 1992. *Girls, delinquency, and juvenile justice*. Belmont, CA: Wadsworth/Thomson Learning.
- Childre, D & Rozman, D. 2003. *Transforming anger: the HeartMath solution for letting go of rage, frustration and irritation.* Oakland, CA: New Harbinger.
- Chinyowa, KC. 2009. Emerging pardigms for applied drama and theatre practice in African contexts. *Research in Drama Education: the Journal of Applied Theatre and Performance* 14(3):329-346.

http://dx.doi.org/10.1080/13569780903072117 (Accessed 19 August 2013).

- Chladek, R. *Movement theory: test for total passivity*. [Chladek-Dancesystem]. Improvisational method, recommended to investigate a character/s, individually or in pairs. <u>www.rosalia-chladek.com</u> (Accessed 15 December 2013).
- Cleeremans, A. 2001. Conscious and unconscious processes in cognition, in International Encyclopedia of the Social and Behavioral Sciences: 1-12. (<u>srsc.ulb.ac.be/axcwww/papers/pdf/01-iesbs.pdf</u>) (Accessed 31 August 2013).
- Cloete, TT. 1992. Literêre terme en teorieë. Pretoria: HAUM-Literêr.
- Coetzee, E. 2004. *An introduction to theory of education: current challenges in education.* Pretoria: Prof IEM Coetzee.
- Coetzee, M-H, Munro M & de Boer A. 2004. Deeper sites through various lines: LMS and whole brain learning in body/voice training for performers in the HET band. *South African Theatre Journal* 18:135-158.
- Coie, JD & Dodge, KA. 1998. Aggression and antisocial behavior, in *Handbook of Child Psychology 3: social, emotional and personality development*, edited by W Damon & N Eisenberg. New York: Wiley: 779-862.

Collins Thesaurus. 1995. Glasgow: Harper Collins.



- Colombetti, G. 2009. From affect programs to dynamical discrete emotions. *Philosophical Psychology* 229(4):407-425.
- Connolly, J, Furman, W & Konarski, R. 2000. The role of peers in the emergence of heterosexual romantic relationships in adolescence. *Child Development* 71(5):1395-1408.
- Cook, HC. 1991. The play way: an essay in educational method. New York: Stokes.
- Cooke, RA & Lafferty, JC. 2010. *Circumplex of the human synergistic institute*. <u>http://www.humansynergistics.com.au/TransformingCultureAndLeadersh</u> <u>ip/</u>Circumplex.aspx (Accessed 9 July 2013).
- Cooke, RA & Szumal, JL. 2000. Using the organizational cultural inventory to understand the operating cultures of organizations, in *Handbook of organizational culture and climate,* edited by NM Ashkanasy, CPM Wilderom, MF Peterson & B Schneider. Thousand Oaks, CA: Sage: 147-162.
- Corman, C. 2008. *The next one thousand years: the selected poems of Cid Corman,* edited by B Arnold & C Rosenbow. Vermont, Canada: Longhouse. <u>www.poetry.org/</u> (Accessed 4 December 2013).
- Corso, M. 1997. Annual International Conference of the Association for Children's Education (1997: Portland, Oregon).
- Couppis, M. 2008. How the brain rewards aggression, in How brain rewards aggression edited by M Moran. Exploration, Vanderbilt's online magazine. <u>http://www.vanderbilt.edu/exploration/text/index./php?ation=view_section&id=13</u> <u>72</u> (Accessed 15 December 2013).
- Courtney, R. 1968. Play, drama and thought. Toronto: Simon & Pierre.
- Cozolino, LJ. 2010. *The neuroscience of psychotherapy: healing the social brain.* 2nd edition. [Kindle version]. NY: Norton.
- Craft, A. 2000. *Creativity across the primary curriculum: framing and developing practice.* London: Routledge.
- Craft, A. 2002. Creativity and early years. New York: Continuum.

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- Crawford, GB. 2007. *Brain-based teaching with adolescent learning in mind*. CA: Corwin Press.
- Cremin, T, Goouch, K, Blakemore, L, Goff, E & MacDonald, R. 2006. Connecting drama and writing: seizing the moment to write. *Research in Drama Education* 11(3):273 -291.
- Crick, NR & Werner, NE. 1999. Response descision processes in relational and overt aggression. *Child Development* 69(6):1630-1639.
- Cropley, A. 2006. In praise of convergent thinking. *Creativity Research Journal* 18 (3): 391-404.
- Csikszentmihalyi, M & Larson, R. 1984. *Being adolescent: conflict and growth in the teenage years.* New York: Basic Books.
- Csikszentmihalyi, M. 1990. *Flow: the psychology of optimal experience.* New York: Harper & Row.
- Curriculum and Assessment Policy Statement (CAPS): Life Orientation of the National Curriculum Statement (NCS) of the FET (Department of Education 2011).
- Curriculum News, 2011. Department of Basic Education, Republic of South Africa.
- Cuthill, M. 2002. Exploratory Research in Sustainable Development 10 (2002):79-89.
- Dahl, RE. 2004. Adolescent brain develoment: a period of vulnerabilities and opportunities. *Annals of the New York Academy of Sciences* 1021:1-22.
 Dalgleish, T & Power, M. 1999. *Handbook of cognition and emotion.* Sussex, UK: Wiley.
- Dalrymple, L. 2005. Drama studies in the twenty-first century: dangers and opportunities. *South African Theatre Journal* 19:157-170. <u>http://dx.doi.org/10.1080/10137548.2005.9687808</u> (Accessed 13 August 2013).
- Dalrymple, L. 2006. Has it made a difference? Understanding and measuring the impactof applied theatre with young people in the South African context. *Research in Drama Education: The Journal of Applied Theatre and Performance* 11(2):201-218.

http://dx.doi.org/10.1080/13569780600671070 (Accessed 13 August 2013).





- Damasio, AR. 1995. *The feeling of what happens: body and emotion in the making of consciousness.* Florida, Orlando: Harcourt.
- Damasio, AR. 2000. *The feeling of what happens: body and emotion in the making of consciousness.* New York: Harcourt.
- Damasio, AR. 2001. An interview by C Liston. The Harvard Brain 8. <u>http://evans-</u> <u>experientialism.freewebspace.com/damasio.htm</u> (Accessed 31 August 2011).
- Davidson, RJ, Scherer, KR & Goldsmith, HH (eds). 2003. *Handbook of affective sciences*. New York: Oxford University Press.

Davies, C & LoweT. Kolb Learning Cycle Tutorial. [Static Version].

http://www.ldu.leeds.ac.uk/ldu/sddu multimedia/kolb/static version.php

(Accessed 15 June 2013).

- Davis, G. 2001. There is no four-object limit on attention. *Behavioral and Brain Sciences* 24(1):119-120.
- Davis, JH & Evans, MJ. 1987. *Theatre, children and youth.* New Orleans: Anchorage Press.
- DeAngelis, T. 2008. The two faces of oxytocin. Why does the 'tend and befriend' hormone come into play at the best and worst of times? *Science watch: Monitor on Psychology* 39(2):2.

http://www.apa.org/monitor/feb08/oxytocin.aspx (Accessed 8 June 2013).

Deasy, RJ (ed). 2002. *Critical links: learning in the arts and student academic and social development.* Washington DC: Arts Education Partnership.

De Jager, M. 2006. *Mind Moves*. Johannesburg: The BG ConneXion.

- Dellasega, C & Nixon, C. 2003. *Girl wars: 12 strategies that will end female bullying.* New York: Fireside.
- Dellasega, C. 2005. *Mean girls grown up: adult women who are stil queen bees, middle bees, and afraid-to-bees.* Hoboken, NJ: Wiley.
- Denotation & connotation. <u>http://www.eng.fju.edu.tw/EnglishLiterature/terms/</u> <u>denotation.htm (</u>Accessed 16 June 2013).

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- Denzin, NK & Lincoln, YS. 1994. *The SAGE handbook of qualitative research.* Thousand Oaks, CA: Sage.
- Destrebecqz, A & Cleeremans, A. 2001. Can sequence learning be implicit? New evidence with the process dissociation procedure. *Psychonomic Bulletin Review* 8(2):343-350.
- Detels, C. 1999. Soft boundaries: re-visioning the arts and aesthetics in American education. Westport, CT: Bergin & Garvey.
- De Wet, C. 2004. The extent and causes of learner vandalism at schools. *Journal of Education EASA* 24(3):206-211.

Dewey, J. 1938/1998. Experience and education. Kappa Delta Pi.

- Dewey, J. 1934. Art as experience. New York: Perigee Books.
- Dewey, J. 2005. Art as experience. New York: Perigee Trade.
- Diamond, MC. 1988. Enriching heredity: the impact of the environment on the anatomyof the brain. New York: Free Press.
- Diamond, MC. 2001. Response of the brain to enrichment. *Anais da Academia Brasileira de Ciências* 73(2):211-220.
- Dickson, A. 2000. *A woman in your own right assertiveness and you.* 3rd edition. London: Quartet Books.
- Diener, E & Lucas, R. 2000. Explaining differences in societal levels of happiness: relative standards, need fulfillment, culture, and evaluation theory. *Journal of Happiness Studies* 1(1):41-78.
- DiGiuseppe, R. 2009. An introduction to cognitive behavior therapies, in *Behavioral interventions in schools: evidence-based positive strategies*, edited by Akin-Little, SG Little, M Bray & TJ Kehle. Washington: American Psychological Association.
- DiGiuseppe, R & Tafrate, RC. 2007. *Understanding anger disorders.* NY: Oxford University Press.
- Dobbs, D. 2006. A mastery of fear: Joseph LeDoux's amygdala complex. *Scientific American Mind* 17(1):44-49.



- Doidge, N. 2007a. The brain that changes itself: stories of personal triumph from the frontiers of brain science. New York: Viking Penguin.
- Doidge, N. 2007b. *The brain that changes itself: stories of personal triumph from the frontiers of brain science.* London: Penguin.
- Dowling, JE. 2007. *The great brain debate: nature or nurture?* Princeton, NJ: Princeton University Press.
- Dragowski, EA, Scharron-del Rio, MR & Sandigorsky, AL. 2011. Childhood gender identity disorder. Developmental, cultural and diagnostic concerns. *Journal of Counseling and Development* 89(3):360-367.
- Drama for life: building social cohesion through the arts. http://www.dramaforlife.co.za (Accessed 24 May 2013).

Drama resource: creative ideas for teaching drama.

http://dramaresource.com/strategies/hot-seating (Accessed 8 December 2013).

Drubach, D. 2000. The brain explained. Upper Saddle River, NJ: Prentice-Hall.

Dryden, W. 1999. Rational emotive behavioural counselling in action. London: Sage.

- Duan, C & Hill, CE. 1996. The current state of empathy research. *Journal of Counseling Psychology* 43(3):261-274.
- Duman, B see International Conference on Engineering Education (9th :2006: San Diego, CA).
- Dunn, A. 2013. *The meaning of colour: the cultural and ethnic aspects of colour use*. <u>www.caboodesign.com</u> (Accessed 5 July 2013).
- Dunn, J. 2008. Play, drama and literacy in the early years, in Desirable
 literacies: approaches to language and literacy in the early years, edited by J
 Marsh & E Hallet. London: Paul Chapman.
- Dunn, J & O'Toole, J. 2009. When worlds collude: exploring the relationship between the actual, the dramatic and the virtual, in *Drama education with digital technology,* edited by M Anderson, J Carroll & D Cameron. London: Continuum Books: 20.



- Edut, O (ed). 2003. *Body outlaws: rewriting the rules of beauty and body image.* Emeryville: Seal Press.
- Edwards, LC. 2006. *The creative arts: a process approach for teachers and children.* New Jersey: Pearson.
- Efland, AD. 2002. *Art and cognition: integrating the visual arts in the curriculum*. New York: Teachers College.
- Eidelson, RJ & Eidelson, JI. 2003. Dangerous ideas: five beliefs that propel groups toward conflict. *American psychologist* 58(3):182-192. American Psychological Association (APA).
- Eippert, F, Veit, R, Weiskopf, N, Erb, M, Birbaumer, N & Anders, S. 2007. Regulation of emotional responses elicited by threat-related stimuli. *Human Brain Mapping* 28(5):409-423.
- Eiseman, L. 2000. Pantone guide to communicating with color. Saraosta, Fla: Grafix.
- Eisenberg, N, Morris, AS, McDaniel, B & Spinrad, TL. 2009. Moral cognitions and prosocial responding in adolescence, in *Handbook of Adolescent Psychology,* edited by RM Lerner & L Steinberg. New Jersey: Wiley.
- Eisner, EW. 1992. The misunderstood role of the arts in human development. *Phi Delta Kappan* 73(8):591-595.

Eisner, EW. 2002. What can education learn from the arts about the practice of education? In *The Encyclopedia of Informal Education*. <u>www.infed.org/biblio/eisner arts and the practice of education.htm</u> (Accessed 22 May 2005).

- Eisner, EW in KJ Kerry-Moran & J Matthew Meyer. 2008. Ligthing the fires within, in *Making meaning: constructing multimodal perspectives of language, literacy and learning through arts-based early childhood education,* edited by M Narey. Springer.
- Eissa, MA & Cassady, JC. 2008. *Emotional intelligence: perspectives from educational and positive psychology.* New York: Peter Lang.



- Ekman, P. 1999. Basic emotions, in *Handbook of cognition and emotion,* edited by T Dalgleish & M Power. Sussex, UK: Wiley.
- Ekman, P. 2004. *Emotions revealed: recognizing faces and feelings to improve communication and emotional life*. New York: Henry Holt.
- Elias, MJ, Zins, JE, Weissberg, R, Frey, KS, Greenberg, MT, Haynes, NM, Kessler, R, Schwab-Stone, ME & Shriver, TP. 1997. *Promoting social and emotional learning: guidelines for educators*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
- Elias, MJ, Bryan, K, Patrikakou, EN & Weissberg, RP. 2003. Challenges in creating effective home-school partnerships in adolescence. *School Community Journal* 13(1):133-153.
- Elias, MJ, Patrikakou, EN & Weissberg, RP. 2007. A competence-based framework for parent-school-community partnerships in secondary schools. *School Psychology International* 28(5):540-554.
- Elkind, D. 1967. Egocentrism in adolescence. Child Development 38:1025-1034.
- Elkind, D. 1978. Understanding the young adolescent. Adolescence 13(49):127-134.
- Elkind, D & Bowen, R. 1979. Imaginary audience behavior in children and adolescents. *Developmental Psychology* 15:38-44.
- Ellis, A. 1977. Anger: how to live with and without it. Secaucus, NJ: Citadel Press.
- Ellis, A. 1996. *Better, deeper and more enduring brief therapy: the rational emotive behaviour therapy approach*. New York: Brunner/Mazel.
- Ellis, A. 2001. *Overcoming destructive beliefs, feelings and behaviors*. Amherst, NY: Prometheus Books.
- Ellis, A. 2003. Anger: how to live with and without it. Kensington: Citadel Press.
- Ellis, A. 2004. *Rational emotive behavior therapy: it works for me it can work for you*. Amherst, NY: Prometheus Books.
- Ellis, A & MacLaren, C. 2005. 2nd edition. *Rational emotive behavior therapy: a therapist's guide*. [SI]: Impact Publishers.



Ellis, HH. 1910. Sex in relation to society. [Sll: FA Davis Company.

- Ellsworth, PC & Scherer, KR. 2003. Appraisal processes in emotion: theory, methods, research, in *Handbook of affective sciences,* edited by RJ Davidson, H Goldsmith & KR Scherer. New York: Oxford University Press.
- Elting, S & Firkins, A. 2006. Dramatizing poetry in the second language classroom. *English Teaching: Practice and Critique* 5(3):127-136.
- Eme, RF & Kavanaugh, L. 1995. Sex differences in conduct disorder. *Journal of Child Clinical Psychology* 24(4):406-426.
- Emmerling, RJ, Shanwal, VK & Mandal, MK. 2008. *Emotional intelligence: theoretical and cultural perspectives.* New York: Nova Science.
- Emunah, R. 1994. *Acting for real: drama therapy, process, technique and performance*. London: Brunner-Routledge.
- Emunah, R. 1995. From adolescent trauma to adolescent drama: group drama therapy with emotionally disturbed youth, in *Dramatherapy with children and adolescents,* edited by Sue Jennings. New York: Routledge.

Encyclopedia Britannica Online Dictionary.

- http://global.britannica.com /EBchecked/topic/630806/art (Accessed 15 June 2013).
- *Encyclopedia of the Human Brain.* 2002. Edited by SV Ramachandran. 4 vols. USA: Elsevier.
- Engel, B. 2004. *Honor your anger: how transforming your anger style can change your life.* Hoboken, NJ: Wiley.
- Erasmus, CP. 2007. *The role of emotional intelligence in the adaptation of adolescent boys in a private school.* MA thesis, University of South Africa, Pretoria.
- Erikson, EH. 1968. Identity: youth and crisis. New York: Norton.

Erikson, EH. 1974. Identity: youth and crisis. London: Faber & Faber.

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- Etkin, A, Egner, T, Peraza, DM, Kandel, ER & Hirsch, J. 2006. Resolving emotional conflict: a role for the rostral anterior cingulate cortex in modulating activity in the amygdala. *Neuron* 51(6):871-882.
- Facilitators Manual, Section 1, Understanding the curriculum and assessment policy statement (CAPS) an overview. 2013. Department od Basic Education, Republic of South Africa.
- Fall, KA & Levitov, JE (eds). 2001. *Modern applications to group work.* New York: Nova Science Publishers.
- Fassaert, RRH. 1992. Growing up in Soweto: using diaries in the study of South-African adolescents. *International Journal of Adolescence and Youth* 4:1-18.
- Feindler, EL. 2006. *Anger-related disorders: a practitioner's guide to comparative treatments.* NY: Springer.
- Feinstein, S. 2009. *Inside the teenage brain: parenting a work in progress*. UK: Rowman & Littlefield.
- Fenwick, TJ. 2000. Expanding conceptions of experiential learning: a review of the five contemporary perspectives on cognition. *Adult Education Quarterly* 50(4):243- 247.
- Ferris, B & Stein, Y. 2002. Care beyond cancer: the culture of creativity. *Illness, crisis and loss* 10(1):42-50.
- Finlay-Johnson, H & Cyr, EM. 1920. The dramatic method of teaching. [SI: sn].
- Finnegan, R. 2012. Oral literature in Africa. Cambridge, UK: Open Book Publishers.
- Fisher, KM. 2004. The importance of prior knowledge in college science instruction, in *Reform in undergraduate science teaching for the 21st Century,* edited by DW Sunal, EL Wright & J Bland Day. [SI]: Information Age Publishing.
- Fisher, R. 2005. Teaching children to think. Cheltenham: Nelson Thornes.
- Fiske, EB. 1999. Champions of change: the impact of the arts on learning.[Online report]. Washington, DC: The Arts Education Partnership and the President's Committee on the Arts and the Humanities.



http://www.artsedge.kennedy- enter.org/champions/ (Accessed 15 December 2013).

- Flavell, JH. 1979. Metacognition and cognitive monitoring: a new area of cognitivedevelopmental inquiry. *American Psychologist* 34:906-911.
- Flemming, M. 2001. *Teaching drama in primary and secondary schools: an integrated approach*. London: Fulton.
- Flick, U (ed). 2004. Triangulation in qualitative research: a companion to qualitative research. London: Sage.
- Flick, U. 2009. An introduction to qualitative research. 4th edition. London: Sage.
- *FMRI (functional magnetic resonance imaging).* <u>http://www.fmri.org/fmri.htm_</u>Accessed 7 July 2013).
- Forgas, JP (ed). 2001. *The handbook of affect and social cognition.* Mahwah, NJ: Erlbaum.
- Fredrickson, BL. 2000. Cultivating positive emotions to optimize health and wellbeing. *Prevention and Treatment (3(1)*. American Psychological Association <u>www.journalsapa.org/prevention/volume3/0030001a.html</u> (Accessed 4 December 2013).

Free Dictionary by Farlex.

http://www.thefreedictionary.com/divergent+thinking (Accessed 24 May 2013).

- *Free Dictionary* by Farlex. <u>http://www.thefreedictionary.com/emotion</u> (Accessed 5 June 2013).
- *Free Dictionary* by Farlex. <u>http://www.thefreedictionary.com/performing+arts</u> (Accessed 15 June 2013).
- *Free Dictionary* by Farlex. <u>http://www.thefreedictionary.com/education</u> (Accessed 15 June 2013).
- Freire, P. 2003. *Pedagogy of the oppressed*. 30th anniversary edition, translated by MB Ramos. New York: Continuum.



- Freire, P. 2005. Pedagogy of the oppressed, in *Applied drama: the gift of theatre*, by H Nicholson. Hampshire: Palgrave MacMillan.
- Freud, S. 1978. The question of lay analysis. New York: W.W. Norton.
- Frijda, NH. 1986. *The emotions: studies in emotion and social interaction.* NY: Cambridge University Press.
- Frijda, NH. 1987. Emotion, cognitive structure, and action tendency. *Cognition and Emotion* 1(2):115-144.
- Frijda, NH. 1998. The laws of emotion, in *Human emotions: a reader,* edited by J M Jenkins, K Oatley & N Stein. Malden, MA: Blackwell: 271-287.
- Frijda, NH & Zeelenberg, M. 2001. Appraisal: what is the dependent? in Appraisal processes in emotion: theory, methods, research, edited by KR Scherer, A Schorr & T Johnstone. NY: Oxford University Press.
- Furman, R, Langer, CL, Davis, CS, Gallardo, HP & Kulkarni, S. 2007. Expressive, research and reflective poetry as qualitative inquiry: a study of adolescent identity. *Qualitative Research* 7(3):301-315.
- Fuster, JM. 1997. *The prefrontal cortex.* 3rd edition. Philadelphia: Lippincott-Raven.
- Galda, L & Beach, R. 2001. Response to literature as a cultural activity. *Reading Research Quarterly* 36(1):64-73.
- Gallagher, K. 2001. *Drama education in the lives of girls: imagining possibilities*. Toronto: University of Toronto Press.
- Gambles, C. 2010. Colonialist theatre education in Botswana. SURG 3(2):39. <u>https://journal.lib.uoguelph.ca/index.php/surg/article/view/1119/1663</u> (Accessed 7 September 2013).
- Ganong, WF. 1995. *Review of medical physiology*. 17th edition. London: Prentice-Hall.
- Gardner, H. 1993a. *Multiple intelligences: the theory in practice.* New York: Basic Books.



- Gardner, H. 1993b. *Creating minds: an anatomy of creativity seen through the lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham and Ghandi.* New York: Basic Books.
- Gardner, H. 1999. *The disciplined mind: what all students should understand*.New York: Simon & Schuster.
- Gardner, H. 2004. *Frames of mind: the theory of multiple intelligences*. New York: Basic Books.
- Geake, JG. 2009. *The brain at school: educational neuroscience in the classroom.* Berkshire, England: Open University Press.
- George, E & Finberg, A. 2001. Scared at school: sexual violence against girls in South- African schools. New York: Human rights watch.
- Giedd, JN. 2007. Sexual dimorphism of brain developmental trajectories during childhood and adolescence. *NeuroImage* 36(4):1065-1073. <u>http://www.boysadrift.com/2007Giedd.pdf</u>) (Accessed 15 July 2007).
- Giedd, JN, Blumenthal, J, Jeffries, NO, Castellanos, FX, Liu, H, Zijdenbos, A, Paus,T, Evans, AC & Rapoport, JL. 1999. Brain development during childhood and adolescence: a longitudinal MRI study. *Nature Neuroscience* 2(10):861-863.
- Giedd, JN, Molloy, EA & Blumenthal, J. 2002. Adolescent brain maturation, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols.USA: Elsevier: 13-20.
- Gilbert, GN. 1993. Researching social life. London: Sage.
- Gillani, BB. 2003. *Learning theories and the design of E-learning environments.* New York: University Press.
- Giroux, HA. 1992. *Border crossings: cultural workers and the politics of education.* New York: Perigee books.
- Goleman, D. 1996. *Emotional intelligence: why it can matter more than IQ*. London: Bloomsbury.
- Goleman, D. 1998a. Working with emotional intelligence. New York: Bantam Books.





- Goleman, D. 1998b. Working with emotional intelligence. London: Bloomsbury.
 Goleman, D. 2001. Emotional intelligence: issues in paradigm building, in
 The emotionally intelligent workplace, edited by C Cherniss & D Goleman.
 San Francisco: Jossey Bass.
- Goleman, D. 2011. *The brain and emotional intelligence: new insights.* [Kindle version]. Northampton, MA: More than sound LLC.
- Goldstein, TR & Winner, E. 2012. Enhancing empathy and theory of mind. *Journal of Cognition and Development* 13(1):19-37.
- Gordon, M. 2002. Roots of empathy: responsive parenting, caring societies. *The Keio Journal of Medicine* 52(4):236-243. (Paper presented at the Keio Medical Society, Tokyo).
- Gorski, H. 2006. White colonnade façade. *Art Mag* 29. Las Vegas: Limited Editions. <u>http://www.enotes.com/topics/postcolonialism</u> (Accessed 3 December 2013).
- Graham, JR. 1990. *MMPI-2: assessing personality and psychopathology*. New York: Oxford University Press.
- Greene, RL. 1980. *The MMPI-2: an interpretive manual.* 2nd edition. New York: Grune & Stratton.
- Greenfield, S. 2000. *The private life of the brain: emotions, consciousness, and the secret of the self.*. NY: Penguin Press.
- Greenhalgh, P. 1994. Emotional growth and learning. London: Routledge.
- Greenough, WT & Anderson, BJ. 1991. Cerebellar synaptic plasticity relation to learning versus neural activity. *Annals of the New York Academy of Sciences* 627:231-247.
- Griesbach, GS, Hovda, DA, Molteni, R, Wu, A & Gomez-Pinilla, F. 2004. Voluntary exercise following traumatic brain injury: brain-derived neurotrophic factor upregulation and recovery of function. *Neuroscience* 125(1):129-139. <u>http://www.ncbi.nlm.nih.gov/pubmed/15051152</u> (Accessed 31 August 2011).



- Griggs, T. 2001. Teaching as acting: considering acting as epistemology and its use in teaching and teacher preparation. *Teacher Education Quarterly* 28(2):23-37.
- Grossberg, S. 1997. The link between brain learning, attention and consciousness. Technical report CAS/CNS 1997-018.
 http://digilib.bu.edu/journals/ojs/index.php/trs/article/viewFile/618/614 (Access ed 24 August 2013).
- Grossberg, S. 1999. The link between brain learning, attention and consciousness. *Consciousness and Cognition* 8:1-44. <u>http://www.merriam-</u> webster.com/dictionary/metacognition (Accessed 15 December 2013).
- Gura, T & Lee, CI. 2010. *Oral interpretation*. 12th edition. Boston, MA: Allyn & Bacon.
- Gurian, M & Henley, P. 2001. *Boys and girls learn differently!* A guide for teachers and parents. San Francisco: Jossey-Bass.
- Griggs, T. (2001). Teaching as acting: considering acting as epistemology and its use in teaching and teacher preparation. Teacher Education Quarterly, 28: 2, 23-37.
- Hanning, R. W. (1984). The classroom as the theater of self: some observations for beginning teachers. ADE Bulletin 77:33-37 (Spring 1984)
- Hagglund, K. 2001. Ester Boman, Tyringe, Helpension och teatern 1909-1936. PhD thesis, University of Stockholm.
- Hall, C. 2003. The emotional development curriculum, in *Counselling Pupils in* Schools: skills and strategies for teachers, edited by G Hornby, C Hall & E Hall. London: Routledge Falmer.
- Hall, C. 2005a. Emotional intelligence and experiential learning, in *Human Learning,* edited by P Jarvis & S Parker. NY: Routledge.
- Hall, C. 2005b. Emotional intelligence and experiential learning, in *Human Learning:* a holistic approach, edited by P Jarvis & S Parker. Oxon, Abingdon: Routledge



- Hall, E, Hall, C, Harris, B, Hay, D, Biddulph, M & Duffy, T. 1999. An evaluation of the long-term outcomes of small-group work for counsellor development. *British Journal of Guidance and Counselling* 27(1):99-112.
- Hall, L, Woods, S, Aylett, R, Newall, L & Paiva, A. 2005. Achieving empathic engagement through affective interaction with synthetic characters. In *ACII 2005, LNCS 3784,* edited by J Tao, T Tan & RW Picard. Berlin: Springer-Verlag: 731- 738.
- Hankin, BL. 2009. Development of sex differences in depressive and cooccurring anxious symptoms during adolescence: descriptive trajectories and potential explanations in a multi-wave prospective study. *Journal of Clinical Child and Adolescent Psychology* 38(4):460-472. <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2946109</u> (Accessed 15 December 2013).
- Hankins, G & Hankins, C. 2000. *Prescription for anger: coping with angry feelings and angry people*. [SI]: Barclay Press.
- Hanna, J. 2005. Mind, brain, and education: linking biology, neuroscience & educational practice. Harvard Graduate School of Education News, 1 June. <u>www.gse.harvard.edu/news/features/mbe06012005.html</u> (Accessed 17 December 2013).
- Hannaford, C. 1995. *Smart moves: why learning is not all in your head.* Atlanta, Ga: Great Ocean Publishers.
- Hannaford, C. 1997. *The dominance factor: how knowing your dominant eye, ear, brain, hand & foot can improve your learning.* Virginia: Great Ocean Publishers.
- Hanning, RW. 1984. The classroom as theater of self: some observations for beginning teachers. *ADE Bulletin* 77:33-37.
- Hardie, YE. 1999. *The emerging voice and outcomes-based education*. Pretoria: Tshwane University of Technology.
- Harmon-Jones, E & Allen, JJB. 1998. Anger and frontal brain activity: EEG asymmetry consistent with approach motivation despite negative



affective valence. *Journal of Personality and Social Psychology* 74(5):1310-1316.

- Harmon-Jones, E & Sigelman, JD. 2001. State anger and prefrontal brain activity: evidence that insult-related relative left-prefrontal activation is associated with experienced anger and aggression. *Journal of Personality and Social Psychology* 80(5):797-803.
- Harmon-Jones, E & Winkielman, P. 2007. *Social neuroscience: integrating biological and psychological explanations of social behavior.* New York: Guilford Press.
- Harris, B. 2007. Supporting the emotional work of school leaders. LA: Paul Chapman.
- Harrison, DL & Holderith, K. 2003. Using the power of poetry to teach language arts, social studies, math, and more. Engaging poetry lessons, model poems, and writing activities that help students learn important content. Woodlands, CA:
 Scholastic Professional Books.
- Harrison, NA, Critchley, HD. 2007. Affective neuroscience and psychiatry. *The British Journal of Psychiatry* 191(3):192-194.
- Haseman, B. 1990. Working out: a survey of drama in Queensland secondary schools. *NADIE Journal* 14(2):34-41.
- Haseman, BC. 1991. Improvisation, process drama and dramatic art. *The Drama Magazine* July: 19-21.
- Haseman, B & O'Toole, J. 1991. *Dramawise: an introduction to the elements of drama*. Australia: Heinemann Educational.
- Hass-Cohen, N & Carr, R (eds). 2008. *Art therapy in clinical neuroscience*. London: Jessica Kingsley.
- Hasselmo, ME. 1999. Neuromodulation: acetylcholine and memory consolidation. *Trends in Cognitive Sciences* 3:351-359.
- Hatton, C & Anderson, M (eds). 2004a. *The state of our art*: NSW perspectives in educational drama. Sydney: Currency Press.

475



- Hatton, C & Anderson, M (eds). 2004b.*The state of our art*. New South Wales: Educational Drama Association.
- Havighurst, RJ. 1972. Developmental tasks and education. New York: McKay.
- Heathcote, D. 1984. *Collected writings on education and drama,* edited by L Johnson and C O'Neill. Evanston, Ill: Northwestern University Press.
- Hedlund, J & Sternberg, RJ. 2000. Too many intelligences? Integrating social, emotional and practical intelligence, in *The handbook of emotional intelligence*, edited by R Bar-On & JDA Parker. San Francisco: Jossey-Bass.
- Hellar, PO. 2003. The youngest pioneer: Sherry Reiter, NAPT Keynote speaker, interview by PO Hellar. *NAPT Museletter* xxiv (1).
- Hellar, PO. 2009. *Word arts collage: a poetry therapy memoir*. Ohio: Pudding House.
- Hellige, JB. 2002. Laterality, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 671-683.
- Henderson, KA & King, K. 1998. Recreation programming for adolescent girls: rationale and foundations. *Journal of Park and Recreation Administration* 16(2):1-14.
- Henderson, L & Buising, C. 2000. A peer-reviewed research assignment for large classes. *Journal of College Science Teaching* 30(2):109-113.
- Henning, E. 2008. *Finding your way in qualitative research.* Pretoria: Van Schaik.
- Herrmann, N. 1995. The creative brain. North Carolina: Ned Herrmann.
- Herzberg, M. 2003. *Engaging critical reader response to literature through process drama.* <u>www.readeronline.org</u> (Accessed 5 July 2013).
- Hess, N. 2001. Real language through poetry: a formula for meaning making. *ELT Journal* 57(1):19-25.
- Hesten, S. 1986. The Dorothy Heathcote Archive. Ph.D thesis, volume 1, [Manchester Metropolitan University] (AS028). <u>http://www.did.stu.mmu.ac.uk/dha/hcheston.asp</u> (Accessed 24 September 2013).



- Heyward, P. 2010. Emotional engagement through drama: strategies to assist learning through role-play. *International Journal of Teaching and Learning in Higher Education*. 22(2):197-203. <u>http://www.isetl.corg/ijthe/</u> (Accessed 7 September 2013).
- Hidi, S & Renninger, K. 2006. The four-phase model of interest development. *The Educational Psychologist* 41(2):111-127.
- Hirsch, E. 1999. *How to read a poem: and fall in love with poetry.* San Diago: Harcourt.
- Hoffman, ML. 1988. Moral development, in *Developmental psychology: an advanced textbook*, edited by MH Bornstein & ME Lamb. 2nd edition. Hillsdale,
 NJ: Erlbaum: 461- 495.
- Hoffman, ML. 2000. Empathy and moral development: implications for caring and justice. New York: Cambridge University Press.
- Hofmeyer, J. 2010. Is this a new curriculum I see before me? (www.ieducation.co.za.is-this-a-new-curriculum).
- Holderith, K & Harrison, DL. 2003. Using the power of poetry to teach language arts, social studies, math, and more. Engaging poetry lessons, model poems, and Writing activities that help students learn important content. Woodlands, CA: Scholastic Professional Books.
- Holland, C. 2009. Reading and acting in the world: conversations about empathy. *Research in Drama Education* 14(4):529-544.
- Hornbrook, D. 1991. *Education in drama*. London: Falmer Press Hornbrook, D. 1998. *Education and dramatic art*. 2nd edition. London: Routledge.
- Horowitz, R. & Webb-Dempsey, J. 2002. Promising signs of positive effects: lessons from the multi-arts studies, in *Critical links: learning in the arts and student Academic and social development,* edited by R Deasy. Washington DC: Arts Education Partnerships: 98-101.



- Hudson, LM & Gray, WM. 1986. Formal operations, the imaginary audience and the personal fable. *Adolescence* 21(84):751-765.
- Hughes, J & Wilson, K. 2004. Playing a part: the impact of youth theatre on young people's personal and social development. *Research in Drama Education* 9(1):57-72.
- Hughes, M & Bradford, TJ. 2012. *Emotional intelligence in action*. 2nd edition. San Francisco: Pfeiffer Books.
- Huppert, FA. See Sydney Simposium (8th:2005)
- Hurlock, EB. 1980. *Developmental psychology: a life-span approach*. 5th edition. New York: McGraw-Hill.
- Iacoboni, M & Dapretto, M. 2006. The mirror neuron system and the consequences of its dysfunction. *Nature Reviews Neuroscience* 7:942-951.
- Ihanus, J. 2005. Touching stories in biblio-poetry therapy and personal development *Journal of Poetry Therapy* 18(2):71-84.
- Illeris, K. 2005. A comprehensive understanding of human learning, in *Human learning: a holistic approach*, edited by P Jarvis & S Parker. 2005. Oxon, Abingdon: Routledge.
- Inhelder, B & Piaget, J. 1958. *The growth of logical thinking: from childhood to adolescence.* London: Routledge.
- International Conference on Engineering Education (9th: 2006: San Diego, CA). *The effect of brain-based instruction to improve on students' acacemic achievement in social studies instruction,* paper by B Duman. <u>http://new.peoplepeople.org/wp- content/uploads/2012/07/Brain-based-</u> <u>Learning.pdf</u> (Accessed 4 August 2013).
- Irwin, RL, Wilson, S, Kind, S, Grauer, K & de Cosson, AF. 2005. Integration as embodied knowing, in *Interdisciplinary art education builds bridges to connect disciplines & cultures*, edited by M Stokrocki. Reston, VA: National Art Education Association: 44-59.

Izard, CE. 1977. Human emotions. New York: Plenum.



- Izard, CE. 1992. Basic emotions, relations among emotions, and emotioncognition relations. *Psychological Review* 99(3):561-565.
- Jackson, A. 2007. *Theatre, education and the making of meanings: art or instrument?* Manchester: Manchester University Press.
- Jackson, A & Vine, C. 2013. *Learning through theatre: the changing face of theatre in education.* 3rd edition. London, New York: Routledge.
- Jarvis, P. 2005a. Towards a philosophy of human learning: an existentialist perspective, in *Human learning: a holistic approach,* edited by P Jarvis & S Parker. Oxon, Abingdon: Routledge.
- Jarvis, P & Parker, S. 2005b. *Human learning: a holistic approach.* New York: Routledge.
- Jarvis, P & Parker, S. 2005c. *Human learning: a holistic approach*. Oxon, Abingdon: Routledge.
- Jensen, E. 1995. *Brain based teaching and learning.* South Africa: Lead the Field Africa.
- Jensen, E. 1998. *Teaching with the brain in mind*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Jensen, E. 2001. *Arts with the brain in mind.* Alexandria, VA: Association for Supervision and Curriculum Development.
- Jensen, E. 2006. Enriching the brain. San Francisco, CA: Jossey-Bass.
- Jensen, E. 2008a. *Brain-based learning: the new paradigm of teaching.* 2nd edition. Thousand Oaks, CA: Corwin Press.
- Jensen, E. 2008b. A fresh look at brain-based education. *Phi Delta Kappan Magazine* 89(6):408-417.
- Jenson, WR, Clarke, E & Burrow-Sanchez, J. 2009. Practical strategies in working with difficult students, in *Behavioral interventions in schools: evidence-based positive strategies*, edited by Akin-Little, SG Little, MA Bray & TJ Kehle. Washington: American Psychological Association.



Johnson, B & Christensen, LB. 2004. *Educational research: quantitative, qualitative, and mixed approaches.* Boston, MA: Allyn and Bacon.

- Johnson, L & O'Neill, C (eds). 1984. *Collected writings on education and drama, by Dorothy Heathcote*. Evanston, Illinois: Northwestern University Press.
- Jonides, J, Wager, TD & Badre, DT. Memory neuro-imaging, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 797-816.
- Kalat, JW. 2004. *Biological psychology*. 8th edition. Canada: Wadsworth.
- Kao, SM & O'Neill, C. 1998. Words into worlds: learning a second language through process drama. Stanford, CT: Ablex Publishing Corporation.
- Karakelle, S. 2009. Enhancing fluent and flexible thinking through the creative drama process. *Thinking Skills and Creativity* 4(2):124-129.
- Karevold, E. 2008. Family stress and child's temper extremes contribute to anxiety and depression in children. *Science Daily* 23 June. [SI]: Norwegian Institute of Public Health. <u>http://www.sciencdaily.com</u> (Accessed 17 November 2010).
- Kaschula, RH. [2007]. *The poetry of leadership*. <u>www.everymanedict.com/poetry-</u> <u>eadership-print.htm</u> (Accessed 15 December 2013)
- Kassinove, H & Tafrate, RC. 2002. *Anger management: the complete treatment guidebook for practitioners.* Atascadero, CA: Impact.
- Kaufman, AS & Kaufman, NL (eds). Essentials of psychological assessment series.
- Keating, DP. 2004. Cognitive and brain development, in *Handbook of adolescent psychology*, 2nd edition, edited by RJ Lerner & LD Steinberg. New York: Wiley: 45-84.
- Keen, S. 2007. Empathy and the novel. NY: Oxford University Press.
- Kempermann, G, Wiskott, L & Gage, FH. 2004. Functional significance of adult neurogenesis. *Current Opinion in Neurobiology* 14(2):186-191.
- Kendall, PC. 2006. *Child and adolescent therapy: cognitive-behavioral procedures.* 3rd edition. New York: Guillford Press.

480



- Kendler, KS, Gardner, CO, Annas, P & Lichtenstein, P. 2008. The development of fears from early adolescence to young adulthood: a multivariate study.
 Psychological Medicine 38(12):1759-1769. Cambridge University Press.
- Kendler, KS, Halberstadt, LJ, Butera, F, Myers, J, Bouchard, T & Ekman, P. 2008. The similarity of facial expressions in response to emotion-inducing films in reared-apart twins. *Psychological Medicine* 38(10):1475-1483.
- Kennedy, C. 2008. How the brain rewards aggression, in *The brain processes* aggression as a reward: study, edited by M Moran. Exploration, Vanderbilt's Online Research Magazine.

http://www.vanderbilt.edu/exploration/text/index./php?ation=view_section&id=137 <u>2</u> (Accessed 15 December 2013).

- Kerka, S. (1999). New directions for cooperative education. <u>http://www.ericdigests.org/2000-2/new.htm</u> (Accessed 21 August 2007).
- Kerry-Moran, KJ & Meyer, MJ. 2009. Lighting the fires within: pre-service teachers learning in and through drama, in *Making meaning: constructing multimodal perspectives of language, literacy and learning through arts-based early childhood education*, edited by MJ Narey. New York: Springer.
- Kesner, RP. 2002. Memory neurobiology, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 783-796.
- Kirberger, K. 2003. *No body's perfect: stories by teens about body image, selfacceptance and the search for identity.* New York: Scholastic Inc.
- Klein, R, Pilon, D, Prosser, S & Shannahoff-Khalsa, D. 1986. Nasal airflow asymmetries and human performance. *Biological Psychology* 23(2):127-137.
- Kleppner, SR & Tobin, AJ. 2002. GABA, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 353-367.
- Kleyn, M & Clark, J. 2008. Agency through bodily alterity: the case of "pro-anorexia" websites. *Psychology in Society* 38:27-39. <u>http://www.scielo.org.za</u> (Accessed

11 November 2010).

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- Kolb, BE. 2000. Experience and the developing brain. *Education Canada* 39(4):2426. Kolb, DA. 1984. *Experiential learning: experience as the source of learning and development.* Englewood Cliffs, NJ: Prentice Hall.
- Konijn, EA. 2000. *Acting emotions: shaping emotions on stage.* Amsterdam: Amsterdam University Press.
- Koppelman, S (ed). 1985. *Between mothers and daughters: stories across a generation*. USA: The Feminist Press.
- Kostiuk, LM & Fouts, GT. 2002. Understanding of emotions and emotion regulation in adolescent females with conduct problems: a qualitative analysis. *The Qualitative Report* 7(1).
- Kotulak, R. 1997. *Inside the brain: revolutionary discoveries of how the mind works*. Kansas City, Missouri: Andrews McMeel.
- Kovalik, S. [1995]. Nine brain-compatible elements that influence learning, in *Synergy: transforming America's high schools through integrated thematic instruction,* by KD Olsen. [SI]: Kovalik, Susan & Associates:3-38.
- Krieger, N. 2005. Embodiment: a conceptual glossary for epidemiology. *Journal of Epidemiology and Community Health* 59(5):350-355.
 Kroger, J. 2004. Identity development during adolescence, in *Blackwell handbook of adolescence*, edited by GR Adams & MD Berzonsky. Oxford, UK: Blackwell.
- Krueger, RA & Casey, MA. 2000. *Focus groups: a practical guide for applied research*. 3rd Thousand Oaks, CA: Sage.
- Kruger, L & Prinsloo, H. 2008. The appraisal and enhancement of resilience modalities in middle adolescents within the school context. *South African Journal of Education* 28(2):241-259.
- Kuther, TL & McDonald, E. 2004. Early adolescents' experience with, and views of, Barbie. *Adolescence* 39(153):39-51. San Diego, CA: Libra.
- La Greca, AM, Prinstein, MJ & Fetter, MD. 2001. Adolescent peer crowd affiliation: linkages with health-risk behaviors and close friendships. *Journal of Paediatric Psychology* 26(3):131-143.



- Laible, DJ, Carlo, G & Raffaelli, M. 2000. The differential relations of parent and peer attachment to adolescent adjustment. *Journal of Youth and Adolescence* 29(1):45-59. <u>http://www.springerlink.com</u> (Accessed 14 November 2010).
- Lakoff, G & Johnson, M. 1980. *Metaphors we live by*. Chicago: University of Chicago Press.
- Landau, M. 2000. Deciphering the adolescent brain. *The Harvard University Gazette*. <u>http://focus.hms.havard.edu/2000/</u> (Accessed 12 June 2010).
- Landy, RJ. 1986. *Drama therapy: concepts, theories, and practices*. Springfield, ILL: Thomas.
- Landy, RJ. & Montgomery, DT. 2012. *Theatre for change: education, social action and therapy.* Hampshire, UK: Palgrave Macmillan.
- Langer, CL & Furman, R. 2004. Exploring identity and assimilation: research and interpretive poems. *Forum: Qualitative Social Research* 5(2). <u>http://www.qualitative-research.net/fqs-text/2-04/2-04langerfurmane.htm</u> (Accessed 19 June 2014).
- Langer, EJ. 2005. *On becoming and artist: reinventing yourself through mindful creativity.* New York: Ballantine Books.
- Langley, D. 2006. An introduction to drama therapy. London: Sage.
- Lapsley DK & Stey PC. (2010). Adolescent narcissism. In *Encyclopedia of Adolescence*, edited by R Levesque. New York: Springer.
- Laursen, B. 1996. Closeness and conflict in adolescent peer relationships: interdependence with friends and romantic partners, in *The company they keep: friendships in childhood and adolescence*, edited by WM Bukowski, AF Newcomb & WW Hartup. New York: Cambridge University Press: 186-210.
- Laursen, B & Koplas, AL.1995. What's important about important conflicts? Adolescents' perceptions of daily disagreements. *Merrill-Palmer Quarterly* 41(4):536-553.



- Lazarus, J. 2012. *Signs of change*: new directions in theatre education. Chicago, III: Intellect Books.
- Leach, G. 2006. Understanding fear as the root of anger. http://www.hardcorestress- management.com/anger-management-for-teens.html (Accessed 21 June 2010).
- Lebrecht, S & Badre, D. 2008. Emotional regulation, or How I learned to stop worrying and love the nucleus accumbens. *Neuron* 59(6):841-843.
- LeDoux, J. 1995. Emotion: clues from the brain. *Annual Review of Psychology* 46(1):40.
- LeDoux, J. 1998a. *The emotional brain: the mysterious underpinnings of emotional life.* New York: Simon & Schuster.
- LeDoux, J. 1998b. The emotional brain. New York: Touchstone.
- LeDoux, J. 2002. The synaptic self. UK: Viking Penguin.
- LeDoux, J. 2007. Emotional memory. *Scholarpedia* 2(7):1806. <u>http://www.scholarpedia.org/article/Emotional memory</u> (Accessed 15 December 2013).
- Lee, H. 1960. To kill a mockingbird. New York: Grand Central Publishers.
- Lee, V & Anstruther-Thomson, C. 1912. *Beauty and ugliness and other studies in Psychological aesthetics.* London: John Lane.
- Lefrancois, GR. 1996. *The lifespan*. 5th edition. Belmont: Wadsworth.
- Leland, J. 2005. Understanding your teen's behavior: what's behind a motherdaughter conflict. <u>http://www.associatedcontent.com</u> (Accessed 17 November 2010).
- Leoschut, L. 2006. Double trouble. Youth from violent families: easy victims of crime? SA Crime Quarterly 16. Centre for Justice and Crime Prevention.
- Lerner, RM & Steinberg, L. 2004. *Handbook of adolescent psychology*. 2 vols. New Jersey: Wiley.



- Le Roux, G. 2011. *Who owns the anger*? Unpublished poem with permission of the author.
- Le Roux, R & De Klerk, R. 2001. *Emosionele intelligensie: die alles-in-een-werkboek vir optimale persoonlike groei.* Kaapstad: Human en Rousseau.
- Lessac, A. 1997. The use and training of the human voice: a bio-dynamic approach to vocal life. London: Mayfield.
- Lewis, M & Rainer, J. 2012. *Teaching classroom drama and theatre: practical projects for secondary school*. Revised edition. Oxon: Routledge.
- Li, Q. 2006. Cyberbullying in schools: a research of gender differences. *School Psychology International* 27:157-170.
- Liebmann, M. 2004. Art therapy for groups: a handbook of themes, games and exercises. NY: Brunner-Routledge.
- Lightfoot, C. 1997. The culture of adolescent risk-taking. New York: Guilford Press.
- Lightfoot, C, Cole, M & Cole, SR. 2008. *The development of children.* Revised. NY: Worth.
- Lindlahr, H. 1974. *Natural therapeutics: iridiagnosis and other diagnostic methods*. Pomeroy, WA: Health Research Books.
- Linklater, K. 2006. Freeing the natural voice: imagery and art in the practice of voice and language. Revised edition. London: Nick Hern.
- Litt, IF. 2002. Gender difference in stress and immune function in adolescents: report of a workshop. *Journal of Adolescent Health* 30:1-2.
- Liu, J. 2002. Process drama in second- and foreign-language classrooms, in *Body* and language: intercultural learning through drama, edited by Gerd Bräuer. Westport, Connecticut: Ablex Publishing: 51-70. <u>http://www.european-mediaculture.org</u> (Accessed 15 June 2013).
- Liu, JH, Hansen, DV & Kriegstein, AR. 2011. Development and evolution of the human neocortex. *Cell* 146(1):18-36.
- Long, CR & Averill, JR. 2002. Anger, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 131-136.



- Louw, DA, Van Ede, DM & Louw, AE. 1998. *Human development.* 2nd edition. Cape Town: Kagiso Tertiary.
- Louw, DA, Van Ede, DM & Louw, AE. 2004. *Human development*. Cape Town: Kagiso, Tertiary.
- Lucas, JA. 2002. Memory, overview, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 817-833.
- Lupien, SJ, Maheu, F, Tu, M, Fiocco, A & Schramek, TE. 2007. The effects of stress and stress hormones on human cognition: implications for the field of brain and cognition. *Brain and Cognition* 65(3):209-237.
- Luftig, RL. 2000. An investigation of an arts infusion program on creative thinking academic achievement, affective functioning and arts appreciation of children at three grade levels. *Studies in Art Education* 41(3):208-227.
- Luxmoore, N. 2002. *Working with anger and young people*. London: Jessica Kingsley.
- Maccoby, EE. 2004. Aggression in the context of gender development, in *Aggression, antisocial behavior and violence among girls*, edited by M Putallaz & KL Bierman. New York: Guilford Press.
- MacLean, PD. 1949. Psychosomatic disease and the "visceral brain": recent developments bearing on the Papez theory of emotion. *Pschosomatic Medicine* 11(6):338-353.
- MacLean, PD. 1952. Some psychiatric implications of physiological studies on frontotemporal portion of the limbic system (visceral brain). *Electroencephalography and Clinical Neurophysiology* 4(4):407-418.
- MacLean, PD. 1990. *The triune brain in evolution: role in paleocerebral functions*. New York: Plenum Press
- MacMurray, J. 1979. Persons in relation, in *Human learning: a holistic approach,* edited by PJarvis & S Parker. 2005. New York: Routledge.
- Maley, A & Duff, A. 2005. Drama techniques: a resource book of communication activities for language teachers. [Cambridge]: Cambridge University Press.



- Manis, LG & Manis, LN. 2001. *Finding your voice: self-esteem and assertiveness training for teen girls.* [SI]: Learning Publications.
- Maree, JG & Ebersöhn, L. 2002. Emotional intelligence and achievement: redefining giftedness? *Gifted Education International* 16:261-273.
- Maree, JG & Elias MJ. 2007. *Educating people to be emotionally intelligent.* Westport, CT: Greenwood.

Marshall, G. 2008. Anger. <u>www.poemhunter.com</u> (Accessed 5 July 2013).

- Marshall, G. 2008. *Anger.* <u>http://www.poemhunter.com/poem/anger-80/ (</u>Accessed 6 December 2013).
- Marteleto, L, Lam, D & Ranchhod, V. 2008. Sexual behavior, pregnancy, and schooling among young people in urban South Africa. *Studies in Family Planning* 39(4):351-368.
- Marzano, RJ, Pickering, DJ & Pollock, JE. 2001. *Classroom instruction that works*. Alexandria, VA: ASCD.
- Matsumoto, D, Keltner, D, Shiota, MN, Frank, MG & O'Sullivan, M. 2008. What's in a face? Facial expressions as signals of discrete emotions, in *Handbook of emotions*, 3rd edition, edited by M Lewis, JM Haviland-Jones & LF Barrett New York: Guilford Press:211-234.
- Matthews, G, Zeidner, M & Roberts, RD. 2007. *The science of emotional intelligence: knowns and unknowns.* Oxford: Oxford University press.
- Mayer, JD & Salovey, P. 1997. What is emotional intelligence? in *Emotional development and emotional intelligence: educational implications,* edited by P Salovey & D Sluyter. New York: Basic Books.
- Mayer, JD, Salovey, P & Caruso, D. 2004. Emotional intelligence: theory, findings and implications. *Psychology Inquiry* 15(3):197-215.
- Mazza, N. 2003. *Poetry therapy: theory and practice*. New York: Brunner & Routledge.
- Mazza, N. 2006. Voices in flight: integrating movement/dance with poetry therapy. *Journal of Poetry Therapy* 19:147-150.

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McDermott, KB. 2002. Memory, explicit and implicit, in *Encyclopedia of the human brain*, edited by VS Ramachandran. 4 vols. USA: Elsevier: 773-781.

- McGregor, I, Nash, KA & Inzlicht, M. 2009. Threat, high self-esteem, and reactive approach motivation: electroencephalographic evidence. *Journal* of Experimental Social Psychology 45(4):1003-1007.
- McKay, M & Harp, D. 2005. *Neural path therapy: how to change your brain's response to anger, fear, pain, and desire*. Oakland, California: New Harbinger.
- McKinnon, JE & Lowry, SC. 2012. Embracing failure through performative pedagogy: a report from the margins. *Performance research* 17(1):47-50. http://dx.doi.org/10.1080/13528165.2012.651862 (Accessed 5 July 2013).
- Medina, J. 2008. Brain rules: 12 principles for surviving and thriving at work, home and school. Seattle, WA: Pear Press.
- Meilman, PW. 1979. Cross-sectional age changes in ego identity status during adolescence. *Developmental Psychology* 15:230-231.
- Meltzoff, AN & Prinz, W (eds). 2002. *The imitative mind: development, evolution and brain bases*. Cambridge: Cambridge University Press.
- Mendeck, R. 2000. Don't scream at your teenager. Star July: 23.
- Merleau-Ponty, M. 1964. *The primacy of perception: and other essays on phenomenological psychology, the philosophy of art, history and politics*. [Evanston, III]: Northwestern University Press: 3.
- Mertler, CA. 2006. *Action research: teachers as researchers in the classroom.* 2nd *edition.* London: Sage.
- Mnensa, MT. 2010. Speaking out: African orality and post-colonial preoccupations in selected examples of contemporary performance poetry. MA thesis, Nelson Mandela Metropolitan University, Port Elizabeth. <u>www.nmmu.ac.za</u> (Accessed 30 Augustus 2011).
- Moon, JA. 2005. *A handbook of reflective and experiential learning: theory and practice*. 2nd edition. New York: Routledge.



- Moran, M. 2008. Brain rewards aggression much like it does sex, food, drugs, *Exploration, Vanderbilt's Online Research Magazine*. <u>www.vanderbilt.edu/exploration/text/index./php?action=view_section&id=1372</u> (Accessed 15 December 2013).
- Moreno, JL. 1946. Psychodrama. New York: Beacon House.
- Moretti, MM, Odgers, CL & Jackson, MA. 2004. *Girls and aggression: contributing factors and intervention principles.* [SI]: Kluwer Academic/Plenum Publishers.
- Morgan, N & Saxton, JM. 1987. *Teaching drama: a mind of many wonders.* UK: Hutchinson Education.
- Morgan, N & Saxton, JM. 1989. *Teaching drama: a mind of many wonders.* [SI]: Nelson Thornes.
- Morgan, N & Saxton, JM. [1991]. *Teaching, questioning, and learning*. [SI]: Routledge.
- Morgan, N & Saxton, JM. 2006. *Teaching, questioning, and learning*. 2nd edition. [SI]: Pembroke.
- Morris, JA, Urbanski, J & Fuller, J. 2005. Using poetry and the visual arts to develop emotional intelligence. *Journal of Management Education* 29(6):888-904.
- Mosby's Medical Dictionary. 2009. 8th edition. London: Elsevier.
- Munro, M & Coetzee, MH. 2007a. Mind the gap. Submitted for peer review. Tshwane University of Technology, Pretoria.
- Munro, M & Coetzee, MH. 2007b. Mind the gap: beyond whole-brain learning. *South African Theatre Journal (*SATJ) 21:92-108.
- Mwamwenda, TS. 1994. Educational psychology an African perspective, in *Human development,* edited by DA Louw, DM Van Ede & AE Louw. Cape Town: Kagiso.
- Myers, I & Briggs, MHM. 1985. *Manual: a guide to the development and use of the Myers-Briggs type indicator.* 2nd edition. Palo Alto, CA: Consulting Psychologists Press.



- Myers, JE & Mobley, KA. 2004. Foundations of wellness promotion for undergraduate students: lessons from between and within group comparisons. *Journal of College Counseling* 7:40-49.
- Myers, JE, Mobley, AK & Booth, CS. 2003. Wellness of counseling students: practicing what we preach. *Counselor Education and Supervision* 42(2):264-274.
- Naray, MJ (ed). 2009. *Making meaning: constructing multimodal perspectives of language, literacy and learning through arts-based early childhood education*. New York: Springer.
- National Curriculum Statement Grades R-12 (NCS)(The Curriculum and Assessment Policy Statement (CAPS): Dramatic Arts of the National Curriculum Statement (NCS), of the Further Education and Traininf Phase (FET) (Department of Education 2011:3-5).
- Neelands, J & Goode, T. 2005. *Structuring drama work: a handbook of available forms in theatre and drama*. 5th edition. UK: Cambridge University Press.

Neenan M & Dryden, W. 2010. Rational emotive behaviour therapy in a nutshell. London: Sage.
Neethling, K & Rutherford, R. 2005. Creativity uncovered. Halfway House: Solutionsfinding.

- Nelson, EE, Leibenluft, E, McClure, EB & Pine, DS. 2005. The social re-orientation of adolescence: a neuroscience perspective on the process and its relation to psychopathology. *Psychological Medicine* 35(2):163-174. Bethesda, USA: National Institute of Mental Health, Mood and Anxiety Disorders Program. <u>http://www.ncbi.nlm.nih.gov/pubmed/15841674</u> (Accessed 10 June 2013).
- Nelson, L & Finneran, L. 2006. *Drama and the adolescent journey: warm-ups and activities to address teen issues.* Portsmouth: Heinemann.
- Nelson, WM, Finch, AJ & Ghee, AC. 2006. Anger management with children and adolescents: cognitive-behavioral therapy, in *Child and adolescent therapy:*



cognitive-behavioral procedures, edited by PC Kendall. [New York]: Guilford: 114-168.

Neuman, WL. 1997. Social research methods: qualitative and quantitative approaches. 3rd edition. Boston, Mass: Allyn Bacon.

New England Biolabs. 2013. Epigenetics.

https://www.neb.com/applications/epigenetics (Accessed 16 June 2013).

Newman, BM & Newman, PR. 2009. *Development through life: a psychological approach.* Belmont, CA: Wadsworth Cengage Learning.

Nicholson, H. 2000. *Teaching drama 11-18.* London: Continuum.

Nicholson, H. 2005. Applied drama: the gift of theatre. Basingstoke: Palgrave

- Nicholson, H. 2011. Theatre, education and performance. Hampshire: Palgrave.
- Nichter, M. 2000. *Fat talk: what girls and their parents say about dieting.* USA: Harvard University Press.
- Nieuwenhuys, R. 2012. The insular cortex: a review. *Progress in Brain Research* 195:123-63. Netherlands Institute for Neuroscience. Amsterdam: Elsevier.
- *Night Music 3. Classical favourites for relaxing and dreaming.* 1989. [CD with relaxing music for meditation]. Naxos.
- Nolte, J. 1999. *The human brain: an introduction to its functional anatomy*. 4th edition. St. Louis, MO: Mosby.
- Novaco, RW. 2000. Anger, in *Encyclopedia of psychology,* edited by AE Kazdin. Washington, DC: American Psychological Association: 170-174.
- Novaco, RW. 2007. Anger dysregulation, in *Anger, aggression, and interventions for interpersonal violence,* edited by TA Cavell & KT Malcolm. New Jersey: Erlbaum.
- Ochsner, KN & Gross, JJ. 2008. Cognitive emotion regulation. *Current Directions in Psychological Science* 17(2):153-158.





- Ochsner, KN, Bunge, SA, Gross, JJ & Gabrieli, JD. 2002. Rethinking feelings: an fMRI study of the cognitive regulation of emotion. *Journal of Cognitive Neuroscience* 14(8):1215-1229.
- O'Connor, PJ. 2003. Reflection and refraction: the dimpled mirror of process drama. How process drama assist people to reflect on their attitudes and behaviour associated with mental illness. DPhil thesis, Griffith University, Brisbane. <u>https://www120.secure.griffith.edu.au/rch/file/3b168841-d579-2427-89be-</u> fff2dbf1ba6f/1/02Whole.pdf (Accessed 15 June 2013).
- O'Connor, PJ. 2008. I'm not telling. Unpublished resource produced for the New Zealand Police.
- O'Donoghue, T & Punch, K (eds). 2003. *Qualitative educational research in action: doing and reflecting.* London: Routledge.
- Olatunji, BO, Lohr, JM & Bushman, BJ. 2007. The pseudo-psychology of venting in interventions for anger and related conditions: implications and alternatives for mental health practice, in *Anger, aggression and interventions for interpersonal violence*, edited by TA Cavell & KT Malcolm. [SI]: Erlbaum: 119-142.
- O'Lenic, C & Arman, JF. 2005. Anger management for adolescents: a creative group counseling approach, in *VISTAS: Compelling perspectives on counseling*, 2005, edited by GR Walz & RK Yep. Alexandria, VA: American Counseling Association (ACA):55-58.

Olivier, C. 1998. How to educate and train outcomes-based. Pretoria: Van Schaik.

- Olivier, MAJ & Bloem, S. 2004. Teachers speak their minds about abortion during adolescence. *South African Journal of Education* 24(3):177-182.
- O'Neill, C. 1985. Imagined worlds in theatre and drama, in *Building moral communities through educational drama,* edited by BJ Wagner.1999. Stanford, CT: Ablex.
- O'Neill, C. 1994. Drama in education, in *Building moral communities through educational drama,* edited by BJ Wagner.1999. Stanford, CT: Ablex.

492



- O'Neill, C. 1995. *Drama worlds: a framework for process drama.* Portsmouth, NH: Heinemann.
- O'Neill, C & Lambert, A. 1990. *Drama structures: a practical handbook for teachers*. Cheltanham: Stanley Thornes.
- ORWH (Office of Research on Women's Health). 2008. *The health of girls and women across the lifespan: adolescence*. Based on the ORWH women's health science seminar series.

http://videocast.nih.gov/PastEvents.asp?c=11 (Accessed 15 December 2013).

- O'Toole, J. 1992. *The process of drama: negotiating art and meaning*. London: Routledge.
- O'Toole, J & Burton, B. 2002. Cycles of harmony: action research into the effects of drama on conflict management in schools. *Applied Theatre Researcher* 3. Griffith University of Queensland: Centre for Applied Theatre Research.
- O'Toole, J, Burton, B & Plunkett, A. 2004. *Cooling conflict: a new approach to managing bullying and conflict in schools.* Sydney: Pearson Education.
- O'Toole, J & Haseman, B. 1989. *Dramawise: an introduction to the elements of drama.* Oxford: Heinemann Educational Books.
- O'Toole, J, Stinson, M & Moore, T. 2009. *Drama and curriculum: a giant at the door*. UK: Springer.
- Oxford Dictionary Online. <u>http://www.oxfordadvancedlearnersdictionary.com/</u> (Accessed 10 October 2011).
- Oxford Dictionary Online. <u>http://oxforddictionaries.com/definition/theatre</u> (Accessed 24 May 2013).
- Palapattu, AG, Kingery, JN & Ginsburg, GS. 2006. Gender role orientation and anxiety symptoms among African American adolescents. *Journal of Abnormal Child Psychology* 34(3):441-449.
- Panitz, T. 1996. Collaborative learning versus cooperative learning a comparison of the two concepts which will help us to understand the underlaying nature of interactive

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learning. <u>http://home.capecod.net/~tpanitz/tedsarticles/coorpdefinition.html</u> (Ac cessed 26 December 2010).

- Panju, M. 2008. 7 successful strategies to promote emotional intelligence in the classroom. London: Continuum International.
- Panksepp, J. 1998. Affective neuroscience: the foundations of human and animal emotions. New York: Oxford University Press.
- Panksepp, J. 2007. In *Anger, aggression and interventions for interpersonal violence* edited by TA Cavell & KT Malcolm. Mahwah, NJ: Erlbaum.
- Parent, AS, Teilmann, G, Juul, A, Skakkebaek, NE, Toppari, J & Bourguignon, JP.
 2003. The timing of normal puberty and the age limits of sexual precocity: variations around the world, secular trends, and changes after migration.
 Endocrine Reviews 24(5):668-693. Belgium: University of Liège, Division of Ambulatory Pediatrics and Adolescent Medicine.
- Parker, JDA, Saklofse, DH, Wood, LM & Terri, C. 2009. The role of emotional intelligence in education, in *Assessing emotional intelligence: theory, research and applications*, edited by C Stough, JDA Parker & DH Saklofse. [NewYork]: Springer: 239-255.
- Parker, S. 2005. The biology of learning, in *Human Learning: a holistic approach,* edited by P Jarvis & S Parker. Oxon, Abingdon: Routledge.
- Parker, W. 2004. Ideology, hegemony and HIV/AIDS: the appropriation of indigenous and global spheres. PhD thesis, University of KwaZulu-Natal.
- Parrott, WG. 2001. Emotions in social psychology: essential readings. Philadelphia, PA: Psychology Press.
- Parslow, P. 2009. Vygotsky, ZPD, scaffolding, connectivism and personal learning networks. <u>http://brains.parslow.net/node/1558</u> (Accessed 25 August 2013).
- Patten, KE. 2008.Toward a neuropedagogy of emotion. PhD thesis, Simon and Fraser University, [British Columbia].
- Patton, MQ. 2002. Qualitative research and evaluation methods. [SI]: Sage.

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Pawlik-Kienlen, L. 2007. *The big five personality traits in psychology*. <u>http://www.suite101.com</u> (Accessed 17 November 2010).

- Perl, E. 2008. *Psychotherapy with adolescent girls and young women: fostering autonomy through attachment*. New York: Guilford Press.
- Perlin, E. 2009. *Breaking addictions with biblio/poetry therapy*. Bloomington, Indiana: Author House.
- Perry, BD See Annual Southwest Family Violence Conference (2nd: 2003: South Riverside County, CA).
- PET: Positron Emission Tomography. <u>http://www.snm.org/docs/PET</u> <u>PROS/PET.pdf</u> (Accessed 15 December 2013).
- Peterson, SS & Swartz, L. 2008. *Good books matter: how to choose and use children's literature to help students grow as readers.* Ontario: Pembroke.
- Petrides, KV, Frederickson, N & Furnham, A. 2004. The role of trait emotional intelligence in academic performance and deviant behaviour inschool. *Personality and Individual Differences* 36(2):277-293.
- Piaget, J. 1972. Intellectual evolution from adolescence to adulthood. *Journal of Human Development* 15(1):40-47.
- Piaget, J & Inhelder, B. 1969. *The psychology of the child*. London: Routledge.
- Piazzoli, E. 2012. Engage or entertain? The nature of teacher/participant colloboration in process drama for additional language teaching. *Scenario* VI (2). <u>http://scenario.ucc.ie</u> (Accessed 13 September 2013).
- Picard, R.1997. Affective computing. Cambridge, MA: MIT Press.
- Pipher, M. 1994. *Reviving Ophelia: saving the selves of adolescent girls*. New York: Ballantine Books.
- Pipher, M. 1995. *Hunger pains: the modern woman's tragic quest for thinness*. New York: Ballantine Books.



- Plude, DJ, Enns, JT & Brodeur, D. 1994. The development of selective attention: a life- span overview. <u>http://www.linkinghub.elsevier.com</u> (Accessed 4 September 2011).
- Plug, C, Louw, DAP, Gouws, LA & Meyer, WF. 1997. *Verklarende en vertalende sielkundewoordeboek.* Johannesburg: Heinemann.
- Politano, C & Paquin, J. 2000. *Brain-based learning with class*. Winnipeg, MB: Portage & Main Press.
- Pollock, KM & Kymissis, MD. 2001. The future of adolescent group therapy. An analysis of historical trends and current momentum. *Journal of Child and Adolescent Group Therapy* 11(1):3-11.
- Posavac, EJ & Carey, RG. 1992. *Program evaluation: methods and case studies.* Englewood Cliffs: Prentice Hall.
- Potgieter, B. 1987. Kinesio-metafoor: benadering tot die interpretasie van die uitvoerende kunste. DPhil thesis, University of Pretoria, Pretoria.
- Potter-Efron, RT. 2005. Handbook of anger management. New York: Routledge.
- Prendergast, M, Leggo, C & Sameshima, P (eds). *Poetic inquiry: vibrant voices in the social science.* Rotterdam: Sense Publishers.
- Prentki, T & Preston, S (eds). 2008. The applied theatre reader. London: Routledge.
- Preston, SD & De Waal, FBM. 2002. Empathy: its ultimate and proximate bases Behavioral and Brain Sciences 25(1):1-72.
- Preston, S. 2004. An argument for transformative theatre in development: continuing the debate. (See Ahmed, 2002, 2004; Prentki, 2003) *Research in Drama Education,* 9(2):231.
- Price, JL. 2002. Limbic system, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 695-702.
- Prilleltensky, I & Prilleltensky, O. 2003. Towards a critical health psychology practice. *Journal of Health Psychology* 8:197-210.
- Prinz, J. 2004. Which emotions are basic? In *Emotions, evolution a rationality,* edited by D Evans & P Cruse. New York: Oxford University Press.



- Pritchard, A. 2009. *Ways of learning: learning theories and learning styles in the classroom.* 2nd edition. New York: Routledge: 41
- Purves, D, Augustine, GJ, Fitzpatrick, D, Haa, WC, LaMantia, AS, McNamara, JO & Williams, SM (eds). 2004. *Neuroscience*. 3rd edition. Sunderland, MA: Sinauer.
- Putallaz, M & Bierman, KL (eds). 2004. *Aggression, antisocial behavior and violence among girls: a developmental perspective.* New York: Guilford Press.
- Quenk, NL. 2009. *Essentials of Myers-Briggs type indicator assessment.* 2nd edition. Hoboken, NJ: Wiley. (Essentials of Psychological Assessment Series, edited by AS Kaufman & NL Kaufman).
- Rahnema, M. 1992. Participation, in *The development dictionary: a guide to knowledge as power,* edited by W Sachs. London: Zed Books.
- Ramachandran, VS & Oberman, LM. 2006. Broken mirrors: a theory of autism. *Scientific American*, November 2006. <u>www.sciam.com</u> (Accessed 15 June 2013).
- Ratey, JJ & Hagerman, E. 2008. *Spark: the revolutionary new science of exercise and the brain.* New York: Little Brown.
- Reasoner, RW. 1994. *Building self-esteem in the elementary schools.* California: Consulting psychologists' press.
- Reber, AS. 1993. Implicit learning and tacit knowledge: an essay on the cognitive unconscious. New York: Oxford University Press.
- Redd, NA. 2010. *Diet drama*: Feed your body! Move your body! Love your body! New York: Penguin.
- Reiter, S. 1997. Poetry therapy: testimony on Capital Hill. *Journal of Poetry Therapy* 10(3):169-178.
- Reiter, S. 2003. The youngest pioneer: Sherry Reiter, NAPT keynote speaker, interview by PO Hellar. *NAPT Museletter* xxiv (1).
- Rice, FP & Dolgin, KG. 2008. *The adolescent: development, relationships, and culture.* Pennsylvania: Allyn & Bacon.



- Richardson, L. 1993. Poetics, dramatics and transgressive validity: the case of the skipped line. *The Sociological Quarterly* 34(4):695-710.
- Richardson, L. 2002. Writing Sociology. *Cultural Studies Critical Methodologies* 2(3):414-422.
- Richardson, TL. 2002. The importance of emotional intelligence during transition to middle school. *Middle School Journal* 33(3):55-58.
- Riley, S. 2004. *Contemporary art therapy with adolescents*. 5th edition. London: Jessica Kingsley.
- Rizzolatti, G & Craighero, L. 2004. The mirror-neuron system. *Annual Review of Neuroscience* 27(1):169-192.
- Roberts, TS. 2004. *Online collaborative learning: theory and practice*. Hershey, PA: Idea Group Publishing.
- Robertson, D. 2010. *The philosophy of Cognitive-Behavior Therapy (CBT)*. London: Karnac Books.
- Robertson, VL. 2008. Guidelines to support adolescent girls who selfmutilate: play therapy. Master of Diaconiology thesis, University of South Africa, Pretoria.
- Robinson, RC, Radziejewski C, Stuart, DI & Jones, EY. 1995. Structure of the brainderived neurotrophic factor/neurotrophin 3 heterodimer. *Biochemistry* 34(13):4139-4146.
- Rocha do Amaral, J & de Oliveira, JM. 2009. *The limbic system: the center of emotions*. <u>http://www.healing-arts.org/n-r-limbic.html</u> (Accessed 15 December 2013).
- Rodenburg, P. 1997. *The actor speaks: voice and the performer*. London: Methuen Drama.
- Rogers, K, Dziobek, I, Hassenstab, J, Wolf, OT & Convit, A. 2007. Who cares? Revisiting empathy in Asperger syndrome. *Journal of Autism and Developmental Disorders* 37(4):709-715.
- Rokotnitz, N. 2011. *Trusting performance: a cognitive approach to embodiment in drama.* New York: Palgrave Macmillan.



Rose-Innes, O. 2006. Socio-cultural aspects of HIV/AIDS. Report for Health 24.

www.health24.com (Accessed 4 July 2010).

- Rosenblum, GD & Lewis, M. 2006. Emotional development in adolescence, in *Blackwell handbook of adolescence*, edited by GR Adams & MD Berzonsky. Oxford, UK: Blackwell: 269-289.
- Rubin, L & Hebert, C. 1998. Model for active learning: collaborative peer teaching. *College Teaching* 46(1):26-30.
- Rudolph, KD. 2002. Gender differences in emotional responses to interpersonal stress during adolescence. *Journal of Adolescent Health* 30(4 Suppl):3-13.
- Rutman, L. 1984. *Evaluation research methods: a basic guide.* 2nd edition. London: Sage.
- Saarni, C. 1999. *The development of emotional competence*. New York: Guilford Press.
- Salovey, P & Grewal, DD. 2005. The science of emotional intelligence. *Current directions in psychological science* 14(6):281-285.
- Salovey, P & Mayer, JD. 1990. Emotional intelligence. *Imagination, Cognition and Personality* 9(3):185-211.
- Sandelowski, M. 1995. Focus on qualitative methods: sample sizes in qualitative research. *Research in Nursing & Health* 18(2):179-183.
- Sauter, DA, Eisner, F, Calder, AJ, Scott, SK. 2010. Perceptual cues in nonverbal vocal expressions of emotion. *The Quarterly Journal of Experimental Psychology* 63(11):2251-2272. <u>doi:10.1080/17470211003721642</u>
- Saver, JL. 2002. Aggression, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 21-42.
- Sax, L. 2005. Why gender matters: what parents and teachers need to know about the emerging science of sex differences. New York: Doubleday.
- Scherer, KR, Schorr, A & Johnstone, T. 2001. *Appraisal processes in emotion: theory, methods, research.* NY: Oxford University Press.



- Schmahmann, JD & Caplan, D. 2006. Cognition, emotion and the cerebellum. *Oxford Journal: Brain* 129(2):290-292.
- Schmidt-Kassow, M, Deusser, M, Thiel, C, Otterbein, S, Montag, C, Reuter, M, Banzer, W & Kaiser, J. 2013. *Physical exercise during encoding improves vocabulary learning in young female adults: a neuroendocrinological study.* http://www.ncbi.nlm.nih.gov/pubmed? (Accessed 23 November 2013).
- Schneider, JJ, Crumpler, TP & Rogers, T. 2006. Process drama and multiple literacies: addressing social, cultural and ethical issues. Portsmouth,
 NH: Heinemann.
- Schwienbacher, I, Fendt, M, Richardson, R & Schnitzler, HU. 2004.
 Temporary inactivation of the nucleus accumbens disrupts acquisition and expression of fear-potentiated startle in rats. *Brain Research* 1027(1-2):87-93.
- Sebald, H. 1992. *Adolescence: a social psychological analysis*. 4th edition. Englewood Cliffs, NJ: Prentice Hall.
- Seligman, MEP. 1991. *Learned optimism: how to change your mind and your life.* New York: Simon & Schuster.
- Shafer, A, Iordan, A, Cabeza, R & Dolcos, F. 2011. Brain imaging investigation of the memory-enhancing effect of emotion. Journal of Visualized Experiments 51. <u>http://www.jove.com/video/2433/brain-imaging-investigation-of-the-memoryenhancing-effect-of-emotion</u> (Accessed 25 August 2013).
- Shandler, S. 1999. Ophelia speaks: adolescent girls write about their search for self. New York: HarperCollins.
- Shanwal, VK & Kaur, G. 2008. Emotional intelligence in education: applications and implications, in *Emotional intelligence: theoretical and cultural perspectives,* edited by RJ Emmerling, VK Shanwal & MK Mandal. New York: Nova Science.
- Shelton, N & Burton, S. 1994. Assertiveness skills. Illinois: Minor Press.
- Shen, H, Gong, QH, Aoki, C, Yuan, M, Ruderman, Y, Dattilo, M, Williams, K & Smith, SS. 2007. Reversal of neurosteroid effects at alpha4beta2delta GABA-A



receptors triggers anxiety at puberty. *Nature Neuroscience* 10(4):469-477. http://www.medicalnewstoday.com (Accessed 17 November 2010).

- Sibley, BA & Etnier, JL. 2003. The relationship between physical activity and cognition in children: a meta-analysis. *Pediatric Exercise Science* 15(3):243-256.
- Siegel, DJ. 2007. Mindfulness training and neural integration: differentiation of distinct streams of awareness and the cultivation of well-being. *Social Cognitive and Affective Neuroscience* 2(4):259-263.
- Siegel, DJ. 2010. *The mindful therapist: a clinician's guide to mindsight and neural integration.* [Kindle version]. New York: Norton.
- Sigelman, CK & Rider, EA. 2006. *Life-span human development*, Belmont, USA: Wadsworth Cengage Learning.
- Silberman, M. 2007. The handbook of experiential learning. San Francisco: Wiley.
- Silk, JS, Steinberg, L & Scheffield Morris, A. 2003. Adolescents' emotion regulation in daily life: links to depressive symptoms and problem behavior. *Child Development* 74(6):1869-1880.
- Silverman, S. 2011. Teaching for student learning in physical education. *Journal of Physical Education, Recreation and Dance* 82(6):29-34.
- Simmons, R. 2002. *Odd girl out: the hidden culture of aggression in girls*. New York: Harcourt.
- Simmons, R. 2006. *Odd girl out: the hidden culture of aggression in girls*. Revised and updated. Florida, Orlando: Harcourt.
- Simmons, R. 2011. Odd girl out: the hidden culture of aggression in girls. First mariner books edition. NY: Houghton Mifflin Harcourt.
- Simonelli, S & Fukunaga, L. 2013. *Arts in education*. A multimodal approach, integrating arts into academic curriculum.

http://www.sig.hawaii.edu/products/briefs/arts in education.pdf (Accessed 15 June 2013).





- Singhal, A, Cody, MJ, Rogers, EM & Sabido, M. 2008. *Entertainment-education: history, research, and practice.* New Jersey: Lawrence Erlbaum.
- Sklare, GB. 2005. *Brief counseling that works: a solution-focused approach for school counselors and administrators.* Thousand Oaks, CA: Corwin Press.

Slade, P. 1954. Child drama. London: University of London Press.

Slade, P. 1968. Experience of spontaneity. London: Longmans.

Slade, P. 1977. Natural dance. London: Hodder and Stoughton.

- Slavkin, ML. 2004. Authentic learning: how learning about the brain can shape the development of students. Toronto: Scarecrow Education.
- Smetana, JG, Braeges, J & Yau, J. 1991. Doing what you say and saying what you do: reasoning about adolescent-parent conflict in interviews and interactions. *Journal of Adolescent Research* 6(3):276-295.
- Smith, DC. 2001. Positive prevention strategies for school violence. *Educational Perspectives* 34(2):10-14.
- Smith, F. 2003. Unspeakable acts, unnatural practices: flaws and fallacies in "scientific" reading instruction. Portsmouth, NH: Heinemann.
- Smith, MK. 1997, 2002. Paulo Freire and informal education, in Encyclopaedia of informal education. <u>http://infed.org/mobi/paulo-freire-dialogue-praxis-and-</u> <u>education/</u> (Accessed 23 September 2013).
- Smith, ML & Glass, GV. 1997. Research and evaluation in education and the social sciences, in *Social research methods: qualitative and quantitative approaches*, 3rd edition, edited by WL Neuman. Boston, Mass: Allyn & Bacon.
- Smith, SS, Aoki, C & Shen, H. 2009. Puberty, steroids and the GABA (A) receptor plasticity. *Psychoneuroendocrinology* 34 Suppl 1:S91-S103.
- Snyder, A, Mitchell, J, Bossomaier, T & Pallier, G. 2004. The creativity quotient: an objective scoring of ideational fluency. *Creativity Research Journal* 16(4):415-420.

Somers, J. 1993. Drama in the curriculum. London: Cassell.



- Somers, J. 1996. Drama and theatre in education: contempory research. North York: Captus Press
- Sousa, DA. 2006. *How the brain learns*. 3rd edition. Thousand Oaks, CA: Corwin Press.
- South African Department of Basic Education. 2002. *Revised National Curriculum Statement Grades R-9 (Schools) Arts and Culture.* Available on <u>http://education.pwv.gov.za</u>. (Accessed10 December 2013).
- South Africa. Department of Basic Education. 2003. *The teacher's guide for the development of learning programmes: policy guidelines for life orientation*. Pretoria: Government Printer.
- South Africa. Department of Basic Education. 2005. The teacher's guide for the development of learning programmes: policy guidelines for life orientation. Pretoria: Government Printer.
- South Africa. Department of Basic Education. 2011. CAPS, Life orientation FET Grades 10 to 12. Pretoria: Government Printer.
- South Africa. Department of Basic Education. 2011. *National curriculum statement: curriculum and assessment policy statement, grades 10 to 12: Dramatic Arts.* Pretoria: Government Printer.
- South Africa. Department of Basic Education. 2012. *National curriculum and assessment policy statement, grades 10 to 12: Languages.* <u>http://www.education.gov.za/LinkClick.aspx?fileticket=ON8TzX0FS8M</u> (Accessed 16 June 2013).
- South Africa. National Department of Education. 2005. *The revised curriculum statement*. <u>www.mml.co.za/revised national curriculum</u> <u>statement.html</u> (Accessed 28 August 2009).
- Spandler, H & Warner, SJ (eds). 2007. *Beyond fear and control: working with young people who self harm.* [42nd Street Reader]. Ross-on-Wye: PCCS Books.



- Spear, LP. 2000. The adolescent brain and age-related behavioral manifestations. *Neuroscience and Biobehavioral Reviews* 24(4):417-463. <u>http://www.sciencedirect.com</u> (Accessed 23 September 2009).
- Spenceley, D. *TA 101 notes: introduction to TA*. <u>www.ta-</u> <u>psychotherapy.co</u>. <u>uk/pdf/101.pdf</u> (Accessed 13 September 2013).
- Spielberger, CD, Jacobs, GA, Russel, SF & Crane, RS. 1983. Assessment of anger: the state-trait anger scale, in *Advances in personality assessment*, edited by JN Butcher & CD Spielberger. Vol 2. Hillsdale, NJ Erlbaum: 159-187.
- Spielberger CD. 1988. *Manual for the State-Trait Anger Expression Inventory* (*STAXI-2*). Odessa, FL: Psychological Assessment Resources, 1988.
- Squire, LR. 2004. Memory systems of the brain: a brief history and current perspective. *Neurobiology of Learning and Memory* 82:171-177.
- Stafford-Clarke, D. 1997. *What Freud really said*. [Reprint]. New York: Schockenbooks.
- Stalker, J. 2005. Fabricating new directions for women's learning: case studies in fabric crafts and fashion, in *Human learning: a holistic approach,* edited by P Jarvis & S Parker. New York: Routledge: 168-182.
- Stang J & Story, M (eds). 2005. *Guidelines for adolescent nutrition services.* http://www.epi.umn.edu/let/pubs/adol (Accessed 23 November 2013).
- Stanislavski, C. 1968. *Creating a role*. [London]: New English Library *State anger*. <u>http://www.gem-beta.org/public/ConstructDetail.aspx?cid=1129</u> (Accessed 8 July 2013).
- Stebbins, RA. 2001. Research in the social sciences. California: Sage.
- Stein, JF. 2005. The brain and learning, in *Human learning: a holistic approach,* edited by P Jarvis & S Parker. New York: Routledge: 32-49.
- Stein, SJ & Book, HE. 2001. *The EQ edge: emotional intelligence and your success.* London: Kogan Page.



- Steinberg, L. 1990. Autonomy, conflict and harmony in the family relationship, in *At the threshold: the developing adolescent,* edited by SS Feldman & GR Elliot. Cambridge, MA: Harvard University Press: 255-276.
- Steiner, C. 1992. *Scripts people live: transactional analysis of life scripts.* 2nd edition. New York: Grove Press.
- Steiner, H, Pavelski, R, Pitts, T & McQuivey, R. 1998. The Juvenile Wellness and Health Survey (JWHS-76): a school based screening instrument for general and mental health in high school students. *Child Psychiatry and Human Development* 29(2):141-155.
- Steinmann, CML. 2007. A neurological based theory of learning and creativity. Submitted for peer review. Tshwane University of Technology, Department of Biomedical Sciences, Pretoria.
- Sternberg, RJ (ed). 2002. *Handbook of intelligence*. Cambridge: Cambridge University Press.
- Sternberg, RJ. 2003. Creative thinking in the classroom. *Scandinavian Journal of Educational Research* 47(3):325-338.
- Sternberg, RJ & Caruso, DR. 1985. Practical modes of knowing, in *Learning and teaching the ways of knowing*, edited by EW Eisner. Chicago, IL: University of Chicago Press: 133-158.
- Sternberg, RJ & Kaufman, JC. 2005. Intelligence, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 587-597.
- Stevens, JO. 1971. *Awareness: exploring, experimenting, experiencing.* Moab, UT: Real People Press.
- Stevenson, LM & Deasy, RJ. 2005. *Third space: when learning matters*. Washington DC: Arts Education Partnership.
- Stirling, J. 2002. Introducing neuropsychology. Sussex: Psychology press.
- Stough, C, Saklofske, DH & Parker, JDA. 2009. The role of emotional intelligence in education, in *Assessing emotional intelligence: theory, research and*



applications, edited by C Stough, DH Saklofske & JDA Parker. New York: Springer.

Straus, M. 1994. Violence in the lives of adolescents. NY: Norton.

- Strong, M. 1998. *A bright red scream: self-mutilation and the language of pain.* New York: Penguin Putnam Incorporated.
- Stys, Y & Brown, SL. 2004. *A review of the emotional intelligence literature and implications for corrections.* Ottawa, Ontario: Correctional Service of Canada, Research branch.
- Sunal, DW, Wright, EL & Bland, J (eds). 2004. *Reform in undergraduate science teaching for the 21st Century.* Greenwich, CT: Information Age Publishing.

Swartz, L. 1995. Drama themes. Portsmouth, NH: Heinemann Educational Books.

Swartz, L. 2002. *The new drama themes*. 3rd edition. Markham, ON: Pembrook.

- Swartz, L & Nyman, D. 2010. *Drama schemes, themes and dreams: how to plan, structure, and assess classroom events that engage all learners*. Toronto: Pembroke.
- Sweeney, ML. 2001. Self image of adolescent females: a group exploration, in *Modern applications to group work,* edited by KA Fall & JE Levitov. New York: Nova Science.
- Sydney Symposium (8th: 2005). Positive emotions and cognition: developmental, neuroscience and health perspectives, by FA Huppert, in *Hearts and minds: affective influences on social cognition and behaviour*, proceedings.
- Syka, J & Merzenich, MM (eds). 2003. *Plasticity and signal representation in the auditory system.* [SI]: Springer.
- Sylwester, R. 2004. *How to explain a brain: an educator's handbook of brain terms and cognitive processes.* USA, California: Corwin Press.
- Sylwester, R. 2007. *The adolescent brain: reaching for autonomy.* Thousand Oaks, CA: Corwin Press.



Tan, A. 1989. The joy luck club. NY: Penguin.

- Taylor, JL & Novaco, RW. 2005. *Anger treatment for people with developmental disabilities.* West Sussex, England: Wiley.
- Taylor, PH. 2000. *The drama classroom: action, reflection, transformation*. London: Routledge-Falmer.
- Taylor, P. 2003. *Applied theatre: creating transformative encounters in the community*. Portsmouth: Heinemann.
- Taylor, P & Warner, CD (eds). 2006. *Structure and spontaneity: the process drama of Cecily O'Neill*. Oakhill, UK: Trentham.
- Taylor, SE. 2006. Tend and befriend: biobehavioral bases of affiliation under stress. *Current directions in psychological science* 15(6):273-227. Association for Pshychological science.
- Taylor, SE, Klein, LC, Lewis, BP, Gruenewald, TL, Gurung, RAR & Updegraff, JA.
 2000. Biobehavioral responses to stress in females: tend-and-befriend, not fight-or- flight. *Psychological Review* 107(3):411-429.
- Thagard, P. 2005. *Mind: introduction to cognitive science.* 2nd edition. Cambridge: MIT.
- Thayer, R. 1996. *The origin of everyday moods: managing energy, tension, and stress.* New York: Oxford University Press.
- Themba Interactive Education, Facilitation and Training Programme. <u>http://www.themba.org.za/content/page/introduction</u> (Accessed 7 September <u>2013).</u>
- Thomas, A & Thorne, G. 2008. *Higher order thinking.* Metairie, LA: Center for development and learning.
- Thomas, E & Mulvey, A. 2008. Using the arts in teaching and learning: building student capacity for community-based work in health psychology. *Journal of Health Psychology* 13(2):239-250.
- Thompson, C, Rudolph, L & Henderson, D. 2004. *Counseling children*. 6th edition. Belmont, CA: Brooks/Cole.

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- Thompson, J. 1999. *Drama workshops for anger management and offending behaviour.* London: Jessica Kingsley.
- Tileston, DW. 2004. *What every teacher should know about learning, memory and the brain*. Thousand Oaks, CA: Corwin.
- Tochon, FV. 2000. Action poetry as an empowering art. A manifesto for didaction in arts education. *International Journal of Education and the Arts* 1(2). <u>www.1jea.org/v/n2/index.html</u> (Accessed 30 September 2011).
- Torta, DM & Cauda, F. 2011. Different functions in the cingulate cortex, a metaanalytic connectivity modeling study. *NeuroImage* 56(4):2157-2172.
- Tokuhama-Espinosa, T. 2011. Conceptual debates in the discipline, in *Mind, brain* and education science: a comprehensive guide to the new brain-based teaching, by WW Norton.

<u>http://education.jhu.edu/PD/newhorizons/Journals/Winter2011/Tokuhama3</u> (Acc essed 4 August 2013).

- Trochim, WMK. 2006. *Deduction and induction*. <u>http://www.socialresearchmethods.net/kb/dedind.php</u> (Accessed 16 June 2013).
- Tuch, BE. 2006. Stem cells a clinical update. *Australian Family Physician* 35(9):719-721.
- Underwood, MK, Galenand, BR & Paquette, JA. 2002. Top ten challenges for understanding gender and aggression in children: why can't we all just get along? *Social Development* 10(2):248-266.

Underwood, MK. 2003. Social aggression among girls. New York: Guilford Press.

http://psychology.ucdavis.edu/sommerb/sommerdemo/sampling/types.html (Accessed 20 October 2009).

- Upitis, R & Smithrim, K. 2002. *Learning through the arts. National Assessment: A report on Year 2: 2000-2001.* Toronto: Royal Conservatory of Music.
- Urry, HL, van Reekum, CM, Johnstone, T, Kalin, NH, Thurow, ME, Schaefer, HS, Jackson, CA, Frye, CJ, Greischar, LL, Alexander, AL & Davidson RJ.

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2006. Amygdala and ventromedial prefrontal cortex are inversely coupled during regulation of negative affect and predict the diurnal pattern of cortisol secretion among older adults. *Journal of Neuroscience* 26(16):4415-4425.

- Uylings, HB, Groenewegen, HJ & Kolb, B. 2003. Do rats have a prefrontal cortex? *Behavioural Brain Research* 146(1-2):3-17.
- Van den Berg, C. 2008. A creative drama programme to stimulate emotional intelligence in 10 to 11 year-old English speaking girls. MA thesis, University of Tshwane, Pretoria.
- Van der Horst, H & Macdonald, RM. 2002. *Outcomes-based education: theory and practice.* 2nd edition. Pretoria: Tee Vee.
- Vandervert, LR. 2003. Research on innovation at the beginning of the 21st century: what do we know about it? in *The international handbook on innovation,* edited by LV Shavinina. Oxford: Elsevier: 1103-1112.
- Vandervert, LR. 2009. Working memory, the cognitive functions of the cerebellum and the child prodigy, in *The international handbook on giftedness*, edited by LV Shavinina. Canada: Springer: 295-316.
- Vandervoort, DJ. 2006. The importance of emotional intelligence in higher education. *Current Psychology* 25(1):4-7.
- Van Praag, H, Kempermann, G & Gage, F. 1999. Running increases cell proliferation and neurogenesis in the adult mouse dentate gyrus. *Nature Neuroscience* 2(3):266-270.
- Vartanian, LR. 2000. Revisiting the imaginary audience and personal fable constructs of adolescent egocentrism: a conceptual review. *Adolescence* 35(140):639-661.
- Vernon, A & Al-Mabuk, RH. 1995. *What growing up is all about: a parent's guide to child and adolescent development.* Champaign, IL: Research Press.
- Vernon, A. 2006. *Thinking, feeling, behaving: an emotional education curriculum for adolescents, grades 7-12.* Revised edition. Illinois: Research Press.

Vincent, J-D. 1990. The biology of emotions. Cambridge, Mass: Basil Blackwell.



- Vogelman, L & Lewis, S. 1993. Gang rape and the culture of violence in South Africa, or Illusion der Stärke: Jungendbanden, vergewaltigung und kultur der Gewalt in Südafrika. *Der Überblick (*2):39-42.
- Vygotsky, LS. 1978. Interaction between learning and development, in *Mind and Society* 1:79-91. Cambridge MA: Harvard University Press.
- Wagner, BJ. 1999a. *Building moral communities through educational drama*. Stamford, CT: Ablex.
- Wagner, BJ. 1999b. *Dorothy Heathcote: drama as a learning medium.* Portland: Calendar Island.
- Wagner, TD, Davidson, ML, Hughes, BL, Lindquist, MA & Ochsner, KN. 2008.
 Prefrontal-subcortical pathways mediating successful emotion regulation.
 Neuron 59(6):1037-1050.
- Wallas, G. 1926. The art of thought. New York: Harcourt.
- Ward, J. 2006. *The student's guide to cognitive neuroscience.* Sussex, UK: Psychology Press.
- Washburn, JJ, McMahon, SD, King, CA, Reinecke, MA & Silver, C. 2004.
 Narcissistic features in young adolescents: relations to aggression and internalizing symptoms. Journal of Youth and Adolescence 33(3):247-260
- Waters, V. 1982. Therapies for children: rational-emotive therapy, in *Handbook of school psychology,* edited by CR Reynolds & TB Gutkin. New York: Wiley.
- Waugh, A & Grant, A. 2002. *Ross and Wilson anatomy and physiology in health and illness.* London: Elsevier Science.
- Way, B. 1967. Development through drama. London: Longman.
- Way, B. 1980. Development through drama. London: Longman
- Weare, K. 2004. Developing the emotionally literate school. London: Sage.
- Weare, K. 2010. Promoting mental health through schools, in *Promoting health and* well-being through schools, edited by P Aggleton, C Dennison & I
 Warwick. London: Routledge.



- Weare, K & Gray, G. 2003. What works in developing children's emotional and social competence and wellbeing? University of Southampton, Research and Graduate School of Education, The Health Education Unit, Research Report RR456. Southampton: Crown Printers.
- Weinberger, DR, Elvevag, B & Giedd, JN. 2005. *The adolescent brain: a work in progress*. USA: National Campaign to Prevent Teen
 Pregnancy. <u>http://www.michigan.gov/documents/mdch/The_Adolescent_Brain_-</u>
 _A_Work_in_Progress_292729_7.pdf (Accessed 9 June 2013).
- Weisfeld, GE & Woodward, L. 2004. Current evolutionary perspectives on adolescent romantic relationships and sexuality. *Journal of the American Academy of Child and Adolescent Psychiatry.* 43 (1):11-19.
- Weiss, L & Weiss, JB. 1984. The good child syndrome, in *TA, the state of the art: a European contribution. Volume 1 of Perspectives in transactional analysis,* edited by E Stern. Dordrecht: Foris: 119-126.
- Weller, BF (ed). 2002. *Bailliere's nurses' dictionary*. 23rd edition. Edinburgh: Elsevier Science.
- Weltsek-Medina, GJ. 2006. Process drama in education: explaining its methods, in *Interactive and improvisational drama*, edited by A Blatner (Chapter 9).

<u>www.interactiveimprov.com/procdrmethodswb.html</u> (Accessed 10 August 2013).

- Weltsek-Medina, GJ. 2008. Process drama in education: general considerations, in Interactive and improvisational drama, edited by A Blatner (Chapter
 - 9). <u>www.interactiveimprov.com/procdrmwb.html</u> (Accessed 14 March 2013).
- Weltsek-Medina, GJ. 2008. Process drama in education: general considerations, in webpage supplement to Chapter 9 of *Interactive and improvisational drama*, edited by A. Blatner.

http://www.interactiveimprov.com/procdrmwb.html (Accessed 24 September 2013).





- Wesson, K. 2000. What everyone should know about the latest brain research. *TIES Magazine of Design and Technology Education* Nov/Dec 2000.
 http://www.sciencemaster.com/wesson/pdfs/attention.pdf (Accessed 4 September 2011).
- White, JH. 2004. 20th-century art education: a historical perspective, in *Handbook of research and policy in art education*, edited by EW Eisner & MD Day. Mahwah, NJ: Erlbaum.
- White, T. 1997. Is a happy teenager a healthy teenager? Four levels of adolescent anger. *Transactional Analysis Journal* 27(3):192-196.
- Wilding, C & Milne, A. 2008. Cognitive behavioural therapy. Ontario: McGraw-Hill.
- Wilding, C & Milne, A. 2010a. *Teach yourself cognitive behavioural therapy.* USA: McGraw-Hill.
- Wilding, C & Milne, A. 2010b. *Teach yourself cognitive behavioural therapy.*Hoboken, JA: Wiley. Simon, R, Markowitz, L, Barrileaux, C & Topping, B (eds).
- Wyley, MS. 1999. Public enemies, in The networker: psychotherapy and modern life. Washington DC: *Family Therapy Networker* 2(3):25-37.
- Wilhelm, JD. 2002. Action strategies for deepening comprehension: role plays, textstructure tableaux, talking statues, and other enactment techniques that engage students with text. [SI]: Scholastic Professional Books.
- Wilson, LM & Horch, HW. 2002. Implications of brain research for teaching young adolescents. *Middle School Journal* 34(1):57-61.
- Wilson, M. 2001. The case for sensorimotor coding in working memory. *Psychonomic Bulletin & Review* 8(1):44-57.
- Winston, J. 1998. Drama, narrative & moral education. London: Falmer Press.
- Wiseman, B. 2011. Cyberbullying in schools: a research study on school policies and procedures. Doctor of Education in Educational Leadership thesis, Graduate College, University of Nevada, Las Vegas.



- Wiseman, R. 2002. *Queen bees and wannabes: helping your daughter survive cliques, gossip, boyfriends, and the new realities of girl world.* New York: Three River Press.
- Wolfe, P. 2001. Brain matters: translating research into classroom practice. Alexandria, USA: Association for Supervision and Curriculum Development, (ASCD).
- Wolfe, P. 2003. Brain research and education: fad or foundation? http://www.mcli,<u>dist.maricopa.edu/forum/fall03/brain.html</u> (Accessed 9 June 2013).
- Wood, JT. 2007. Gendered lives: communication, gender, and culture. Belmont,
 CA: Thomson Learning.Wooster, R. 2007. Contemporary theatre in
 education. Chicago: Intellect Books.
- Wooster, R. 2007. Contemporary theatre in education. Chicago: Intellect Books.
- Wootton, C. 2001. The role of parents in the development of an adolescent's emotional intelligence. MEd thesis, University of South Africa, Pretoria.
- Wordsworth, W. 1884. Ode: imitations of immortality from recollections of early childhood. [SI]: Berwick & Smith.
- Wright, D. 2004. Embodied learning and drama education, in *The state of our art*, edited by C Hatton & M Anderson. New South Wales: Educational Drama Association.
- Yurgelun-Todd, D. 2002. *Frontline interview/ Inside the teen brain.* <u>www.pbs.org/wgbh/pages/frontline/shows/teenbrain/interviews/todd.html</u> (Accessed 23 November 2013).
- Yin, RK. 1994. *Case study research: design and methods*. 2nd edition. Thousand Oaks, CA: Sage.
- Yin, RK. 2003. *Case study research: design and theory.* Applied Social Research Methods series, no 5. 3rd edition. Thousand Oaks, CA: Sage.
- Yontef, GM. 1979. *Awareness, dialogue and process: essays on gestalt therapy*. Highland, NY: Gestalt Journal Press.



- Young-Jahangeer, M. 2009. Working from the inside/out: participatory popular theatre in the negotiation of discursive power and patriarchy in female prisons: the example of Westville Female Correctional Centre, KwaZulu-Natal, South Africa. 2000 - 2004. DPhil thesis, University of KwaZulu-Natal, Howard College Campus, South Africa.
- Yusuf, HKM & Islam, K. 2002. Brain development, in *Encyclopedia of the human brain,* edited by VS Ramachandran. 4 vols. USA: Elsevier: 493-507.
- Zaitsoff, SL, Geller, J & Srikameswaran, S. 2002. Silencing the self and suppressed anger: relationship to eating disorder symptoms in adolescent females. *European Eating Disorders Review* 10(1):51-60.
- Zeidner, M, Roberts, RD & Matthews, G. 2002. Can emotional intelligence be schooled? A critical review. *Educational Psychologist* 37(4):215-231.
- Zeidner, M, Roberts, RD & Matthews, G. 2004. Emotional intelligence in the workplace: a critical review. *Applied Psychology: An International Review* 53(3):371-399.
- Zeidner, M, Matthews, G & Roberts, RD. 2009. *What we know about emotional intelligence: how it affects learning, work, relationships, and our mental health.* Cambridge, MA: MIT Press.
- Zins, JE, Bloodworth, MR, Weissberg, RP & Walberg, HJ. 2004. The scientific base linking social and emotional learning to school success, in *Building* academic success on social and emotional learning: what does the research say? Edited by JE Zins, RP Weissberg, MC Wang & HJ Walberg. New York: Teachers College Press.
- Zins, JE, Weissberg, RP, Wang, MC & Walberg, HJ (eds). 2004. Building academic success and social and emotional learning: what does the research say? Columbia University, New York: Teachers College Press.
- Zull, JE. 2003. The art of changing the brain: enriching the practice of teaching by exploring the biology of learning. [SI]: Stylus.

http://www.newhorizons.org/neuro/zull.htm (Accessed 27 March 2010).

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DECLARATION

I hereby declare that I edited nine chapters, the abstract and the Appendix A of Cecilia van den Berg's doctoral thesis entitled "Dramatization of poetry as strategy in an anger management programme for adolescent girls" and made editorial recommendations. I did not view the final version or edit the bibliography.

Signed:

Date: 17 December 2013

con du fait

Dr Cecilia M du Toit