

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ANOVA	Analysis of Variance
BEAM	Basic Education Assistance Module
CIDA	Canadian International Development Agency
CWF	Child Welfare Forum
DANIDA	Danish Development Agency
GOZ	Government Of Zimbabwe
HIV	Human Immune-deficiency Virus
KABP	Knowledge Attitude and Behaviour Practice
NAC	National AIDS Council
NGO	Non Governmental Organization
NORAD	Norwegian Organisation for Relief and Development
OVC	Orphan and Vulnerable Children
SADC	Southern African Development Community
SAfAIDS	Southern Africa AIDS Information Dissemination
SAT	Southern African AIDS Training Organisation
SDA	School Development Association
SIDA	Swedish International Development Agency
SPSS	Statistical Package for Social Sciences
STI	Sexually Transmitted Infection
UK	United Kingdom
UN	United Nations
UNAIDS	Joint United Nations HIV and AIDS Programme
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USA	United States of America
USAID	United States Agency for International Development

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CHAPTER 1

1.1 Introduction

Orphanhood has become a huge phenomenon in Zimbabwe. Its magnitude has grown subtly since the report of the first AIDS case in 1985. Since then, the prevalence of HIV infection has remained so high that Zimbabwe is rated as one of the most severely affected countries in the world. The census results of 2002 showed a decline in population of approximately 200,000, whilst population projections forecast a reduction in the annual growth rate from 3.1% during the 1982 to 1992 inter-census period to 1.1% during the period 1992 to 2002. This change in growth rate is attributed largely to AIDS (Common Country Assessment UN 2003:8). In 1999, a total of 4.7 million children in the SADC region were orphaned from AIDS (UNAIDS and Economic Commission for Africa 1999). Other causes of orphanhood include traffic accidents, war, disease, crime and violence (Fox, Oyosi & Parker, 2002:10).

Reviewed literature unveiled the need for research into the learning of orphans as depicted in the background to this thesis. It is against this backdrop that the thesis identifies factors that impact on learning in general, assesses the impact of those factors on the learning profile of orphaned children in particular, provides empirical evidence regarding the learning outcomes of orphans as compared to non-orphans and identifies relationships between the impacting factors and learning outcomes. The research involved in this thesis was not exhaustive. The participants in the study were five hundred and sixteen (516) form four students, aged between 14 and 19 years, and eighteen teachers (18) from 18 schools in Harare, Zimbabwe. To execute this study, a quantitative approach guided by the process and outcome evaluation research design was used. Maslow's hierarchy of needs, a motivational humanistic learning theory, was adopted as the theoretical framework for the study. It is envisaged that the resulting knowledge will directly influence policy on the education of orphans and provide a strategy for the management of orphanhood, whose major cause in Zimbabwe is HIV and AIDS. Education that includes the acquisition of life-skills, among others, is important for the development of decision-making and problem-solving skills. Emotional intelligence is a multi-dimensional concept, which includes understanding one's emotions and the emotions of others, and being able to manage emotions in such a manner that one remains powerful and productive. This chapter

will cover the background of the study, the context, the people, orphanhood as a concept, access to and the provision of education, the problem statement, the purpose of the study, the research objectives and the study methodology including the definition of concepts.

1.2 Background to and context of the study

Orphanhood

A Preliminary Assessment study of the impact of the Human Immuno-Deficiency virus (HIV) and Acquired Immuno-Deficiency Syndrome (AIDS) on the Education Sector in Zimbabwe (2001-2002) revealed that out of 1009 interviewed students within the age range of 15 to 19 years, 286 (28.3%) were orphans, 100 (9.9%) had lost their mothers whilst 186 (18.4%) had lost their fathers. The impact assessment also revealed that orphanhood was exacerbating previously existing challenges to learning posed by poverty, and that schools were not responding adequately to the needs of orphans (Impact Assessment 2002:38). As a result, these children were more likely than others to be removed from school, to stay at home in order to care for the sick and to be drawn into the informal economy to supplement lost income. The girl child is the worst victim if unsupported, because she is either forced into marriage or indulges in transactional sex in order to raise cash for survival (Gachuhi, 1999:4; International Labour Office 2001:34; Bennell, Hyde & Swainson 2002:54).

Tanzania is reported to have the largest number of orphans in Africa, followed by Zimbabwe, which had a projected number of 900,000 by the year 2005 (UNAIDS and Economic Commission for Africa 1999). Little research has been undertaken in schools and lack of hard evidence about what is happening there has resulted in broad generalizations about the impact of the HIV and AIDS epidemic on the education sector. Consequently, without proper needs assessments, it is not possible to measure the extent of orphan deprivation in absolute terms and in relation to other groups of children (Bennell et al 2002:1,54).

The relationship between orphanhood and learning

A major factor that impacts on learning is dropping out of school, which has many causes other than the sero-status of the parents, including deprivation of either paternal or maternal care and hidden discrimination and stigmatisation because of poverty. Beekink, van Poppel & Liefbroer (1999:652) were of the opinion that the negative consequences of orphanhood would be greater where children lost both parents, because they would be disadvantaged materially and psychologically. The percentage of orphaned secondary-school students was found to be lower than at primary level because of lack of funding for secondary-school education. Schooling for orphans was an unexplored and new issue, which needed to be addressed (Baggaley & Needham 1997:873; Foster, Mafuka, Drew, Mashumba & Kambeu 1997:397; Michaels & Levine, 1992 in Forehand, Pelton, Chance, Armistead, Morse & Stock 1999:720; Gachuhi 1999:14; Bennel et al, 2002:55).

In Zimbabwe, the orphan estimates by year, country, type and cause showed that by the year 2005, 85.7% of the total percentage of orphans would have been orphaned by HIV and AIDS and that by 2010, 88.8% of the total percentage of orphans would have been orphaned by HIV and AIDS (Children on the Brink 2002:7). The abovementioned study, in which figures were projected of the number of children who would be orphaned by the HIV and AIDS pandemic in the future, illustrates how important it is for Zimbabwe to be proactive in identifying coping mechanisms for an emerging parentless generation, without compromising the standard of education. The problem, being multi-faceted, requires a prevention strategy for HIV and AIDS based on scientific knowledge.

Adoption of new roles by orphans

Some factors that impact on learning include adoption of new household roles ranging from providing care for the sick and dying to heading the home; encountering cost barriers to education (the cost of fees, books, uniforms and travel) because of lack of money; absenteeism and repetition of classes. HIV infection and AIDS have been reported to aggravate the above-mentioned factors and to lead to increasing

vulnerability to HIV infection and other diseases (Baggaley & Needham 1997:874; Bennell et al 2002:57; Matshalaga & Powell 2002:186).

Poverty

The Impact assessment of HIV and AIDS in Zimbabwe (2002) cited several underlying problems faced by orphans that predisposed them to educational disadvantage, which accord with the abovementioned factors. These included material needs; psychosocial problems; loss of parental guidance and socialisation; greater household responsibilities; HIV and AIDS, poverty and unemployment. Because they have to face these problems, children ignore longer-term goals that require education. Schools do not acknowledge or respond adequately to the needs of these orphans (Impact assessment 2002:45).

Loss of property and authority

Included in factors that impact on learning are loss of property and disinheritance. Pre-planning for death can ensure that orphans are provided for after parental death. People must be urged to draw up wills, even in a society where the belief is widespread that people who talk to others about their impending death lay themselves open to charges of witchcraft. The loss of property, protection and the necessary security not only leads to low self-esteem but also exposes orphans to abuse, including engineered deprivation of property and verbal and sexual abuse, making them emotionally and physically vulnerable. One unavoidable consequence of the above is disrupted learning (Gachuhi 1999:7; Beekink et al 1999:652).

Poor health and life skills

Poor health is a common phenomenon among orphans, which is linked to general deprivation including limited access to basic services, poverty, and HIV and AIDS affecting both parents and children. Children who care for sick parents may not have the necessary training or knowledge of proper infection control and may end up being infected themselves. This may result in illness-related absenteeism and erratic

attendance at school. Inevitably, learning is disrupted (Foster & Williamson 2000:S278; Mafuka 2001:20).

Although the study covers orphanhood in Zimbabwe regardless of its cause, it is well known that many lives continue to be lost in Zimbabwe through the HIV and AIDS pandemic. This has not only resulted in increased numbers of orphans but has aggravated the burden of disease, reduced productivity and access to education and also caused social disintegration (Impact Assessment 2002:64). Significant gaps in basic learner knowledge of life skills, sexual reproductive health, HIV and AIDS and sexually transmitted infections (STI's) were evident (Impact Assessment, 2002:23), where 60% of students felt they needed more information and 47% answered at least one question on basic facts about HIV and AIDS incorrectly. The Knowledge, Attitude, Behaviour and Practice (KABP) study (UNICEF, 2002a: 47) revealed that the youth had low knowledge levels of STIs. The Zimbabwe National HIV and AIDS Conference Report (2004:69-71) recorded the annual deaths from AIDS in 2003 of people between the ages of 15 and 49 as 171 000 (Women 77 000; Men 58 000; Children 36 000). The estimated number of orphans was 761 500. The number of people who had the HIV infection was 1 820 000. HIV and AIDS due to mother-to-child transmission rates ranged from 15 to 45%. The prevalence rate has come down from 21.6% in 2004 to 18.1% in 2006 (Zimbabwe Demographic Health Study Report 2006).

Social factors

Family income and parental education, particularly maternal education, have been shown to have an impact on the survival of children. Deaths of parents increase both financial and material dependence in affected households. Current studies in Zimbabwe also point to the increasing prevalence of child-headed households. Between 2 and 3% of the caregiver population face problems in meeting children's

basic needs such as clothing, shelter, food and access to health and education (Beekink et al 1999:652; Foster et al 1997:396; Matshalaga & Powell 2002:185).

1.2.1 The Country

Zimbabwe is situated in Southern Africa with an estimated population of 11, 5 million people in 2002. It is a land-locked country, which shares borders with Botswana, Mozambique, South Africa and Zambia. It covers an area of 390, 245 square kilometres, and is divided into 10 provinces and 58 districts.

The economy of the country is largely based on agriculture, but because of droughts some 7.5 million people (2.5 in urban areas and 5.01 million in rural areas) were food insecure in the 2003-to-2004 marketing year (Food Security and Vulnerability Assessment Urban Report 2004:7).

1.2.2 The people of Zimbabwe

Approximately 96% of the people of Zimbabwe are indigenous Africans and 4% are white settlers of European, particularly British, origin. The 2002 census classified the population into urban, rural (communal, small-scale commercial farming), and other (large-scale farming, administrative centres, mines, service centres, prisons and army camps). The prevalence of HIV was highest in commercial farming and mining areas followed by border posts, growth points, and urban and rural areas (Zimbabwe Human Development Report: 2003:52). A Zimbabwe Young Adult Survey (2001:15) found a total HIV prevalence of 22% among female and 10% among male adults aged 15 to 29 years.

The Socio-economic dynamics

Zimbabwe gained its political independence in 1980 after ninety years of colonial rule. The colonial legacy segregated the African people in all spheres on the basis of colour. The skewed socio-economic pattern favoured the minority white settlers.

Africans were marginalized and were especially disadvantaged in terms of accessing health care and education. The first five years after independence witnessed successes in health care provision and education and an improved standard of living for most African people. Zimbabwe has maintained its standing in education compared with the rest of Africa, and still has one of the lowest illiteracy rates on the continent (Common Country Assessment UN 2003:28).

Many factors have impeded Zimbabwe's socio-economic growth and development. These include droughts, civil war, unstable economic policies, socio-political unrest, rising unemployment and the HIV and AIDS pandemic. At various stages, these factors have contributed to the reversal of the gains the country made in the early years of independence.

Twenty-four years after independence, Zimbabwe is still struggling to restore its socio-economic identity (UNFPA 2004:24). Agrarian reforms, on which the government embarked in 2001, were put in place to empower the African people and to improve the economy of the country, which is largely based on agriculture.

It was also envisaged that the agrarian reforms would provide sustainable solutions to remove the burden of debt, confront the scourge of HIV and AIDS and secure investment; and that the said investment would facilitate the provision of education and the security of orphans in the future. However, the agrarian revolution has led to socio-economic and political sanctions by some members of the international community. Consequently, Zimbabwe has suffered inflation and a huge brain drain, exacerbating poverty and the general deprivation caused by drought and AIDS. The health and education sectors have lost most of the expertise the country requires (Common Country Assessment UN 2003:28).

Currently most Zimbabweans are living below the poverty line. The 2003 Poverty Assessment study was carried out in an environment in which economic conditions were worsening, as illustrated by food shortages and hyperinflation. Seventy two percent (72%) of the population was classified as living in households with income per person insufficient for basic needs. In Harare, an estimated 1.2 million (65%) of the city's population, was food insecure (Food Security and Vulnerability Assessment Urban Report 2004:7). At the same time, the country is experiencing the deaths of 2500 people per week from HIV and AIDS and its other sequels. This results in

decreased productivity, a large number of orphans and a disintegrating social fabric (UNFPA 2004:20).

1.2.3 Orphanhood in Zimbabwe

‘Orphan’ in the English language is perceived as a social construct and as such is open to different assigned meanings (Foster and Williamson 2000:S275). An orphan in this study is a person who has lost one or both parents through death (*Oxford Dictionary of Current English* 1998:627). UNAIDS uses the term to refer to children below 15 years who have lost their mothers while USAID includes in the concept children under the age of 15 years who have lost one or both parents (USAID/Zimbabwe 2002:4). The African Charter on the Rights and Welfare of the Child (1990:2) defined children as persons below 18 years. Reviewed studies point to the fact that more orphans have lost their fathers than their mothers (Kamali et al 1996:511;Urassa et al 1997:143). Michaels and Levine (1992) in (Forehand et al 1999:715) described orphans as children who had lost one or both parents, indicating that a majority of the women with AIDS were single mothers and thus, their children had essentially lost only parent. In the Zimbabwean context, orphans are defined as children who have lost one or both parents and anyone below 18 years is considered a child by law (The Children’s Consortium 2002:57; Impact Assessment 2002:VIII).

Traditionally, there were no orphans in Zimbabwe, as they used to be absorbed into extended family systems, but as the number of orphans continues to increase, the traditional system can no longer cope. In 1999, the Government of Zimbabwe approved the National Policy on the Care and Protection of Orphans (Zimbabwe National Orphan Policy 1999) to ensure that orphans received minimal basic services. The orphan care policy combines institutionalisation, fostering and community based care. The policy gives preference to community-based care as opposed to institutionalisation, because community-based care is cost effective and keeps children in a familiar social, cultural and ethnic environment that helps reduce stress (UNICEF 1999:21; Foster et al 1997:392). There are many non-governmental organizations that assist in the care of orphans in Zimbabwe. The assistance given to extended families in supporting orphan care should be accompanied by an active

strategy to maintain the opportunities for orphans to receive proper education (Zimbabwe National Orphan Policy 1999).

1.2.4 The response of the education system in Zimbabwe to orphanhood

The Government of Zimbabwe Education Act as amended (1991) states that education is a human right. The education policies in Zimbabwe shifted from widening access at independence (1980) to consolidating quality, equity and relevance around 1990 (Impact Assessment 2002:9). Amongst the many innovations executed by the education system was the introduction of HIV and AIDS and life-skills education in the schools curricula in 1993 (WHO 1993 in Ministry of Education, Sport and Culture Report of October 2001:4). In Zimbabwe most schools are urban (high and low density) or rural, but in Harare there is also a peri-urban category. The formal school system is divided into four categories or levels: pre-school, primary, secondary and tertiary. The legal age of entry into primary school in Zimbabwe is six years. Primary education consists of a seven-year cycle corresponding to the 6 to 12 year-old age group. Secondary education is divided into three sequential and hierarchical levels catering for the junior level of forms one and two, followed by the General Certificate level from form three to four during which students sit for the 'O' level examinations. Finally there are form five and six, during which students study for the Higher School Certificate, ('A' level) which allows them to enter universities or polytechnics in Zimbabwe or elsewhere (Machingaidze, Pfukani & Shumba 1998:6-7).

The education system in Zimbabwe is currently experiencing the burden of teacher losses as a result of illness and deaths due to HIV and AIDS; with teacher absenteeism impacting on the quality of education given to the children. In the same assessment the majority of schools reported no deaths of teachers but six (2.4%) reported the death of at least three, 13 schools (5%) reported two deaths and 34 schools (14%) reported one death over a period of two years (Impact Assessment 2002:66).

Understanding the impact of factors on learning in orphanhood will enable educational agencies to make adjustments, be it on operational modalities or the allocation of resources (financial or human) as required (Government of Zimbabwe

National HIV/AIDS Policy, 1999: Guiding Principle 26). Learning in orphanhood fits into the broader framework of an educated society incorporating a lifelong learning paradigm. Subbarao, Mattimore & Plangemann (2001:37-38) point out that in the long term, countries will suffer a reduction in productive human capital if they have a poorly educated population with many orphaned children who in both the short and the long term, will lose out on educational opportunities. Therefore, understanding learning in orphanhood provides some broad-based knowledge of learning that could help both orphans and non-orphans deal with core issues of education in many subject areas, and acquire survival skills in an environment threatened by a high prevalence of HIV and AIDS, where only change is a constant. Similarly Paul (1993:viii-xiii) explains how being intellectually fit enables one build the intellectual muscle needed to overcome hindrances some of which are deceptive, and to rise to the challenges of a rapidly changing world.

Access to and Provision of Education

Prior to the Country's Independence in 1980, there was a tripartite system of education in Zimbabwe that included European, African and Coloured systems. These systems differed in quality, quantity, provision and access, with the African system being the most disadvantaged (Machingaidze, Pfukani & Shumba 1998:2). The Government of Zimbabwe dismantled the inequities that characterized the colonial education system. Secondary-school education expanded, with the number of children increasing from 74,321 in 1980 to 711,090 in 1995. The number of schools increased from 197 in 1980 to 1,535 in 1995. During the same period, the number of secondary-school teachers increased from 3,000 to 26,823 (Machingaidze, Pfukani & Shumba 1998:3). In the new millennium, secondary schools increased from 1,555 in 2000 to 1,570 in 2001 and secondary-school students increased from 844,183 to 866,171. The number of secondary-school teachers in 2002 was 34,160 (Ministry of Education, Sport and Culture- Statistics Report: 2002).

Statistics on the educational profile of orphans from 1980 to 1995 are not available, because orphans were not highlighted within the education system and the government did not pay particular attention to their education. Non-governmental organizations and churches were more involved than government with the education

of orphans. During the same period of 1980-1995, the effective role of the extended family, which quietly absorbed the majority of these children and sought funding for their education and other needs from the Department of Social Welfare, may have prevented the active involvement of the Government in the education of orphans (The Children's Consortium 2002:25). To date, the actual number of orphans in the country is unknown, but. UNICEF Zimbabwe is currently engaged in a project to ascertain it.

The current Constitution of Zimbabwe as amended (1996) strongly influences education policies. Among other things it states that the well being, education, physical and mental health and spiritual, moral and social development of children should not be placed at risk. The Children's Protection and Adoption Amendment Act of 2001 is concerned with orphans and other children in need and is administered by the Department of Social Welfare (Children's Protection and Adoption Amendment Act of 2001:500). An important provision of the National Policy on the Care and Protection of Orphans of 1999 is that all children, including orphans, should receive education. This policy further states that there should be laws and guidelines to enforce this right. The Government's initiative to support vulnerable children's education is noted in the administration of the Basic Education Assistance Module (BEAM) and through the support provided by the National Aids Council (NAC) funds (USAID/Zimbabwe 2002:36). Active support for the education of orphans could be realised by specifically targeting orphans as beneficiaries of BEAM and NAC funds. Such a move by the Government would be possible if it were based on scientific evidence that the learning outcomes of orphans are compromised compared to those of non-orphans, given the factors that impact on learning in orphanhood.

In the report on the Presidential Commission of Inquiry into Education and Training (1999:202) concern was expressed that in the absence of relevant skill-based education, the future of orphans looked bleak. Similarly, considering that the issue of orphanhood on a massive scale is a recent and growing phenomenon in Zimbabwe, little has been done to assess the impact of certain factors on the learning profile of orphans. This is important because such knowledge could directly influence policy on the education of orphans and strategies for curbing orphanhood, whose major cause is HIV and AIDS. This study is an attempt to inform policy makers, teachers and health educators in that regard.

1.3 The Problem Statement

The Impact Assessment study of HIV and AIDS on the Education Sector (2002:41) was not able to quantify in any rigorous way the impact that orphanhood has on education outcome performance. The impact that specific factors have on learning amongst orphans in Zimbabwe has not been scientifically assessed.

1.4 Purpose of Study

This study aims to provide scientific knowledge of the learning profile of orphans as compared to children who are not orphaned, to consider various factors that impact on learning and to identify the relationships between these factors.

1.5 Research Objectives

The proposed study has as objectives the following:

- To identify factors that impact on learning in general
- To assess the impact of those factors on the learning profile of orphaned children in particular
- To compare the learning outcomes of orphaned children with those who are not orphaned
- To identify relationships between identified factors and learning outcomes.

1.6 Research Questions

- 1) What factors impact on learning in general?
- 2) How do these factors impact on the learning profile of orphaned children in particular?
- 3) How do the learning outcomes of orphaned children compare to those who are not orphaned?
- 4) What relationships exist between the impacting factors and learning outcomes?

1.7 Theoretical Framework

Maslow's hierarchy of needs, a motivational humanistic learning theory, was adopted as the theoretical framework for the study.

1.8 Assumptions

- There is a difference in the impact of factors on learning outcomes between orphans and non-orphans
- As orphanhood progresses there is a decline in learning outcomes

1.9 Study Design

The Evaluation- Process and Outcome Research Design is used because its strength lies in its ability to assess causal outcomes and impact (Mouton 2002:160). The design allows for multiple methods of data collection and advocates probability-sampling methods for the selection of subjects (Mouton 2001:160). In this study five methods of data collection were used, namely experimental, structured questionnaires for students, observations of teaching sessions, document analysis and interviews with teachers. For probability sampling, a stratified random sampling method was used for sampling the schools in this study, because it increased homogeneity and reduced variability thus reducing the generalization error. This study required comparisons to be made of learning outcomes, and for this the stratified random sampling method was most suitable. The study subjects were randomly sampled. For analysis the design favours structured and more quantitative methods, and for this study SPSS statistical software was used for analysis, with its capacity to handle quantitative and qualitative data (LoBiondo-Wood & Haber 1990:277; Mouton 2001:160).

1.10 Study Population

The study population comprised form four students aged between 15 and 19 years, and guidance and counselling teachers in the Harare region.

For administrative purposes, the Ministry of Education, Sport and Culture in Zimbabwe has divided the country into nine regions. The Harare Region was the area of study because Harare had one of the highest HIV and AIDS prevalence rates in the country and therefore presumably many orphans (National AIDS Council Report March 2002). Harare is a metropolitan area with an extensive Central Business District. It consists of an urban area with high-density and low-density dwellings, a peri-urban area, medium sized commercial farming areas and rural communities. The national population of form four students in Zimbabwe in 2002 was 15,804; (9,267 boys and 6,537 girls). In 2002 The Harare region had a form four student population

of 4,574; (2,353 boys and 2,221 girls) (Ministry of Education Sport and Culture-Statistics: 2002). The sample was drawn from the form four students.

1.11 Sampling

Sampling included stratification of Secondary Schools by geographical area (Urban (high and low density), Peri-urban), gender (boys only, girls only and mixed), type (government, private or municipal) whether they were boarding or day schools and whether they were 'A' or 'O' level schools. From randomly selected secondary schools, after stratification, a sample of 516 students was randomly sampled. Of the 516 students, a total of 261 (50.6%) were orphans and 255 (49.4%) were not. Probability sampling provides some degree of precision in accurately estimating the population parameters and reduces sampling error (Polit & Hungler 1999:284-289).

1.12 Methodology

Reference is made to Figure 3.1.

The factors that impact on learning were identified through an in-depth literature study. Structured questionnaires that provided room for some open-ended questions were used to assess the impact of certain factors on the learning profile of orphaned children, exploring aspects such as dropout rate, absenteeism; morbidity and mortality patterns; financial aspects (the cost of school fees, books, travel, uniforms, and meals); knowledge of and attitudes about HIV and AIDS and life skills. Demographic data included gender, whether parents were alive or the child was a maternal, paternal or double orphan, the level of a child's depression and the duration of his or her orphanhood, who the household caregiver was, and information on inheritances, family income, the parent's educational status, the roles played by the orphans, their ages and whether they were supervised.

When comparing the learning outcomes of orphaned children with those not orphaned, an experimental approach was used to select the control and experimental groups within the sample. Three experimental groups were created to include those who had been orphaned for less than two years, followed by those who had been orphaned for two to three years, and finally those who had been orphaned for four or

more years. These were compared with non-orphaned children to assess any differences and whether the impact became greater as the years of orphanhood progressed. Also noted were the differences in the impact of certain factors on learning between single and double orphans and as compared with the non-orphans.

With reference to existing records, a time series design recommended as effective (Bennel et al 2002:ii), was used to assess performance (learning outcomes). Assessment was done retrospectively, from mid-year in form three, the end of the year in form three, mid-year in form four and after the publication of the standard National "O" Level examination results, to establish any differences in performance over time. The comparison included gender differences and the school setting. The records were the specific records of the school results and school attendance of the specific children in the control and experimental groups. The same records and children were followed up for a two-year period (mid form three; end of form three; mid form four and standard O-Level).

In every school teaching-learning sessions were directly observed with the assistance of a well-equipped and skilled research assistant. This approach is supported by Bennel et al, (2002:15) as an effective way of evaluating the process of acquiring life skills. A structured evaluative observation guide was used during these observation sessions, which included the content, strategy, participation of students and the degree of interactivity, a summary and feedback on an HIV and AIDS/Sexual Reproductive Health session. The session was followed by an in-depth interview with the teacher, in which a semi-structured interview schedule was used. The purpose of the interview was to review the session and explore the rating of class performance, the dropout rate, participation by orphans as compared with non-orphans, attendance of life-skills lessons by students, and justification of the approach and the resources available including the teacher's preparedness in terms of knowledge of the approach used during the session.

1.13 Data Collection

The assistant researcher was a teacher who is studying for a Bachelor of Science degree in Geography and Environmental Studies at the Zimbabwe Open University. The teacher was chosen as an assistant researcher because he understood the education system and was well equipped to observe and evaluate the teaching session on HIV and AIDS-Sexual Reproductive Health. He will also be involved in disseminating the findings of the study.

During a research training session the assistant researcher was well informed on the protocol of accessing data from school records; the questionnaires; the observation method and interview techniques. Students under the supervision of the researcher and assistant researcher completed a detailed self-administered structured questionnaire, which gave room for some open-ended questions. The school records were used to record the student's performance. The final school results were utilized after the publication of 'O' level results. The process of recording learning outcomes necessitated a system of coding the students' questionnaires so as to identify them for purposes of entering the individual results.

1.14 Data Management

The questionnaires were checked for completeness, with the aim of controlling quality. Under the supervision of the statistician, data entry clerks, using the SPSS software, entered data obtained from the questionnaires. The statistician used the SPSS statistical software for analysis because of its capacity to handle quantitative and qualitative data. The differences and relationship of impacting factors on learning and learning outcomes were computed and statistically presented. The presentation of data was done in the form of tables, figures and histograms.

1.15 Validity and Reliability

The probability sampling methods adopted by the study helped to achieve external validity. The reason for using reliable instruments was to attain accuracy and improve

the quality of the study findings. A pilot study was conducted to test the reliability and validity of the instruments (Polit & Hungler 1999:38) and the necessary corrections, based on the findings, were incorporated to improve the instruments.

1.16 Ethical principles

The research proposal was sent to the Ministry of Education, Sports and Culture for approval, in order to ensure safety of participants and the information they provided. Before the data was collected, permission was sought from the Ministry of Education, Sport and Culture, Harare Region, to access data from school records and 'O' level results from the Examination Board. This permission was granted (see Annexure A). The relevant ethical considerations were made known to the participants in respect of confidentiality, anonymity and the voluntary nature of their participation.

1.17 Significance of the Study

The significance of this study is that it informs policy makers, teachers and health educators of the similarities and differences between the learning of orphans and that of children who are not orphaned, with reference to an array of impacting factors.

Children who are not properly socialised are likely to adopt risky moral and behavioural standards where HIV and AIDS are concerned (National HIV and AIDS Strategic Framework, Zimbabwe 2000-2004:13). Education is the key to the orphans' socialization and the re-establishment of their self-esteem, their ability to obtain productive employment, and the acquisition of knowledge for the sake of self-preservation (Matshalaga & Powell 2002:185). Knowledge about these issues can assist role players to choose the best practices and appropriate teaching-learning strategies.

The study will also promote a better understanding of differences that impede the education of orphans. From a nursing perspective, caring involves listening, counselling, providing comfort and support in circumstances of hopelessness and helplessness, which are prevalent in orphanhood. Orphans often consult the staff of

health facilities when they experience problems. Included in care giving is health education, which assists orphans to understand and overcome the circumstances in which they find themselves and to develop coping mechanisms (Potter & Perry 1997:216-217).

Most importantly, the study shows the extent to which both orphans and non-orphans are acquiring intellectual competencies and life skills to enable them to survive in an often-hostile environment.

1.18 Dissemination of findings

The dissemination of the findings will ensure ongoing access to and use of relevant and current information on learning in orphanhood. A study cannot contribute evidence to practice without communicating the results. Therefore, the findings of this study will be disseminated to:

- Members of educational institutions through the presentation of papers, consultations and in-house publications
- The Ministry of Education, Sports and Culture, the Ministry of Public Service and Social Welfare, and the Ministry of Health and Child Welfare, in order to influence policy formulation. The Ministry of Education, Sports and Culture participated in the study and will continue to disseminate and implement the findings
- The Ministry of Higher Education and Technology so that it may produce teachers who are sensitive to the needs of orphans
- The workshops organised for both health personnel and educators in order to sharpen perspectives in the teaching –learning process and the provision of counsel to orphans
- The Scientific community at large through the Internet, presentation of findings at local and international conferences and the publication of results in scientific journals, both locally and internationally, so as to share new knowledge generated by the study regarding learning in orphanhood

1.19 Clarification of concepts

Learning

Learning in this study means a change in perception or behaviour that may have resulted from the acquisition of new information. Relatively permanent change in behaviour is considered to take place through the use of skills learnt in practice (Huitt 2000:1-4; Kolb et al 1974:28).

Orphanhood

In this study orphanhood signifies students in the age group 14 to 19 years who have lost one or both parents ((The Children's Consortium 2002: 57; Impact Assessment 2002:viii).

Life skills

Life skills in this study are defined as the ability to engage in adaptive and positive behaviour so as to be able to deal effectively with the demands and challenges of everyday life. The five foundation life skill areas upon which the teaching of these generic skills is based are:

- Decision making and problem solving
- Creative and critical thinking
- Communication, interpersonal skills (negotiation) and managing relationships
- Self awareness, empathy and self concern (assertiveness and self-awareness)
- coping with emotions, stress and trying situations

(WHO 1993 in Ministry of Education, Sport and Culture Report of October 2001:4).

1.20 Summary

Orphanhood has presented challenges to learning and consequently aggravated the effects of general poverty and deprivation on education. It has similarly been noted that the response of schools to the needs of orphans is inadequate. The aim of the study was to provide scientific knowledge on the factors impacting on the learning profile of orphans as compared to non-orphans, and to identify relationships between these factors and learning outcomes.

To execute this study, a quantitative approach guided by the process and outcome evaluation research design was used. Maslow's humanistic motivation theory of learning was the framework of the study.

The population consisted of form four students and teachers from the Harare Metropole Province in Zimbabwe. A stratified random sampling procedure was used to sample schools and the simple random procedure was used to sample both students and teachers. Data collection instruments included a structured questionnaire used on students, an evaluative structured questionnaire and a structured interview schedule for teachers, and checklists for collecting data from students' records.

The quality of the study, in terms of reliability and validity of the selection of research sites and participants, instrumentation, data collection, data management and analysis (using descriptive statistics, paired t-test and ANOVA) was upheld. Ethical principles of obtaining consent, maintaining confidentiality and privacy were followed. It is envisaged that the knowledge provided will directly influence policy making on the education of orphans and provide a strategy for the management of orphanhood. The findings will be disseminated to the appropriate fora, including educational and health institutions. The major concepts of the study are learning, orphanhood and life-skills.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this review of the literature, orphanhood, care systems, the role of non-governmental organisations, education and the acquisition of life skills; factors influencing education and learning are explored. Also explored is the theoretical framework that underpins this study. A variety of sources were used as reference materials, including books, conventions, articles, acts, policies and school documents.

2.2 Orphanhood

An orphan is a person who has lost one or both parents through death (*Oxford Dictionary* 1998:627). According to USAID Zimbabwe, (2002:4) definitions of orphans that exclude paternal orphans will result in an underestimation of the total orphan numbers by 45-70% and those that exclude children aged 15 to 17 will result in an underestimation of the total orphan numbers by 30%. In the Zimbabwean context, orphans are defined as children under the age of 18 years who have lost one or both parents (The Children's Consortium 2002:57). This definition, relevant to this study, encompasses all the aforementioned categories of orphans. A review of studies on orphanhood points to the fact that more orphans have lost a father than a mother. It is assumed that, regardless of whether orphanhood is maternal, paternal or double, being an orphan has an impact on educational outcomes. For an orphan, the loss is not only that of one or both parents, but also a deprivation of material support, care and security (Urassa, Boerma, Ng'weshemi, Isingo, Schapink, & Kumogola 1997:143; Kamali, Seeley, Nunn, Kengeya-Kayondo, Ruberantwari & Mulder 1996:511; Impact Assessment 2002:40).

In 1997, over 8 million children were orphaned as a result of AIDS worldwide, of whom 70,000 resided in the USA (United Nations Report, 1998). The majority of these orphaned children in the USA were from economically disadvantaged families. They not only suffered the stressors of poverty, crime and discrimination but were also exposed to the accompanying psychological trauma of loss (Forehand, Pelton, Chance, Armistead, Morse & Stock 1999:721). Other causes of orphanhood include traffic accidents, war, disease, crime and violence (Fox, Oyosi & Parker 2002: 10). An initiative in the Zimbabwe Open University's Harare Region to lobby for

legislation against cultural practices that fuel the spread of HIV and AIDS revealed that according to 71.1% (n=204) of respondents, orphanhood was mainly the result of the HIV and AIDS pandemic (Makoni 2003:VIII).

War has been cited above as one of the causes of orphanhood. There were at least 50 active armed conflicts in the developing countries in any one-year, with consequences that included among others 12 million children being made homeless and one million being orphaned or separated from parents (Summerfield 2005:4). War disrupted the socio-economic fabric of society, making access to basic services difficult. In Mozambique, for instance, 1113 primary health centres, 48% of the national total, were destroyed during the war and 45% of all primary schools were forced to close down, so that access to health and education became impossible (Summerfield 2005:6). Orphaned and unprotected children were cited as a clear priority for help, and in Mozambique, the huge number of orphans produced by the war have almost all been absorbed by extended families and members of former communities or tribal groups.

The abovementioned destabilisation did not provide an environment that supported learning. According to Maslow's motivational theory, the lowest unsatisfied need became the most powerful and significant one, and unsatisfied needs motivated or influenced behaviour. Therefore, for orphans, where there was destabilization, food, shelter, safety and security became primary needs and attending school was secondary.

The war in Uganda eroded the power of traditional elders and respect for their wisdom, since their refugee status undermined their social influence (Summerfield 2005:8,23). As a result of the armed conflict between the Lord's Resistance Army (LRA) and the Uganda People's Defence Force, in 2001 a total of 82,645 people in Kitgum district were still in camps and had not returned to their homes since war broke out in Uganda in 1986 (Ocaya, Lorika, Owar, Wanakwany and Lamwaka 2001:12). A case study of Kitgum and Kotido Districts in Uganda that assessed the impact of the use of small arms on the population noted that it was children who were most affected and traumatised by their use. Children were abducted and denied the right to enjoy a good early childhood development environment, basic education, access to health and recreational facilities and good nutrition. Orphans were more vulnerable than other children to poverty and were forced into early child labour or

into becoming heads of households early. Women were greatly impoverished, and when widowed became sole bread earners supporting many orphans and extended families. The girl children were exposed to sexual abuses and sexually transmitted infections (Ocaya et al 2001:6).

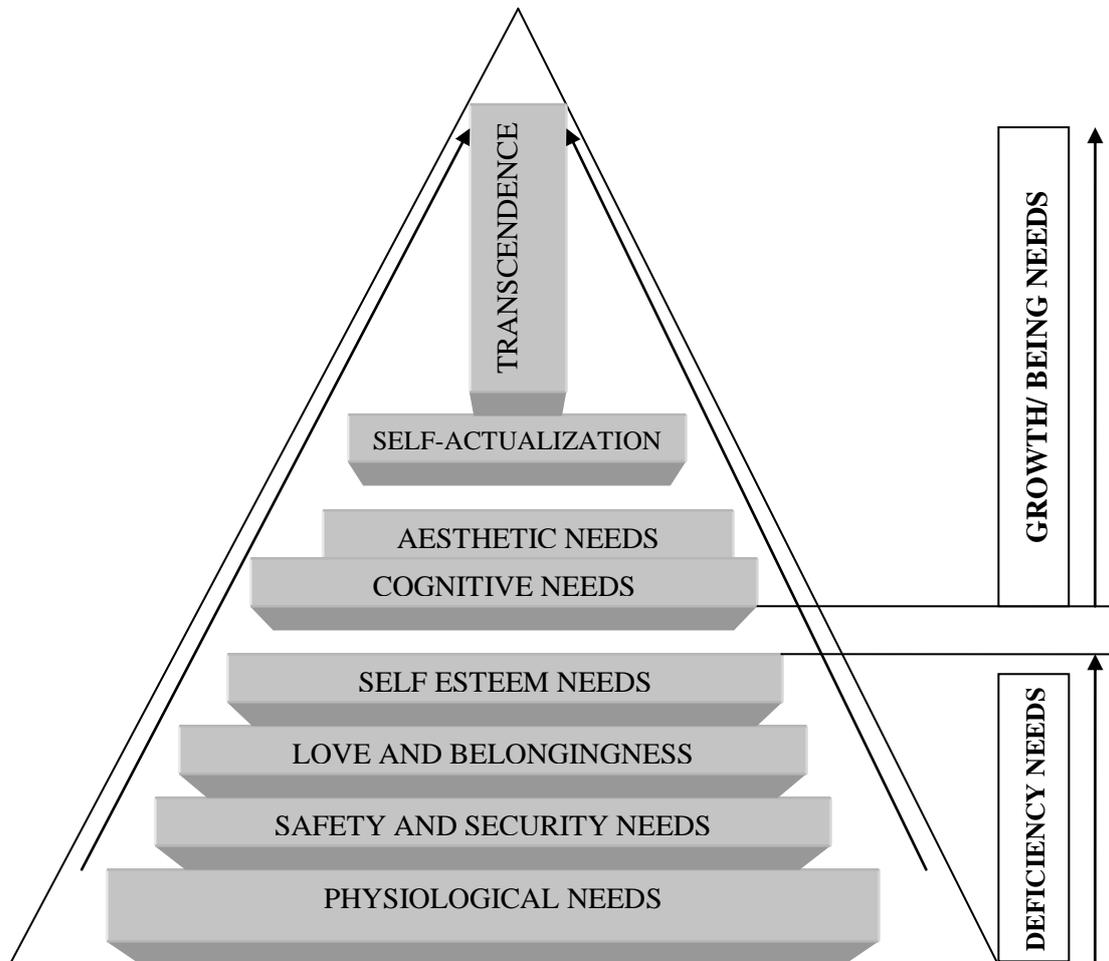
In Kitgum the relocation of the rural population into permanent camps saw the formation of 'displaced schools' catering for displaced children and staffed by displaced teachers. Armed groups occasionally threatened teachers, making it difficult for them to perform their duties effectively. In the pastoral communities within the same districts, informal education, which they preferred to formal education because the latter was frequently disrupted, contributed to poor enrolment, a high dropout rate and failure to complete primary school education (Ocaya et al 2001:7). School attendance was irregular because of frequent inter-ethnic cattle raids. Teachers could not enforce discipline because learners possessed guns. Similarly power relationships within families were affected because children possessed small arms, and sons with guns rarely obeyed their parents. The primary school dropout rate at Kitgum was quite high and exceedingly high among girls. The LRA targeted health units in order to obtain drugs and trained medical personnel, which made it difficult for children, in particular, to access health services. Food production was similarly severely hampered. Orphanhood, widowhood, psychological disturbances and inability to access basic social services were some of the innumerable experiences the population endured as a result of war (Ocaya et al 2001:8,10,23). According to Maslow's theory, a society struggling to satisfy basic needs does not excel in artistic and scientific activities, and the predicament of students including orphans trying to learn under the abovementioned conditions escalates as they have to satisfy basic needs first (Atkinson et al 1990:525).

2.3 Maslow's Theoretical Framework

Maslow's learning theory of motivation forms the framework of the study with regard to the fact that learning behaviour is almost always motivated and also almost always biologically, culturally and situationally determined (Green 2000:2). Learning in this study is seen as a change in perception or behaviour that may have resulted from the acquisition of new information; and all relatively permanent change in behaviour is considered to stem from the use of skills learnt in practice (Huitt 2000:1-4; Kolb et al 1974:28). Orphanhood, regardless of its cause and of the location of the orphan, it

would appear to give rise to extensive psychosocial and economic needs. Maslow categorizes needs into a hierarchical system, starting with physiological needs, followed by the need for safety and security, then the need for love and belonging, the need for esteem, cognitive needs (to know, to understand and explore), aesthetic needs and finally self-actualization needs including the need for self-transcendence.

Fig 2.1 Maslow's Pyramid of Hierarchical Needs Adapted from Huitt (2001).



Key

1. Physiological: hunger, thirst, bodily comforts
2. Safety & Security: to be out of danger
3. Love & Belongingness: to affiliate with others, be accepted
4. Esteem: to achieve, be competent, gain approval and recognition
5. Cognitive: to know, to understand and explore
6. Aesthetic: symmetry, order and beauty
7. Self-actualization: to find self-fulfilment and realize one's potential
8. Self-transcendence: to connect to something beyond the ego to help others find self-fulfilment and realize their potential

2.3.1 Maslow's theory

Abraham Harold Maslow was born on April 1, 1908 in Brooklyn, New York. He was the first of seven children born to his parents, who themselves were uneducated Jewish immigrants from Russia. He married his first cousin and had two daughters. He studied Psychology up to PhD level at the University of Wisconsin. Maslow served as the chair of the psychology department at Brandeis from 1951 to 1969. It was while he was at Brandeis that he began his crusade for a humanistic psychology, something that ultimately became much more important to him than his own theorizing. He died on June 8 1970, of a heart attack after years of ill health (Boeree 1998:1). Maslow postulated a hierarchy of human needs on two groupings, which include deficiency needs and growth/being needs. The deficiency needs become the most powerful stimuli that motivate behaviour.

Deficiency Needs

The deficiency needs are *physiological* (to assuage hunger and thirst, and have bodily comfort), *safety and security needs* (to be out of danger, having shelter, supported both materially and psychologically, to be protected from harm), *belongingness and love* (to affiliate with others, to be accepted without isolation, rejection and ridicule) and *self esteem* (to achieve, be competent, gain approval and recognition). According to Maslow, within the deficiency needs, one must meet each lower need before one can move to the next level, The individual is ready to act upon growth needs only if deficiency needs have been met.

Growth/Being Needs

Maslow and Lowery (1998) in Huitt (2001:7) differentiated the growth need of self-actualisation, (to find self-fulfilment and realise one's potential); specifically naming two lower levels that precede it: *cognitive needs* (the need to know, understand and explore) and *aesthetic needs* (the need for symmetry, order and beauty), and one beyond it: *self-transcendence* (the need to connect to something beyond the ego or to help others find self-fulfilment and realize their potential) (Huitt 2001:6,7).

As students learn, this theoretical framework also guides the provision of appropriate information. For instance, to satisfy the lowest level needs, students seek coping information; for safety needs, they need helping information; for the needs of love and belongingness, they require enlightening information; for esteem needs, they require

empowering information and for cognitive, aesthetic and self-actualization needs, they seek edifying information (so as to improve morally and intellectually) (Norwood (1999) in Huitt (2001:8).

Learning outcomes are a consequence of learning in a given environment. Maslow states that learning (the desire to know and understand) can only be achieved when the lower order needs are satisfied and that when they are not, as in orphanhood, learning outcomes (subject specific or life-skills) are compromised. When there is a deficiency need the body's capacities are mobilized to satisfy that need first. If one of these needs has been satisfied but recurs, the individual will again act to remedy the deficiency (Huitt 2001:6). Learning in orphanhood is occurring within the education system of Zimbabwe.

There are conditions that are immediate prerequisites for the satisfaction of being needs. People react to any threat to those conditions almost as if it were a direct danger to the basic needs themselves. Examples are: freedom to express oneself, freedom to do what one likes as long as this does not harm others, freedom to investigate and seek information, justice, fairness, honesty and orderliness in a group. In the same way, cognitive capacities (perceptual, intellectual, learning) are adjustive tools with the function, among others, of satisfying basic needs. Any danger to them, any deprivation or blocking of their use, must also indirectly threaten the basic needs themselves (Green 2000:9,10). Maslow adds that creative and scientific activities are not prominent among people who have to struggle for food, shelter and safety (Atkinson et al 1990:525).

2.4 Care systems for orphans

In 1999 the Government of Zimbabwe approved the National Policy on the Care and Protection of Orphans in order to ensure that orphans received minimal basic services, including food, clothing and shelter. The concept of orphanhood did not exist in traditional Zimbabwean society, because members of the extended family took care of and provided for all children. The extended family comprised and still comprises parents, grandparents, uncles, aunts, nephews, nieces, brothers, sisters, brothers-in-law and sisters-in-law. This family system also confers rights and obligations on all who are bound by kinship, especially in regard to determining dowry, marriage, inheritance and the care of orphans (Matshalaga 2004: 9).

Recently there has been a notable shift in the care of orphans. In traditional society they were typically cared for by paternal relatives, since Zimbabwean society was predominately patrimonial, but now there is a trend for maternal relatives to take responsibility for them. One of the reasons for this shift is that HIV infection patterns have resulted in a situation where widows, contrary to traditional practices, refuse to remarry into the husband's family. To penalize the widows, the paternal relatives withdraw financial assistance and may even disrupt inheritance when the widow's relatives take responsibility for the care of the orphans (USAID/Zimbabwe 2002:7; Matshalaga 2004: 9). Three orphan-caring systems have emerged in Zimbabwe. These include the traditional extended family system, the community-based care system and institutional care.

2.4.1 Extended family systems

Historically, the traditional extended family system carried the burden of care. This system is still in practice today, except that families can no longer cope with the increasing numbers of orphans, largely because of the increase in HIV and AIDS. The pandemic has disrupted the social fabric and rendered the traditional system ineffective. Nevertheless, grandparents continue to shoulder responsibility wherever possible despite poverty and the challenges of old age. When they are cared for within the extended family system, orphans may benefit psycho-socially in terms of the transmission of cultural and social values but may be materially disadvantaged. Poverty has implications for access to and attendance at school (Matshalaga 2004: 9).

2.4.2 Community-based systems

The community-based care system has evolved from the traditional care system. The unit of community administration is led by the kraal head and covers many areas of need and control within a given community. Thus in this system the community takes responsibility for the growing needs of orphans. An area of concern within this system, over and above the aforementioned failure of the extended family safety net, is that of commercial farming. Most of the farmers are descendants of Malawian and Mozambican farm workers who do not have extended families in Zimbabwe. In a typical village, the community workers, ward community workers, counsellors, non-governmental organizations (NGOs), churches and community-based organizations (including burial societies, women's clubs and youth groups), work together to assist

grandmother- and child-headed households in areas where they lack capacity. In this system physical care may occur in communal grass-thatched houses, but may also include burying the dead, providing for the basic needs of families such as food, clothing, other commodities and supplies such as Vaseline, or financial assistance to enable people to buy candles or pay bus fares.

The Government of Zimbabwe (GOZ), with the support of UNICEF, established Child Welfare Forums (CWFs) in order adequately to address the needs of orphans. These CWFs adopt an intersectoral participatory approach for the care and monitoring of orphans and vulnerable children at all levels (USAID/Zimbabwe 2002:33). To support community initiatives, four models of community-based orphan care have been developed. These include rural, urban, commercial and mine models.

The rural model uses traditional leadership structures for community support and monitoring of orphans in the community context. The pilot models are in Masvingo and Mwenezi Districts in the Masvingo Province.

The Urban model Unlike the rural model, the community CWFs are integrated into the existing structures of the task force of home-based care that was initiated by the city health department of Bulawayo, the pilot site. The integration of residents' associations, counsellors, teachers and pastors in the CWF was crucial in promoting intersectoral participation. Programme exchange visits in different neighbourhoods in the urban communities in Bulawayo have led to other community-based initiatives.

The commercial farm model is distinctly different from the rural one; it was spearheaded by the Farm Orphan Support Trust (FOST), a non-governmental organization that mobilized farmers and farm workers to establish, own and monitor the farm-based support programme. This model is characterized by the creation of innovative and appropriate informal fostering arrangements within farm villages.

The mine model is similar to the commercial farm model but, in mines, accommodation is tied to employment, with miners having few relatives in the neighbourhood. The social context of the mine model more closely resembles that of the urban model than that of the commercial farm model (USAID/Zimbabwe 2002:34).

These CWF initiatives are all involved in the surveillance of orphans and children in difficult circumstances and in integrating orphan support into existing home-based care initiatives, among other activities (USAID/Zimbabwe 2002:33).

2.4.3 Institutional care

Institutional care, the third model of care systems for orphans after the extended family systems and the community-based systems operating in Zimbabwe, provides high-quality support in terms of material needs such as food, clothing and other services, but lacks the psychosocial support and inculcation of cultural values that the extended family and community based-care would provide. It is also costly to manage. Comparative studies on the cost of institutional care models conducted in Uganda showed the cost of operating and maintaining an orphanage to be 14 times higher than that of community care (USAID/Zimbabwe 2002:44). There is also a lack of institutional capacity; for example in Zimbabwe fewer than 4 000 orphans out of an estimated 800,000 are accommodated in the country's 45 registered institutions (Matshalaga 2004: 13).

2.5 The role of NGOs in the care of orphans

Without undermining or displacing community coping mechanisms, NGOs play a key role by providing educational scholarships and technical support. Partnerships between NGOs and communities strengthen community support initiatives without increasing dependency among community groups.

In Zimbabwe, UNICEF has, among other activities, supported a national enumeration exercise and the development of the aforementioned models. Redd Barna is a Norwegian non-governmental organization that is supporting the District Social Welfare, with ten social workers focusing on CWFs' coordination, and working to enhance the capacity of CWFs at national and provincial levels. The Danish Development Agency (DANIDA) is a non-governmental organization that supports four community-care based orphan-support programmes out of Danish embassy funds. The Canadian International Development Agency (CIDA) is a non-governmental organization that supports the Southern African AIDS Training Organization (SAT), which supervises eleven home-based care programmes. The Oak Zimbabwe is a private foundation that supports 16 programmes working with children affected by HIV and AIDS.

Besides the help they have received from the above-mentioned NGOs, orphaned and vulnerable children have also received support from the Norwegian Organisation for Relief and Development (NORAD), the Swedish International Development Agency (SIDA) and Plan International and Save the Children UK (USAID/Zimbabwe 2002:39).

Church-based organizations contribute both spiritually and materially to the care of orphaned children. Spiritual support requires strong leadership by churches in ending the stigma and rejection experienced by those infected and affected by HIV and AIDS, so that all children are treated with equal respect (UNICEF 2003:32).

The NGO's in Zimbabwe have acted as a hub in their orphan-support mechanisms. Their activities range from the provision of educational scholarships and technical support to the enumeration of orphans and the support of community initiatives. Some of the community activities include the establishment of rural, urban and commercial farm orphan care models. They also support coordination of the Child Welfare Forums and strengthen home-based care activities.

2.6 Legislative provisions for the protection of children and orphans

In an amendment to the Children's Protection and Adoption Act (Chapter 5:06:501-502) Zimbabwe (2001a) established the Child Welfare Council. The Council comprises representatives from the Ministries of Education and Health, the Registrar of Births and Deaths, Justice, Local Government and the creation of employment, the Police Force, private voluntary organizations, the Council of Chiefs; an association that the Minister considers represents local authorities and a Director. It would appear that the Council was composed in such a way as to provide expertise that would deal holistically with children's issues. The functions of Council include advising the Minister on any matter relating to the welfare of children; monitoring the overall situation of children in need of care and trying to ensure that their welfare and rights are furthered; promoting and encouraging the coordination of activities of organizations which have as their object the promotion and protection of the rights of children; and administering the Child Welfare Fund.

The African Charter on the Rights and Welfare of the Child (1990:2) refers to the right of all children to education on the basis of equal opportunity. Articles 7, 8, 9, 11, 12 and 25 of the Charter address issues relevant to this study. Article 7 is concerned

with the right of children to freedom of expression; Article 8 states that every child has the right to free association and freedom of peaceful assembly in conformity with the law; Article 9 is concerned with freedom of thought, conscience and religion; Article 11 with the development of the child's personality, talents, mental and physical abilities to their fullest potential; Article 12 recognizes the right of the child to rest and leisure, to engage in recreational activities and to participate freely in cultural life and arts and Article 25 states that any child who for any reason is permanently or temporarily deprived of his family environment is entitled to special protection and assistance.

The Government of Zimbabwe's policy document on HIV and AIDS (2000-2004) integrated and prioritised education in all preventive strategies. In the same regard, in 1999, the Government of Zimbabwe increased its commitment to addressing HIV and AIDS by collecting an 'AIDS Levy' (a 3% surcharge on taxation) and out of these funds emerged the Basic Education Assistance Module (BEAM), which supports the education of vulnerable children. Orphans are included in this category (USAID/Zimbabwe 2002:36). The Basic Education Assistance Module (BEAM) provides financial resources to vulnerable children including orphans, children of unemployed and/or chronically ill breadwinners and children from poor families and reserves ten percent for disabled children. The Impact Assessment (2002:48) on the Education Sector in Zimbabwe noted that although BEAM was an appropriate programme, it had operational challenges that compromised its success. Amongst the observations were that a lack of selection criteria delayed the processes of selection and the disbursement of funds. Because selection was done only once a year there was a failure to respond to crises that befell other children during the year. The capacity and resources were no longer adequate to cover food, clothing and shelter. The monitoring and evaluation exercise of the programme were not robust especially in terms of ascertaining beneficiaries, expenditure and operational modalities. A case in point is the community-based system of allocating funds, which can easily exclude from the BEAM programme deserving children who live in one district and attend school in another.

The Zimbabwe Education Act as amended (1991), by endorsing education as a human right, caters for rights that are immediate prerequisites for the satisfaction of basic needs, as they are ends in themselves. Educational policies shifted from increasing

access to educational institutions at independence (1980) to emphasizing and consolidating quality, equity and relevance of education in about 1990 (Impact Assessment 2002:9). Amongst the many innovations in the educational system, was the introduction of HIV and AIDS/Reproductive Health and Life Skills education in the schools curricula in 1993.

The Zimbabwean education system is similar to the British one, which includes pre-school education, seven years of primary school education (grade one to grade seven) and secondary school education from form one to form six (six years of secondary education). Students obtain a General Certificate of Education (GCE) after form four, after which most of them enter the job market, training colleges and apprenticeships. Only after high school (Form five and six) is it possible to proceed with tertiary education. The educational system compares well with those of most English-speaking countries in Africa (Machingaidze, Pfukani & Shumba 1998:6-8).

In Zimbabwe most schools are urban (high and low density) and rural schools. In Harare there is also a peri-urban category. The type of school differs according to the governing and financing authorities; for instance, there are government schools, rural council schools, farm and private schools, mission and municipal schools. Some schools are for boys only, some for girls only and some for both. Some schools are day schools only, some boarding schools only, and some both boarding and day schools. Inherent in the setting and type of schools are socio-economic issues that have the potential to influence the learning outcomes of students –orphans as well as non-orphans (Machingaidze et al 1998:6-8). Orphans can access and enrol into any of the categories of schools mentioned above, in the same manner as non-orphaned students, with the sole obligation of meeting the schools' requirements. Therefore, learning within the Zimbabwean school system occurs in a non-discriminatory way for all students, including orphans, irrespective of their background. School education is no longer just subject-specific but incorporates an HIV and AIDS, sexual reproductive health and life-skills component that is relevant to the current environment with its high prevalence of HIV infection.

2.7 Education and the acquisition of life skills

In the Impact Assessment (2002:23) it was found that 60% of students lacked basic knowledge of life skills, HIV and AIDS and Sexually Transmitted Infections (STI's). Forty seven percent (47%) answered at least one question incorrectly on basic facts about HIV and AIDS. This finding emphasized the importance of an appropriate education and training programme for adolescents on sexual reproductive health and life skills. The Knowledge, Attitude, Behaviour and Practice (KABP) study (UNICEF 2002a: 47) also revealed that the youth have low knowledge levels of STI's. Young people may face the risk of HIV infection by virtue of their social position, unequal life chances, stereotypical gender roles and poor access to education and health services. Life skills enable students to deal effectively with the demands and challenges of everyday life. Maslow's hierarchy of needs could be used to describe the kinds of information that students seek at various levels as they learn. For instance, at the lowest level of physical needs students seek coping information, at safety level, they need helping information, at the level of belongingness, they need enlightening information, at esteem level, they need empowering information and at cognitive, aesthetic and self-actualization levels, they seek edifying information (in order to improve morally and intellectually) (Norwood 1999 in Huitt 2001:8).

The impact of various factors on learning may result in differences in learning outcomes among orphans and between orphans and non-orphaned students as determined by the satisfaction of deficiency needs. If basic needs are not satisfied, according to Maslow, there is a negative impact on learning, with compromised school results and paucity of life-skills. These are the consequences if learning does not happen in an environment conducive to learning, as stipulated by Maslow's motivational theory of learning.

The environment of an orphan is often characterised by wide-ranging bio-psycho-social, cultural and economic needs. According to Maslow's theory of learning, deficiency needs are hierarchical and each lower need must be met before the learner can move to the next level. The challenge for the orphan is to satisfy physiological, safety/security, belongingness/love and esteem needs before satisfying the cognitive need (know, understand and explore), which requires learning for its satisfaction.

2.7.1 Life skills

Life skills are abilities to engage in adaptive and positive behaviour that enables individuals to deal effectively with the demands and challenges of everyday life (Ministry of Education, Sport & Culture 2001:4). A prerequisite for the acquisition of these life skills is the development of critical and creative thought processes that underlie decision-making and problem-solving capabilities. Also essential is the ability to communicate (interpersonal interaction and managing relationships), self-awareness (strengths, weaknesses and the ability to be empathetic), assertiveness (positive self esteem, self confidence and dignity), negotiation (to achieve win-win outcomes) and coping with anger, conflict and stress (WHO 1993 in Ministry of Education, Sport & Culture 2001:4).

Creative thought processes confer the ability to synthesize while *critical thought processes* confer the ability to analyse issues in making informed decisions and in solving problems. *Communication* is a two-way process. A dialogue is established that involves a person's ability to hear, to process information and to respond in a manner that is socially and culturally acceptable. If one knows and practises the norms, beliefs and values of a society that allows free and independent expression of views, one will be able to communicate in an acceptable manner. *Self-awareness* is the ability to have knowledge of oneself. The knowledge required enables one to recognize one's individual limitations in terms of strengths and weaknesses. The importance of such knowledge is that through it one is aware of the capabilities or competencies that one has, and of those one needs to acquire. *Assertiveness* is the ability to confidently express one's position without being aggressive. A positive self-concept and empowerment enable one to be assertive. *Negotiation* is an art that allows people, without compromising their dignity and self-worth and without being dogmatic, to give or take so as to achieve a win-win outcome. *Emotional intelligence* is crucial in coping with emotions, stress and trying situations.

The development of positive attitudes towards sexuality and the ability to make informed decisions about sexual abstinence within the context of sexual and reproductive health are considered important for survival in an environment infested by HIV and AIDS, and fall within the realm of life skills. To assess behavioural change it is necessary to evaluate the student's knowledge of the HIV and AIDS

disease processes and in particular of how the virus is transmitted from one person to another.

Preventive strategies and specifically the need for voluntary counseling and testing that reveals one's HIV status, treatment and care, grief associated with the process of dying, culture and supportive measures are important for exercising sexual and reproductive health rights. The spread of HIV is fuelled by the cycle of poverty, underdevelopment and illiteracy, which cause more deaths and increase the number of orphans. Behavioural change is crucial if vulnerability is to be reduced (Zimbabwe Human Development Report 2003:3). Gachuhi (1999:5) similarly states that by teaching life skills one aims to foster positive behaviours across a range of psychosocial skills and to change behaviours learned early, which may translate into inappropriate behaviour at a later stage of life.

Kelly (2001:40-41) argues that early research dealt with subjects who had been infected with HIV before much was known about it, so that there was little possibility of education having had any protective influence. Likewise, the risk of HIV infection was found to increase with the level of formal education, yet there was no evidence that the education dealt with sexual and reproductive health, life skills or HIV infection. In its Strategy for HIV and AIDS prevention, UNESCO (2002:7) stated that ignorance was a major reason for lack of control of the HIV epidemic. It advised that preventive education must address mentalities and the culture within which they were embedded in order to generate the attitudes, provide the skills, and sustain the motivation necessary for changing behaviour to reduce risk and vulnerability. Consequently, it was suggested that curricula be renewed so as to centralize the issues of HIV prevention and control, and to include the topics of reproductive health and sexual education, HIV and AIDS in the community, psychosocial life skills and human rights, relationships and responsibilities. It was also argued that health education remained the only practical long-term anti-AIDS strategy that Africa can afford (Cecily Fund 2002:7). Health education and health promotion have been expanded to address not only individuals and families but also institutional and social conditions that hinder or help individuals to attain optimum health (Patsika 2002:8).

Because orphanhood is fuelled by HIV and AIDS, one of the goals of *Education for HIV and AIDS Prevention*, (A strategic Approach 2002:18), focusing on children, is to improve all aspects of education equity and to ensure excellence throughout, so that

distinct measurable learning outcomes in literacy, numeracy and essential life skills are achieved by all. It would appear that because the prevalence of HIV and AIDS impacts negatively on support systems, both formal (schools and hospitals) and informal (family and communities), flexibility in education will assist orphans and vulnerable children to acquire the knowledge, attitudes and skills they require for production and survival and also the life skills discussed above. Little or no research has been undertaken in schools, and lack of hard evidence about what is happening there has given rise to broad generalizations about the impact of the HIV and AIDS epidemic on the education sector although its most significant consequence has been on the extent of orphanhood. As a result, without proper needs assessments, it is not possible to gauge the extent of orphan deprivation in absolute terms and in relation to other groups of children (Bennell et al 2002:1,54).

2.7.2 The relationship between education and life skills

In Zimbabwe, a Sexual Reproductive Health, HIV and AIDS and Life-Skills Programme was incorporated in the school curriculum, which formalized teaching on HIV and AIDS in all schools from grade four (primary level) up to form six (secondary level) in divided lessons varying from 30-minute- to 2-hour sessions per week (Chief Education Officer's Circular Number 16 of 1993). The purpose of the Life-skills education programme is to increase the knowledge base of young people, teachers and support staff. The objectives are to bring about attitudinal and behavioural change; to promote and maintain individual responsibility for good health and for learning about and understanding and appreciating issues of growing up; to strengthen the development and application of life skills in young people; to develop a critical mass through the training of the youth, teachers, support staff and parents, and to review existing materials and develop appropriate materials.

Maslow's motivational theory of learning includes self-transcendence (connecting with something beyond the ego or helping others find self-fulfilment and realize their potential) at the top of the hierarchy of needs (Huitt 2002:2). It is the need to relate to something larger than and beyond oneself and the need for a philosophy of life (Tyler 1949:7). Amidst an array of challenges, orphaned children need to have a vision and a set of beliefs and values that will enable them to become the best they ever dream of becoming as disciplined members of society. To achieve this, there is need for educators to engage students in participatory learning, giving each young person a

chance to develop a personal code of conduct in which he or she believes, thus developing personal identity and values (Bassett & Kaim 2000:30). Suggested strategies include the use of role playing in drama, debates, group discussions, games, public speaking, poetry and music. In all these activities students are given an opportunity to express themselves and develop their values.

Developing countries acknowledge the role of an educated citizenry in advancing development (Aspaars 1999:205). The Botswana Life Skills Programme reported that teachers lacked knowledge of participatory methods and experiential learning processes and had little understanding of the important role life skills play in the development of young people (Gachuhi 1999:24). There are two aspects of experiential learning. One represents the concrete experience of events at one end, and at the other end abstract conceptualisation. The other aspect concerns active experimentation at one extreme and reflective observation at the other. Therefore as one learns, one evolves from being an actor to an observer and from being specifically involved to becoming generally analytic and detached. Kolb's experiential learning theory maintains that learning integrates experience, perception, cognition and behaviour, so that there is a need to plan, monitor and evaluate the teaching and learning of life skills with a view to inculcating values that will change behaviour (Kolb et al 1974:34). With its cyclic nature Kolb's theory forms a continuous spiral denoting an improvement upon previous experience as one continues to learn. The experiential learning model provides the critical linkages of education, work and personal development (Kolb et al 1974:34). Kolb's learning model is classified as experiential in nature because it has historical roots in the experiential and cognitive learning theories of Dewey, Lewin and Piaget and also because it emphasizes the critical role experience plays in the processes of learning and human development (Holbert & Thomas 1988:31). The core of Kolb's learning cycle is the translation of experience into concepts, which in turn are used as guides in the choice of new experiences (Kolb et al 1974:28). Experiential learning would appear vital for orphans who need to know, understand and acquire skills that can assist them to change their circumstances for the better.

Participatory life skills programmes for students in and out of school, supported by the appropriate training of teachers and peer facilitators, can help reduce the risk of HIV transmission (United Nations Secretary-General's Task Force Report on Women

2004:26). For this reason there appears to be a need for extensive pre-service and in-service training of teachers to enable them to teach students about HIV and AIDS, reproductive health and psychosocial life-skills in appropriate and participative ways that have the potential to impact on student attitudes and behaviour. In addition, the development of manuals aimed at improving teacher knowledge and teaching competence in these areas, with a wide variety of teaching materials for use at different school levels is beneficial (Kelly 2000:72). It is suggested that for a study focusing on improving HIV and AIDS education, direct observations of a sample of HIV and AIDS or sexual and reproductive health classes should be part of the design. Such observations would also provide valuable information on the strengths and weaknesses of current teaching strategies (Bennell et al 2002:15). An important element to consider is the HIV sero-status of the teachers who conduct these sessions. In the SADC region teachers who might be HIV positive themselves are mandated to teach life skills without the necessary tools, and may thus need a workplace policy on HIV and AIDS, information programmes aimed at them as adults and access to professional counselling (Coombe, 2002:35).

An emphasis on helping young people to develop feelings of self-worth, self-awareness, and self confidence, and on taking into account self-perceived needs, which are critical components of emotional intelligence, has been given precedence over work specifically on sexual health (Rivers & Aggleton 2000:14). The appraisal of emotional intelligence in orphans is important, since it has even been suggested that the emotional impact of losing a mother is usually greater than that of the death of a father, mothers being more likely to provide nurturing and psychological support (Bennell et al 2002:53). Orphans risk suffering stunted development of both emotional intelligence and life skills, especially against the backdrop of a culture that encourages silence, obedience and submission (Jackson 2002:272). It is envisaged that life-skills education will encourage students to express their views and individuality, thus fostering psychological and emotional development. Maslow considers freedom to express oneself as an immediate prerequisite for the satisfaction of basic needs (Green 2000:9).

2.7.2.1 Emotional Intelligence

Emotional intelligence is a multidimensional concept comprising the understanding of one's emotions and the emotions of others, and being able to manage such emotions effectively in a way that improves personal influence and productivity. There are many definitions of emotional intelligence, which are more complementary than they are contradictory. Emotional intelligence has been referred to as character, personality, people skills and interpersonal intelligence (Emotional Intelligence EQ Workshop Series 2005:1). The definitions of emotional intelligence tend to encompass a combination of cognitive and emotional abilities including decision making, self-awareness, effective self-regulation, motivation, empathy and interpersonal functioning. Theories within the emotional intelligence paradigm seek to understand how individuals perceive, understand, utilize and manage emotions in relation to other people (Emmerling & Goleman 2003:6-8). Work in this field has helped to bring a more balanced view of the role of cognition and emotion in determining life outcomes.

Hein (2005:1), with reference to the academic work of leading researchers in emotional intelligence, Jack Mayer and Peter Salovey, defined emotional intelligence as 'the innate potential to feel, use, communicate, recognize, remember, learn from, manage and understand emotions.' In order to distinguish this definition from the researchers' work, Hein emphasized that emotional intelligence is an innate potential, which depends on the ability to feel emotions and includes the ability to remember feelings. In applying the Hein definition of emotional intelligence to a baby, the concept of fear may be used. The baby feels afraid as a first step in meeting survival needs, then it uses fear to take the necessary action. The baby communicates by crying or screaming. A baby understands when its parents are angry and remembers how they look, how their voices sound and what movements they make when they are angry. A baby also learns to know what it does that angers its parents. The baby then manages its own emotions so as not to anger the parents. It will learn not to cry. Understanding emotions will come later in life when a child begins to develop its ability to reason. However, it has been noted that the development of social and emotional competencies takes commitment and sustained effort, over a period of time (Emmerling & Goleman 2003:21).

In the light of the above, the genetically specified characteristics present at birth, together with a child's experiences during growth interact to determine individual, emotional and intellectual development. Experiences depend on the specific culture, social group and family in which one is reared. Children whose learning opportunities are restricted during the first two or three years of life because nobody talks or reads to them or encourages them to explore their environment, tend to suffer more retardation in language ability, intellectual skills and emotional development than other children (Atkinson et al 1990:70).

Atkinson et al (1990:80) quoted a classic study by Skeels & Dye (1939) of the importance of a stimulating environment in the early years for emotional and intellectual development. In the study, a group of orphaned children whose development at about two years was so retarded that they were not considered adoptable were transferred to an institution for the mentally retarded. The institution was spacious, whereas the orphanage had been crowded. In the institution, a mildly retarded young woman who spent most of the time playing and talking to the children cared for each child. After about four years the experimental group showed an average gain in intelligence of 32 Intelligence Quotient points. A group from the orphanage, matched in age and intelligence, showed a loss of 21 IQ points. In a follow-up study 20 years later, most of the experimental group had finished high school, were self-sustaining, had married and had children of normal intelligence. Most of the control group from the orphanage, on the other hand, had not progressed beyond the third grade and had either remained institutionalised or never learnt enough to be self-sustaining. These findings demonstrate that intellectual stimulation at an early stage can have a significant impact on school achievement and on performance in adult life.

2.7.2.2 Development theories underpinning the acquisition of life skills

In his study Erickson considers the psychosocial virtues of fidelity and loyalty in students and finds that these produce the favourable outcome of an integrated image of oneself as a unique person. This developmental achievement is crucial in acquiring psychosocial skills because students at this stage require creative and critical thinking capabilities in order to make decisions (Boeree 1997:5).

According to Maslow, self-esteem finds expression in psychosocial needs, which are important for self-identity. Being acknowledged as a unique individual motivates positive thinking, which is essential for the development of assertive behaviour and empowerment in the acquisition of life-skills (Green 2000:9). In the absence of a positive self-image, learning is impeded as students battle with low self-esteem, feelings of inferiority and fear of managing change in order to achieve and be competent, and to gain approval and recognition. Students need empowering information.

Gilligan suggests that females' moral decisions are based on the developmental principle of care, rather than on justice as Kohlberg argues, and that women are more likely than men to view relationships as central, adopting a win-win approach to the resolution of moral conflicts (Gilligan 2001:1). Kohlberg's view is that moral education encourages individuals to become autonomous moral agents, basing decisions about right and wrong on moral principles (Atkinson et al 1990:98). Both Gilligan and Kohlberg believe that people find meaning in their world in two different ways. Gilligan refers to Kohlberg's justice voice (based on equality, fairness and reciprocity) as patriarchal, treating the individual as separate, autonomous and independent. In contrast, she shows the care voice as being derived from a relational conception of self and a view of self and others as connected and interdependent.

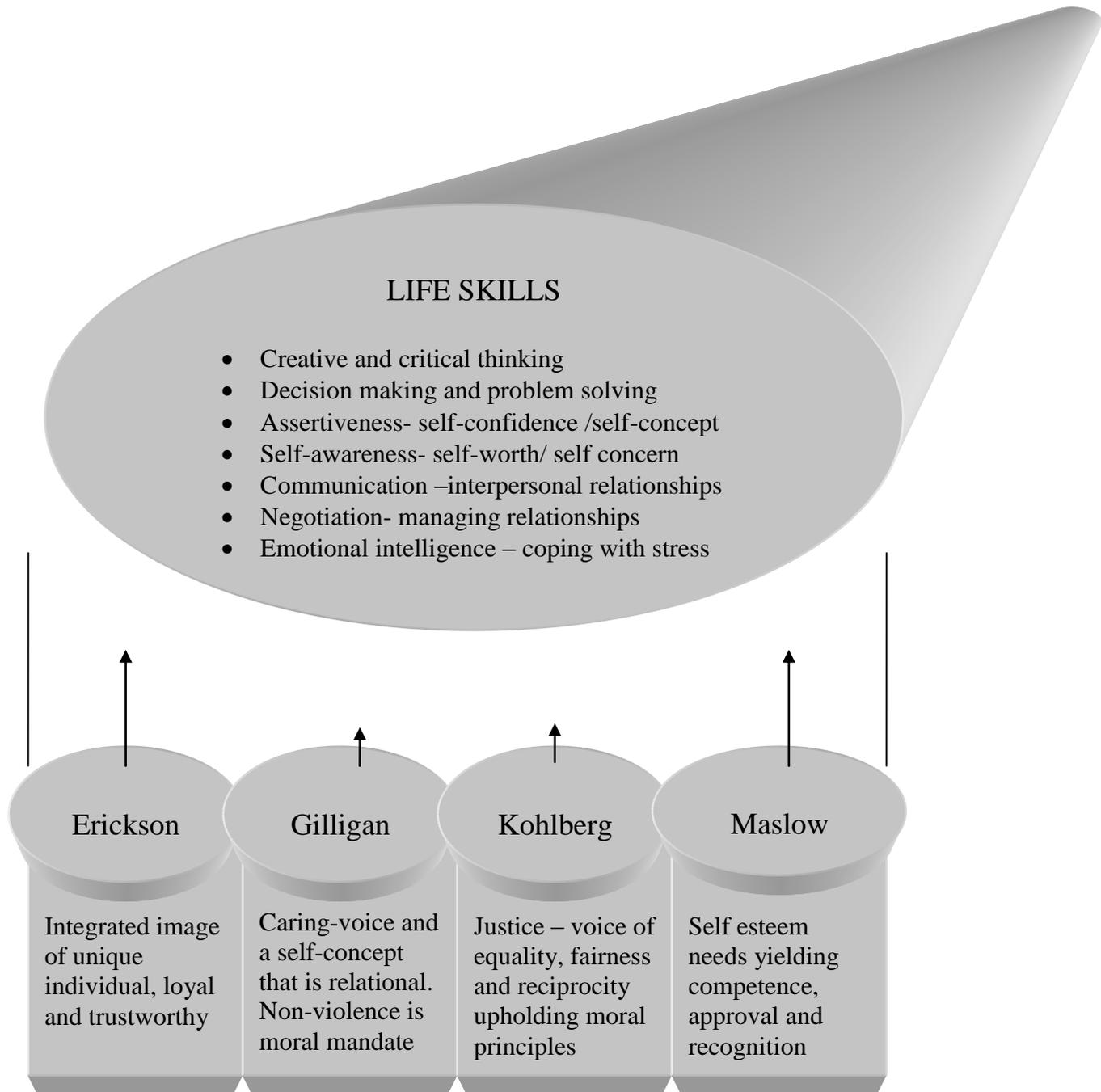
Gilligan's theory has three levels, and transitional periods between level one and level two and between level two and level three. At level one, which is orientation to individual survival, most women intentionally isolate themselves as a protection against pain associated with unfulfilled intimacy. The goal is to fulfil individual desires and needs for the purpose of preserving self.

The first transition is from selfishness to responsibility. The individual questions self-concept in doing the right thing as a sacrifice. At this level the individual moves from

a self-centred, independent view of the world to one of relying on others and the need for survival becomes a socially acceptable responsibility.

The second transition is from goodness to truth. In this transition the individual questions the right thing as considered to be the ability to see in oneself the potential for social acceptance. During this transition the individual integrates responsibility and care into her repertoire of moral decision-making patterns. Level two deals with goodness as the self- rationale of putting others first at one's own expense. The individual views her needs as truth, not selfishness, and as in the first transition this is linked to self-concept. Taking responsibility for the decisions one makes results from being honest with oneself. Level three deals with the morality of non-violence. At level three the disparity between selfishness and responsibility disappears as the individual raises non-violence, a moral mandate to avoid hurt, to the overriding principle that governs moral judgment and action. The principle of care takes precedence as the individual recognizes the moral equality of self and others (Evans, Forney & Guido-DiBrito 1998:190-193).

Fig: 2.2 Theorists' contribution to the development of Life-skills



The anticipated behavioural changes attributed to learning outcomes in literacy, numeracy and life skills encompass vision, character and competence. Thus the moral development theories of both Kohlberg and Gilligan, and Erickson's psychosocial theory of development are relevant in the acquisition of life skills. These theories underpin the importance of morality and self-worth to learning in orphanhood as

young people grapple with distinguishing right from wrong and identifying themselves as unique persons. Orphans must make choices that enhance their self esteem and self-preservation in order to improve their chances of survival in an environment where they are at great risk of infection with HIV and AIDS.

As was seen in the discussion of emotional intelligence and life skills, if orphaned children acquire life skills they will be better able to cope with the emotional deprivation they suffer through the loss of their parents. Other issues that affect the targeted age group in the study population include peer pressure and the desire for love, companionship and even financial gain. These issues seem to influence coping skills as well as knowledge and skills impacting on the distribution of HIV and AIDS. Students, including orphans, will benefit from focused training in negotiation skills, assertiveness, attitudes of self-preservation and positive attitudes towards sexual abstinence and safer sex in the face of an HIV and AIDS- infested environment (Bennel et al 2002:44).

Both orphans and non-orphans need to learn how to make informed decisions, communicate effectively, assert themselves, manage anger and resolve conflict without resorting to violence. Life-skills education is, however, only possible in a learning environment that encourages the application of relevant knowledge, promotes positive attitudes and provides opportunities for individuals to develop skills in decision making, cooperation, coping and stress management and creative and critical thinking. Factors that could impact on learning and life skills include peer pressure, cultural beliefs and, especially, conflicting messages on prevention strategies against HIV and AIDS. Coombe (2002:18) states that there has been no effective evaluation of the content, implementation and outcomes of life-skills programmes. Emotional intelligence, life skills and a healthy self esteem are integral in personality development, which also forms the foundation for the development of families, communities and nations (Gachuhi 1999:23; SAfAIDS 2001:10-11; A Strategic Approach 2002:45; United Nations Secretary General's Task Force Report on Women 2004:26).

2.8 Factors impacting on education and learning

Learning is a dynamic process that focuses on aspects of behavioural change and is influenced by an individual's life experiences. The living environment of individuals is holistic and encompasses biological (physical), psychological, socio-economical, political, spiritual and cultural dimensions (Maslow in Boeree 1998:2; Kolb 1974:29; Huitt 2000:3; Tyler 1949:63).

According to Maslow's humanistic theory of learning, successful learning of life-skills programmes is attained when basic needs are fulfilled. On the other hand, hereditary equipment, particular life experiences and demands of the present environment encourage most people to develop learning styles that emphasize some learning abilities over others (Kolb, Rubin & McIntyre 1974:29). A study of the needs of learners as a contributory source to educational objectives is necessary for guiding a school towards attaining its educational purpose (Tyler 1949:6). Amongst the factors identified in the literature review as impacting on learning are the dropout rate, absenteeism; morbidity and mortality patterns; financial aspects (school fees and the cost of books, travel, uniforms and meals); the profile of schools (including their location, whether they are government or private schools, boarding schools, mixed boarding and day schools or day schools only); knowledge and attitudes about Sexual Reproductive Health, HIV and AIDS and Life-skills education (the teaching/learning process should include teacher-student interaction and teachers' perspective) and school results, including both subject-specific knowledge and the acquisition of life skills. Demographics include gender, whether a child's parents are alive or the child is a maternal, paternal or double orphan, the child's level of depression and the time when the child was orphaned, who the household caregiver is, whether there is an inheritance, the family income, the parents' educational status and age (Baggaley & Needham 1997:874; Bennel et al 2002:57; Matshalaga & Powell 2002:186; UNICEF 2002b: 57; Beekink et al 1999:653; USAID/Zimbabwe, 2002:13-14).

Maslow argues that cognitive capacities including perceptual, intellectual and learning ones, have amongst other functions that of the satisfaction of basic needs and that any danger or deprivation or blocking of the free use of the cognitive capacities indirectly threatens the basic cognitive needs (Green 2000:10). Cognitive needs initially motivate one to know, understand and explore, and to develop morally and intellectually. Later one is motivated to appreciate symmetry, order and beauty. There

are higher levels at which one is motivated to find self-fulfilment in realizing one's potential and in connecting to something beyond the ego, and having a personal philosophy. In orphanhood, where students learn and develop against a backdrop of inadequate basic needs, growth needs are evidently challenged. Maslow's motivational theory requires that deficiency needs be satisfied before meaningful learning can occur. Students need edifying information.

A study partially sponsored by the World Bank and executed by Filmer and Ainsworth in 2002, which researched whether special programmes were needed to keep orphans in school, was conducted in 28 developing countries in Africa, Latin America, the Caribbean and Asia (Filmer & Ainsworth 2002 in *Sexual Health Exchange* 2003/4:14). In this study, it was noted that as a consequence of the AIDS pandemic the number of orphans was increasing in many countries. The study examined the relationships between orphan status, poverty and school enrolment among students aged seven to 14 and 15 to 17 where data permitted. The outcomes showed a large diversity within different cultural backgrounds, levels of income, schooling and adult mortality in the countries studied. Zimbabwe was one of the countries included in the study. Results in Zimbabwe showed that enrolment rates of school children were high in comparison to those in other developing countries, even among the poor. Enrolment gaps remained between orphans and non-orphans, and persisted after the poverty levels of participants in the study were experimentally controlled. This gap could have been due to factors specifically related to orphanhood, including psychological trauma or discrimination by guardians, which would probably not be affected by policies on subsidized fees and uniforms for example (Filmer & Ainsworth 2002 in *Sexual Health Exchange* 2003/4:14-15). Researchers recommended that studies be conducted on the psychological impact of orphanhood on learning.

Harris & Schubert (2001:7) of the American Institute for Research, in collaboration with the Academy for Educational Development Center, in describing the ripple effects in the classroom of HIV and AIDS on the quality of education, noted that the percentage of children who had lost one or both parents had increased from 12% to 17% and that children whose mothers were dead had a higher absenteeism rate than children whose parents were living or whose fathers were dead. In addition, one third of all the children in the study reported that they sometimes missed school to care for

someone who was sick. Regarding achievement, the study noted that within a grade cohort, for children whose parents were alive or dead, the average performance in numeracy and literacy tasks was comparable. One possible explanation for this was that parental status was but one of the stressors affecting performance. The researchers suggested that better control on the factors affecting a child's well being might allow better prediction of achievement (Harris & Schubert 2001:7).

Flexible learning options such as double-shift systems, multi-grade teaching, distance education and minimum packages for learning require consideration in orphanhood (United Nations Secretary-General's Task Force on Women Report 2004:27). Double-shift educational systems involve running morning sessions for some students and afternoon sessions for others. A multi-grade system of teaching entails having three or four streams of one grade for example having four streams of grade six students, thus grade six A, B, C and D. Distance education courses should be designed to facilitate easy conceptualisation to enhance students' learning. Learning material should be designed to give students access to new knowledge, enthuse them and provide a supportive structure for their own learning (Mercer & Pettit 2001:109). Minimum packages for learning require giving the core of the subject matter for that particular grade, so that students learn that which 'must' be learnt. The abovementioned 'flexible' alternatives to conventional schooling and rigid curricula might give disadvantaged children alternative routes to education in terms of increased access, choice of when to learn and how to learn and an option of reduced work load without compromising quality.

2.8.1 Gender Inequality

Southern Africa has been reported to be a regional leader in achieving girls' enrolment in school. The challenge the region faces is to keep the girls in school, since anecdotal evidence suggests that girls are being removed from school to care for the sick when they are orphaned (USAID/Zimbabwe 2002:16; Southern Africa HIV/AIDS Action 2004:4).

A number of unresolved issues contribute to the persistence of gender imbalance in Zimbabwe. These issues include negative practices such as matrimonial inheritance, daughter pledging, gender-based violence, inadequate access to and control of resources by women, the patriarchal nature of society that leads to resistance to

gender reforms, inadequate information for women on their reproductive and sexual rights (Zimbabwe Human Development Report 2003). Matrimonial inheritance is a marital legacy observed in Zimbabwean culture that requires a widow to marry a deceased husband's brother. Daughter pledging is practised in times of extreme hardship, for example during periods of famine a girl child is pledged as security for the fulfilment of a contract between two families. More often than not, the girl child, without being consulted, is betrothed to an elderly man who has given her family food or cattle. These practices continue in an environment infested by HIV and AIDS. All these issues perpetuate the economic dependency of women, causing girl children, particularly orphans, to engage in transactional sex and increasing the risk of the spread of HIV (Common Country Assessment UN Report 2004:16).

In Rwanda, a study of street children conducted in 1996 by World Vision (Subbarao, Mattimore & Plangemann 2001:14) found that an estimated one third of the children were orphans, and that children, three-quarters of whom were girls, headed six million and eighty-five thousand households. The absence of a family in orphanhood prejudices the girl child's education more than that of the boy child. This is so because she is required to care for the family and perform day-to-day household chores. It is not only society that acknowledge that girl children do caring chores; Gilligan's theory, as discussed above, emphasises that females make moral decisions based on the developmental principle of care. Orphans report that in their new roles they are expected to undertake additional tasks. The major differences in additional jobs follow the usual traditional gender distribution, and three times more boys than girls have reported that the death of parents has failed to increase their household tasks (Population Communication Africa 2002:3). It would thus appear that there is a need for education systems to monitor the school attendance of the girl child (Foster et al 1997:397; Aspaars 1999:205; Foster & Williamson 2000:S281; Jackson 2002:93; Bennel et al 2002:54; A Strategic Approach 2002:33; Coombe 2001:6).

The UNICEF Report (2002b) states that the schooling of girls alters their later behaviour in that they deliberately reduce the number of pregnancies, infant and child mortality rates are lowered; the nutritional and health care practices of family members are improved, and their children's school performance is improved. Depriving orphaned girls of education therefore has an impact not only on a whole generation of girls, but also on the future generation. USAID Zimbabwe (2002:15)

concur with the above, confirming that education for girls is likely to be linked with girls' becoming sexually active and marrying at a later age and their having better access to information services and a stronger sense of self-efficacy. In Zambia for instance, the primary education of 5050 orphans and the secondary education of 921 orphans in Kitwe was funded by the Cecily Fund and at both levels, about half of the orphans financed were girls. The rationale for their gender equality approach is that education is considered an essential part of the defence strategy against HIV and AIDs and particularly important for girls, as it gives them self respect and hope (Cecily's Fund 2002:7). The Millennium Development Goals aim to eliminate all gender disparity in primary and secondary education by 2005 and to give all school-age children access to primary education by 2015 (Common Country Assessment UN Report 2004:16).

2.8.2 Family systems

Dr Murray Bowen, a Professor of Psychiatry at Georgetown University Medical Center, USA, noted that the family is not a collection of autonomous entities but rather an interlocked emotional unit unto itself. He developed the concept and perspective of Family Systems (Kerr 1988:1). What led him to this conclusion was his observation that family members frequently function in reciprocal relationships. A reciprocal relationship system demands that when personal changes occur, strategies be put in place to address the family unit as well. This is so because when one person makes a change to this system, it will affect the role of other people. Those effects may be subtle or intense and capable of creating stress. The goal of family systems is to gain individuality while maintaining togetherness (Kerr 1988:1). In orphanhood, the absence of parents has the potential of disrupting the family unit from a variety of perspectives: psychologically, socially and economically, so that there is a greater need for emotional togetherness to fill- the gap.

2.8.2.1 Family Composition

In the United States and Europe, an orphan who assumes stepchild status is likely to be more vulnerable to abuse, to be sexually molested and to be selectively neglected (medically, nutritionally, physically or emotionally) in comparison to children of complete families (Beekink et al 1999:645). In South Africa, the growing number of orphans has overwhelmed existing systems of care and resulted in evolving family forms, such as child-headed households (Fox et al 2002:10). In Zimbabwe, as the number of orphans continues to increase, the traditional system can no longer cope. The emergence of orphan households headed by siblings is an indication that the extended family is under stress in Zimbabwe. The functioning of child-headed households shows the development of a new coping mechanism in response to the impact of AIDS on communities. Current studies in Zimbabwe also point to the increasing prevalence of child-headed households, comprising between two and three percent of the caregiver population. Meeting children's basic needs such as clothing, shelter, food and access to health and education remains a challenge to all caregivers (Matshalaga & Powell 2002:185). According to Maslow's theory, when basic needs are not met, deficiency needs of hunger, thirst and bodily comforts in a deprived environment are evidenced. In such circumstances learning will not occur until the deficiency needs are satisfied. Students seek coping information. .

In the Study on Impact Assessment in Zimbabwe (2002:41) (n-1009) 19% of respondents reported that caring for sick people at home or fulfilling other household responsibilities caused students to be absent from school. Absenteeism appeared to occur more frequently among maternal orphans (24%) and children who lived in families headed by grandparents (32%). Therefore, activities that include adoption of new household roles ranging from caring for the sick and dying to heading the home; and barriers to education (the cost of fees, books, uniforms and travel) because of a lack of money, are some factors that impact on learning by causing absenteeism and repetition of school years (Foster, Makufa, Drew, Kralovec, 1997:392; Drew, Makufa & Foster 1998:S10-S11; Aspaars 1999:207; Subbarao et al 2001:26; Jackson 2002:268).

Kelly (2000:63) asserts that the basic issue that needs to be addressed, is what kind of adults current orphans will grow up to be. Orphans have been cheated of their childhood. The question is whether the education they receive compensates for the

absence of normal childhood. More research is needed to determine whether maintaining or re-establishing orphans' education has social, economical or psychological benefits to children and their households (Foster & Williamson 2000:S282).

2.8.2.2 Parents' educational level and socio-economic background

Family income and parental education, particularly maternal education, have an impact on the survival of children (UNICEF 2002b: 57; Beekink et al 1999:653; USAID/Zimbabwe 2002:13-14). A study that examined orphans' educational opportunities by emphasizing the household as the basic unit of analysis shows that if families experience depletion of resources, a tendency to show partiality in deciding who will attend school is evidenced. In these cases indigenous children received priority over orphans (Aspaars 1999:210). In the same study (Kakande & Nalwadda 1993 in Aspaars 1999:210), mentioned that the lower the level of education of parents, the less value they attach to education, and the less likely they are to invest in their children's schooling, which may be reflected in lower enrolments for orphans. In a Kenyan study on orphan education, more than half of in-school orphans (58%) reported that at some time they had been sent home from school because their families were unable to pay school fees (n-107). The same study reflected the increased mobility of orphans; only (n-106) six percent of them were still living in the house that had once belonged to their parents. The other 94% were boarded out, living with relatives, friends or neighbours and sometimes living in another place or house or compound on their own (Population Communication Africa 2002:1-7). Orphans are consequently more likely to be removed from school because of financial problems or compelled to stay at home, care for the sick and be pulled into the informal economy to supplement lost income (International Labour Office 2001:34; Makufa 2001:20; Jackson 2002:285).

The preceding scenario does not reflect the supportive family environment that is essential to learning. The status of the family is an important factor that can influence educational outcomes. There are fewer orphaned secondary school students than primary school ones because they lack money to continue their education at secondary-school level. Schooling for orphans is an unexplored and new issue, which

should be addressed (Michaels & Levine, 1992 in Forehand et al 1999:715; Gachuhi 1999:14; Bennell et al 2002:54).

2.8.3 Psychological factors

The loss of a parent is a stressor capable of producing symptoms such as confusion, anxiety, depression and behavioural disorders associated with adapting to social change. These symptoms may cause learning problems associated with lack of concentration in class, lack of interest, low self-esteem and consequent bad performance. Difficult relationships with new household heads also contribute to stress, resulting in children being depressed and reducing their ability to cope with growing pressures (Foster et al 1997:397).

In the short term psychosocial stressors induce anger, denial, bargaining and the trauma of loss and in the long term there is a lack of emotional resources such as motivation, supervision, love and protection (Impact Assessment 2002:40).

Orphans in Africa suffer recurrent psychological trauma, starting with the illness and deaths of their parents. Because they receive neither death education, bereavement counselling, grief therapy nor emotional rehabilitation sessions, their grief and depression remain hidden and unrecognised (Tsiwo-Chigubu 2001; Kaleeba 2002:92). This has a potential bearing on school performance when the sense of loss produces sadness and the inability to learn and achieve.

The Kenyan study on orphans and education reports that (n=37) 65% of double orphans claimed that they had no one outside the family in whom they could confide or from whom they could seek help in times of trouble (Population Communication Africa 2002:5). Many authors agree that orphans are at increased risk of sexual abuse, which ranks high on the list of causes of psychological trauma and vulnerability to HIV and other STI infections (Sengendo & Nambi, 1997:119-120; Gilborn et al, 2001:10-15; Subbarao et al 2001:23; Jackson 2002:257-258; Matshalaga & Powell 2002:186; Foster & Williamson 2000:S282; Gachuhi 1999:7).

Sengendo and Nambi (1997:105) conducted a study that examined the psychological effect of orphanhood in a case study of 193 children in Rakai district of Uganda. The study noted that most children lost hope when it became clear that their parents were sick. They also felt sad and helpless. On adoption many of them felt angry and depressed. During the parents' sickness, most children suffered disruption of

schooling. At the time of the death of parents many orphans (24%) lost school time (Sengendo and Nambi 1997:110). Those living with widowed fathers and those living on their own were significantly more depressed than others. Children were also asked whether they were angry about their parents' death and whether they blamed their parents for their deaths. Many were still angry about their parents' death. Those staying with relatives other than grandparents were most likely to be angry, followed by those living with grandparents. Children were least likely to be angry if they stayed with a surviving parent or on their own. In the study, orphans and non-orphans were questioned about their expectations of life and it was found that non-orphans were more optimistic about the future than orphans; for example non-orphans expected to live longer than orphans and more of them expected to marry and have children than non-orphans.

At the stage of adolescent development, Maslow stipulates that there is a need for friends, affectionate relationships in general and a sense of community and that adolescents obtain these only when their physiological and safety needs have been met. If a preceding need is not taken care of one becomes increasingly susceptible to loneliness and social anxieties (Boeree 1998:3). The psychosocial needs of orphans are not as well understood as their material needs. The children's psychological distress may be overlooked because of the primacy of basic survival needs but it should not be ignored or considered unimportant (Foster et al 1997:397-398; Jackson 2002:266).

2.8.4 Poverty

Although the Impact Assessment (2002:41) was not able rigorously to quantify the impact of orphanhood on educational outcomes, it revealed that orphanhood was exacerbating previously existing challenges to learning posed by poverty, and that the school system did not respond adequately to the needs of orphans (Impact Assessment 2002:38; Sengendo & Nambi 1997:106; Foster et al 1997:396).

A major factor that impacts on learning is dropping out of school, which has many causes that include deprivation of either paternal or maternal care and hidden discrimination and stigmatisation because of poverty but not necessarily the sero-status of the parents (Foster et al 1997:397; Baggaley & Needham 1997:873;

Subbarao et al 2001:21; Impact Assessment 2002:40; Jackson 2002:254-261; Tsiwo-Chigubu 2001:1301; Sengendo & Nambi 1997:397).

In the Impact Assessment (2002:41), 98% of Guidance Teachers interviewed in the school survey strongly agreed with the statement that being orphaned had a major negative impact on school performance. Correspondingly, 58% of students participating in the school survey knew of fellow students who had dropped out because of deaths in the family. The same study cites psychosocial problems stemming from stress, grief, stigmatisation, neglect or abuse and lack of interest or motivation, which were mentioned by over 9% of boys and 4% of girls as reasons for dropping out.

A study done in Kenya on orphan education mentioned poverty and dropping out of school as factors affecting learning. It further revealed the following reasons for orphaned girls to drop out of school: 34.1% were unable to find school fees (the cost of schooling and living); while 21.5% were not doing well at school (and tired of repeating classes) (Population Communication Africa, 2002:1). In Uganda, amongst orphaned children aged between 15 and 19 years, only 19% continued their schooling uninterrupted; 21% lost school time and 29% dropped out of school (Sengendo & Nambi 1997:111).

In Tanzania a study reports that orphans and foster children had significantly lower enrolment and higher dropout rates than children living with both parents (Urassa et al, 1997:148). In Guatemala more than a third of children orphaned by HIV and AIDS drop out of school (A Strategic Approach 2002:33).

These studies highlight poverty and dropping out of school as factors that demonstrate how the learning and educational outcome of orphans can be disrupted.

2.8.5 Loss of property

Other factors that impact on learning include deprivation of property through disinheritance. In a study of children affected by AIDS in Zimbabwe, many children reported unfairness, some citing lack of knowledge of what had happened to the estate after the death of parents, and others reporting that they had not been given their father's death certificate so that they could not access pension benefits. Yet another group stated that relatives had taken all their belongings (Makufa 2001:19). In Rwanda, parental marital status has extraordinary implications for orphans. If parents

were not legally married, after the father's death the father's relatives may reject the children and their mother and take the father's home and property, leaving the orphans bereft (Subbarao et al, 2001:16).

Research aiming to make a difference to children aged 13 to 18 years affected by AIDS in Uganda, reported that among widows (n-105,) 21% experienced property grabbing, a phenomenon that further undermines the livelihood of households whose economic position is already compromised by the death of the breadwinner (Gilborn, Nyonyintono, Kabumbuli & Jagwe-Wadda 2001:1). A survey carried out in Zimbabwe shows that most orphans lived with paternal relatives, (n-211) and that 76% had inherited their parents' property although only seven percent of parents had had any form of will; with only 15% reporting property grabbing (Drew, Foster & Chitima, 1996:81-82).

It is reported that as the death toll from AIDS mounts and poverty worsens in both rural and urban areas in the Southern Africa region, families are increasingly dispossessed of property by in-laws upon the death of husbands. This is largely because when a woman marries according to customary law, she joins her husband's clan and property devolves along the male line, effectively denying women and children their fundamental rights to own or even access property (United Nations Secretary General's Task Force Report on Women 2004:35).

A family provides shelter that makes children feel safe and secure. According to Maslow, physical conditions that produce healthy intellectual capabilities motivate the assimilation of knowledge. In the absence of a family, the loss of property as well induces insecurity, which becomes a deficiency need. Psychological needs of comfort and freedom that motivate the functioning of creative and critical thought processes are disturbed, making learning a difficult goal to attain until the deficiency need is satisfied. Students seek helping information.

2.8.6 Morbidity

Reported factors that impact on learning are poor health and nutrition leading to illness-related absenteeism, erratic attendance at school and poor performance (Makufa 2001:16; Subbarao et al 2001:15). Little is known in Zimbabwe about the effects of HIV and AIDS on children's health and nutrition (USAID/Zimbabwe 2002:16). It is not difficult to imagine that the health of orphans is likely to be compromised in an environment where in 2003 the Poverty Assessment results in Harare Province showed that about 1.2 million (65%) of the city's population was food insecure (Food Security and Vulnerability Assessment Urban Report 2004:7). Much of Africa's disease burden is directly related to malnutrition, which increases fatigue and decreases physical activity resulting in reduced work productivity and cognitive and mental development (Piwoz & Preble 2000:4).

2.8.7 Mortality

Research points to the fact that orphans lack proper supervision, care and schooling and have higher mortality rates than other children (Gachuhi 1999:14). Similarly, Gilborn et al (2001:1) mention that orphans suffer physical, educational and emotional setbacks before parental death, and in their study of older children (n=181, ages 13 to 18 years) 26% reported a decline in school attendance and 28% a decline in performance when parents became ill. In the Kenyan study on orphan education, orphans reported that there was nobody to help them with school set homework (n=104), 79% reporting absence or lack of assistance (Population Communication Africa 2002:2). On the death of their parents orphans suffer loss of the parental guidance and socialization that reinforces learning (USAID/Zimbabwe 2002:14). This type of parental supervision and role modelling are essential for vicarious learning, especially for the acquisition of psychosocial and social skills and thus become important factors in the learning process of orphans. Beekink et al (1999:653) believe that the negative consequences of orphanhood are greater if both parents die, because the orphans are disadvantaged materially and psychologically.

Beekink et al (1999:643) argue that the high mortality rates of orphans may be due to indirect changes associated with the status of becoming an orphan or may be caused by direct psychological factors including stress. It was reported in a Tanzanian study that adult mortality contributed to a decrease in the school enrolment of orphans,

making mortality a factor that can potentially influence educational outcomes (Ainsworth, Beegle & Koda, 2000:17). In Zimbabwe, information from Annual Reports (on Births and Deaths) of the Director of Health Services for the City of Bulawayo, for the period July 1990 to December 1998 showed a steady rise in infant and child deaths from HIV and AIDS, pointing to a potential decrease in the demand for education in the future (Dube, 2001:40-41). The Impact assessment of HIV and AIDS study on the education system in Zimbabwe (Impact Assessment 2002:70) noted that the system was beginning to experience the burden of teacher losses as a result of illness and death due to HIV and AIDS, and the resultant teacher absenteeism was impacting on the quality of education given to the students. In the same assessment most schools reported no deaths but six (2.4%) reported the death of at least three teachers, 13 (5%) reported two deaths and 34 (14%) reported one death over a period of two years. The loss of teachers becomes a factor with the potential of disrupting the teaching-learning process of orphans.

According to Maslow the experience of love and sense of belonging cater for needs of the affective domain motivating an emotion, a feeling or desire to belong, to interact particularly with family and peers and have a sense of community –being able to communicate, participate, negotiate and experience life are crucial for the development of emotional intelligence. In the absence of family, deficiency needs of isolation, loneliness and neglect, a need to affiliate with others and to be accepted are evidenced, making learning difficult to achieve until the need is satisfied. Students require enlightening information.

2.8.3 Application of Maslow's theory to the study

Factors that impact on learning in orphanhood identified in the literature review emanate from basic needs, which Maslow calls deficiency needs. He arranges them hierarchically from the lowest need as follows: the physiological, safety/security and belongingness/love needs. The next level of needs Maslow calls growth/being needs; the lower level needs in this category are cognitive and aesthetic, and the higher level needs are self-actualisation and self-transcendence ones (Huitt 2001:7). According to Maslow one is ready to act upon growth needs only if deficiency needs are met. Orphanhood is a phenomenon characterized by the loss of one or both parents with orphans living in an environment that is often characterized by wide-ranging bio-

psychosocial, cultural and economic needs. In the study the identified indicators are akin to basic needs through which the impact of factors on learning was assessed.

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Table 2.1 Maslow's Hierarchy – Application of theory to the study environment

Maslow's Hierarchy	Relationship of the level of needs to learning (life skills and schooling)	Application to the study environment and orphanhood	Legislation and educational system response to the needs
Physiological needs	Physical conditions that produce healthy intellectual capabilities which motivate the assimilation of knowledge be it subject-specific or life skills in an environment that enables one to think	Deficiency needs of hunger, thirst and bodily comforts in a deprived environment Students seek coping information	Amended Zimbabwean Constitution (1996) strongly influences educational policies The African Charter on the Rights and Welfare of the Child Article 11
Safety and security	Psychological needs of comfort and freedom that motivate the functioning of creative and critical thought processes, which are important for decision making, choosing the best alternative in problem solving - an important aspect of the acquisition of life-skills	Deficiency needs of insecurity, loss of parents and their guidance, lack of shelter, property and finances, dealing with poverty Students seek helping information	The African Charter on the Rights and Welfare of the Child Article 9 Zimbabwe Government's initiative in the administration of the Basic Education Assistance Module (BEAM) The introduction of HIV and AIDS, Reproductive Health and Life Skills education in the schools curricula in 1993
Belongingness/ Love	Needs of the affective domain motivate an emotion, a feeling or desire to belong, to interact particularly with peers, and have a sense of community –being able to interact, communicate, participate, negotiate and experience	Deficiency needs of isolation, loneliness and neglect, a need to affiliate with others and to be accepted. Students require enlightening information	The African Charter on the Rights and Welfare of the Child Articles 7, 8 and 12 Zimbabwe Children's Protection and Adoption Amendment Act of 2001 with particular reference to the Child Welfare Council

	life, crucial for emotional intelligence.		
Self esteem	Psychosocial needs, which are important for self-identity, being acknowledged as a unique individual, motivating positive thinking which is essential for the development of assertive behaviour and empowerment in the acquisition of life skills	Deficiency needs of battling with low self esteem and fear of managing change in order to achieve, to be competent, and gain approval and recognition. Students need empowering information	Zimbabwe National Policy on the Care and Protection of Orphans of 1999 Zimbabwe National HIV/AIDS Policy, 1999: Guiding Principle 26 The African Charter on the Rights and Welfare of the Child Article 25.
Cognitive needs	Cognitive needs initially motivate one to know, understand and explore, developing morally and intellectually; later one is motivated to appreciate symmetry, order and beauty. At still higher levels one is motivated to find self-fulfilment in realizing one's potential and connecting to something beyond the ego, having a personal philosophy	Growth needs, being challenged to learn and develop against a backdrop of inadequate basic needs. Students need edifying information	Government of Zimbabwe Education Act as amended (1991) states that education is a human right and rights cannot be properly understood without an understanding of needs Continued research in education that produces new knowledge of the factors that impact on learning in orphanhood

2.9 Summary

Major concepts of the study, which include learning, orphanhood and life skills, were defined.

The literature supports the definition of an orphan as one who has lost one or both parents through death. There are more paternal orphans than there are maternal ones. War and disease (HIV and AIDS) are amongst the causes of orphanhood that were

discussed in the literature review. In Zimbabwe HIV and AIDS is the highest contributor to the increasing number of orphans in the country. In Uganda and Mozambique war has caused mass orphanhood. Regardless of the cause of orphanhood and the location of the orphan, extensive psychosocial and economic needs exist.

Orphans are cared for by the extended family, within the community and in institutions. To support community initiatives, Child Welfare Forums were developed in Zimbabwe. Operating under CWFs are four models, the rural, urban, commercial farming and mine models, which have an intersectoral participatory approach. The Zimbabwe orphan policy was approved to ensure that orphans get minimal basic services, but no strategy was put in place to address their learning needs. It would appear that the Basic Educational Assistance Module (BEAM) as a programme has operational flaws, which need addressing.

The Zimbabwe educational system endorsed education as a human right and in 1993, Sexual Reproductive Health, HIV and AIDS, and Life skills education was introduced into the school curricula. The appraisal of emotional intelligence in orphans is important as they risk suffering stunted development of both emotional intelligence and life skills, especially against the backdrop of a culture that encourages silence, obedience and submission. A prerequisite for the acquisition of life skills is the development of creative and critical thinking capabilities for decision-making and problem solving. The ideal method of teaching life skills is the participatory approach. Orphanhood is a major consequence of HIV and AIDS, yet little or no research about the impact of the pandemic in schools has been undertaken. It thus becomes difficult to estimate the extent of orphan deprivations in absolute terms and in relation to other groups of children. The exploration of orphanhood, care systems, the role of non-governmental organisations, education and the acquisition of life skills; and other factors impacting on education and learning yielded indicators that are necessary to guide the assessment of factors that impact on learning.

Maslow's motivational theory of learning forms the theoretical framework of the study. The author anticipates that in using Maslow's theoretical framework she may give the findings of this study broader significance and utility.

CHAPTER 3

METHODOLOGY

3.1 Introduction

In this chapter the research methodology for the study of the factors impacting on learning in orphanhood is discussed. The research design within Maslow's theoretical framework is elucidated. The study population is described and it is explained how the study sample has been selected.

The research instruments are clarified and methods of data collection are explained and motivated. The ways in which ethical principles and scientific rigor have been maintained throughout the data collection stage are demonstrated. The methods used in analysing the data are described.

3.2 Purpose of study

This study aims to provide scientific knowledge of the factors affecting the learning profile of orphans as compared to non-orphans, and to identify the relationship between these factors and learning outcomes in Zimbabwe.

3.2.1 Research Objectives

The proposed study has as objectives the following:

- to identify factors that impact on learning in general
- to assess the impact of those factors on the learning profile of orphaned children in particular
- to compare the learning outcomes of orphaned children with those of non-orphans
- to identify relationships between identified factors and learning outcomes.

3.2.2 Research Questions

- 1) What factors affect learning in general?
- 2) How do these factors affect the learning profile of orphaned children in particular?
- 3) How do the learning outcomes of orphaned children compare to those who are not orphaned?
- 4) What relationships exist between the affecting factors and learning outcomes?

3.3 Quantitative Research Approach

A quantitative approach was adopted for the study within the Evaluation Process and Outcome Research Design.

Table 3.1 espouses the tenets of quantitative research, which include conceptual, design and planning, empirical, analytic and dissemination phases. Also included in Table 3.1 is an explanation of the major thrust of each phase and, most importantly, the activities carried out in each phase in a systematic and orderly manner. The activities range from formulating and delimiting the problem through to selecting the research design, collecting data, analysing data and communicating the findings. Inherent in the descriptions are references to the current study process.

Table 3.1 Phases in a Quantitative Research Approach - Synthesized from Polit & Beck: (2001:54-59) and Polit & Hungler (1995:35-40)

Research Phase	Thrust in the Phase	Activities executed in the Phase
1: The Conceptual Phase	This phase begins with a strong intellectual element grounded in previous research on a topic of interest.	Step 1. <i>Formulating and delimiting the problem:</i> (see Chapter 1) Identifying research problem and developing research questions. Addressing issues of significance, feasibility and ethical concerns.
		Step 2. <i>Reviewing the related research literature:</i> (see Chapter 2) Research is conducted within the context of previous knowledge. Literature review provides the base upon which to build new knowledge and is done before any data is collected.
		Step 3. <i>Defining the Theoretical Framework:</i> (see Chapter 2: Section 2.3) Research performed within the context of a theoretical framework may have findings with broader significance and utility.
		Step 4. <i>Formulating Assumptions:</i> (see Chapter 1) An assumption refers to a basic principle that is believed to be true without proof or verification; therefore activities are directed at understanding the underlying causes of natural phenomena; hence the belief in objective reality in testing the researcher's ideas about the nature of the phenomena being studied and the relationships amongst them.
2: The Design and Planning Phase	Decision is made regarding the method to be used to address research questions and plans for the actual data collection. Methodologic decisions have crucial implications for the validity and credibility of the study findings.	Step 5. <i>Selecting a research design:</i> (see Chapter 3: Section 3.3.1) This is the overall plan for obtaining answers to research questions and for handling some of the difficulties encountered during the research process. Quantitative designs tend to be highly structured and to include controls that reduce the effects of contaminating influences. There is a wide variety of experimental and non-experimental research designs.
		Step 6. <i>Developing protocols of intervention in experimental designs:</i> (see Chapter 3:Section 3.6.1) The goal of well-articulated protocols is to ensure that all participants in each group are treated in the same way.
		Step 7. <i>Identifying the population to be studied:</i> (see Chapter 3: Section 3.5) A population comprises all the individuals or objects with common defining characteristics. The requirement of defining a population in research arises from the need to specify the group to which the results of a study can be applied.
		Step 8. <i>Designing the sample plan:</i> (see Chapter 3: Section 3.6) Researchers collect data from a sample. The quality of a sample is a function of how typical or representative the sample is to the population. The sample plan specifies in advance how the sample will be selected and how many subjects there will be.

		<p>Step 9. <i>Specifying methods to measure variables</i>: (see Chapter 3: Section 3:7) To address a quantitative research problem, the researcher develops a method of observing and measuring the research variables as accurately as possible. The process starts with conceptual definitions of the variables, followed by choice of method of operationalising them (collecting data). Data collection methods include questionnaires, document analysis, interviews and observations.</p>
		<p>Step 10. <i>Developing methods to protect human rights</i>: (see Appendix A and B, Annexure A and Chapter 3: Section 3.13) Procedures need to be developed to ensure that the study adheres to ethical principles and that rights of subjects have been adequately protected.</p>
		<p>Step 11. <i>Finalizing and reviewing the research plan</i>: (see Chapter Fig 3.1) Researcher often seeks feedback from colleagues or advisers. They also review readability of written materials as well as pretest (pilot study) their measuring instruments to assess their adequacy.</p>
3: The Empirical Phase	The empirical stage of the quantitative study involves collecting research data and preparing data for analysis.	<p>Step 12. <i>Collecting data</i>: (see Chapter 3: Section 3.10) This is an activity guided by a pre-established plan to include procedures for actual data collection (where, when and how) and for recruiting sample and also for training those who will collect data.</p>
		<p>Step 13. <i>Preparing data for analysis</i>. (See Chapter 3: Section 3.11) Questionnaires are checked for completeness, identification numbers are assigned to the responses or observations of different subjects, and coding refers to the process of translating verbal data into categories or numeric form. Also involved is data entry process.</p>
4: The Analytic Phase	Consumers of research cannot use data in its raw form. Data is subjected to analysis and interpretation.	<p>Step 14. <i>Analyzing data</i>. (See Chapter 4) Data needs to be processed and analyzed in some orderly, coherent fashion so that relationships can be discerned. Statistical analyses cover a broad range of techniques from simple to complex sophisticated methods.</p>
		<p>Step 15. <i>Interpreting the results</i>: (see Chapter 5) This is the process of making sense of the results and of examining the implications of the findings within the broader context. The process begins with an attempt to explain the findings within the context of the theoretical framework, prior knowledge in the area and the limitations of the study.</p>
5: The Dissemination Phase	After answering the research questions, the researcher needs to disseminate the study findings.	<p>Step 16. <i>Communicating the Findings</i>: A study cannot contribute evidence to practice without communicating the results. The final task is the preparation of a research report. The research report can take the form of term papers, dissertations, journal articles, papers for presentation at professional conferences and books.</p>
		<p>Step 17. <i>Utilizing research findings</i>: (see Chapter 5) The concluding step in a high quality study is to plan for its use in the real world. Researchers start the process by making recommendations on how the study findings may be incorporated into practice.</p>

3.3.1 Evaluation – Process and Outcome Research Design

The Evaluation- Process and Outcome Research Design suited this study best because it allowed the researcher to explore, describe, analyse and make comparisons in an attempt to fulfil the study's objectives in a formal, objective, systematic process, using numerical data to obtain information on the variables being studied (Bryman & Cramer 2001:2).

The main aim of the process and outcome evaluation design was to establish whether the intended (and unintended) outcomes of learning with reference to orphans had materialized. The design advocates probability-sampling methods, for example, the simple random method for selection of subjects and the stratified random method for the selection of schools.

The design allows multiple methods of data collection, which generally use all forms of structured and semi-structured methods. In addition to questionnaires, it was useful to include observations and interviews so that information from different sources could be crosschecked. In exploring factors that affect learning, the study expanded its explanatory value by approaching the problem from different angles at the same time, which was made possible by the use of the Evaluation- Process and Outcome Research Design.

The typical application of the design is for performance measurement and impact assessment. Evaluation research design is associated with experimental, quasi-experimental and quantitative evaluation studies (Mouton 2001:160). The strength of this design lies in its ability to assess causal outcomes and impact. For analysis the design favours structured and more quantitative methods such as descriptive statistics and ANOVA (Mouton 2001:160). Limitations of the design include context effects, subject and researcher effects and measurement error when operationalising and measuring outcome indicators (Mouton 2001:161)

3.4 The Theoretical Framework

Maslow's humanistic motivation learning theory was the chosen framework of the study (see item 2.3).

3.5 Study Population

The study population comprised form four students aged between 15 and 19 years and guidance and counselling teachers in the Harare region.

Although the HIV and AIDS pandemic was not the only reason why the study concentrated on orphanhood, it is assumed that a high incidence of HIV will result in a high mortality rate amongst AIDS cases and consequently an increase in the number of orphans. The Harare region with its high prevalence of HIV and AIDS was therefore chosen for the study (National AIDS Council Report March 2002).

For the purposes of the Ministry of Education, Sport and Culture, Zimbabwe has been divided into nine regions. Harare, one of the regions, is metropolitan in nature with an extensive central business district, urban areas with high-density and low-density dwellings, peri-urban areas and medium sized commercial farming areas. The national population of form four students in 2002 was 15,804; 9,267 were boys and 6,537 were girls. The Harare region had a form four student population of 4,574; 2,353 were boys and 2,221 were girls (Ministry of Education Sport and Culture- Statistics: 2002). The sample was drawn from form four students. These students, whose average age was between 16-17 years, fell into the 15-to-18-year age group that covered the largest proportion of the population of youth in Zimbabwe. This was the age group that was most likely to be affected by the HIV and AIDS pandemic in terms of orphanhood, considering that the first case of HIV was diagnosed in Zimbabwe in 1985. Research findings point to the fact that 41.7% of the age group 10 to 19 years are sexually active in Harare, having had their first sexual encounter at the age of 14.8 years (UNICEF 2002a: 42). It is envisaged that involving this age group in the study, besides the fact that they are old enough to provide accurate data for the study, could also create awareness about the prevention of HIV and AIDS (Children on the Brink 2002:28). The population of form four students in the study was drawn from the Harare Region's Secondary Schools, of which there are 74.

3.6 Sample

Polit and Hungler (1995:284-287) concur in describing the sampling plan as the process of selecting a portion of the population to represent the entire population. The advantage of sampling is that its management is realistic and cost effective. The risk of sampling is that the sample may not be fully representative of the study population in terms of characteristics, behaviours and beliefs (Polit & Hungler 1995:284-287).

Stratified random sampling was used to sample the schools. The aim of stratification is to enhance representativeness (Polit & Hungler 1995:286). Stratified random sampling requires the population under study to be divided into strata based on identified attributes, for instance area of location, type of school, status, level and board. The subsets into which the population was divided were homogeneous. Elements from each subset were randomly selected, based on their proportion in the population, as was done for the abovementioned schools. The advantages of using the stratified sampling strategy were that the representativeness of the sample was enhanced; the researcher had a valid basis for making comparisons between subsets if information on the critical variables was made available. Also the researcher was able to over-sample a disproportionately small stratum to allow for their under-representation, statistically weigh the data accordingly, and continue to be able to make legitimate comparisons (LoBiondo-Wood & Haber 1990:277). The stratified random sampling method, apart from increasing homogeneity and reducing variability, thus reducing the generalization error, was ideal for comparing learning outcomes, which this study required.

The simple random sampling method was used for selecting the students and teachers. After the population is defined, a sampling frame is constructed, which in simple terms is the actual list of population elements. The elements are numbered consecutively. A table of random numbers or a computer is then used to draw at random a sample of desired size. Random samples are not subject to researcher bias and random selection guarantees that differences between the sample and the population are purely a function of chance, making probability sampling ideal for this study (Polit & Beck 2001:265).

3.6.1 Sampling Procedure

The sample for the study included stratification and coding of Secondary Schools. SPSS software was used to sample 21 secondary schools out of a total population of 74 in Harare as indicated in the sample framework in Table 3.2 below. Only 18 schools were accessible. For reasons that included, *inter alia*, interference with the students' study leave, it was impossible to access the following schools: C, H and J.

Key to sample frame in Table 3.2 below:

Level of education obtainable at school

('A' and 'O')

Area of school location

(low density- LD1; high density-HD 2; peri-urban-PU 3)

Type of school

(govt-G1; private- P2; local authority-LA3)

Status of school regarding gender

(mixed boys and girls-M1; boys only-BO2; girls only-GO3)

Board status of school

(day and boarding facilities-DB1; boarding facilities only-BO 2; day facilities only-DO3)

Table 3:2 The Sample Framework

LEVEL	NAME	AREA	TYPE	STATUS	BOARD	No OF STUDENTS
"A"	Level A	LD1	G1	M1	DB1	35
"A"	Level B	LD1	G1	M1	DO3	23
"A"	Level C	LD1	G1	BO2	DB1	-
"A"	Level D	LD1	G1	BO2	DO3	25
"A"	Level E	LD1	G1	BO2	DO3	26
"A"	Level F	LD1	G1	GO3	DB1	17
"A"	Level G	LD1	G1	GO3	DB1	25
"A"	Level H	LD1	P2	M1	DO3	-
"A"	Level I	LD1	P2	M1	DO3	28
"A"	Level J	LD1	P2	GO3	DO3	-
"A"	Level K	HD2	G1	M1	DO3	25
"A"	Level L	HD2	G1	M1	DO3	44
"A"	Level M	HD2	G1	M1	DO3	48
"A"	Level N	HD2	G1	M1	DO3	25
"O"	Level O	HD2	G1	M1	DO3	25
"O"	Level P	HD2	G1	M1	DO3	31
"O"	Level Q	HD2	G1	M1	DO3	24
"A"	Level R	HD2	P2	M1	BO2	30
"O"	Level S	HD2	P2	M1	DO3	20
"O"	Level T	PU3	G1	M1	DO3	25
"O"	Level U	PU3	LA3	M1	DO3	38

From randomly selected secondary schools, after stratification, a sample of 516 students was

drawn. The number of students drawn from each school is as reflected in the sample framework (Table 3.2). On the planned visits to every school, the form four students of mixed streams who were willing to participate in the study assembled in the school hall and the total number was established. The students were asked to queue and pick a paper thus giving each individual an independent and equal chance to participate. Those who picked a 'yes' paper remained in the hall and participated while those who picked a 'no' paper did not participate.

Probability sampling provides some degree of precision in accurately estimating the population parameters and reduces sampling error (Polit & Hungler 1995:284-289). This sample of 516 provided sufficient power (0.80) using an effect of 0.5 and an alpha of 0.05 (Cohen, 1999:89-90). At every school sampled, one teacher was randomly selected amongst three teachers who teach HIV and AIDS, Sexual Reproductive Health and life-skills sessions. Out of the total number of three, on prepared small pieces of paper 'yes' was written on one and 'no' on two pieces. The small pieces of paper were properly folded, mixed and placed in a bowl. The teacher who picked a 'yes' paper participated in the teaching –learning session and in the in-depth interview.

Three experimental groups were created to include those recently orphaned, those who had been orphaned for two to three years and finally those who had been orphaned for four years or more. These were compared with non-orphaned children to assess any differences and whether the impact became greater as the years of orphanhood progressed. A total of 261 orphans constituted the experimental groups and the remainder, 245 non-orphaned students, constituted the control group within the sample.

3.7 Research Instruments

Reference is made to Figure 3.1 for the research methodology outlay. In the study, the identified indicators in the instruments are akin to Maslow's basic needs through which the impact of factors on learning was assessed. Three questionnaires were constructed to capture data relevant to the study and these were: the students' structured questionnaire; a combined evaluative structured questionnaire for an observed teaching session and an in-depth structured interview schedule for the teachers after the teaching-learning session; and documentary analysis of an inventory of the students' learning profile checklists.

3.7.1 Structured questionnaire (Students)

The students' structured questionnaire concerned factors that influenced schooling and subsequently the learning outcomes. It was developed so that students could relate what they had done and experienced that might have affected their general well being and ability to learn (see Appendix C). The students' questionnaire comprises sections A, B and C.

Section A comprises 20 question items covering demographics, including gender, whether parents are alive or the student is a maternal, paternal or double orphan, the time when orphaned, the household caregiver, details of any inheritance, family income, parent's health, educational status and age.

Section B comprises 13 question items covering dropout rate, absenteeism; morbidity and mortality patterns; financial aspects (the cost of school fees, books, travel, uniforms, and meals); the student's health and level of depression.

Section C comprises 19 question items covering knowledge and attitudes on Sexual Reproductive Health, HIV and AIDS and Life-skills education and the acquisition of life skills. The student questionnaire was chosen as an instrument because it included closed questions and some open-ended questions that permitted free responses recorded in the students' own words. Administering written questionnaires is less expensive compared to other forms of collecting data and may result in responses that are more honest. It eliminates bias because questions are phrased differently for different students.

3.7.2 Evaluative observation guidelines

The teachers' questionnaire identified the teachers' background and contained an evaluative portion based on a direct observation of the teaching-learning session. It comprised 16 statements concerning preparation of the lesson, objectives, delivery, content, strategy, interaction with the students and participation of students, feedback and summary (see Appendix D).

3.7.3 Interview schedule (Teachers)

The interview schedule comprises 21 questions. The questions cover attendance, class performance, acknowledging the presence of orphans, problems orphans encountered and the nature of their participation in class, the teachers' knowledge of life skills and strategies used in the participatory approach, barriers encountered in the delivery of quality education, the counselling services offered by the teacher, issues of sexuality that included both the students' and teachers' knowledge base and skills for protection against HIV infection, collaboration with other sectors in the fight against HIV, and other issues the teachers contributed to the study.

3.7.4 Learning profile checklist (document analysis)

The student learning profile checklist of possible 'O' Level subjects contained the questionnaire code number, the orphan status and participating student's results in a series, retrospectively, from mid-year and end-of-year form three results to form four mid-year results and the standard National 'O' Level examination results (see Appendix E & F).

3.8 Methodology

Reference is made to Figure 3.1 below.

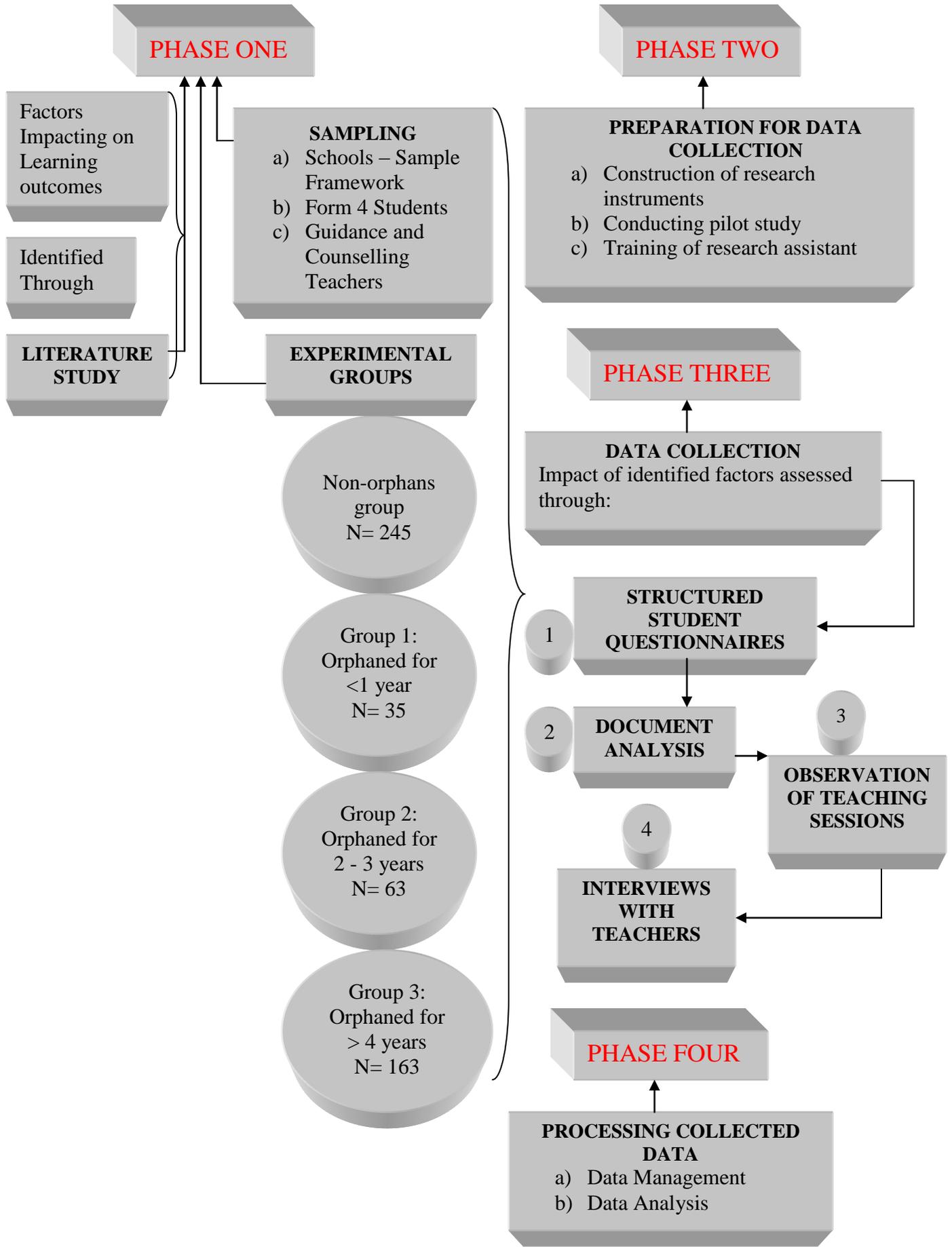
The first phase indicates that factors impacting on learning were identified through literature review. Stratified random sampling was used to sample the schools. The simple random sampling method was used for selecting the students and the teachers. This phase also shows experimental groups, whose criterion for selection from the probability sample was length of orphanhood.

The second phase depicts the process of constructing the research instruments, conducting the pilot study and training the research assistant for data collection.

The third phase depicts the use of structured questionnaires and document analysis in assessing the impact of identified factors. The purpose of observing a teaching –learning session on HIV and AIDS, Sexual Reproductive Health and Life skills was to assess the process of acquiring knowledge on HIV and AIDS and life skills by the students and the participatory approach used by the teachers. The purpose of the in-depth interview was to review and evaluate the teaching-learning session and to explore the teachers' perceptions of factors that impact on learning.

The fourth phase depicts the process of managing and analyzing data.

Fig 3.1: Illustration of Research Process



3.9 Pilot Study

A pilot study was conducted to test the reliability and validity of the instruments (Polit & Hungler 1995:38). The pilot study was done in one of the schools in Harare, which was not among the sampled ones for the main study. Fourteen students participated (seven girls and seven boys) in completing the students' questionnaire. The semi-structured interview schedule was used to interview one counselling and guidance teacher. It took forty-five minutes for the students to complete the students' questionnaire and thirty-five minutes for the semi-structured interview schedule.

On analysis, the student's questionnaire needed amendments. Re-sequencing of questions was done to provide an uninterrupted flow of issues. Questions A15-A18, which related to the deceased parent, were moved to A3-A5; question A19, which concerned the parent's illness was moved to A6-A6ii. Questions A8-A19 addressed issues about the heads of households only.

Research has shown that the order or sequence of questions may affect response accuracy and response rate (Mouton 2001:103). Questions B4 and B4i that addressed subject scores in English Language/Mathematics and class position in the last term were omitted because the majority of the students' responses were inaccurate.

3.10 Data Collection

Data collection started on Tuesday 7th October 2003. The plan of action was to spend a day at a school and the researcher required 18 school days to collect data. The challenge that arose was that some students were to start writing the standard "O" Level examination during the week that began on Monday 27th October 2003. The researcher thus needed to engage an assistant, given the limited time frame for data collection. The assistant researcher was a Counselling and Guidance teacher who was pursuing a Bachelor of Science degree in Geography and Environmental Studies at the Zimbabwe Open University. The teacher was chosen as an assistant researcher because of his understanding of the education system and because he was ~~better~~ well equipped to observe and evaluate the teaching session on the HIV/AIDS-Sexual Reproductive Health and life-skills programme. He will also be a focal person in the dissemination of study findings.

The Training Phase

The assistant researcher was trained for one-and-a-half days and was supervised on his first day of data collection. The first half-day was for theoretical input. During a research training session, before observing a data collection process at one of the schools, the researcher was briefed on the protocol of accessing required data from school records; reviewing the questionnaires; revising the observation method and on interview techniques. The research assistant was informed of the objectives of the research study and the methodology employed. He was given a copy of the research protocol and the most relevant sections were discussed thoroughly. These included the statement of the problem, objectives, data-collection tools, sampling procedures and the plan for data collection. There was a particularly in-depth discussion of the data-collection tools. In respect of each question, the assistant researcher was made to understand the rationale for collecting the information required. The random sampling procedures for both students and teachers were explained. The administration of the questionnaires, including the evaluative questionnaire for the observation of the teaching-learning session was discussed in detail and observations were rated as indicated on the questionnaire. For the semi-structured interview schedule, the researcher was given information about basic interview techniques, such as asking questions in a neutral manner; not showing by words or expression what answers one expects; not showing agreement, disagreement, or surprise, and recording answers to open questions precisely as given without sifting or interpreting them (Varkevisser, Pathmanthan & Brownlee 1991:233,234). For questions that had pre-categorized answers, it was made clear to him that in some instances he must follow the instructions not to mention possible answers. He was told that answers and observations had to be recorded clearly. It was explained to him how he was to introduce himself to the students and teachers, what to say about the purpose of the study, how to ask for consent and how to close the interview. After receiving the theoretical input, the research assistant had practical training at one of the schools.

The Phase of the Data collection process

On arrival at one sampled school, the researcher went to the school administration and identified herself, introduced the research assistant and explained the purpose of her visit, which concurred with prior written communication to all sampled schools regarding the research.

After a sampling procedure and the signing of consent forms, the researcher distributed the questionnaires to the students. Under the supervision of the researcher and assistant researcher students completed a detailed self-administered structured questionnaire, which contained some open-ended questions. Following the seating arrangement, numbers were assigned and students were asked to write their names next to the assigned numbers on a sheet of paper and to write the assigned numbers on the questionnaires. The researcher collected the questionnaires on their completion, following the seating arrangement. The questionnaire took forty-five minutes to complete.

The above-mentioned procedure was followed throughout the data collection process. To link the students' questionnaires to their learning profiles, the seating arrangement was followed and number codes were used for the names. An identifying code number was what appeared on the research information. Any identifying lists and code numbers were kept in a locked file. In this situation, anonymity was impossible and appropriate confidentiality procedures were therefore implemented. A promise of confidentiality was made to students and it became a guarantee that any information students provided would not be publicly reported or made accessible to parties other than those involved in the research (Polit & Hungler 1995: 139).

Guided by the confidential list of the names of participants, the researchers identified the existing student records and recorded the students' performance. Code numbers were used to identify the research information. A time series design recommended as effective, was used to assess performance (learning outcomes) (Bennel et al 2002:ii). Apart from providing a reliable picture of achievement and being sensitive to trends in performance, the time series design, if used with a comparison group of similar students, provides a strong picture of the outcomes of interest (Gribbons & Herman 1997:1). The exercise was done retrospectively, from mid-year in form three, end of year in form three and mid-year in form four.

Following the random sample procedure done amongst three teachers, the sampled teacher conducted a teaching-learning session. A direct observation was made of a teaching-learning session, also suggested as an effective way of evaluating the process of acquiring life skills, of an HIV/AIDS/Sexual Reproductive Health session. A structured evaluative questionnaire was used (Bennel et al 2002:15). The questionnaire related to content and strategy, the participation of students and the degree of interactivity, and a summary and feedback.

The session was followed by an in-depth interview with the teacher in the presence of the assistant researcher. The interview was conducted in the teacher's office. A semi-structured interview schedule was used to review the session and explore the rating of class performance, dropout rate, participating nature of orphans compared with non-orphans, attendance of life-skills lessons by students, a justification of the approach and the resources available including the preparedness of the teacher in terms of knowledge of the approach to adopt. The researcher completed the interview schedule when she interviewed the teacher.

The phase of supervision and monitoring of the data collecting process

The assistant researcher was supervised by the researcher. At the first school, he collected data and followed the procedure as instructed. In order to ensure the validity and reliability of the data collected it was important to go through the whole data-collection process and to supervise the assistant researcher throughout the first day, thus ensuring that he would carry out his tasks accurately and correctly according to the procedures developed by the researcher. At the end of the day the researcher collected the completed questionnaires from the assistant researcher at the schools where he had worked and he was given time to discuss any challenges encountered and questionnaires in which the data were incomplete. The researcher then met the assistant researcher at the next scheduled sampled school to give him questionnaires before the researcher proceeded to another sampled school. This process was followed as the researcher and the assistant researcher collected data from the 18 schools.

All the students who participated in this research took the standard 'O' Level examination in October-November 2003. Under strict confidentiality arrangements, the list of students was submitted to the Zimbabwe Schools Examination Centre so that the final record of each student could be obtained after the publication of the 'O' level results in May 2004. The researcher

personally submitted the list of participants and subsequently collected it together with the results.

The researcher and assistant researcher, guided by a structured evaluation questionnaire, observed eighteen teaching sessions on HIV/AIDS-Sexual Reproductive Health and life skills. Only the HIV/AIDS-Sexual Reproductive Health and life skills sessions were observed in order to assess the adequacy of the use of the participatory approach and the content and strategy applied in the teaching-learning process of acquiring life-skills (Bennel et al 2002:15).

3.11 Data Management and data analysis

Data collected from the students' questionnaires was placed in self-sealing plastic envelopes on which were labels giving the name of the school, the number of students who responded, the date collected and the researcher's signature. The teachers' evaluative questionnaire and interview schedule was placed in a separate envelope for each school. Checklists of the students' school results were placed in self-sealing plastic envelopes on which were labels giving the name of the school, the number of students whose school results were recorded and the researcher's signature.

All data was checked for completeness of the questionnaires as a way of controlling quality. The researcher managed to get 476 complete records of school results from the 516 students who completed the students' questionnaires. It appeared that usually students who had missing records were those who had transferred from one school to another. The questionnaires were numbered separately in order to differentiate them, as S1, S2, S3 etc, through to the end, and the teachers' combined evaluative and interview schedules were numbered as T1, T2, and T3 through to the end. For open-ended questions, the most frequently occurring responses were coded. The data entry clerks, under the supervision of the statistician, entered data from the questionnaires using SPSS software.

The SPSS statistical software, with its capacity to handle quantitative and qualitative data, was used for analysis. Descriptive statistics allow the researcher to organize the data in ways that give meaning and facilitate insight. The researcher used percentages, means and standard deviation to give some indication of how scores were dispersed (Bryman & Cramer 2001:69). The paired t-

test compared the means of the same participants to determine whether the average coursework marks and average examination marks differed significantly.

ANOVA was used to compare the means of three or more variables. ANOVA is essentially an F test in which an estimate of the between-groups variance (or mean square as the estimate of the variance is referred to in analysis of variance) is compared with an estimate of the within-groups variance by dividing the former by the latter. The total amount of variance in the dependent variable (e.g. learning outcomes) can be thought of as comprising two elements, that which is due to the independent variable (e.g. area of location), described as (explained variance) and that which is due to other factors (error or residual variance). If the between-groups' (that is explained) estimated variance is considerably larger than that within groups (that is error or residual), then the value of the F ratio will be higher, which implies that the differences between the means are unlikely to be due to chance (Bryman & Cramer 2001:144). ANOVA reveals whether there is a significant difference between groups, but does not inform us where this difference lies.

Post-hoc analysis produces homogeneous subsets of the groups under analysis and shows how the groups differ. It is done only after the data has been initially analysed (Bryman & Cramer 2001:148). The differences amongst means and relationships of factors impacting on learning and learning outcomes were computed statistically. Data were presented in tables, figures and histograms.

3.12 Validity and Reliability

In research, the concepts reliability and validity refer to the measurement of data as it answers research questions. The aim of the study was to collect information that was as reliable and valid as possible. For the research results to be reliable and valid, the information gathered had as far as possible to reflect the realities of the participants. It was therefore the researcher's obligation, throughout the research process, to consider circumstances that could influence the findings. The stratified random sampling used by the researcher in selecting schools (research sites) and the simple random sampling used by the researcher to select participants (students and teachers) helped in achieving *external validity*. The extent to which a study's results can be generalized or applied to other students and settings reflects its external validity (Huitt et al 2001:2).

The instrument that measures the variables is central in determining *reliability* and validity of data. The goal of using a *reliable instrument is to attain accuracy*, which has consistency, stability and repeatability as its attributes. It is also important to know the *validity of the measure*, that is, whether the instrument used to collect data actually measures what it is supposed to measure (Brink & Wood 1994:170-171).

In this study, the construction of the student questionnaire involved the use of portions of existing instruments. Permission for such use was sought and granted, which enhanced the validity of the questionnaire. All questionnaires were subjected to *pilot testing and adjustments were made as indicated to improve accuracy*. Careful design and pre-testing of instruments reduce bias caused by instrumentation that includes vaguely phrased questions or questions placed in an illogical order, fixed or closed questions on topics about which too little is known and open-ended questions without guidelines on how to ask or answer them (Varkevisser 1991:148). The questionnaires were submitted to the supervisors of this thesis so that they might judge *content validity*. Content validity is concerned with the sampling adequacy of items for the construct that is being measured. Content validity of an instrument is necessarily based on judgement (Polit and Hungler 1995:418).

The evaluation research design allowed for the use of a variety of data-collecting methods and the comparison of results in answering research questions. The single-subject experimental approach adopted by the study helped in achieving high *internal validity* since subjects served as their own controls. The participants in comparison with the control and experimental groups were functionally equivalent at the beginning of the study so that the observed differences between the groups as measured by the performance dependent variables at the end of the study were not biased (Huitt, Hummel, Kaeck 2001:1,2).

Variability or bias in observations occurs when participants change behaviour because of research and interviews done without guidelines, and when researchers differ in what they observe and measure (observer variability) (Varkevisser et al 1991:149). This study ensured the quality of data by careful selection of the research assistant, training him and providing him with guidelines and by on-going supervision in the data collection process, so that observer bias was minimised. The effect of the interview on the teachers was reduced because the researchers gave

adequate explanations of the purpose of the study, allowed sufficient time for the interview and assured the teachers that data collected was confidential.

The primary methods used to achieve internal and external validity are randomisation and the use of a research design and statistical analysis that are appropriate to the type of data collected and the questions the investigator is trying to answer (Huitt, Hummel, Kaeck 2001:3).

3.13 Ethical Considerations

The research proposal was sent to the Ministry of Education, Sport and Culture for approval, to ensure the safety of participants and the information they provided. The proposal was approved and permission to conduct the research in the sampled schools was granted (see Annexure A). In collecting data, one must consider whether research procedures are likely to cause any physical or emotional harm.

Violating participants' right to privacy by posing sensitive questions, gaining access to records that contained personal data, observing the behaviour of students without their knowledge or failing to observe or respect certain cultural values and beliefs could cause harm (Varkevisser, Pathmanathan & Brownlee 1991: 149). This study was able to deal with the abovementioned issues by establishing rapport between the researchers and the respondents. The research was conducted in a manner that was ethically responsible and justified. The school environment, including school halls and offices that were provided by the schools for collecting data, was safe and suitable. The purpose of the study was explained to the students and the teachers who participated, and they were informed of the relevant ethical considerations, namely, *confidentiality, anonymity and the voluntary nature of their participation*. Individuals had *the right to self-determination* when they accepted an invasion of their privacy by agreeing to participate in the study (Woods & Cantanzaro 1988:80).

The participants gave their consent (see Appendices A and B) agreeing to provide the desired information freely and to the exploration of sensitive issues. The researcher safeguarded the information provided by the participants, upholding *the principle of confidentiality*. The researcher also recognized and respected the inherent worth of each participant and was sensitive to each *individual's values and choices*, for instance participants were free to discontinue (Code

of Ethics for Nurses in Australia 2002). Data gathered throughout this study was in no way intentionally manipulated. *The researcher maintained honesty and integrity* and all referenced sources were fully acknowledged.

3.14 Summary

The research methodology for the study of factors impacting on orphans' learning was discussed. This is a quantitative study and the Evaluation- Process and Outcome design was chosen for its strength, namely its ability to assess causal outcomes and impact. Maslow's humanistic motivation theory of learning is the framework of the study. The population consists of form four students and teachers from the Harare Metropole Province in Zimbabwe. A stratified random sampling procedure was used to sample schools and the simple random procedure was used to sample both students and teachers. Students filled in a questionnaire, and teachers were observed during a teaching-learning session for which an evaluative questionnaire was used, and were also interviewed by means of a structured interview schedule. Students' records, including the standard 'O'Level examination that they wrote, were collected. The experimental design was used to allow comparisons among orphans and between orphans and non-orphans. Ethical principles were followed when consent was obtained and confidentiality and privacy were maintained. The quality of the study, in terms of reliability and validity in the selection of research sites and participants, instrumentation, data collection, data management and analysis (using descriptive statistics, paired t-test and ANOVA) was upheld.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

The purpose of the study was to explore factors that impact on learning in orphanhood and to identify relationships between these factors. In this chapter the data obtained through document analysis, questionnaires, observations and interviews are discussed.

4.2 General factors impacting on learning

4.2.1 Distribution of students by Area

There were 516 Students from 18 different schools in the Harare Province who participated in the study. The distribution of the students by area of school was as follows.

Table 4.1 **Distribution of students by area**

Area	Number of schools	Number of students	Percentage of students (%)
Low-density suburb	7	179	34.7
High-density suburb	9	274	53.1
Peri-urban	2	63	12.2
Total	18	516	100

As can be observed, the majority of the students were from the high-density suburbs. In Harare, there are only two schools in the peri-urban area.

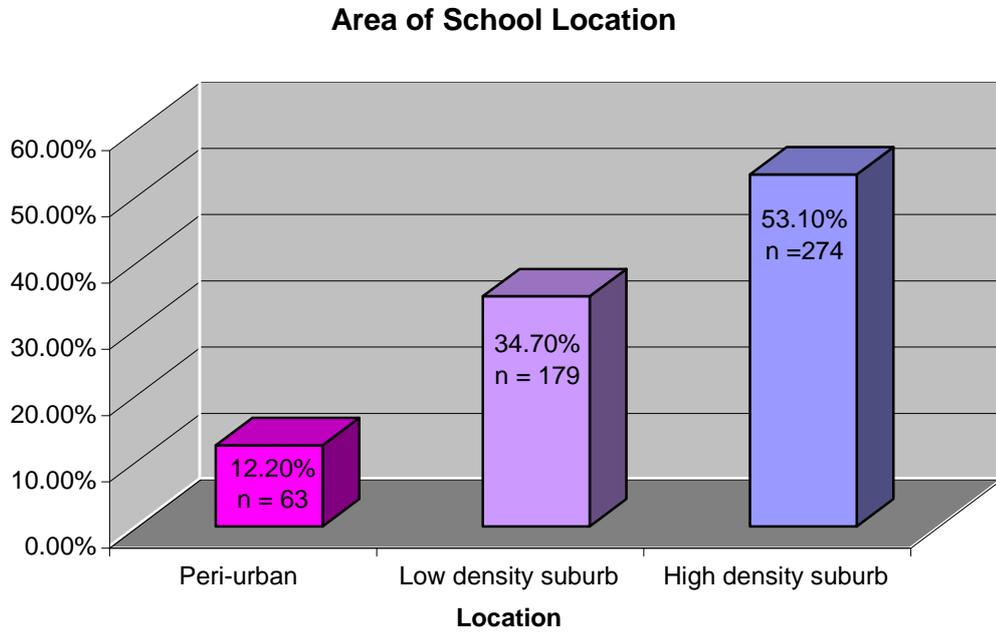


Fig 4.1: Area of School Location 1

The area of location (peri-urban, low-density suburb, high-density suburb) impacted significantly on both average coursework marks and average examination marks in all categories of orphans and non-orphaned students.

Table 4.2: Performance of Students according to Area of Location

Subject	Low-density suburb Average	High-density suburb Average	Peri-urban Average	ANOVA significance level	Decision
ARTS					
History	45.51	55.97	37.56	0.000	Means are different
Shona	49.64	54.47	44.80	0.000	Means are different
English	50.12	51.12	38.41	0.000	Means are different
English Literature	65.75	52.30	43.86	0.000	Means are different
Religious Education	46.44	40.82	32.00	0.207	Means are not different
SCIENCE					
Geography	44.53	53.64	41.27	0.000	Means are different
Maths	50.33	60.58	48.03	0.001	Means are different
Integrated Sc.	45.48	59.65	47.51	0.000	Means are different
Biology	57.88	63.28	45.75	0.104	Means are not different
Agriculture	49.11	52.00	58.14	0.433	Means are not different
COMMERCIALS					
Commerce	46.04	53.43	52.74	0.181	Means are not different
Accounts	46.55	60.14	43.64	0.004	Means are different
PRACTICAL					
Fashion & Fabrics	47.62	43.57	45.85	0.769	Means are not different

The performance of students according to area of school location revealed a difference in performance in the various subject categories: arts, science, commercials and practical subjects by students from the low-density, high-density and peri-urban suburbs. In the arts category, the students from the high-density suburbs performed better in History, Shona and English. However, in English Literature and Religious Education, the students from the low-density suburbs performed better. In all art subjects the peri-urban students were the worst performers. In the science category there was a significant difference in performance in Geography, Maths and Integrated Science. In Agriculture and Biology the difference was not significant. The peri-urban students performed better than the others in Agriculture. In the commercial subjects, the means were significantly different in Accounts. The only practical subject done by all categories was Fashion and Fabrics in which the means were not significantly different, but the students from the low-density suburbs had the highest average marks. Post hoc analysis showed that in History, Geography, Accounts and Integrated Science, performance of the students from the high-density suburbs was different from that of others. In Shona and Mathematics the major difference was

between the schools in peri-urban and high-density suburbs. In English language the performance of students from the peri-urban areas was significantly different from that of students in the other locations. In English literature the performance of the students from the low-density suburbs was different from that of other students.

Table 4.3 Area of Location: Non – Orphaned Students

ANOVA						
Non-orphans		Sum of Squares	df	Mean Square	F	Sig.
Average coursework mark	Between Groups	2829.073	2	1414.537	10.180	.000
	Within Groups	35572.025	256	138.953		
	Total	38401.098	258			
Average exam mark	Between Groups	2813.367	2	1406.684	6.894	.001
	Within Groups	49994.302	245	204.058		
	Total	52807.669	247			

The ANOVA regarding area of location and the performance of non-orphaned students revealed that there was a significant difference in both average coursework marks ($p < .000$) and average examination marks ($p < .001$).

**Post Hoc Tests
Homogeneous Subsets**

Average coursework mark Tukey B				
Non-orphans	N	Subset for alpha = .05		
Area of location:		1	2	3
Peri-urban	39	35.060		
Low-density suburb	98		39.537	
High-density suburb	122			44.194
Means for groups in homogeneous subsets are displayed.				
a Uses Harmonic Mean Sample Size = 68.117.				
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				

Post hoc tests for non-orphaned students in the average coursework marks showed that all non-orphaned students' average marks were below 50 in all categories of area of location. The students performed differently, with those in the high-density suburb having the highest marks,

followed by those from the low-density area; while the lowest average marks were obtained by those from the peri-urban area.

Average examination mark Tukey B			
Non-orphans	N	Subset for alpha = .05	
Area of location:		1	2
Peri-urban	36	40.8359	
Low-density suburb	95		48.1645
High-density suburb	117		50.9291
Means for groups in homogeneous subsets are displayed.			
a Uses Harmonic Mean Sample Size = 64.033.			
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

Post hoc tests for the non-orphaned students in average examination marks showed a difference in performance between the non-orphaned students in the peri-urban area and those in the low- and high-density suburbs. There was no difference in performance between those in the high- and low-density suburbs. As shown in the table above, only those students from the high-density suburbs had average examination marks above 50. The students from the peri-urban area had the lowest average examination marks.

Table 4.4 Area of Location: Orphaned for one year or less

ANOVA						
Orphaned 1 year or less		Sum of Squares	df	Mean Square	F	Sig.
Average coursework mark	Between Groups	275.422	2	137.711	.756	.480
	Within Groups	4738.068	26	182.233		
	Total	5013.490	28			
Average exam mark	Between Groups	1605.694	2	802.847	4.351	.023
	Within Groups	4797.044	26	184.502		
	Total	6402.738	28			

The ANOVA regarding area of location and the performance of students orphaned for one year or less, revealed that there was no significant difference in the performance of students in average coursework marks, but there was a significant difference in average examination marks ($p < .023$).

**Post Hoc Tests
Homogeneous Subsets**

Average coursework mark Tukey B				
Orphaned 1 year or less	N	Subset for alpha = .05		
Area of location:		1	2	3
Peri-urban	5	36.592		
Low-density suburb	7		42.443	
High-density suburb	17			45.001
Means for groups in homogeneous subsets are displayed.				
a Uses Harmonic Mean Sample Size = 7.469				
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				

Post hoc analysis of the average coursework marks of students orphaned for one year or less showed that all average marks were below 50. There was a difference in performance among students in the three categories of area of school location. The students from the high-density suburbs had better average coursework marks than those from the low-density areas. The worst performers were students from the peri-urban category.

Average examination mark Tukey B			
Orphaned for one year or less	N	Subset for alpha = .05	
Area of location:		1	2
Peri-urban	5	34.8190	
Low-density suburb	7	46.9575	46.9575
High-density suburb	17		54.8292
Means for groups in homogeneous subsets are displayed.			
a Uses Harmonic Mean Sample Size = 7.469			
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

Post hoc analysis of the average examination marks for students orphaned for one year or less showed a difference in performance between those from the peri-urban area and those in high-density suburbs. There was no difference in performance between those in the peri-urban area and low-density areas. There was also no difference in performance between those in the low-density areas and those in the high-density areas. Those from the peri-urban area were the worst performers, and only those from the high-density areas had average examination marks above 50.

Table 4.5 : Area of Location: Orphaned for two to three years

ANOVA						
Orphaned for two to three years		Sum of Squares	df	Mean Square	F	Sig.
Average coursework mark	Between Groups	1021.469	2	510.734	3.659	.034
	Within Groups	6420.069	46	139.567		
	Total	7441.538	48			
Average exam mark	Between Groups	1391.155	2	695.578	3.643	.034
	Within Groups	8400.561	44	190.922		
	Total	9791.716	46			

The ANOVA regarding area of location and the performance of students orphaned for two to three years revealed that there was a significant difference in performance in both average coursework marks ($p < .034$) and average examination marks ($p < .034$).

Post Hoc Tests
Homogeneous Subsets
Average coursework mark
 Tukey B

Orphaned for two to three years	N	Subset for alpha = .05		
		1	2	3
Area of location:				
Peri-urban	3	41.478		
Low-density suburb	14		34.604	
High-density suburb	32			44.845
Means for groups in homogeneous subsets are displayed.				
a Uses Harmonic Mean Sample Size = 6.881				
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				

Post hoc analysis showed that the average coursework marks of students orphaned for two to three years differed according to the three categories of area. Although none of the categories of area of location had students who had average course work marks of 50, students from the low-density suburbs were the worst performers. Students from the high-density suburbs performed better than those from the peri-urban area.

Average examination mark Tukey B			
Orphaned for two to three years	N	Subset for alpha = .05	
Area of location:		1	2
Peri-urban	3	51.6019	
Low-density suburb	13		39.5546
High-density suburb	31	51.7281	
Means for groups in homogeneous subsets are displayed.			
a Uses Harmonic Mean Sample Size = 6.779			
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

Post hoc analysis of average examination marks showed that the performance of students from low-density suburbs who had been orphaned for two to three years differed from that of such orphans from the peri-urban area and the high-density suburbs. The worst performance was by students from the low-density suburbs. Students from both the peri-urban and high-density suburbs had average examination marks above 50. The study showed that students who had been orphaned for two to three years who were heads of households were attending school, which may be the reason why the students in this category performed worse than other orphans. The study also revealed that of those in this category who had ill parents, a higher percentage reported that it was the mothers who were ill. The burden of fulfilling parenting and caring duties therefore had the potential to compromise learning. Illness erodes family resources and has an adverse effect on the students' educational process (USAID/Zimbabwe 2002:16).

Table 4.6: Area of Location: Orphaned for four years or more

ANOVA						
Orphaned for 4 years or more		Sum of Squares	df	Mean Square	F	Sig.
Average coursework mark	Between Groups	1858.331	2	929.165	5.243	.007
	Within Groups	13644.905	77	177.207		
	Total	15503.236	79			
Average exam mark	Between Groups	4113.619	2	2056.809	7.717	.001
	Within Groups	19990.383	77	266.538		
	Total	24104.002	79			

The ANOVA regarding area of location and the performance of students orphaned for four years or more, revealed that there was a significant difference in both average coursework marks ($p < .007$) and average examination marks ($p < .001$).

Post Hoc Tests			
Homogeneous Subsets			
Average coursework mark			
Tukey B			
Orphaned for 4 years or more	N	Subset for alpha = .05	
Area of location:		1	2
Peri-urban	10	40.581	40.581
Low-density suburb	26	36.719	
High-density suburb	44		47.194
Means for groups in homogeneous subsets are displayed.			
a Uses Harmonic Mean Sample Size = 18.376.			
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

Post hoc analysis of average coursework marks of students orphaned for four years or more showed that there was a difference in performance between students from the low-density suburbs and those from the high-density suburbs. There was no difference in performance between those from the peri-urban area and low-density suburbs and those from the peri-urban area and high-density suburbs. The worst performers were students from the low-density suburbs.

Average examination mark			
Tukey B			
Orphaned for 4 years or more	N	Subset for alpha = .05	
Area of location:		1	2
Peri-urban	25	41.8552	
Low-density suburb	10	42.7804	
High-density suburb	43		56.7100
Means for groups in homogeneous subsets are displayed.			
a Uses Harmonic Mean Sample Size = 18.376			
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

Post hoc analysis of the average examination marks of students orphaned for four years or more showed that there was a difference in performance amongst students from the high-density

suburbs and students from the peri-urban areas and the low-density suburbs. There was no difference in performance between students from the low-density suburbs and the peri-urban area. The students from the high-density suburbs had average examination marks above 50.

Table 4.7a : Area of Location: Multiple Comparisons of Means: Average Coursework Marks of Orphans and Non - Orphans

Area of location	Non-Orphan ($p < .000$)	Orphan- 0-1 yr ($p < .480$)	Orphan- 2-3 yrs ($p < .034$)	Orphan- > 4 yrs ($p < .007$)
Peri - Urban	35.060	36.592	41.604	40.581
Low-density	39.537	42.443	34.604	36.719
High-density	44.194	45.001	44.845	47.194

While those orphaned for one year or less manifested no significant difference in performance, there was a significant difference between the performance of the other orphaned groups and the non-orphaned group. Although Coursework was generally poorly done, with no average reaching 50%, it was in the low-density areas that students orphaned for two to three years performed worse than other orphans and the non-orphaned. The majority of students orphaned for two to three years and living in child- headed households reported that most of the children heading households were also attending school, which could be a related factor impacting on learning.

Table 4.7 b: Area of Location: Multiple Comparisons of Means: Average Examination Marks of Orphans and Non - Orphans

Area of location	Non-Orphan ($p < .001$)	Orphan- 0-1 yr ($p < .023$)	Orphan- 2-3 yrs ($p < .034$)	Orphan- > 4 yrs ($p < .001$)
Peri – Urban	40.8359	34.8190	39.5546	42.7804
Low-density	48.1645	46.9575	51.6019	41.8552
High-density	50.9291	54.8292	51.7281	56.7100

The performance of all groups was significantly different in the peri-urban area, low-density and high-density suburbs. In the peri-urban area, students orphaned for one year or less performed poorly compared to other orphans and the non-orphaned, although all students performed badly in that no average mark reached 50%. According to this study's findings, students orphaned for one year or less significantly lacked books and those with self-employed parents had a compromised household income, which factors could have impacted on learning. In the low-density areas the students orphaned for four years or more performed poorly compared to other

orphans and the non-orphaned. This could be explained by the study findings that point to a majority of double orphans as orphaned for four years or more and consequently lacking in both psychological and physical support. The low-density suburbs are associated with high-income dwellers and while orphans in those suburbs might be well supported financially, there might also have been tampering with their inheritance. Although the illness of parents affects children, a majority of single orphans who had been orphaned for four years or more had ill parents, and the results of this study show that they tended to cope better with the burden of caring than other orphans, especially if their parents had been ill for two to three years or more.

Students who struggle to satisfy deficiency needs of hunger, thirst and bodily comfort in a deprived environment will fail to learn (Atkinson et al 1990:525). Deficiency needs of insecurity, the loss of parents and their guidance, lack of shelter, property and finance, and dealing with poverty require satisfaction before students can be ready to learn. There was no difference in performance in the high-density areas. The best results in area of location, came from the high-density suburbs, which in 11 out of 13 subjects had all means above 50%. Maslow advocates an environment conducive to learning and states that if a deficient need that has been satisfied, recurs in the future, the individual acts to remove the deficiency (see Table 2.1).

4.2.2 School governing authority

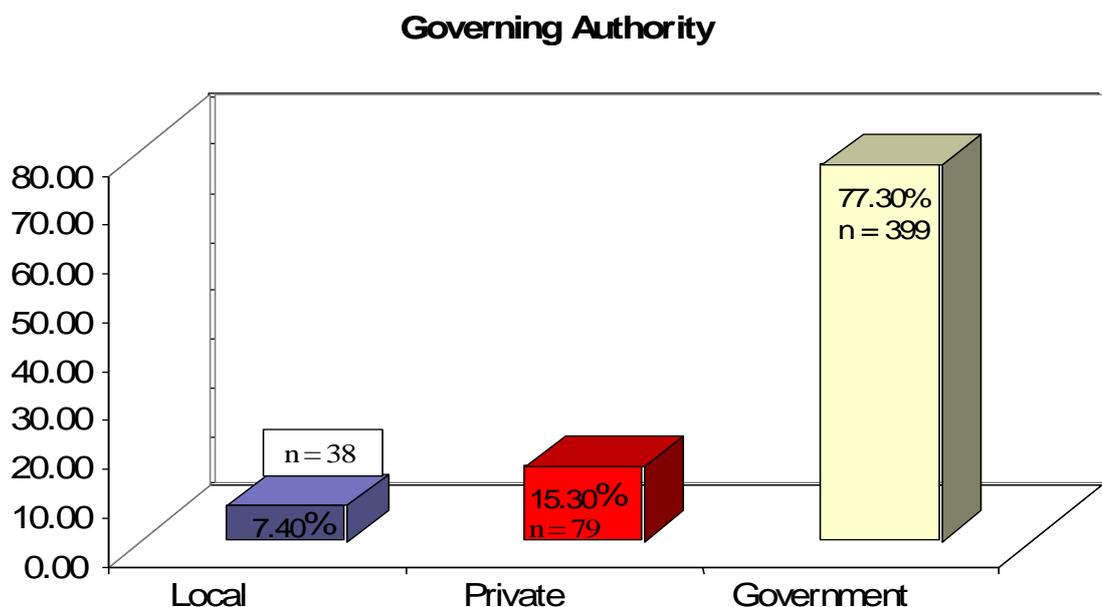


Fig 4.2 Governing Authority 1

In terms of responsible authority governing the schools, three in the sample, that is, Government (14) schools, Private (3) schools and Local Authority (1) school, 399 (77.3%) students were from Government schools, whilst 79 (15.3%) were from Private schools and 38 (7.4%) were from the Local Authority school. The Government owns most of the schools in urban areas.

Whereas there was a significant difference (ANOVA – average coursework mark ($p < .000$), average examination mark ($p < .000$) in the performance of non-orphans according to the type of school (local authority, government, or private) there was no significant difference in the performance of students orphaned for one year or less, two to three years, or four years and more according to that criterion. The post hoc analysis test showed the differences between homogenous groups of non-orphans by type of school, revealing that those at private schools had the best averages, followed by those in Government and then those in Local Authority schools. Local Authority schools are managed by the Municipal Councils whose income is lower than that of government. It would appear that the differences in the provision of resources among the schools had an influence in the performance of non-orphans, supporting Maslow's contention that learning occurs in a supportive and conducive environment (see Table 2.1).

The Government manages most schools. These schools are dependent on government subsidies and levies, whilst private schools usually have more resources at their disposal because of the higher school fees that their students pay. The Local Authority depends on revenue from the Municipal Council. The availability of funds and resources also differs. The relationship between access to schools and funding was addressed in the Impact Assessment report, in which it was mentioned that the emphasis in education policies had shifted from widening access at independence in 1980, to consolidating quality, equity and relevance of teaching around 1990 (Impact Assessment 2002:9).

4.2.3 Type of school according to gender

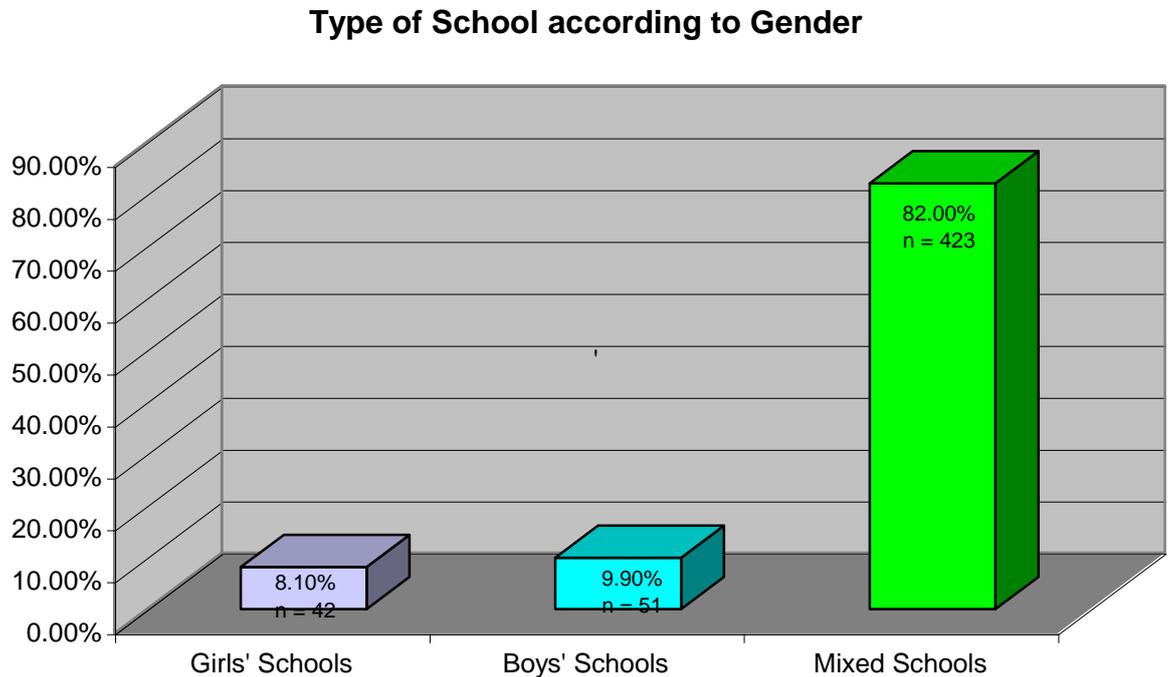


Fig 4.3: Type of School according to Gender

Fourteen (14) schools were mixed, that is, they admitted both boys and girls. Two were for boys only and the other two were for girls only. Fifty-one (9.9%) students were from boys' schools and only 42 (8.1%) from girls' schools, whilst 423 (82.0%) were from mixed schools.

When schools were classified according to gender (Boys, Girls, Mixed), it was seen that non-orphans performed significantly differently in coursework (ANOVA - average coursework mark ($p < .014$), whereas in the average coursework marks the performance of students orphaned for one year or less was not significantly different from that of students orphaned for two to three years or that of students orphaned for four years or more. The post hoc analysis test showed the differences between homogeneous groups of non-orphans by type of school according to gender, revealing that in coursework marks the mixed schools had the highest averages, followed by girls' only schools and then boys' only schools. The differences could be attributed to competition between boys and girls and the effect of a combination of strengths in different subjects. Girls also tend to be supportive of each other, as Gilligan argued in her theory of moral development, which indicates that girls and women have a conception of self that is relational and view themselves and others as being connected and interdependent.

4.2.4 Profile of students according to whether they are boarders or day students

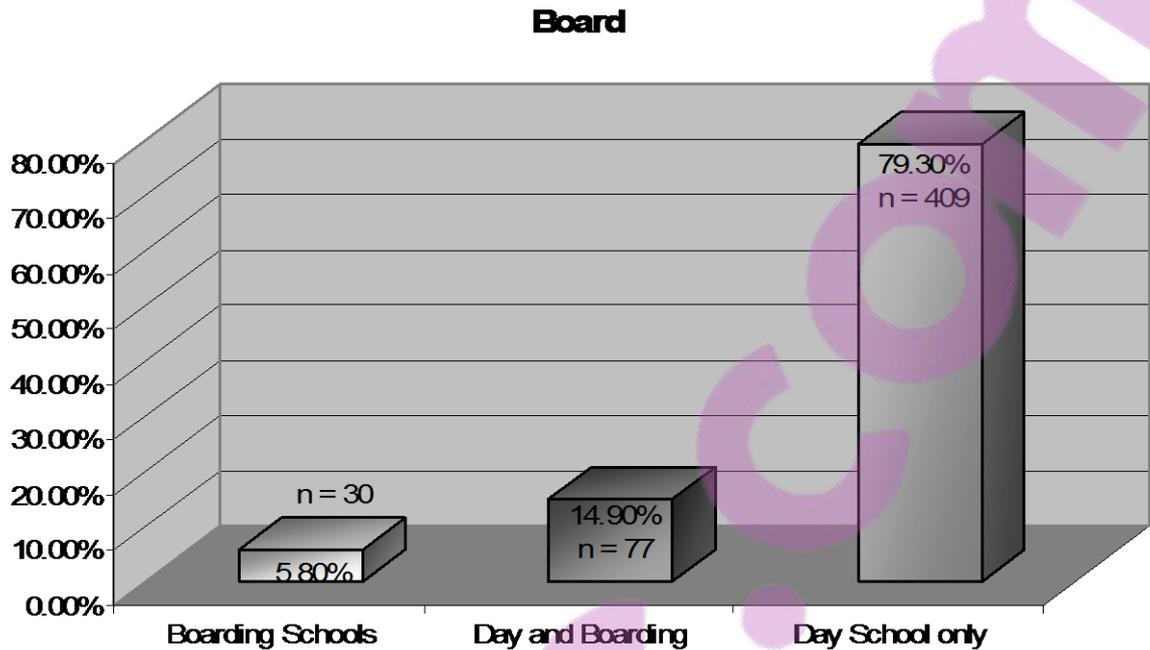


Fig 4.4: Boarding

In terms of boarding status, three schools were for day scholars and boarders, 14 for day scholars only and one for boarders only. 499 (79.3%) students were at schools that took day scholars only. 77 (14.9%) students were at schools that took both day scholars and boarders whilst 30 (5.8%) students were at a boarding school.

In coursework there was a significant difference (ANOVA – average coursework mark ($p < .001$)) in the performance of non-orphans according to whether the school was for both day scholars and boarders, for day scholars only, or for boarders only; whereas there was no significant difference in coursework marks amongst students orphaned for one year or less, students orphaned for two to three years, or students orphaned for four years and more. The post hoc analysis test showed the differences between homogenous groups of non-orphans by type of school, revealing that those which were boarding schools only had the highest average, followed by the schools for day scholars only and then the schools that were for both day scholars and boarders.

Although the differences in averages among the various orphaned groups followed a similar trend to that of the non-orphans as discussed above, there was no difference in the performance of the homogeneous subsets in either the coursework or the final examination within similar

environments amongst students orphaned for one year or less, those orphaned for two to three years and those orphaned for four years or more. This finding could be attributed to some form of resilience or coping mechanism acquired by orphans, because the question arises whether non-orphaned students are worse off than equally positioned orphaned students, given the background of the students as discussed in this study. The finding also points to a need for non-orphaned students to be supported in the education process. The best results came from the following settings: the private school with, in all 10 subjects, all means above 50%; the boarding school with, in all 11 subjects, all means above 50%; the mixed boys' and girls' schools with, in 10 out of 12 subjects, all means above 50%

4.2.5 Distribution of students according to gender and age

The age distribution of the students was as follows.

Table 4.8 Age Distribution of students

Age	Number	Percentage (%)
14 years old or younger	4	0.8%
15 years old	21	4.1%
16 years old	199	38.6%
17 years old	216	41.9%
18 years old	61	11.8%
19 years old or older	14	2.7%
Missing	1	0.1%
Total	516	100%

As the table shows, 415 (80.5%) of the students were aged between 16 and 17 years. 291 (56.4%) students were aged 17 years and above. This is the age group that has learning as its major task, and as Maslow (Huitt 2001:6,7) states, learning is a growth need. The age of the students was appropriate in terms of the capabilities required for providing the information the study sought from them. Half of the students were females. This may provide a balanced view of the impact of factors on the learning of both boys and girls.

4.2.6 Profile of students in terms of household head

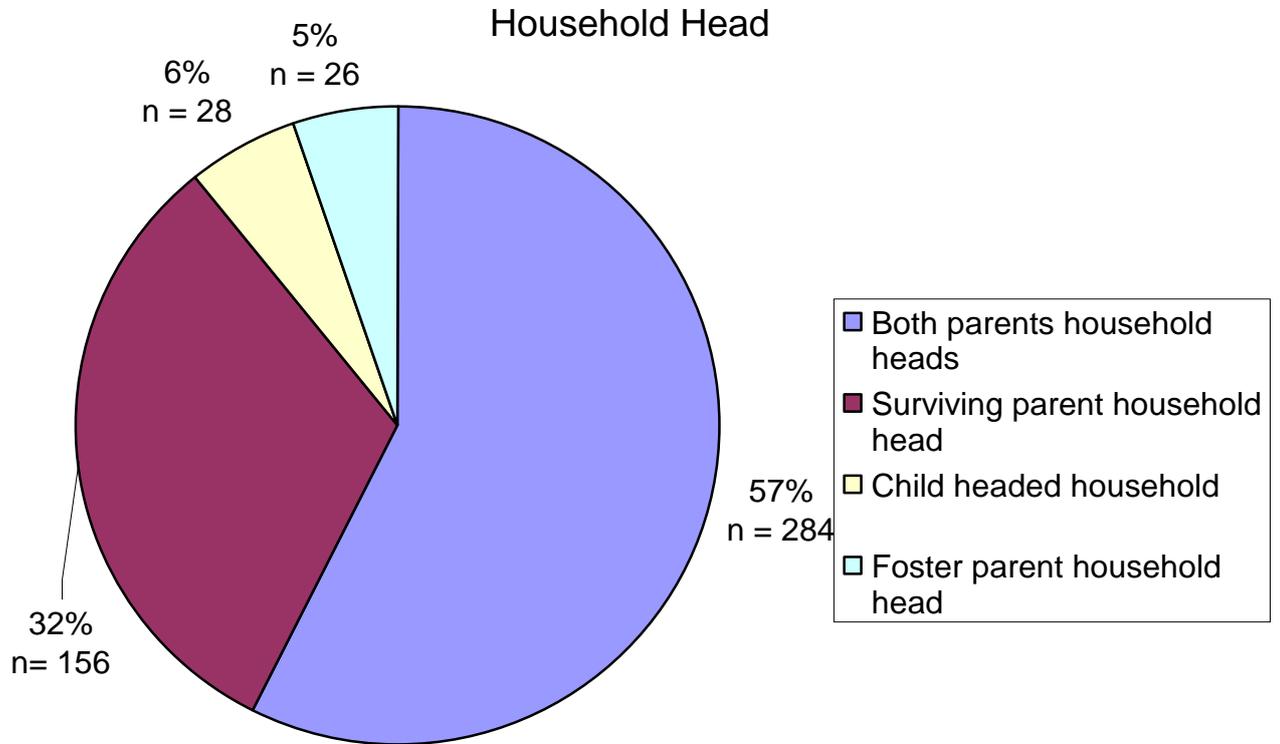


Fig 4.5: Household Head

284 (57%) (n=494) students indicated that both parents were alive and were heads of the household. 28 (6%) were child-headed, and 26(5 %) were headed by related foster parents. As can be seen, surviving parents headed 156 households (32%).

4.2.7 Marital status of parents

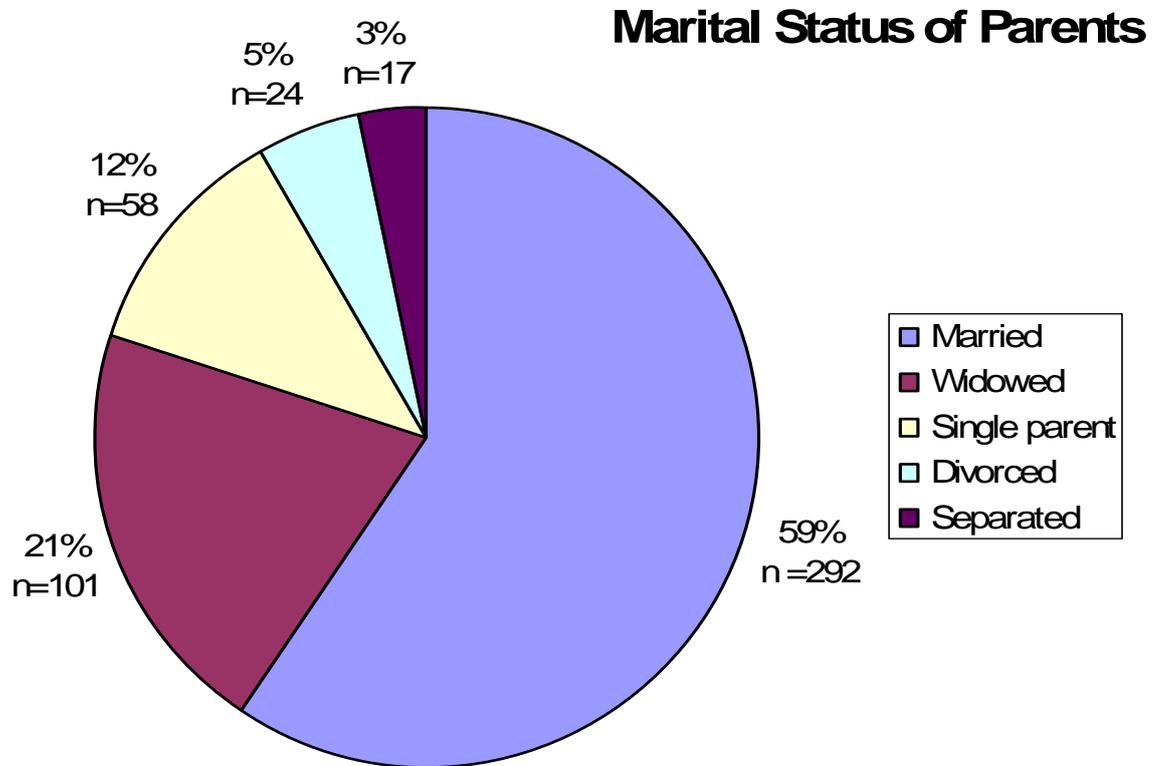


Fig 4.6: Marital Status

When we consider marital status we see that 292 (59%) (n =492) students were living in homes where the parents were married. 58 (12%) students had single parents whilst 101 parents(21%) were widowed.17 (3%) students said their parents were separated whilst 24 (5%) had parents who were divorced. It will be noted that 59% of the students were living in an environment where the parents were married to each other just as 57% of the students indicated that both parents were alive and were household heads whilst 43% had compromised household heads, corresponding to 41% living in disrupted matrimony. For the orphaned child, where matrimony is disrupted, love, warmth, safety and security, which Maslow states are necessary for learning to take place, may be compromised (see Table 2.1).

The students further indicated that 154 (31.4%) (n-491) of the heads of families were males, 174 (35.4%) were females, whilst 163 (33.2%) students lived in households where both parents headed the family. It should be noted that more females than men headed households. This finding is significant as it relates to a patriarchal society in which women have inadequate access

to and control of resources, which raises a question mark about the adequacy of financial support for orphaned children in particular (Common Country Assessment UN Report 2004:16).

The age distribution of males and females who headed households was as follows:

Table 4.9 Age distribution of household heads

Age	Gender	
	Male	Female
Below 30 years	4.3%	2.2%
30 – 39 years	8.6%	33.8%
40 – 49 years	47.7%	44.3%
50 – 59 years	28.5%	14.5%
60 and above	10.9%	5.2%

As may be noted, the majority of the males were aged between 40 and 59 years whilst the majority of the females were between 30 and 49 years. The females fall into the age bracket of women with the highest rate of HIV infection in Zimbabwe. Being widowed or divorced is significantly associated with its higher prevalence among women (Zimbabwe Human Development Report 2003:53). The females who head most of the households in this study and the men in the 40 to 49 year category fall into a relatively young and productive age category. In the absence of disease they might have the energy and resources to provide the basic needs of their children, which according to Maslow are essential if learning is to occur

4.2.8 Child-headed Household

When students were asked about child-headed households, 28 (6%) (n=494) acknowledged that they were living in child headed households, Fig 4.5, refers.

Responding to the question on the gender of the child heading the household, the majority of all the students, whether orphaned for one year or less, namely four (57.1%) (n=7), orphaned for two to three years, namely seven (100%) (n=7), orphaned for four years or more, namely nine (53%) (n=17) or not orphaned, namely 21 (72.4%) (n=29), stated that boys were heading the household.

Responding to the question whether the child head of the household was in school or not, the majority of those orphaned for one year or less, namely five (63%) (n-8) and those orphaned for four years or more, 11 (61.1%) (n-18) said they were not attending school, whereas the majority of those orphaned for two to three years, 6 (67%) (n-9) and those not orphaned, 22 (69%) (n-32) said that they were attending school.

On the reasons why the children heading households were not attending school, the majority of those orphaned for one year or less, namely three (60%) (n-5), those orphaned for two to three years, namely two (100%) (n-2), those orphaned for four years and more, namely three (33.3%) (n-9) and those not orphaned, seven (100%) (n-7) cited inability to advance beyond Ordinary and Advanced Levels of education as the major reason.

The above responses imply that school leavers who assumed parenting responsibilities (the majority, namely five(63%) (n-8) of those orphaned for one year or less, and 11 (61.1%) (n-18), of those orphaned for four years or more) thus inevitably compromised their chances of furthering their own education. Similarly scholars who assumed parenting responsibilities (for instance those orphaned for two to three years, namely six (67%) (n-9) and those not orphaned, namely 22 (69%) (n-32)) would also inevitably have their schooling compromised. If the children heading households were themselves students, the quality of support they could give to the other children in their households, in terms of their meeting the school requirements so that those other children could learn, might be unavoidably compromised. Failure to satisfy basic needs would not motivate students in such households to learn until lower needs were satisfied, according to Maslow's theory of learning. According to the reviewed literature, the phenomenon of child -headed households has been growing since the advent of HIV and AIDS in Zimbabwe (Matshalaga & Powell 2002:185).

4.2.9 Educational Background of parents and their income

Table 4.10 Parents' Educational Level

Parent's Level of Education	Students N=496	Percentage
Grade 7 or Standard 6 (old version of Grade 7- that took 8 years of primary education)	89	17.9%
Secondary Education	262	52.7%
Diplomas	48	9.7%
Degrees	81	16.3%
Uncategorized	16	3.2%

The majority of parents, namely 52.7% N=262 attained secondary school education as depicted in Table 4.10 above. The majority of those orphaned for one year or less, namely 22 (76%) (n-29), those orphaned for two to three years, namely 28 (68%) (n-47), those orphaned for four years or more, namely 42 (55.3%) (n-76) and those not orphaned, namely 118 (47%) (n-247) stated that their parents had reached the Ordinary and Advanced Levels of education. If the educational background of parents influences their children's access to and quality of education, then the majority of parents of both orphans and non-orphans could provide educational support in terms of motivation and supervision of the students' school work.

Table 4.11 Parents' Monthly Income

Number of students	%	N	Self employed Monthly income	Formal employment Monthly income
Half orphaned 1 yr and less (7)	30.4	23	\$35 000.00 and below	\$75 000.00 and above
And another half orphaned 1 yr and less (7)	30.4	23		
Majority orphaned 2-3 yrs (18)	45	40		\$75 000.00 and above
Majority orphaned 4 yrs and above (27)	44.3	61		\$75 000.00 and above
Non-orphaned (141)	62.1	227		\$75 000.00 and above

It would appear that the self-employed parents of those orphaned for one year or less had a comparably lower monthly income. Also, a higher percentage (62.1%) of non-orphans said the parents received \$75 000.00 and above, compared to (45%) of those orphaned for two to three years and (44.3%) of those orphaned for four years or more at the time the data was collected in October 2003. At the time data was collected, \$75 000.00 was a reasonable monthly income for the ordinary family. Comparably a higher percentage of non-orphaned students' parents had incomes of \$75 000.00 than of parents of the orphaned. When one or both parents are dead the household lacks a breadwinner. The household income has the potential to influence learning in terms of the ability to meet school requirements so that students are kept sufficiently motivated to learn. The prevailing hyper-inflationary economic climate may have drastically changed the salary structure of many parents.

4.2.10 Parental Health

Amongst the students who reported a compromised health status of the parents were those orphaned for one year or less, namely seven (24.1%) (n-29), those orphaned for two to three years, namely 15 (31.3%) (n-48), those orphaned for four years or more, namely 27 (36.6%) (n-74) and those not orphaned, namely 40 (16.6%) (n-241).

Answering the question whether their parents were sick, those orphaned for one year or less, namely four (14.8%) (n-27), those orphaned for two to three years, namely 12 (29.3%) (n-41), those orphaned for four years or more, namely 24 (34.3%) (n-70) and those not orphaned, 42 (21.5%) (n-195) agreed that they had sick parents.

It is noted that not all those students who stated that they had sick parents responded to the question that followed, on the gender of the sick parent. The majority of those orphaned for one year or less, namely three (75%) (n-4), those orphaned for two to three years, namely 11 (91.7%) (n-12), those orphaned for four years and more, namely 21 (91.3%) (n-76) and those not orphaned, namely 24 (57.1%) (n-42) stated that it was the mother who was not feeling well.

On the duration of the parents' illness, half of those orphaned for one year or less, namely two (50%) (n-4), stated that the parents had been ill for between one and three years, and the other half, namely two (50%) (n-4) said the parents had been ill for four years or more. The majority of

those orphaned for two to three years, namely 8 (68%) (n-12), those orphaned for four years or more, namely 13 (65%) (n-20) and those not orphaned, namely 19 (49%) (n-39) stated that the parents had been ill for two to three years.

It would appear more of those orphaned for two to three years and for four years or more had mothers who were ill, namely 91.7% and 91.3% respectively, compared to those orphaned for one year or less (75%) and those not orphaned (57.1%). More of those orphaned for two to three years and for four years or more had parents who had been ill for two to three years, namely 68% and 65% respectively compared to those not orphaned (49%) whose parents had been ill for the same period. Illness compromises family resources and there is a strong possibility that the children shoulder the burden of care, which inevitably compromises their education (USAID/Zimbabwe 2002:16; Southern Africa HIV/AIDS Action 2004:4).

4.3 Specific factors impacting on learning and/or school attendance

The students generally experienced the following problems after the death of their parents (n-165):

▪ Financial problems	19%
▪ Shortage of essential commodities	18.2%
▪ Lack of parental guidance	14%
▪ Shortage of fees	9.1%
▪ Suffering high levels of stress	9.1%

It would appear that most of the problems encountered related to insufficient money for, amongst other things, basic commodities and school fees. Areas explored include *school fees, bus fare, food, shelter, and inheritance*. These issues affect learning and should be satisfied according to Maslow's theory of motivation if meaningful learning is to take place (see Fig 2.1 and Table 2.1). *Dropping out of school* appeared to be a recognised sequel of the deprived environment.

4.3.1 Inability to pay school fees

In reply to the question whether orphans and vulnerable children receive help in paying school fees, a majority of those students orphaned for one year or less, namely 14 (51.8%) (n-27) and those orphaned for two to three years, namely 25 (55.5%) (n 45), were unaware of any social

assistance offered at school, for instance in respect of the payment of school fees. However, a majority of those orphaned for four years or more, namely 57 (66.2%) (n-74) were aware of orphans receiving social assistance. A higher percentage of those orphaned for two to three years were not aware that there were orphans and vulnerable children who were in receipt of social assistance. From these responses it would appear the orphans who were not aware of social assistance were themselves either not in need or not receiving help in the form of payment of school fees or provision of food packages. A majority of 14 (77.8%) (n- 18) teachers acknowledged that they knew of students who were helped by the Basic Education Assistance Module (BEAM) and that some schools were helping orphaned children through fund-raising activities organized by the AIDS Awareness Clubs (Annexure B:206). In this connection, it would appear that the adequacy of coverage of the Basic Education Assistance Module (BEAM) can be questioned and schools may still not be making adequate provision for all orphaned and vulnerable students (Impact Assessment 2002:48).

14 (63,6%) (n 22) double orphans, 64 (56.1%) (n 144) single orphans and 89 (54,9%) (n 162) non-orphans agreed that lack of school fees was the major cause of dropping out of school. The percentage difference in the responses shows that a higher percentage of orphans agreed that lack of school fees was the major problem than did non-orphans. These findings concur with what was revealed in the literature review, namely that dropping out of school is the single most disturbing sequel of orphanhood and poses real challenges to education and development (Baggalely & Needam 1997: 873; Impact Assessment 2002:40). The responses point to a gap in the education system that needs addressing. Students might, for example, be retained in schools or offered alternative educational modes such as continuing education using flexible modes and distance education as cited in the literature review (United Nations Secretary General's Task Force Report on Women 2004:26). This is an important issue, because even students who have dropped out of school and are working require upgrading of their knowledge and skills for the sake of their personal growth and so that they can contribute more effectively to national development.

153 (34.2%) (n-447) students indicated that girls were more likely to drop out of school than boys whilst 121 (27.1%) disagreed and 173 (38.7%) were not sure. A higher percentage of 26 (37,1%) (n70) male single orphans compared to 28 (33.7%) (n 70) female single orphans agreed that girls were more likely to drop out of school, but 41 (58,6%) (n 70) female non-orphans compared to 39 (55,7%) (n 70) male non-orphans said girls were more likely to drop out. There

was also a higher percentage of eight (11.4%) (n 70) female double orphans, compared to five (7,1%0)(n 70) male double orphans who agreed. To summarise, a higher percentage of female students, both orphans and non-orphans, agreed that girls were more likely to drop out of school, making the responses more authentic because they were gender sensitive. 12 (75%) (n-18) teachers agreed that the proportion of girls dropping out of school was between 0-25 % whilst two (11.1%) (n-18) indicated that it was between 26-50% (Annexure B:208).

Dropping out of school was cited as a major factor impacting on learning, which had many causes including deprivation of either paternal or maternal care (Baggaley & Needham 1997:873). The belief that girls were more likely to drop out of school than boys as revealed in the above paragraph, can be understood with reference to the moral reasoning perspective that sees females as predisposed to caring activities. Gilligan argues that females make moral decisions based on the developmental principle of care, rather than on justice as was argued by Kohlberg, and that women are more likely to view relationships as central in resolving conflicts (Gilligan 2001:1). Depriving orphaned girls of education nevertheless affects not only their generation but the future generation as well (UNICEF Report of 2002b:57).

4.3.2 Lack of books

On the major problems that made it difficult to stay in school or perform well, as indicated in Table 4.10, the responses of students including those orphaned for one year or less, those orphaned for two to three years and those orphaned for four years or more and those not orphaned were analysed using ANOVA and the post hoc test.

Table 4.12 Major problems experienced by students

	Sum of Squares	df	Mean Square	F	Sig.
Inability to pay fees:					
Between Groups	8.016	3	2.672	.808	.490
Within Groups	1064.294	322	3.305		
Total	1072.310	325			
Lack of books:					
Between Groups	21.995	3	7.332	2.955	.033
Within Groups	853.523	344	2.481		
Total	875.517	347			
Lack of uniforms:					
Between Groups	2.159	3	.720	.339	.797
Within Groups	637.390	300	2.125		
Total	639.549	303			
Lack of bus fare:					
Between Groups	4.282	3	1.427	.647	.585
Within Groups	628.438	285	2.205		
Total	632.720	288			
Repeated academic failure:					
Between Groups	11.627	3	3.876	1.688	.170
Within Groups	656.804	286	2.297		
Total	668.431	289			
Break up of home:					
Between Groups	3.967	3	1.322	.428	.733
Within Groups	904.686	293	3.088		
Total	908.653	296			

According to the above analysis, the lack of books was significant ($p < .033$). The responses from the students are not unusual given that the reviewed literature reveals that most Zimbabweans are living below the poverty line and that 72% of the population are living in households with income per person insufficient for basic needs (Food Security and Vulnerability Assessment Urban Report 2004:7). There is not much difference in what orphans and non-orphans lack. Maslow's motivational theory of learning stipulates that basic needs ought to be fulfilled in order for meaningful learning to occur (Atkinson et al 1990:525). The post hoc analysis had the following results:

Table 4.13 Lack of Books

**Post Hoc Tests
Homogeneous Subsets**

Lack of books Tukey B			
	N	Subset for alpha = .05	
A 5 If you lost one parent when did s/he die?		1	2
one year or less ago	22	2.2727	
Not orphaned	220	2.6000	2.6000
four years or more ago	67	3.0000	3.0000
2-3 years ago	39		3.2051
Means for groups in homogeneous subsets are displayed.			
A Uses Harmonic Mean Sample Size = 44.166			
B The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

Post hoc analysis depicts the difference between those orphaned for one year or less and those orphaned for two to three years, with those orphaned for one year or less lacking more than any other category. A related factor in the study is that self-employed parents of those orphaned for one year or less had a comparably lower monthly income than the parents of other orphans and the non-orphaned (see Table 4.11). There is not much difference between the non-orphaned and those orphaned for four years or more or for two to three years. Books are essential for learning and if students are deprived of them no meaningful learning occurs.

4.3.3 Lack of bus fare

Students who went to school by bus or commuter omnibus were asked whether they always had the bus fare. Of those who responded that they did not always have bus fare 18 (36.7%) (n-49) were non-orphans, four (40.0%) (n-34) were double orphans and 15 (44.1%) (n-34) single orphans. A higher percentage of orphans than non-orphans did not always have bus-fare. Within orphanhood, 11 (52.4%) (n-21) of the single orphans who had lost their mothers, compared to 14 (40,0%) (n-35) of the single orphans who had lost their fathers, did not always have bus fare. A higher percentage of orphans without mothers did not always have bus fare. With regard to the period of orphanhood, three (42.9%) (n- 7) of those orphaned for one year or less, and five (35.7%) (n -14) of those orphaned for four years or more, stated that they always had bus fare but of those orphaned for two to three years, five (71,4%) (n- 7) did not always have bus fare. The

period of two to three years could be a period of adjustment in orphanhood, characterized by the abovementioned lack of school fees and the lack of bus fare in the same period of orphanhood. Amongst those who said they did not always have bus fare, when asked the number of days on average that they had failed to go to school, six non-orphans (42.9%) (n-14) replied that they had not gone to school for a period of 0 to five days, ten single orphans (66.7%) (n-15) that they had not gone to school for a period of 0 to five days and two double orphans (66.7%) (n- 3) that they had not gone to school on more than 16 days. A higher percentage of single and double orphans missed school time than non-orphans. Lack of finance and absenteeism undoubtedly disrupt learning.

4.3.4 Duration of orphanhood

Most of the students who had lost a parent had done so within the four years preceding this study. The following table shows the period since the parents had passed away.

Table 4.14 Period since Parent passed away

Period	Mother	Father
one year or less	15.2%	13.0%
2-3 years	23.9%	23.9%
4 years and more	60.9%	63.0%

46 (8.9%) of the respondents had lost both parents. Of those students who had lost both parents, 28 (60.9%) had lost their mothers at least four years previously, whilst 29 (63%) of the students had lost their fathers at least four years previously. This implies that most of the students who had lost both parents had lost them over four years before the commencement of this study. The same period has been characterised by 2,500 people dying of HIV and AIDS-related illnesses per week in Zimbabwe, given that the first case of HIV was diagnosed in Zimbabwe in 1985 (UNFPA 2004:20).

A total of 82 students (16.1%) stated that they had lost their mothers whilst 179 (35.2%) had lost their fathers. This finding concurs with the findings of researchers cited in the literature, who stated that more orphans had lost their fathers than their mothers (Urassa, Boerma, Ng'weshemi, Isinga, Schapink & Kumogola 1997:143). The finding also suggests that orphanhood could possibly be a growing phenomenon, which requires attention, given its consequences (Zimbabwe Human Development Report 2003:3). 28 (6%) (n 494) students acknowledged the existence of

child-headed households, and four (57.1%) (n-7) of those orphaned for one year or less, seven (100%) (n-7) of those orphaned for two to three years, nine (53%) (n-17) of those orphaned for four years or more, and 21 (72.4%) (n-29) of those not orphaned, stated that the majority of children heading households were boys. The reviewed literature supports these findings and states that there is an increase in the number of child-headed households in Zimbabwe. Such households face problems in meeting children's basic needs such as shelter, food and access to health and education (Matshalaga & Powell 2002:185; Foster et al 1997:396). According to Maslow, learning will occur only when the basic needs are satisfied, because if unsatisfied, basic needs remain motivators of behaviour. Fulfilment of physiological needs creates conditions for the production of healthy intellectual capabilities that motivate the assimilation of knowledge, be it subject-specific or life skills in an environment that enables one to think. Deficiency needs of hunger, thirst and bodily comfort in a deprived environment will compromise learning. In addition, the loss of parents evokes the needs of the affective domain, motivating an emotion, a feeling or a desire to belong, a need for love. Deficiency needs of isolation, loneliness and neglect further compromise learning.

4.3.5 Food

163(33.3%) (n- 489), a third of the students, both orphans and non-orphans, indicated that during the past year other children in their household had gone hungry. A clear majority of these students, 126 (80.3%) (n-157), indicated that this was because there was not enough food. In reply to the question whether orphans and vulnerable students received food packages, two (33.3%) (n- 6) of the orphans who had lost both parents one year or less ago, 4 (60%) (n-10) of those orphaned for two to three years, 12 (50%) (n-24) of those orphaned for four years or more, and 108(42.2%) (n256) of those not orphaned said that orphans and vulnerable students did not receive any food packages. The interviewed teachers also referred to orphans' lack of food. Food is basic to survival and its absence inevitably interferes with learning. Piwoz and Preble (2000:4) state that much of Africa's disease burden is directly related to malnutrition and results in reduced cognitive and mental development.

A significant number of both orphans and non-orphans lacked food, which accords with the fact that most Zimbabweans are currently living below the poverty line and that about 1.2 million (65%) of Harare's population is food insecure (Food Security and Vulnerability Assessment Urban Report 2004:7). Maslow stated that societies where people must struggle for food are not

known for their artistic and scientific activities (Atkinson et al 1990:525). Indeed hunger aggravates poor concentration, which compromises knowledge retention and subsequently the learning outcome. Among the activities the students mentioned as interfering with school to the extent that they were absent, was work for which they were given money and/or food. Nine single orphans (8.3%) (n 109), two double orphans (7.4%) (n 27) and seven non-orphans (4.3%) (n 164) worked for money and/or food. Still within orphanhood, six orphans without mothers (12.8%) (n 47) did work for which they were paid money and/or food compared to 11 (4.4%) (n 249) of those whose mothers were alive, who did the same. A higher percentage of orphans worked for money and food than non-orphans. Thus it may be seen that another aspect of orphans' lack of finances is that in order to fulfil immediate survival needs, they compromise the long term goal of education through absenteeism that disrupts learning (Subbarao, Mattimore & Plungemann 2001:21). This highlights the fact that schools should reach out more and attend to the needs of orphans and vulnerable children so as to support their education. adequately

4.3.6 Shelter

84 (40.2%) (n-209) orphans had to change their accommodation when they lost one or both of their parents. Shelter is a basic essential commodity, which should be satisfied if one is to be motivated to learn, according to Maslow's theory of learning. Obtaining shelter requires finance. Sengendo & Nambi (1997:106) stated that the effort related to adapting to social change might cause learning problems associated with loss of concentration in class.

4.3.7 Inheritance

101 (47.4%) (n-213) students said that their inheritance had been fairly distributed whilst 57 (26.8%) indicated that theirs had not, and 55 (25.8%) said that they did not know whether it had been or not. More orphans than non-orphans had had their inheritance mismanaged. Of those who said their inheritance had not been fairly distributed, 19(35.8%) indicated that property had been grabbed from them. These findings concur with a study carried out in Zimbabwe in which many children reported unfairness and some said they did not know what had happened to the estate after the death of their parents (Mafuka 2001:19). That property grabbing occurs is confirmed by a Ugandan study and by a Zimbabwean study cited in the literature review. The Ugandan study noted that 21% of widows experienced property grabbing and in the Zimbabwean study it was reported that 15% reported property grabbing (Gilborn, Nyonyintono, Kabumbuli & Jagwe – Wadda 2001:1; Drew, Foster & Chitima 1996: 82). Disinheritance robs orphaned children of the authority they need to have security and to build self-esteem. In order to ensure

that the inherited property is out of harm's way, the writing of wills has to be inculcated into societal values, especially in the light of HIV and AIDS that are causing the death of 2 500 people every week in Zimbabwe. Disinheritance compromises the financial position of orphans and exacerbates their inability to comply with school requirements, which are essential for learning to take place.

4.4 Learning Outcomes

A total of 23 subjects were taught in the 18 schools. The subjects were divided into four groups. These are arts, science, commercial and practical subjects.

In the arts category, the following subjects were taught:

- History
- Shona
- English
- English Literature and
- Religious education.

In the science category, the following subjects were taught:

- Geography
- Maths
- Integrated science
- Physics
- Chemistry
- Biology
- Computer science; and
- Agriculture.

In the commercial category, the following subjects were taught:

- Commerce
- Accounts and
- Economics.

In the practical subjects category, the following subjects were taught:

- Food and Nutrition
- Fashion and Fabrics
- Woodwork
- Metalwork
- Building

- Technical Graphics, and Art.

Table 4.15: Descriptive Statistics : Average marks in coursework and final examination

Subject	2 nd term 2002 Average	3 rd term 2002 Average	2 nd term 2003 Average	Average coursework	Average exam- marks
ARTS					
History	42.26	39.93	38.06	39.57	50.26
Shona	47.44	47.53	41.43	44.88	51.88
English	46.15	43.27	41.69	43.10	49.30
English Literature	51.45	40.45	36.33	42.25	57.72
French	37.31	50.23	48.14	42.30	54.50
Religious Education	48.13	42.72	42.18	42.51	44.60
SCIENCE					
Geography	39.20	41.61	40.47	40.05	48.96
Maths	37.30	36.43	35.17	35.93	56.78
Integrated Science	40.10	36.89	36.89	37.58	52.82
Physics	54.25	38.42	38.83	43.58	49.49
Chemistry		55.50	73.83	64.67	56.38
Biology	47.61	48.42	46.08	46.69	61.06
Computer	45.09		40.15	42.24	40.75
Agriculture	39.07	48.26	45.69	44.03	52.83
COMMERCIALS					
Commerce	40.02	39.81	41.05	40.50	50.63
Accounts	52.61	50.52	39.16	46.94	58.06
Economics	50.46	49.33	47.42	47.08	44.27
PRACTICAL					
Food and Nutrition		47.55	44.95	46.70	55.53
Fashion and Fabrics	38.95	44.51	46.33	45.50	45.82
Woodwork	37.31	46.17	39.08	39.72	52.06
Metalwork	58.13	46.00	35.80	44.82	49.87
Building	48.76	43.55	30.57	48.51	55.08
Art	46.67	48.38	48.00	47.35	40.09
Technical Graphics	45.26	43.14	36.22	39.78	37.12

The National Percentage Pass Rate for the year 2003 was 19.6 for formal candidates. This was the lowest since 2000 (20.8). It was 1.7 points lower than in 2002 (21.3) (Ministry of Education, Sport and Culture: Statistics).

4.4.1 Arts category

In the arts category, the students performed better in the final examination than in the coursework. The averages of all subjects were above 50%, except in English and Religious Education.

4.4.2 Science category

The same pattern emerged in the science category in which students also performed better in the final examination than in the coursework, except in Chemistry. However, the average mark was above 50% in Maths, Integrated Science, Chemistry, Biology and Agriculture.

4.4.3 Commercial category

In the commercial subjects, in commerce and accounts the students performed better in the final examination than in the coursework, except in Economics.

4.4.4 Vocational/practical

In the practical subjects, the students performed better in the final examination than in the coursework in all subjects except Art and Technical Graphics. However, in the final examination in Food and Nutrition, and Woodwork and Building the average was above 50%.

Paired t-tests of coursework marks and final examination marks

Table 4.16 Paired t-tests

Subject	Significance level (p-value)	Confidence level	Decision
ARTS			
History	0.000	-10.43 to -5.72	Means are different
Shona	0.000	-6.91 to -3.42	Means are different
English	0.000	-6.36 to -3.15	Means are different
English Literature	0.000	-17.46 to -11.39	Means are different
Religious Education	0.764	-5.14 to 3.79	Means are not different
SCIENCE			
Geography	0.000	-8.95 to -5.25	Means are different
Maths	0.000	-12.43 to -7.80	Means are different
Integrated science	0.000	-7.82 to -2.55	Means are different
Physics	0.001	-9.24 to -2.39	Means are different
Biology	0.000	-14.99 to -10.44	Means are different
Computer	0.000	16.40 to 37.60	Means are different
Agriculture	0.139	-10.83 to 1.58	Means are not different
COMMERCIAL			
Commerce	0.042	-9.71 to -0.17	Means are different
Accounts	0.000	-12.15 to -5.95	Means are different
Economics	0.036	1.20 to 27.21	Means are different
PRACTICAL			
Food and Nutrition	0.078	-15.66 to 0.88	Means are not different
Fashion and Fabrics	0.142	-1.14 to 7.72	Means are not different
Woodwork	0.146	-36.01 to 7.67	Means are not different
Metalwork	0.768	-8.93 to 6.71	Means are not different
Building	0.636	-11.82 to 7.47	Means are not different
Art	0.060	-0.44 to 19.24	Means are not different
Technical Graphics	0.050	0.01 to 13.32	Means are different

As can be seen, students performed very well in the final examination as compared to coursework. However, in Commerce, Economics and Technical Graphics, the students did better in coursework than in the final examination. In all the subjects the difference between means was significant except in the practical subjects, Agriculture and Religious Education, where the difference between the means was not significant. This implies that pupils performed better in the (Zimbabwe Schools Examination Council) ZIMSEC final examinations. Since the ZIMSEC

examinations are standard, it is necessary to find out which factors impact on learning outcomes of the students in general and which impact on the learning outcomes of orphans in particular.

4.5 Relationship between identified factors and impact on learning

4.5.1 Loss of parents

4.5.1.1 Loss of mother

Table 4.17 Performance of students according to whether natural father is alive

Subject	Yes	No	Not sure	ANOVA significant Level	Decision
Arts					
History	47.26	55.11	55.81	0.008	Means are different
Shona	52.20	51.62	53.67	0.918	Means are not different
English	49.04	49.31	55.45	0.547	Means are not different
English Literature	58.00	57.37	52.58	0.814	Means are not different
Religious Education	44.24	43.58	38.67	0.878	Means are not different
Science					
Geography	47.29	52.98	42.30	0.032	Means are different
Maths	56.39	56.52	69.67	0.530	Means are not different
Integrated Science	51.57	54.80	68.08	0.203	Means are not different
Physics	49.54	48.22	59.67	0.650	Means are not different
Biology	62.94	58.16	61.50	0.275	Means are not different
Commercials					
Commerce	49.07	53.65	52.83	0.511	Means are not different
Accounts	56.01	60.60	71.00	0.257	Means are not different
Practicals					
Fashion and Fabrics	44.08	48.16	71.00	0.114	Means are not different

For the students whose parents were alive, performance according to whether the natural father was alive, showed that statistically the means were not significantly different from each other, except in History and Geography where the means were statistically different. However, when considering the averages, those students who did not know whether their fathers were alive performed better than the rest, although they did not do well in Geography. Those without fathers performed better than those with fathers. The natural father did not significantly influence

the learning performance of students. It would appear there is a need to motivate fathers to participate more in students' education.

4.5.1.2 Loss of either father or mother

Table 4.18 Performance of students according to period since one parent died

Subject	1 year or less	2 – 3 years	4 yrs and above	ANOVA significance Level	Decision
Arts					
History	50.54	48.91	55.74	0.357	Means are not different
Shona	52.21	54.06	53.08	0.900	Means are not different
English	47.77	51.11	50.28	0.780	Means are not different
English Literature	57.46	51.76	58.61	0.498	Means are not different
Religious Education	38.67	47.71	38.88	0.649	Means are not different
Science					
Geography	53.09	47.88	54.43	0.370	Means are not different
Maths	57.36	54.58	60.54	0.575	Means are not different
Integrated Science	55.00	55.90	55.07	0.989	Means are not different
Physics	59.50	47.03	54.33	0.325	Means are not different
Biology	60.43	56.86	62.26	0.641	Means are not different
Agriculture	57.63	57.60	49.55	0.713	Means are not different
Commercials					
Commerce	47.50	58.19	55.54	0.592	Means are not different
Accounts	56.57	61.85	63.19	0.626	Means are not different
Practical					
Food and Nutrition	60.75	48.50	56.00	0.598	Means are not different
Fashion and Fabrics	49.50	34.50	50.45	0.425	Means are not different
Metalwork	39.50	51.58	48.67	0.554	Means are not different

The study, in looking at the performance of students who had lost one parent (single orphan), showed that in all subjects, statistically the means were not significantly different from each other. There was no effect on learning outcomes in terms of whether a student had lost a parent, but the period since the death of the one parent made a difference. Students who had lost a parent more than four years previously had a better average than the rest. This relates to a finding in this study that in orphanhood, a higher percentage, namely eight (44.4%) (n-18) of those who had been orphaned for less than a year performed household chores, than of those orphaned for two

to three years, namely 5 (13,5%) (n-37) and those orphaned for four years or more, namely 12 (19,7%) (n-61). A higher percentage of those orphaned for less than a year namely five (29.4%) (n-17) lost school time through absenteeism because they had to do household chores, than those orphaned for two to three years, namely two (5,9%) (n-34) and those orphaned for four years or more, namely three (6.0%) (n-50). It would appear that the impact of performing household chores, among other factors, affected the learning outcomes of those orphaned for one year or less, and the reason for this disparity could be that students orphaned for one year and less are still battling psychologically with their orphan status. This finding concurs with suggestions in the reviewed literature that guardians might be overworking orphans without providing proper supervision or care and schooling (Gachuhi 1999:14).

4.5.2 Loss of both parents

4.5.2.1 Loss of both parents: considering the period since the father died

Table 4.19 Performance of students who lost both parents: considering the period since the father died

Subject	one year or less	2 – 3 years	four years or more	ANOVA Significance Level	Decision
Arts					
History	47.50	42.63	53.83	0.527	Means are not different
Shona	58.67	56.58	44.26	0.082	Means are not different
English	44.50	36.58	47.50	0.514	Means are not different
English Literature	39.50	56.00	67.93	0.435	Means are not different
Science					
Geography	36.50	36.50	53.32	0.065	Means are not different
Integrated Science	35.13	33.00	49.13	0.319	Means are not different
Biology	24.50	45.75	50.50	0.261	Means are not different
Commercials					
Commerce	57.63	48.67	45.60	0.731	Means are not different

A study of the performance of students who had lost both parents, taking into account the period since the father had died, revealed that there was no difference in the means and the father's death had not affected their performance. Generally the performance was poor. Students who had lost their fathers four years before the study, performed better in terms of averages, and those who had lost their fathers two to three years before the study were the worst in terms of averages.

The period of two to three years into orphanhood is related to a couple of factors identified in the study and is associated with some form of adjustment that requires exploration. Double orphanhood and the period since the father's death made a difference to the impact of factors on learning outcomes. This finding points to a need for widowers to be counselled on death and bereavement, and to be encouraged to participate in the education of their children.

4.5.2.2. Loss of both parents: considering the period since the mother died

Table 4.20 Performance of students who lost both parents: taking into account the period since the mother died

Subject	one year or less	2 – 3 years	4 yrs and above	ANOVA Significance Level	Decision
Arts					
History	57.63	46.38	51.88	0.614	Means are not different
Shona	53.25	43.43	51.40	0.520	Means are not different
English	41.50	45.80	47.82	0.829	Means are not different
English Literature	60.75	56.00	62.50	0.957	Means are not different
Religious Education	24.50	34.50	58.67	0.051	Means are not different
Science					
Geography	34.50	46.38	51.50	0.333	Means are not different
Integrated Science	55.50	33.07	46.75	0.301	Means are not different
Biology	48.67	24.50	57.00	0.010	Means are different
Commercials					
Commerce	39.50	44.50	56.00	0.582	Means are not different
Accounts	45.75	34.50	54.17	0.542	Means are not different

The study showed that in the performance of students who had lost both parents, taking into account the period since the mother had died, there was no difference in means except in Biology. The students who had lost their mothers four years before the study had the highest averages. The post hoc analysis showed that those with mothers who had died two to three years before the study were significantly different from other groups. The study also showed that more of the students in this period of orphanhood lacked finance in terms of money for school fees and bus fare. The study also noted that students who had been orphaned for two to three years lacked knowledge of the social assistance available to orphans and vulnerable students in the schools. Failure in Biology relates to the dissatisfaction with HIV and AIDS education reported in this

study, because Biology provides basic facts on reproduction, which are an essential component of sexual reproductive health.

This study reported orphans as being dissatisfied with the HIV and AIDS education they had received. Of the orphans, those who had lost a parent two to three years previously expressed the most dissatisfaction. 16 (34.%) (n 47) of them expressed dissatisfaction, followed by 17 (23.0%) (n-74) of those orphaned for four years or more, and lastly six (21.4%) (n-28) of those orphaned for less than a year,.

4.5.2.3 Living parents: mother only; father only; and when both parents are alive

Table 4.21 Performance of students according to indication of which parent is alive

Subject	Mother	Father	Both	ANOVA significance Level	Decision
Arts					
History	54.55	40.50	43.67	0.140	Means are not different
Shona	52.17	54.69	41.58	0.283	Means are not different
English	47.43	49.83	41.58	0.643	Means are not different
Religious Education	41.06	58.67	39.50	0.315	Means are not different
Science					
Geography	51.82	49.73	39.00	0.473	Means are not different
Maths	58.47	56.71	45.75	0.679	Means are not different
Integrated Science	58.44	53.13	39.50	0.307	Means are not different
Commercials					
Commerce	52.03	49.10	24.50	0.229	Means are not different
Accounts	59.74	52.43	47.75	0.569	Means are not different

Assessing the performance of students according to which parent was alive showed that they were not significantly different from each other, but students whose mother was alive tended to perform better in terms of averages than those with both parents alive and those with a father alive. The performance of students with both parents alive is problematic especially in the light of the findings that the father's death does not influence educational outcomes and that orphans whose mothers are alive do better than those who have lost their mothers.

There appear to be shortcomings in parents' participation in the education of students, especially considering that 19(15,2%) (n-125) of the single orphans, two (7,1%) (n-28) of the double orphans, and 26 (14,9%) (n-174) of the non-orphans said that they had looked after younger children during the past term. As far as absenteeism is concerned, single orphans and non-orphans were equally affected. 9 (8.5%) (n-106) single orphans, 14 (8.8%) (n-159) non-orphans and one (3.8%) (n- 26) double orphan failed to go to school because they had to look after young children. The study noted that 42 (21.5%) (n- 195) non-orphaned students said that they had sick parents. With regard to the gender of the sick parent, 24 (57.1%) (n-42) non-orphaned students stated that it was the mother who was not feeling well (see item 4.2.10).

It may be noted from the above findings that non-orphaned students also carried burdens that had a negative impact on learning outcomes. There is a need to explore the level of participation of parents in the education of their children.

11 (52.4%) (n-21) orphans without mothers stated that they did not always have bus fare, compared to 24 (34.3%) (n- 70) of those with mothers 6 (66.7%) (n-9) students without mothers had missed at least five days of school during the previous term, while nine (42.9%) (n- 21) of those whose mothers were alive, were also absent for the same period.

Also within orphanhood, six (12.8%) (n- 47) orphans without mothers did work for which they received money and/or food, which caused them to be absent from school, compared to 11 (4.4%) (n-249) of those whose mothers were alive. A higher percentage of orphans without mothers were absent from school than ones whose mothers were alive. This finding was confirmed in the reviewed literature (Harris & Schubert 2001:7).

Amongst students who had to feed, bathe and help a sick person and who missed school for that reason were seven (16.7%) (n-42) orphans without mothers, and 11 (4.6%) (n -237) non-orphaned students whose mothers were alive. In addition, 11 (25.5%) (n- 44) of the orphans without mothers were absent from school because they had to accompany a sick person to the clinic or doctor, as compared to 38 (15.5%) (n- 245) whose natural mothers were alive, who were absent for the same reason.

There was a significant difference between the average coursework marks and average examination marks of students who had lost their mothers compared with the marks of those whose mothers were alive.

Table 4.22a: Descriptive Statistics : Average course work and examination marks of the orphans who had lost their mothers and those whose mothers were alive

Question A3: Is your mother alive?	N	Mean	Std Deviation	Std Error
Average coursework mark Yes	391	41.887	12.875	.651
No	76	36.645	9.512	1.091
Total	467	41.034	12.532	.580
Average examination mark Yes	375	49.2369	15.2117	.7855
No	72	43.8203	13.3689	1.5755
Total	447	48.3645	15.0488	.7118

Question A3: Is your mother alive?	95% Confidence Interval for Mean			
	Lower Bound	Upper Bound	Minimum	Maximum
Average coursework mark Yes	40.607	43.167	24.5	80.7
No	34.472	38.819	24.5	70.2
Total	39.894	42.173	24.5	80.7
Average examination mark Yes	47.6923	50.7815	24.50	85.45
No	40.6787	46.9618	24.50	82.94
Total	46.9656	49.7633	24.50	85.45

Table 4.22 b: ANOVA: Average course work marks and examination marks

	Sum of Squares	df	Mean Square	F	Sig
Average coursework mark					
Between Groups	1748.115	1	1748.115	11.379	.001
Within Groups	71438.569	465	153.631		
Total	73186.683	466			
Average examination mark					
Between Groups	1772.226	1	1772.226	7.947	.005
Within Groups	99232.078	445	222.993		
Total	101004.30	446			

There was a significant difference between the average coursework marks ($p < .001$) and average examination marks ($p < .005$) of orphans without mothers and the marks of those students whose mothers were alive.

The above findings show the negative impact of the absence of the mother on the learning outcomes of maternal orphans. The study has also shown ways in which orphans without mothers are burdened (see item 4.5.2.3). It would appear that the mother is the hub of the family and the study. has demonstrated her contribution to the success of the educational progress of the children. Orphans whose mothers were alive performed better than students both of whose parents were alive (see Table 4.21). The illness of the mother, as a core member of the family has the potential to disrupt family systems, as stated in the literature review (Kerr, 1988:1). Augmenting the capacity of the widower to cope with caring activities could help fill the gap created by the illness and/or death of the mother.

4.5.3 Health status of students

When the students were asked about their health status and, if they were unhealthy, for how long they had not felt well, 77 (16.6%) (n 465) stated that they were fairly healthy whilst six (1.5%) students said they were not well. Of those students who were fairly healthy or sick, 70 (76.9%) (n-91) indicated that they had not been very healthy during the past year, whilst seven (7.7%) (n-91) had not been very healthy for two to three years, and 14 (15.4%) (n-91) had not been well for at least four years. The majority of non-orphans and orphans had been unwell for less than a year, namely 35 (79,5%) (n 44) non-orphans, 23 (74,2%) (n 31) single orphans and four (66.7%) (n 6) double orphans. The majority of non-orphans and orphans stated that they had missed school for an average of five days during the last term because of ill-health, namely 115 (90,6%) (n 127) non-orphans, 74 (89,2%) (n 83) single orphans and 15 (83,3%) (n 127) double orphans. It would appear that school time was lost through illness.

Table 4.23 Performance of students according to duration of parents' illness

Subject	One year or less	2 – 3 years	four years or more	ANOVA significance Level	Decision
Arts					
History	35.00	52.80	53.00	0.242	Means are not different
Shona	51.58	51.81	52.67	0.979	Means are not different
English	39.14	46.49	51.38	0.253	Means are not different
English Literature	58.67	48.00	63.63	0.193	Means are not different
Religious Education	24.50	44.50	51.58	0.053	Means are not different
Science					
Geography	32.00	52.81	49.93	0.200	Means are not different
Maths	45.75	60.90	56.50	0.523	Means are not different
Integrated Science	43.10	62.09	54.61	0.240	Means are not different
Biology	45.75	60.09	63.38	0.584	Means are not different
Commercials					
Commerce	32.00	50.05	51.71	0.325	Means are not different

The students were asked to indicate whether they had a sick parent and how long the parent had been ill. Statistically, the means were not significantly different from each other according to the length of the illness. However, on post hoc analysis, those pupils with parents who had been ill for more than four years performed better than the rest, and those whose parents had been ill for two to three years performed better than the category that had parents who were ill for one year or less as indicated in the columns of Table 4.23 above. In the case of those with parents who had been ill for more than four years, if one looks at averages only in the table above, one can conclude that the average performance was above 50% except in Geography where the average was 49.93%. Those pupils with parents who had been ill for a year or less performed badly as evidenced by the averages. In the study students acknowledged the presence of sick parents (see item 4.2.10).

20 (16,1%) (n 124) single orphans and three (10,7%) (n 28) double orphans compared to 17 (10,2%) (n 167) non-orphans had fed and bathed or helped a sick parent during the previous term. Did the abovementioned chores caused absenteeism? A higher percentage of orphans than non-orphans were absent from school, for instance, four (15,4%) (n 26) double orphans and 11

(10,4%) (n 106) single orphans, compared to three (2.0%) (n 152) non-orphans who had performed the same chores.

The study also compared school time lost by 23 (22.1%) (n 104) single orphans and five (18.5%) (n 27) double orphans who accompanied sick people to the clinic or doctor, with time lost by 22 (13.5%) (n 163) non-orphans who did the same. Amongst the orphans, a higher percentage of those who had lost one parent less than a year previously, namely six (40%) (n 15) were absent from school in order to accompany sick people to the clinic or doctor than of those orphaned for two to three years, namely five (14,7%) (n 34) and those orphaned for four years or more, namely 10 (20, 8%) (n 48). It would appear that illness preceding death, as in AIDS-related orphanhood, increased the burden on the students' learning capacity, although the longer the time since the parents' death, the better the performance of these students.

A combination of factors could have impacted negatively on the students' learning ability and consequently on learning outcomes as indicated in the table above. It is also not clear whether the students had sufficient caring skills. If they did not have them there was a possibility of their being exposed to cross infection during the caring process. A need arises to equip students with knowledge of available community home-based care services and clinics for health services, and with basic caring skills especially in HIV and AIDS-related illnesses. The Ugandan study cited in the literature review noted that most children lost hope when it became clear that their parents were sick (Sengendo & Nambi 1997:110). Counselling should be ingrained in the process to cater for the hopelessness and helplessness the students suffer when they realize that their parents are incapacitated and also to prepare them for bereavement when the parents pass on (Tsiwo-Chigubu 2001; Kaleeba 2002:92).

Mortality

71 (27.6%) (n- 257) non-orphans, 37 (22.7%) (n-163) single orphans and seven (17.9%) (n 39) double orphans knew of other students in the school who had died after a long illness or were suffering from TB or HIV and AIDS. 32 single orphans (88.9%) (n 36) indicated that between one and two students had died; 55 (86.0%) (n 64) non-orphans indicated the same number of students who had died and five (83.3%) (n 6) double orphans indicated that they knew of only one who had died after a long illness. On average, each student who responded to the question knew of about two students who had died of HIV and AIDS. 30 single orphans (75%) (n 40), four (80%) (n 5) double orphans and 44 (73.3%) (n 60) non-orphans knew one or two students who

had dropped out because of death in the family. These responses demonstrate that orphans and non-orphans are equally aware of the increasing number of dropouts as a result of death in families.

Inevitably students are affected by the pandemic but have been accustomed to coping with the loss of life of their fellow students, in most cases without education on death, bereavement counselling and grief therapy (Tsiwo-Chigubu 2001; Kaleeba 2002:92). Dropping out of school as discussed in this study and confirmed by the reviewed literature, militates against education. Whilst the death of students increases the attrition rate, the reviewed literature also mentions that the impact of adult mortality contributes to a decrease in orphan enrolment, making mortality a factor that can potentially influence educational outcomes (Ainsworth, Beeglee & Koda, 2000:17).

265 (56.1%) (n-472) students indicated that they did not know of any deaths of teachers due to HIV and AIDS. 186 (39.4%) students indicated that they knew of teachers who had died of HIV and AIDS during the past year. 46 (9.7%) students knew of more than three teachers who had died in the previous two years. 9 (50%) (n-18) teachers acknowledged that they knew of employees infected with HIV or suffering from AIDS at their schools. Half of the teachers 9(50%) (n-18) interviewed concurred as they indicated that at least three teachers had passed away during the previous two years. 15 (83.3%) (n-18) teachers indicated that there was a clear procedure that management must follow on absenteeism (Annexure B:211).The reviewed literature states that Zimbabwe's educational system has recognized and is currently aware of the toll of HIV and AIDS among teachers. The resultant teacher absenteeism is impacting on the quality of education given to the students (Impact Assessment 2002:70).

4.5.4 Psychological status of students

The students indicated what best described themselves .on a psychological scale. The following ratings were obtained:

Table 4.24 Descriptive Statistics: Psychological Factors that best described Both Orphaned and Non- Orphaned Students.

Factors	Performance Rate
I have to push myself all the time to do my schoolwork	61.0%
I cannot make up my mind about things	56.3%
I do very badly in subjects that I used to be good in	56.2%
I am sad all the time	55.4%
Things bother me all the time	49.5%
Nothing is fun at all	41.4%
I am tired all the time	40.9%
I do everything wrong	39.7%
Nothing will ever work out for me	39.6%
I worry about aches and pain at times	39.5%
I feel lonely all the time	37.4%
I am sure that terrible things will happen to me	36.8%
I never do what I am told	36.0%
Most days I do not feel like eating	35.8%
I do not have many friends	33.7%
All bad things are my fault	33.4%
I feel like crying every day	32.8%
I do not want to be with people at all	32.8%
I have trouble sleeping at night	29.9%
I can never be as good as others	27.4%
I never have fun at school	25.1%
I hate myself	20.4%
I am bad all the time	19.5%
I look ugly	15.1%
I get into fights all the time	7.40%

**Psychological Scale adopted from study by Professor Sengendo & Nambi 1997:123
Permission granted**

Differences in perception of single orphans, double orphans and non-orphaned students regarding statements in the psychological scale were analysed using ANOVA and those that were significantly different are presented in Table 4.22

Table 4.25 Psychological Scale

Item	Sum of Squares	Df	Mean Square	F	Sig.
I feel like crying all the time:					
Between Groups	8.977	2	4.489	11.908	.000
Within Groups	176.021	467	.377		
Total	184.998	469			
I feel lonely all the time:					
Between Groups	3.301	2	1.650	4.825	.008
Within Groups	159.740	467	.342		
Total	163.040	469			
Things bother me all the time					
Between Groups	3.027	2	1.514	3.930	.020
Within Groups	179.867	467	.385		
Total	182.894	469			
I am bad all the time					
Between Groups	1.536	2	.768	3.840	.022
Within Groups	91.993	460	.200		
Total	93.529	462			

The statement, *I feel like crying all the time* was significantly different ($p < .000$). 19 (50%) (n-38) double orphans, 71 (42%) (n- 169) single orphans and 63 (15%) (n- 263) non-orphans agreed with the statement. The statement, *I feel lonely all the time* was significantly different ($p < .008$). 20 (52.6%) (n-38) double orphans, 71 (42%) (n- 169) single orphans and 86 (32.7%) (n- 263) non-orphans agreed with the statement. These findings concur with the literature reviewed in this study, which noted that the psychosocial needs of orphans were not as well understood as their material needs (Coombe 2000:6; USAID/Zimbabwe 2002:17). A vital component of emotional stability and intelligence is emotional development (Emmerling & Goleman 2003:6-8), but the reviewed literature highlights the fact that such deprivation in orphanhood may cause stunted emotional development in orphans. It was reported that orphans received neither death education, bereavement counselling, grief therapy nor emotional rehabilitation sessions, so that their grief and depression remained hidden and unrecognised (Tsiwo-Chigubu 2001; Kaleeba 2002:92).

Responding to the statement, *things bother me all the time*, which was significantly different ($p < .020$), 99 (58.6%) (n 169) single orphans, 18 (47,4%) (n 38) double orphans and 119 (45.2%) (n 263) non-orphans agreed. A higher percentage of single orphans agreed with the statement than double and non-orphans. A full head cannot absorb much and in this state, concentration, creativity and critical analysis are compromised, making learning, especially the acquisition of

life skills (Ministry of Education, Sport & Culture 2001:4) a difficult task to achieve. There appears to be a need for counselling in order to 'empty' the issues that are worrying students so that learning can take place. This finding concurs with findings of a study that investigated the school enrolment of orphans in many countries and found that in Zimbabwe the overall enrolment rates are high even among the poor, and that orphan enrolment differentials were likely to be related to problems specific to being an orphan, some of which may not be school-related (Filmer & Ainsworth 2002: 15).

The statement, *I am bad all the time* was significantly different ($p < .022$). 44 (26.2%) single orphans, 48 (18.6%) (n=259) non-orphans and three (8.3%) (n=36) double orphans agreed with the statement. A higher percentage of single orphans agreed than non-orphans and double orphans. It would appear that all students require some form of motivation; Maslow stipulates that motivation is important in order for learning to take place. Students have to motivate themselves to learn, whilst responsible authorities ought to lay down policies and strategies to improve the learning environment, because it is only through education that one can re-establish self-esteem, obtain productive employment and acquire knowledge for the sake of self preservation (Matshalaga & Powell 2002:185). Feeling bad is linked to low self-esteem, and a positive self-image is important in the process of empowerment. This points to a need for counselling to revive the morale of orphans in particular and non-orphans in general so as to enable them to learn.

The students' responses to the statements in the psychological scale accorded with some of the problems teachers commonly said they had with orphans, which included depression, sadness; absent mindedness and reduced interest (Annexure B:208).

4.5.5 Learning outcomes in terms of the observed teaching of HIV and AIDS and life skills

4.5.5.1 Observed teaching-learning sessions on HIV and AIDS/Reproductive Health and Life Skills

The observed teaching-learning sessions were highly rated, with just above average rating on the time the students were given to act out the change of behaviour and the time given to the use of audio-visual materials (Annexure B:1205). Given the high ratings of the sessions, it would appear that participation in acting out the learnt behaviours requires improvement, as does the use of audio-visual materials, which stimulate multi-modal perception that is important for behaviour-change communication. Below average rating was given to assignments and reading references. The majority of teachers, namely 12 (66.7%) (n =18), did not agree that relevant assignments were being given, and 16 (88.9%) (n =18) did not agree that reading references were made available in the HIV/AIDS and life-skills teaching-learning sessions observed. Reading references and assignments reinforce learning and are pivotal exercises in behaviour change.

4.5.6 Students' knowledge of and attitude towards HIV and AIDS Prevention

4.5.6.1 Information dissemination

463 (90.6%) (n-511) of the students indicated that they were given HIV and AIDS lessons at school. The observed teaching-learning interactions on HIV and AIDS Prevention at the schools confirmed that students were taught HIV and AIDS lessons there and 12 (70,6%) (n-18) teachers interviewed said the student attendance rate for these lessons was 100%. Those who disagreed were 24 non-orphans (9.3%) (n 261) 15 single orphans (8.9%) (n 169) and two double orphans (5,1%) (n 39). Although the majority agreed that they received HIV and AIDS lessons, the fact that a total of 41 students disagreed poses a serious challenge to the prevention of HIV infection. According to Maslow, to satisfy the lowest level needs students require coping information; for safety needs, they require helping information; for needs of belongingness, they require enlightening information; for esteem needs they require empowering information and for cognitive (learning), aesthetic and self-actualisation needs, students seek edifying information so as to improve morally and intellectually (Norwood 1999 in Huitt 2001:8). The students also indicated the sources from which they received HIV and AIDS information.

Table 4.26 Sources from which HIV and AIDS information was received

Area	Percentage (%)
Through the radio/TV/Newspapers	75.1%
At home	39.3%
Message on posters	30.9%
From colleagues	21.5%

The broadcasting media and newspapers were the leaders in the dissemination of information on HIV and AIDS. A higher percentage of orphans received information from the radio, TV or newspapers than non-orphans, namely 85 (50,6%) (n-168) single orphans and 17 (44,7%) (n-38) double orphans, as compared to 117 (44.5%) (n- 263) non-orphans. As a second option, 107 (40,7%) (n 263) non-orphans were given information at home compared to 15 (39,5%) (n 38) double orphans and 59 (35,1%) (n 168) single orphans. It would appear the news media are popular with both orphans and non-orphans. It is significant that students received HIV and AIDS education at home in a society whose cultural dictates previously did not allow open discussions on sexuality.

4.5.6.2 Information on Prevention

491 (96.5%) (n-509) of the students indicated that HIV and AIDS infection was mostly spread through sexual intercourse whilst 18 (3.5%) indicated that HIV and AIDS were spread through blood transfusion. This understanding is important for inducing a change in sexual behaviour and consequently preventing the spread of HIV infection among the students. 439 (86.1%) (n-510) of the students were aware that HIV and AIDS cannot be cured, whilst 35 (6.9%) thought that HIV and AIDS could be and 36 (7.1%) were not sure. 22 (8.4%) (n-262) non- orphans said HIV could be cured while 17 (6.5%) of them were not sure. 11 (6.6%) (n-167) single orphans said it could be cured while 11 (6.6%) of them were not sure. One (2.6%) (n- 39) double orphan said it could be cured while six (15.4%) double orphans were not sure.

Lack of such basic information indicates that the students concerned should seek coping, helping, enlightening and empowering information before they receive edifying information, according to Maslow's motivational theory of learning (Norwood 1999 in Huitt 2001:8). It represents a challenge to HIV and AIDS education in schools if 68 students, both orphans and

non-orphans, remained ignorant of the fact that HIV cannot be cured. The province of Harare cannot be safe if some people in it are not aware that HIV cannot be cured.

376 (74.8%) (n-503) students indicated that the message on the prevention of HIV and AIDS was the same as they received before. 222 (43.4%) (n-509) had been given enough information about HIV and AIDS at school, 215 (42.2%) indicated that they had not, whilst 66 (13%) were not sure. The majority of those orphaned for one year or less, namely 18 (62%) (n-29), those orphaned for two to three years, namely 30 (62.5%) (n-48), those orphaned for four years or more, namely 39 (50%) (n-78), and the non-orphaned, namely 140 (53.6%) (n-261) stated that they had not received enough information. This implied that students were not satisfied with the HIV and AIDS education they were receiving. Of the students who said the message they had received on HIV infection was not the same as they had received previously, 10 (26,3%) (n 38) were double orphans, 43 (25,6%) (n-168) single orphans and 57 (22.2%) (n-256) non-orphans.

A minority of both orphans and non-orphans noted that the message they had received on the prevention of HIV infection was not the same as they had received previously. It should be noted that the students who perceived the message differently were in the minority, and that their different reaction could stem from poor concentration associated with factors such as stress and hunger that compromise perception as was discussed earlier in this study. Knowing how to avoid being infected with HIV is crucial to orphans in particular and others in general, since it is the major cause of orphanhood in Zimbabwe. Maslow states that for self-esteem needs to be fulfilled, students require empowering information and to satisfy cognitive needs they require edifying information (Norwood 1999 in Huitt 2001:8).

4.5.6.3 Adequacy of information received on prevention

222 (43.4%) (n-509) students indicated that they had received enough information on HIV and AIDS at school, 215 (42.2%) that they had not, whilst 66 (13%) were not sure. 96 (79,6%) (n-168) single orphans, 25 (60,9%) (n- 38) double orphans and 140 (53,6%) (n- 261) non-orphans said that they had not received enough information. A higher percentage of orphans reported not having enough information compared to non-orphans. It is important for students to have enough information about HIV and AIDS in order to understand the disease process and for them to appreciate the need for prevention, because there is no cure for HIV infection. A weakness, which could have contributed to this inadequacy was that the majority of teachers, namely 12

(66.7%) (n =18) did not agree that relevant assignments were being given and 16 (88.9%) (n =18) did not agree that reading references were available in the HIV/AIDS and life-skills teaching-learning sessions observed. Assignments and reading references reinforce learning (Annexure B:205). Information on HIV and AIDS is important for self-preservation and for sustaining behaviour change. According to Maslow, it is difficult for students who are not empowered to seek edifying information.

4.5.6.4 Voluntary Counselling and Testing and condom use

472 (94%) (n-502) students agreed that voluntary counselling and HIV testing was important whilst only 18 (3.6%) were not sure and 12 (2.4%) disagreed. A majority of those orphaned for one year or less, namely 38 (96.6%) (n-29), those orphaned for two to three years, namely 44 (89.8%) (n-49), those orphaned for four years or more, namely 72 (92.3%) (n-78) and of the non-orphans, namely 245 (95.7%) (n-256) agreed that voluntary counselling and testing are important. 324 (64.5%) indicated that condoms were not readily available to students at the school and 129 (25.7%) were not sure whilst 37 (7.4%) said condoms were available to those who wanted to use them. The minority who did not think that voluntary counselling and testing are important comprised four (10.8%) (n-37) double orphans, 12 (7.2%) (n-168) single orphans and 11 (4.3%) (n-256) non-orphans and of these a higher percentage of orphans than non-orphans did not appreciate the importance of voluntary counselling and testing-

It would appear that poor knowledge of the basic facts about HIV also caused poor appreciation of the rationale for prevention. This misconception was an indication that all students ought to participate in HIV and AIDS education and prevention whilst they still have the opportunity to learn. Acknowledging the necessity of voluntary counselling and testing is an important step towards adopting behaviour change. Thus according to Maslow, students were ready for edifying information so that they could improve morally and intellectually (Norwood 1999 in Huitt 2001:8). Voluntary counselling and testing are pillars in preventive work against HIV infection, because individuals manage themselves better if they know their HIV status.

4.5.6.5 Sexual indulgence

363 (89.9%) (n=404) students said that they had never had sexual intercourse whilst 16 (4%) indicated that they had sexual intercourse using a condom, and 22 (5.4%) indicated that they had had sexual intercourse without using a condom. A higher percentage of the minority who had indulged had had unprotected sex. 13 single orphans (8.9%) (n 132) had had sex and seven of them (5,3%) (n 132) unprotected sex, one double orphan (2.9%) (n 34) had had unprotected sex. 21 non-orphans had had sex and 12 of them (5.8%) (n 207) had had unprotected sex. These findings show that some students, both orphans and non-orphans were having sex and that a total of 20 students had had unprotected sex, thus exposing themselves to STI's and HIV infection and also incurring the risk of teenage pregnancy. Those students who had indulged in sex require coping, helping, enlightening and empowering information in order to deal with their psychological needs, safety needs, love and belonging needs and esteem needs before they can seek edifying information (see Table 2.1).

4.5.6.6 Sexual abuse

Forty-four (17%) (n=259) non-orphans, 6 (15.4%) (n=39) double orphans and 23 (13.%) (n=165) single orphans reported that they were forced or pressured into having sexual relations. In orphanhood, the percentage differences show that eight (27,6%) (n=29) students orphaned for one year and less, eight (10.3%) (n 78) students orphaned for four years or more and four (8.9%) (n 45) who had lost parents two to three years previously were pressured into having sexual relations. The percentage difference shows that students in early orphanhood are the most susceptible to being thus pressured. Coercing students into sexual relations amounts to a sexual offence and is punishable by law. Students require training in negotiation and in developing self-preservation skills to protect them against sexual abuse in any form, and students who are victims require coping, helping and empowering information so that they can regain self-esteem. There are preconditions for the fulfilment of basic needs and one of them is freedom from harm. Sexually traumatized students require psychological care as part of counselling as this type of injury can impact negatively on learning (Zimbabwe 2001b: Sexual Offences Act Chapter 9:21:123; Green 2000:9,10).

4.5.6.7 Perpetrators of sexual abuse

Of those who were forced into sex by fellow students 14 (40%) (n-35) were non-orphans, six (30%) (n-20) single orphans, and one (20%) (n-5) a double orphan. Of those who were forced by relatives, four (11.4%) (n-35) were non-orphans, two (40.0%) (n-5) double orphans and one (5%) (n-29) a single orphan. Of those forced into sex by teachers two (10%) (n-20) were single orphans and five (14,3%) (n-35) non-orphans. Of those who were forced by parents one (5%) (n-20) was a single orphan and three (8.6%) (n-35) were non-orphans. Of those forced by a headmaster three (15%) (n-20) were single orphans. As the students reported, sexual indulgence and sexual abuse are realities, but if fellow students, teachers and parents are the abusers, then the challenge of maintaining a safe and secure environment is complex. Yet Maslow stipulates that safety and security are mandatory in order for learning to occur.

It would appear that there is a need for students to discover their HIV status through voluntary counselling and HIV testing, so that they can make informed choices about maintaining their negative status. Clearly the students were aware of this need, since 472 (94%) agreed that voluntary counselling and HIV testing were important. The interviewed teachers raised the need for monitoring and evaluation of the life-skills education programme, as an issue requiring attention, and stated that knowledge of one's HIV status could be considered an empowering tool in the prevention of HIV infection (Annexure B:210). Students need to be open and be encouraged to verbalize their concerns, in order to break the silence that surrounds sexual offences perpetrated against them. Life-skills education is important for the acquisition of self-preservation skills.

4.5.6.8 Sexual relations with teachers and older men and women in the community

134 (26.8%) (n-501) students indicated that relationships between teachers and students were common, whilst 350 (69.9%) (n-501) students did not know about this. Eight (1.6%) students indicated that such relationships never occurred. The majority of students stated that they did not know, but 75 (29.5%) (n 255) non-orphans, 40 (24.1%) (n 166) single orphans and 7 (18.0%) (n 39) double orphans stated that such sexual relationships occurred frequently or very frequently. 229 (45.4%) (n-504) students indicated that relationships occurred frequently or very frequently between students and older people in the community whilst 184 (36.5%) (n-504) were ignorant about such relationships and 24 (4.8%) (n-504) denied any such relationships. 67 (13.3%) (n-504) students indicated that such relationships occurred only once in a while. The majority of

responses indicated that sexual relations between students and older men and women in the community were somewhere between frequent and very frequent. 122 (47.8%) (n-255) non-orphans, 71 (42.0%) (n-169) single orphans and 17 (43.6%) (n-39) double orphans agreed.

Five (27,8%) (n-18) teachers indicated that there were sexual relationships between teachers and students but that these did not occur frequently, whilst four (22.2%) (n-18) teachers did not know. The teachers agreed with the students that there were frequently sexual relationships between female pupils and older men in the community. A majority of 15 (83.3%) (18) teachers indicated that the schools had taken measures to stop these relationships by counselling the individual students, having dialogue with parents and referring some cases to the police (Annexure B:210).

It would appear that there is a need to tighten the disciplinary procedures involving teachers who engage in sexual relationships with their students. Teachers should be role models who transmit acceptable social values that help shape the students' behaviour. It would also appear that programmes aimed at prevention and behaviour change require community participation to elicit partnerships and thwart the 'sugar daddy/mummy phenomenon.' Students require personal empowerment in order to maintain self-integrity, and an empowered student is one who is ready to seek edifying information in order to improve morally and intellectually (see Table 2.1). Students in need should seek assistance from community resource centres rather than indulge in transactional sex. The Zimbabwe Human Development Report (2003) clearly elucidates the effects of the cycle of poverty, the sugar daddy/mummy deception and the spread of HIV and AIDS. Students require self-preservation skills.

4.5.7 Life Skills

337 (67.9%) (n-496) students felt that they had enough information to protect themselves from infection and were confident about dealing with HIV and AIDS issues such as illness or death. 78 (15.7%) were not sure whilst 44 (8.9%) indicated that they did not have enough information. Of those who did not have adequate information and did not feel confident about dealing with HIV and its sequels 58 (22.8%) (n 254) were non-orphans, 39 (23.3%) (n 165) single orphans and 13 (34.3%) (n 38) double orphans. The percentage differences show that double orphans followed by single orphans did not have enough information but that non-orphans also did not receive enough information. Orphans should be encouraged to participate more in class in order

to improve their attention span. Those who require counselling should receive it, and so should non-orphans who are affected. Teachers need to assess and evaluate performance regularly and offer remedial support.

4.5.7.1 Life Skills acquired

The students indicated a number of life-skills they had acquired through the HIV and AIDS sexual/reproductive health and life-skills sessions as shown in the table below.

Table 4.27 Life Skills Acquired

Life skills	Percentage (%)
Stick to abstinence	82.5%
HIV testing before marriage	40.0%
Use of condoms	30.8%
Self discipline	13.8%
Avoid peer pressure	6.3%

These were the major ‘life-skills’ students had acquired. From the responses, it appeared that students understood the preventive behaviour that was necessary, yet life-skills would assist them to attain and sustain this behaviour. The majority, namely 23 (85,2%) (n-27) of the double orphans, 182 (83.5%) (n-218) of the non-orphans and 103 (79.8%) (n-129) of the single orphans declared themselves in favour of .sticking to abstinence. Seven (36.8%) (n-19) double orphans, 48 (29.4%) (n-163) non-orphans and 23 (24.7%) (n- 93) single orphans identified HIV testing before marriage as a life skill. 38 (40.9%) (n-93) single orphans, five (26.3%) (n-19) double orphans and six (2.8%) (n-218) non-orphans were in favour of the use of condoms. Both orphans and non-orphans supported the afore-mentioned behaviour as life skills.

Teachers indicated that they taught self-reliance, self-esteem, communication and openness, assertiveness and resisting peer-pressure as life skills (Annexure B:207). Although the reported behaviour of abstinence, being faithful to one partner and the use of condoms as reported by students was desirable, what the teachers taught and what the students perceived as life skills was different.

Such dissonance could be explained as a failure to satisfy lower need demands of providing coping, helping, enlightening and empowering information, which meant that the students were not ready for the satisfaction of higher cognitive needs requiring edifying information. The decision-making process with its underlying analytical and creative thought processes, the art of negotiation, self awareness, self protection and a positive self image, did not emerge clearly as ingredients that the students considered basic in life-skills education and for the development of emotional intelligence (see Fig 2.2; table 2.1).

The teachers applied the following strategies in the life skills teaching-learning process, using the participatory approach: group work 77.8%, role play 61,1%; discussion 33.3%; question and answer 27.8% and drama 27.8% (Annexure B:207). However, debate, poetry, games, song and dance in the form of edutainment were a clear omission as these are considered important strategies in the process of changing behaviour.

All teachers acknowledged that the rate at which the class acquired knowledge and skills on sexual and reproductive health issues was at least good. Seven (38.9%) (n-18) teachers rated the participation of orphans as good whilst 11 (61.1%) (n-18) rated it as between average and fair (Annexure B:206).

4.5.7.2 Participatory approach

Nine (50%) (n-18) teachers interviewed stated that they were not properly equipped to use the participatory method in teaching life skills because of inadequate training and/or materials and a limited time frame (Annexure B:193), and the teachers' sentiments are in accord with the reviewed literature (Bennell et al 2002:15). Although 16 (88.9%) (n- 18) teachers said the Ministry of Education provided staff with training or education on the prevention of HIV/AIDS, the participation rate of teachers who underwent training was low.

In the majority of schools less than 20% of the teachers had received this training (Annexure B:192). 13 (72.2%) (n-18) teachers indicated that the staff had at least adequate knowledge on HIV and AIDS, which enabled them to act as role models. A majority of 14 (77.8%) (n- 18) teachers indicated that schools collaborated closely with the School Development Association and other stakeholders, including the community, in fighting against HIV and AIDS. This collaboration is crucial in sustaining behaviour change among young people (Annexure B:212). Participation is key in the acquisition of life-skills and it may be that the teachers' inadequate

preparation for the participatory approach impacted on the students' learning and acquisition of life skills.

4.5.7.3 Culture and the acquisition of life skills

166 (33.7%) (n-492) students said culture affected the use of acquired skills, 199 (40.4%) disagreed whilst 127 (25.8%) did not know. Of those who agreed that culture affects the use of acquired life-skills 67 (40,9%) (n-164) were single orphans, 82 (32.7%) (n-251) non-orphans and 9 (24.3%) (n-37) double orphans. The percentage difference showed that a higher percentage of orphans than non-orphans agreed. Those who agreed, referred to polygamy and wife inheritance, among other cultural practices, in this connection. One factor that attracted majority responses was the practice of polygamy, which 18 (31.6%) (n-57) non-orphans, 10 (24.4%) (n-41) single orphans and one (33.3%) (n 3) double orphan identified as one cultural practice that fuels the spread of HIV. The students suggested educating those who followed cultural practices, educating people on HIV and AIDS and legislating against such practices as ways of stopping practices that hindered the use of life-skills. 26 (28.6%) (n- 91) non-orphans, 17 (24.6%) (n- 69) single orphans and one (12.5%) (n- 8) double orphan suggested educating people who follow cultural practices. Two (25.0%) (n- 8) double orphans, 11 (15.9%) (n- 69) single orphans and 14 (15.4%) (n- 69) non-orphans suggested educating people on HIV and AIDS. The teachers agreed with the students that culture influenced the spread of HIV/AIDS among young people, and identified inheritance and polygamy practices as the main influences (Annexure B:210). The teachers suggested awareness campaigns and educating parents on acceptable cultural practices as ways of curbing those practices that fuel the spread of HIV infection (Annexure B:213). The Zimbabwe Human Development Report (2003:3) noted culture as a potential barrier in strategic areas of HIV prevention.

4.5.7.4 Satisfaction with HIV and AIDS/Reproductive Health and Life-skills education

117 (24.3%) (n-482) students were not satisfied with the HIV and AIDS Sexual Reproductive Health and Life skills education they received in schools; the rest were satisfied in differing degrees. 238 (49.4%) were satisfied, 41 (8.5%) were very satisfied and 86 (17.8%) were totally satisfied. 44 (27.5%) (n-160) single orphans, 10 (27,0%) (n-37) double orphans and 53 (21.5%) (n- 247) non-orphans were dissatisfied with the HIV and AIDS education received at the school. Within orphanhood those who had lost a parent two to three years previously were the most

dissatisfied, namely 16 (34.%) (n- 47), followed by those orphaned for four years or more, namely 17 (23.0%) (n-74) and lastly those orphaned for less than a year, namely six (21.4%) (n-28). A higher percentage of orphans were dissatisfied than non-orphans. There appears to be a gap, requiring further exploration, in orphans' learning about HIV and AIDS and acquiring life skills.

4.5.7.5 The Student's confidant

It was noted that most of the students confided in the following people whenever they encountered problems: parents 46.3%; a peer of the same sex 40.0%; a peer of the opposite sex 11.6%; a church leader 10.7%; and a teacher 8.2%. The peer of the same sex was suggested as a confidant by 51 (34.0%) (n 150) single orphans, 63 (25.1%) (n 251) non-orphans and 14 (36.8%) (n 38) double orphans. A higher percentage of orphans confide in a peer of the same sex than non-orphans.

44 single orphans (29,3%) (n 150), six (15,8%) (n 38) double orphans and 131 (52.2%) (n 83) non-orphans suggested parents as confidants. More non-orphans confided in their parents than non-orphans, maybe because either or both parents are absent in orphanhood. Such a disparity points to lack of parental guidance in orphanhood as confirmed in the reviewed literature (Beekink et al 1999:643). The majority of the teachers, namely 14 (77.7%) (n-18), indicated that they counselled not more than 10 students per term, which is in accord with the students' statements that fewer students tended to seek counselling services from the teachers (Annexure B:209).

It may be noted that students preferred to confide in their parents or peers of the same sex. According to the psychosocial theory of development, this behavioural tendency was appropriate, because having significant relationships with peer groups and role models improved an individual's attainment of self-identity as a unique person (Boeree, 1997:9-10; Boeree 1998:3). In the absence of parents, it would appear that orphans, in particular, could benefit from peer education and peer counselling sessions.

4.5.7.6.Coping mechanisms

The students indicated the following activities that helped them cope with difficult circumstances: praying to God 50,3%; telling a best friend 16,5%; talking to parents 12,1%;

being positive 9,6% and crying 4.7%. Among many suggested coping mechanisms, the two most prominent: were praying to God and telling a best friend. 21 (67.7%) (n- 31) double orphans, 65 (51.2%) (n 121) single orphans and 77 (42.8%) (n-180) non-orphans suggested praying to God. Within orphanhood, eight (36.4%) (n-22) of those orphaned for one year or less, 24 (60.0%) (n-40) of those orphaned for two to three years, and 28 (48.3%) (n 58) of those orphaned for four years or more, suggested praying to God. The percentage differences show that a higher percentage of those orphaned for two to three years used prayer, followed by those orphaned for four years or more, compared to non-orphans. A higher percentage of orphans than non-orphans used prayer as a coping mechanism. 33 (18.3%) (n-180) non-orphans, 22 (17.3%) (n-121) single orphans and 1 (3,2%) (n-31) double orphan suggested telling a best friend.

These cited coping mechanisms are important pointers to what is being used and is working for orphans in particular and non-orphans in general. Spiritual intervention may have been underplayed, but faith in God is beneficial to the majority of the students. More could be done to promote peer-interaction. Peers who are suffering the consequences of the pandemic together share a language and experiences they have all either endured or enjoyed. Emotional intelligence provides a good foundation for coping with difficult situations.

Students had various educational aspirations but most, namely 244 (42.8%) (n-477), indicated that they wanted to obtain a university degree and 148 (31%) wanted to complete the “Advanced” Level of education. 78 (48.4%) (n-161) single orphans, 14 (41.2%) (n-34) double orphans and 96 (39.7%) (n-242) non-orphans wanted to complete the “Advanced” Level of education. These responses were progressive, because learning is a life-long activity and there is no end to the need to acquire skills to deal with the challenges of a rapidly changing world. Students believed that the following issues, amongst others, needed to be addressed: education and increased AIDS awareness campaigns; taking care of orphans; the maintenance of abstinence, paying attention to the problems of youth; providing scholarships for the less privileged; and urging people to love and respect each other.

The teachers wanted the following issues addressed concerning life skills education: conducting school-level seminars for all children; making life-skills education an examinable subject; educating the community on life skills and HIV and AIDS; encouraging people to be open about it; training teachers in the participatory approach; improving resources to include video tapes,

booklets and pamphlets and monitoring and evaluating the life-skills programme (Annexure B:213).

4.5.8 Learning outcomes in terms of subject categories

Table 4.26 Performance of students by orphanhood

Subject	Double orphan	Single orphan	Not orphaned	ANOVA significance Level	Decision
Arts					
History	51.42	52.52	48.72	0.336	Means are not different
Shona	50.27	52.67	51.74	0.734	Means are not different
English	45.10	50.42	49.06	0.353	Means are not different
English Literature	59.95	55.33	59.14	0.458	Means are not different
Religious Education	40.75	42.63	46.48	0.559	Means are not different
Science					
Geography	47.70	50.42	48.10	0.591	Means are not different
Maths	55.81	56.71	56.91	0.988	Means are not different
Integrated Science	43.89	54.79	52.68	0.184	Means are not different
Physics	33.07	51.50	49.45	0.098	Means are not different
Biology	44.50	59.26	64.61	0.001	Means are different
Agriculture	61.50	51.47	52.29	0.649	Means are not different
Commercials					
Commerce	53.92	54.55	48.38	0.295	Means are not different
Accounts	52.33	61.46	55.91	0.174	Means are not different
Practical					
Food and Nutrition	62.83	53.73	53.50	0.368	Means are not different
Fashion and Fabrics	50.00	45.69	45.32	0.852	Means are not different

The students were asked to indicate their orphan status. The results showed that statistically, in most subjects the means were not significantly different except in Biology, in which double-orphaned students performed the worst compared to the single orphaned students and non-orphans.

4.5.8.1 Arts category

The double orphans had mean averages below 50% in Religious education and English; the single orphans had mean averages below 50% in Religious education only, whilst the non-orphans had mean averages below 50% in English, History and Religious education.

4.5.8.2 Science category

The double orphans had mean averages below 50% in Geography, Integrated Science, Physics and Biology. The single orphans had mean averages above 50% in all subjects, whilst the non-orphans had mean averages below 50% in Geography and Physics.

4.5.8.3 Commercial category

The double orphans and single orphans had mean averages above 50% in both Commerce and Accounts, while the non-orphans had a mean average below 50% in Commerce and a mean average above 50% in Accounts.

4.5.8.4 Vocational/practical category

The double orphans had mean averages above 50% in Food and Nutrition and Fashion and Fabrics, whilst single orphans and the non-orphans had mean averages below 50% in Fashion and Fabrics.

This study noted that most of the students who had lost a parent had done so four years before this study. In line with this study, which showed the duration of orphanhood to be a factor affecting most learning outcomes, the majority of the orphans in this category performed better and coped better than their counterparts. Nevertheless this study also reported that 46 of the students had lost both parents and the majority of them had lost their parents over four years ago, but their performance was compromised. This study further noted that the students lived in child-headed households, where they had to care for the family. The reviewed literature supported this finding, stating that the orphans faced problems in meeting children's basic needs such as shelter, food and access to health and education (Matshalaga & Powell 2002:185; Foster et al 1997:396). Likewise the reviewed literature indicates that the coverage of the Basic Education Assistance Module (BEAM) requires exploration, since schools may still not be catering adequately for all orphaned and vulnerable students (Impact Assessment 2002:48). It is clear that the double orphan misses the provision by the parents of those basic needs (shelter, counselling, finance and guidance) that must be fulfilled, as Maslow states, before learning can take place. One

outstanding coping mechanism mentioned by those who responded was praying to God. 21 (67.7%) (n 31) double orphans, 65 (51.2%) (n 121) single orphans and 77 (42.8%) (n 180) non-orphans were using faith in God as a coping mechanism. Perhaps spirituality has not been explored sufficiently as a means of supporting orphans and vulnerable children (New International Version Bible: James 1:27).

The post hoc analysis showed that in most of the subjects, double orphans were the worst performers, except in Agriculture, Food and Nutrition and Fashion and Fabrics in which they did better than single orphans and those not orphaned. This demonstrates that in practical subjects they tended to perform better than the other pupils. This might be attributed to the fact that they do work in the home and there perfect the skills learnt at school. This finding supports Kolb's argument that learning integrates experience, perception, cognition and behaviour (Kolb, Rubin & McIntyre 1974:29).

The above finding also links with a factor identified by this study namely that more orphans did work for pay, causing them to be absent from school. Their reasons for working also relate to factors identified by this study, namely that orphans are disinherited and are adversely affected by a change in their accommodation, and that they lack finance in terms of money for school fees, bus fare and food.

The other factor to consider relating to poor performance as identified by the study is that there was a significant difference in the psychological statements chosen, with a higher percentage of orphans than non-orphans reporting that they felt like crying all the time and felt lonely all the time, that there were things that bothered them all the time and that they were bad all the time. The sexual abuse of both orphans and non-orphans by peers, teachers and parents added to the psychological trauma that hinders learning, According to Maslow's motivational theory of learning, no meaningful learning occurs when basic needs including safety and security are not satisfied.

In regard to knowledge of and attitude to HIV and AIDS, a higher percentage of orphans did not have adequate information on HIV and AIDS and were not satisfied with the information they had received, but a majority of both orphans and non-orphans acknowledged the importance of voluntary counselling and testing. Orphans were among the students who indulged in sex and those who were sexually abused, thus exposing themselves to the risk of contracting HIV and

AIDS. There was a difference in what the students perceived as life skills and what the teachers reported as life skills. The dissonance in conceptualising life skills could be attributed to failure to satisfy the students' lower needs of coping, helping, enlightening and empowering information, before the higher cognitive needs of providing edifying information were met.

Beekink et al (1999) were of the opinion that the negative consequences of orphanhood would be greater where children had lost both parents, because they would be disadvantaged materially and psychologically.

4.6 Summary

Findings of the study highlight the impact different school settings had on the school results of orphans as compared to non-orphans. In particular, the area of location (peri-urban, low-density suburb, or high-density suburb), impacted significantly on both average coursework marks and average examination marks in all categories of orphans and non-orphaned students. Among major problems experienced by students, lack of books differed significantly among the orphans and non-orphans; those orphaned for one year or less being the most affected. A related effect was that in the peri-urban area, students orphaned for one year or less performed poorly compared to other orphans and the non-orphaned in average examination marks.

There was a significant difference between the performance of orphans whose mothers were alive and those whose mothers were not. The relationship of identified factors indicated that orphans without mothers lacked more than orphans whose mothers were alive, as was evidenced by the significant difference in learning outcomes. The presence or absence of a father made no significant difference to the students' average examination marks.

Factors such as the student's illness, caring for an ill parent, accompanying a sick person to the doctor, performing household chores, doing work for which they were paid or given food, and lack of bus fare and school fees, impacted on the learning profile of students in terms of absenteeism. Amongst orphans and between orphans and non-orphans, those orphaned for two to three years were the most affected. Those students whose parents had been ill for four years or more had better examination averages than those orphaned for one year or less and those orphaned for two to three years. Those orphaned for four years or more had the best average school results compared to those orphaned for one year or less, those orphaned for two to three

years and the non-orphaned. It appears that as orphanhood progresses, learning outcomes improve.

One outstanding coping mechanism proffered by those who responded, whether orphans or non-orphans, was praying to God. There was a significant difference in four statements chosen from the psychological scale by the students. A higher percentage of double orphans chose the statements *'I feel like crying all the time'* and *'I feel lonely most of the time'* compared to single orphans and non-orphans. A higher percentage of single orphans chose the statements *'things bother me all the time'* and *'I am bad all the time'* compared to double orphans and non-orphans.

There was a difference in the perception of knowledge of HIV and AIDS prevention and attitude between orphans and non-orphans, with a higher percentage of orphans having inadequate information and being dissatisfied with information received compared to non-orphans. What both orphans and non-orphans perceived as life skills differed from what teachers taught as life skills. The performance of single orphans, double orphans and non-orphans did not differ significantly, but the post hoc analysis showed that double orphans performed the worst when compared to the single orphan and the non-orphaned.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AREAS FOR FUTURE RESEARCH AND LIMITATIONS

5.1 Introduction

The aim of the study was to provide scientific knowledge of the factors impacting on the learning profile of orphans as compared to non-orphans, and to identify relationships between these factors and learning outcomes. The objectives addressed by the study were to identify factors that impact on learning in general, assess the impact of those factors on the learning profile of orphaned children in particular, compare the learning outcomes of orphaned children with those not orphaned and identify relationships between identified factors and learning outcomes.

This is a quantitative study and the Evaluation-Process and Outcome design was used. Maslow's humanistic motivation theory of learning is the framework of the study. The population consists of form four students and teachers from the Harare Metropole Province in Zimbabwe. A stratified random sampling procedure was used to sample schools and the simple random procedure was used to sample both students and teachers. Students filled in a questionnaire. Teachers were observed during a teaching-learning session and then evaluated by means of an evaluative questionnaire, and then the teachers were interviewed using a structured interview schedule. Students' records, including the results of the standard 'O' Level examination that they wrote, were collected. The experimental design was used to allow comparisons among orphans and between orphans and non-orphans. Ethical principles of obtaining consent and maintaining confidentiality and privacy were followed. The quality of the study, in terms of reliability and validity was upheld in respect of the selection of research sites and participants, instrumentation, data collection and data management and analysis (using descriptive statistics, paired t-test and ANOVA).

5.2 Factors that impact on learning

5.2.1 General factors and their impact on learning

Factors that were identified from the literature review and assessed include the profile of schools and the sample group, the household head/child-headed household, the educational background and income of parents, parental health, major problems encountered in general and the learning outcomes. Findings of the study include the different impact that school settings had on the school results of orphans compared to non-orphans and in particular, the area of location of the school (peri-urban, low density suburb, or high density suburb), which impacted significantly on both average coursework marks and average examination marks in all categories of orphans and non-orphaned students. Lack of books, among major problems experienced by students, was significantly different among the orphans and non-orphans, with those orphaned for one year or less being the most affected (see item 4.3.2). A related effect was that in the peri-urban area, students orphaned for one year or less performed poorly in the average examination marks compared to other orphans and the non-orphaned (see Table 4.4).

5.2.2 Specific factors and their impact on learning

It was found that factors impacting on the learning of orphans in particular included the type of orphan concerned (single or double), the length of orphanhood, financial aspects including school fees, bus fare, food, shelter and inheritance, absenteeism and dropping out of school, morbidity and mortality, knowledge of and attitude to HIV and AIDS prevention and life skills. Similarities and differences in the impact of assessed factors on learning outcomes amongst orphans and between orphans and non-orphans were noted as comparisons were done. Relationships between identified factors and learning outcomes were observed. There was a significant difference in the performance of orphans without mothers and those whose mothers were alive. The relationship of identified factors indicated that orphans without mothers lacked more than orphans whose mothers were alive, as was evidenced by the significant difference in learning outcomes. The presence or absence of a father made no significant difference to the students' average examination marks. Where students were ill, or had to care for an ill parent or accompany a sick person to the doctor, do household

chores, do work for which they received money or food, or lacked the money for bus fare and school fees, these factors impacted differently on absenteeism amongst orphans and between orphans and non-orphans, with those students who had been orphaned for two to three years being the most badly affected. Those students whose parents had been ill for four years or more had better examination averages than those orphaned for one year or less and those orphaned for two to three years. Those students orphaned for four years or more had the best average school results compared to those orphaned for one year or less, those orphaned for two to three years and the non-orphaned. It appeared that as orphanhood progressed, learning outcomes improved. There was a significant difference in four statements chosen from the psychological scale by the students. A greater percentage of double orphans chose the statements *'I feel like crying all the time'* and *'I feel lonely most of the time'* than single orphans and non-orphans. A greater percentage of single orphans chose the statements *'things bother me all the time'* and *'I am bad all the time'* than double orphans and non-orphans. There was a difference in attitude towards HIV and AIDS and knowledge of their prevention between orphans and non-orphans, with a greater percentage of orphans having inadequate information and being dissatisfied with information received than non-orphans. What both orphans and non-orphans perceived as life skills differed from what teachers taught as life skills. The performance of single orphans, double orphans and non-orphans did not differ significantly, but the post hoc analysis showed that double orphans performed the worst in most subjects when compared to single orphans and the non-orphaned, but performed best in practical subjects.

5.3 The impact of orphanhood on learning in terms of Maslow's hierarchy

Orphanhood creates a deprived environment that contrast with the environment Maslow advocates as conducive to learning (Atkinson et al 1990:525). There is a general lack of basic needs, resulting in a scenario where orphans have to struggle to achieve learning. In such circumstances Maslow states that deficiency needs have to be satisfied first, starting with lower level needs, because the deficient need becomes a powerful stimulus in motivating behaviour. When there is a deficiency need the body's capacities are mobilized to satisfy that need first. Once any of these needs has been satisfied, if it recurs in future the individual will act to remove the deficiency. Therefore, deficiency needs at the level of physical needs, for instance lack of food and ensuing hunger, will not encourage the

assimilation of knowledge. At the level of safety and security, the deficiency needs caused by loss of parents and property, as well as poverty, create psychological insecurity and do not motivate creative and critical thinking essential for problem solving, decision making and the acquisition of life skills. At the level of love and belongingness, the deficiency needs of isolation, loneliness and neglect do not motivate feelings of interacting, communicating, participating, negotiating and experiencing life, which attributes are crucial for the development of emotional intelligence. At the level of esteem needs the deficiency needs include battling with psychosocial issues and low-self esteem, which negate the positive thinking required for empowerment and assertiveness. At the level of cognitive needs, orphans are challenged to know, understand and explore against a backdrop of unsatisfied basic needs, which Maslow states ought to be satisfied before one can grow morally and intellectually.

5.4 Conclusions

5.4.1 In the peri- urban area those orphaned for one year or less performed with a significant difference ($p < .023$) and their average examination marks were worse than those of other orphans and the non-orphaned (see Table 4.4). A factor related to this poor performance was lack of books, which was significantly different ($p < .033$) amongst the groups of students, with those orphaned for one year or less lacking more than any other category (see item 4.3.2). Another related factor in the study is that self-employed parents of those orphaned for one year or less had a lower monthly income than the parents of other orphans and the non-orphaned (see Table 4.11). Amongst the orphans, a greater percentage of those orphaned for one year or less, namely six (40%) (n 15) were absent from school because they had to accompany sick people to the clinic or doctor, compared to those orphaned for two to three years and those orphaned for four years or more (see item 4.5.3). The majority of those orphaned for one year or less and those orphaned for two to three years stated that they had not received enough HIV and AIDS information (see item 4.5.2.2). In orphanhood, the percentage differences show that a greater percentage of students orphaned for one year or less were pressurized into having sexual relations, compared to those orphaned for two to three years and those orphaned for four years or more (see item 4.5.6.6). The percentage

difference shows that orphans in early orphanhood are the most susceptible to being pressurized.

It is concluded that being orphaned for one year or less presented challenges that impacted negatively on learning.

5.4.2 Orphans without mothers lacked more than orphans whose mothers were alive, as was evidenced by the significant difference in learning outcomes of those orphaned for two to three years who had lost their mothers. Basic needs that were lacking were identified, for instance, finances, food, school fees, and bus fare. The activities of both orphans and non-orphans included caring for the sick and accompanying the sick to the doctor or clinic, while some were ill themselves. Many of these factors caused absenteeism that compromised learning. In all these circumstances a greater percentage of orphans missed school than non-orphans (see item 4.5.2.3). ANOVA revealed that there is a significant difference in average coursework marks ($p < .001$) and average examination marks ($p < .005$) (see Table 4.22b) between orphans without mothers and those with mothers. The performance of students whose mothers were alive was better in terms of averages than of those without mothers and those with both parents alive. The relationship of identified factors indicated that orphans without mothers lacked more than orphans whose mothers were alive, as was evidenced by the significant difference in learning outcomes.

The conclusion to be drawn from this is that the impact of factors on orphans without mothers influences the difference in learning outcomes.

5.4.3 Considering the demographic factors of type of orphan and length of orphanhood, the majority of orphaned students in the study had lost parents in the four years preceding the study (see item 4.3.4). After the death of parents, students encountered problems, and lack of books was significantly different ($p < .033$), with those orphaned for one year or less being the worst affected (see item 4.3.2). There was no effect on learning outcomes in terms of whether a student had lost a parent, but the period since the death of one parent made a difference (see item 4.5.1.2). Having been orphaned for two to three years was characterized by a lack, not only of basic needs but of knowledge as well. Those orphaned for two to three

years were also the most dissatisfied with the HIV and AIDS education given in schools. In the low-density suburbs, the performance in average course work marks of those orphaned for two to three years differed markedly ($p < .034$) and they were the poorest performers amongst orphans and non-orphaned children (see Table 4.5). It should be noted that most double orphans in the study had lost their parents four years before the study, but continued to suffer lack of basic needs and performed poorly. In the low-density suburbs the performance of students orphaned for four years or more was significantly different ($p < .001$) and they were the poorest performers compared to other orphans and the non-orphaned (see Table 4.6). Related factors contributing to poor performance could be, as indicated above, that a majority of double orphans had been orphaned for four years or more and thus lacked both psychological and physical support. The low-density suburbs are associated with high-income dwellers and orphans from those areas might be well supported financially or might have been deprived of some or all of their inheritance. Statistically there was not much difference in the students' means (single orphans, double orphans and non-orphans) except in Biology where double orphans were the worst performers (see item 4.5.8). The post hoc analysis showed that in most of the subjects double orphans were the worst performers but that in Agriculture, Food and Nutrition and Fashion and Fabrics they performed better than the single orphans and those not orphaned. Students who had lost one parent more than four years prior to the study had better averages than the rest of the students.

The conclusion is that different challenges arise depending on the type of orphan (single or double) and the length of orphanhood, whilst the period of two to three years of orphanhood points to issues of re-adjustment. In giving assistance, priority must be given to the double orphan

5.4.4 The study identified the effect of coping mechanisms on learning outcomes. It appeared that as orphanhood progressed students performed better. About 50% of the students cited praying to God as their preferred coping mechanism (see item 4.5.7.6). Nevertheless, students generally performed badly in Religious Studies (see Table 4.16), with the exception of those who had lost both parents and whose mothers and fathers had died four years or more before the study and those whose parents had been ill for four years, whose averages were above 50% (see Table 4.23). The second most favoured coping mechanism was telling a best friend, which is in accord with the writings of Maslow and Erickson who emphasise

the importance of peer interaction in the age group of the students in the study. In the absence of a parent, for an orphan peers appear to be the best alternative.

It is, therefore, concluded that the ways students coped influenced learning outcomes.

5.4.5 Both teachers and students in the current study found that the identified factors including the inability to pay fees, lack of food and lack of finance caused absenteeism and caused some students to drop out of school, thus impacting on the learning profile of students. Significantly different psychological statements were ‘I feel like crying all the time’ ($p < .001$), ‘I feel lonely most of the time’ ($p < .008$), ‘things bother me all the time’ ($p < .020$) and ‘I am bad all the time’ ($p < .022$). The ill health of both students and parents was also reported (see item 4.5.4). The students reported that accompanying the sick to the clinic or the doctor and caring for them contributed more to absenteeism than other activities that also interfered with learning. Assessing the performance of students according to the length of time parents had been ill, revealed that the means did not significantly differ from each other according to the duration of the parents’ illness. Those with parents who had been ill for more than four years and those whose parents had been ill for two to three years performed better than those whose parents had been ill for one year or less prior to the study (see Table 4.23).

It can be concluded that illness that precedes death, as in AIDS-related orphanhood, increases the burden on the students’ learning capacity, although the longer the time since the parent has died, the better the orphan’s ability to cope with learning challenges.

5.4.6 The HIV and AIDS/Sexual Reproductive Health and Life-skills education programme influenced students’ learning in schools. Although most students indicated that they had not had sex, some stated that they had and some gave evidence of sexual abuse. Students and teachers agreed that some students did have irregular sexual relationships with teachers and older people in the community, and also referred to the influence of culture on the spread of HIV (see item 4.5.6.8). Although HIV and AIDS education was being taught in schools, some students were not satisfied with what was being taught, and a minority of them were ignorant of basic facts about HIV and AIDS. The study also showed that more orphans than non-orphans lacked HIV and AIDS prevention education, and that those who had been

orphaned for between two to three years were the most dissatisfied (see item 4.5.6.3). Half the teachers interviewed stated that they were not properly equipped to use the participatory method when teaching life-skills. It should be noted that the performance in Biology of double orphans and of students whose mothers had died two to three years before the study was statistically different from that of other groups (see item 4.5.2.2). Knowledge of Biology is fundamental to the understanding of sexual and reproductive health issues. In orphanhood, the percentage differences show that more students orphaned for one year or less, were pressured into having sexual relations than students orphaned for two to three years or for four years or more (see item 4.5.6.6).

The study concluded that HIV and AIDS prevention education is defective and that what the teachers taught as life skills and what the student perceived as life skills was different.

5.4.7 The school setting including the location (low-density/high-density/peri-urban suburbs); whether the school was a government, private or local authority school; whether it was a day school, mixed day and boarding school or boarding school only; and whether it was a girls' only, boys' only or mixed school influenced the performance of learning outcomes. The area of location of the school impacted on the performance of orphans and non-orphans, with a significant difference among orphans and between orphans and non-orphans (see Table 4.2). In other settings the performance of non-orphans was significantly different from that of students orphaned for one year or less, for two to three years or for four years or more. Whereas there was a significant difference (ANOVA – average coursework mark ($p < .000$), in the average examination mark ($p < .000$) of non-orphans according to the type of school (local authority, government, or private) there was no significant difference in the performance of students orphaned for one year or less, for two to three years, or for four years or more according to that criterion (see item 4.2.2). When the type of school was distinguished according to gender (boys', girls' or mixed), it was seen that the performance of non-orphans was markedly different in coursework (ANOVA - average coursework mark ($p < .014$), whereas the performance of students orphaned for one year or less, for two to three years, or for four years or more was not significantly different in the average coursework marks (see item 4.2.3). There also was a significant difference (ANOVA – average coursework mark ($p < .001$) in the performance of non-orphans in coursework according to

whether the school was a mixed day and boarding school, a day school only, or a boarding school only, whereas there was no significant difference in coursework marks amongst students orphaned for one year or less, for two to three years, or for four years or more (see item 4.2.4). This finding may be attributed to some form of resilience or coping mechanism acquired by orphans because the question arises whether non-orphaned students are worse off than equally positioned orphaned students, given the background of the students as discussed in this study.

This study concludes that non-orphaned students are also not getting adequate support in the education process.

5.5 Recommendations

5.5.1 Demographic and household factors that impact on learning require national socio-economic strategies to address the situation and at best to eradicate poverty. There is a need to augment the identified strength of mothers in their excellent support for students' education. Mainstreaming gender in all sectors is on the national agenda, and this study has shown a need for continued support for widows and single parents in order to alleviate financial constraints, so that students' education is adequately supported. Fathers, especially widowers, require national counselling programmes to assist them to participate actively in their children's education.

5.5.2 The cited coping mechanisms gradually acquired by the students whose parents had been dead for four years or more prior to this study, highlight the need to address the problems they encountered in order to shorten the period of grief and suffering. The life-skills programmes at schools need to be improved. The projection of an increased total percentage of orphans due to HIV and AIDS alone of 88.8% for Zimbabwe by the year 2010 (Children on the Brink, 2002) means that there is a need to be proactive and to institute national social security in aid of the education of the future generation. The implication comes at a time when the National Plan of Action for orphans and other vulnerable children (OVC) had a goal of increasing new enrolment of OVC by at least 50%, ensuring the retention of OVC in primary and secondary schools to have been accomplished by 2005. This requires

strengthening of the National Policy on the Care and Protection of Orphans and the broadening of stakeholder involvement in the co-ordination of orphans' education. There appear to be different challenges for single and double orphans and for those orphaned for one year or less, those orphaned for two to three years and those orphaned four years or more. Planning for orphan care should therefore take cognisance of the various challenges. There is a need to encourage will writing in order to protect orphans, widows and widowers from disinheritance. The government's recognition of traditional leadership is commendable and should strengthen efforts to empower orphans or at least make traditional leaders aware of the orphans' presence and needs.

5.5.3 The presence of child-headed households was described in the literature review as representing a new coping mechanism that had arisen in response to the impact of AIDS on communities (Matshalaga & Powell 2002:185). The negative performance of double orphans justifies a selective distribution of the Basic Assistance Education Module (BEAM), targeting the double orphan category first amongst the vulnerable groups of students, because their learning outcomes are compromised. Double orphans excelled in practical subjects, perhaps by virtue of their circumstances. It has therefore become imperative for them to integrate work, experience and education. Double orphans should be encouraged to take up more practical subjects and learn about their own strengths and weaknesses as they learn from experience (Kolb et al 1974:34). The teachers in this study suggested that stakeholders should initiate programmes to teach the community life skills, which are essential for the continued development of emotional intelligence. It is also of importance to teach parenting skills to children who head households.

5.5.4 In order to alleviate the shortage of commodities, and address absenteeism and psychosocial issues of loss, communities must play an active part in supporting the less privileged. According to the students' questionnaire, one of the issues they wanted addressed was that people should love and respect one another. Maslow explained that when, amongst other needs, love was not easily obtained, it became difficult for cognitive, aesthetic and self-actualisation needs to be addressed (Atkinson et al 1990:98). Perhaps a need has arisen for Zimbabweans to reconstitute the extended family philosophy. Grandmothers have been

caring for orphans with almost no support, so perhaps the time has come to include in the extended family members who are not necessarily blood relatives (Matshalaga 2004:9). As the students suggested, love requires people to share and to respect demands for a reduction in the gap between those who have and those who are struggling with survival issues. This type of change can only come from within the hearts of the wealthy. In the meantime, as the national economy stabilizes, orphan care should be made a national priority area of concern. Stakeholders could give increased support to community home-based care programmes, thus alleviating the students' burden of caring for ill parents. Some students are also victims of the HIV and AIDS pandemic and need care in the absence of their natural parents.

- 5.5.5** There is a need for a national evaluation of the HIV and AIDS life-skills programmes in schools. Teachers require comprehensive training to make them to proficient in life-skills and HIV and AIDS education, which should also address the role of culture in prevention. The majority of students have the theoretical knowledge base, as revealed by the findings of this study, but it appears that the dissatisfaction expressed by some of them stems from their frustration at failing to apply that knowledge in their daily life. One of the findings of the study was that it was their peers, ahead of teachers and parents, who pressurized fellow students into having sexual relations.

The interviewed teachers suggested that resources (video-tapes; pamphlets and booklets) be improved and that the subject be examinable, perhaps to attract the Ministry of Education (in terms of scaling up training, providing a counselling and guidance teacher in every school and assigning adequate time for the lesson) and to strengthen the students' commitment to the acquisition of life-skills. As revealed by the students' learning outcomes in this study, there is a need for a national review of the teaching and learning of Biology, since knowledge of Biology underpins the understanding of sexual reproductive health. Young people need to understand the biological changes the body undergoes in sexual development. One can achieve optimum self-control when one understands what it is one is controlling.

The Ministry of Health and Child Welfare could collaborate with the Ministry of Education, Sports and Culture and the National AIDS Council in conducting school seminars on life-

skills and HIV and AIDS education, as the teachers suggested in this study. These seminars could also be used as a platform to reinforce the information given to students on nutritional assistance and health care assistance provided by the NAC through its District AIDS Action Committees

- 5.5.6** The cited coping mechanisms (mostly praying to God and openness to a best friend) need to be explored further, since there appears to be a positive link between coping and students' performance. There is a need to reinforce Religious Education and acquaint students with the knowledge that supports a prayerful life, which was at the top of their list of coping mechanisms. 'Religion that God our Father accepts as pure and faultless is this: to look after orphans and widows in their distress (New International Version, James 1:27). As stated in the reviewed literature, there is a need for education on death, and for bereavement counselling, grief therapy and emotional rehabilitation sessions (Tsiwo-Chigubu 2001; Kaleeba 2002:92) to help students cope with death and the abuse that appears to emanate from an environment whose security they depend on.
- 5.5.7** The Ministry of Education Sports and Culture could pay heed to the study's findings on the influence the different school settings had on the students' performance in various subjects, and come up with a policy that advocates the equitable distribution of educational resources. If there has to be competition among stakeholders in the educational sector, then the competitors must collaborate so as to create room for the growth and development of all students. The Ministry of Education could use these findings to explore the use of information, communication and technology in disseminating subject-specific information that would strengthen the related teaching-learning processes.

5.6 Limitations

- 5.6.1** The findings are confined to students undertaking the 'O' Level examinations in the Zimbabwean Education System.

5.6.2 The study did not cater for rural and mission school settings, which pose additional and different challenges.

5.6.3 The study did not follow the respondents into the community but depended only on respondents' perceptions.

5.7 Areas for Future Research

5.7.1 Replication of this study on a large scale should be undertaken in order to determine the students' learning outcomes and important relationships amidst an array of impacting factors.

5.7.2 Research is needed to explore the possibility of reconstituting the extended family so as to engage communities in supporting the education of double-orphaned students.

5.7.3 Research should be done to evaluate the National life-skills programme on HIV and AIDS education and prevention, focusing on the acquisition of life skills in the face of the epidemic and the introduction of measures that would sustain positive behaviour change among young people. This study noted a difference in what teachers taught and what students understood as life skills. Studies examining the participatory approach in more detail are needed and could perhaps explain authentic classroom practices. Although a majority of students reported that they had not had sex and many advocated for abstinence, some students had been pressurized to have sex. Life skills are crucial for negotiation, self-preservation and protection against sexual abuse.

5.7.4 Voluntary counselling and HIV testing should be explored further, with a view to implementing them in schools, since an overwhelming majority of the students in this study recognised the importance of knowing one's HIV status. If policy makers are persuaded to make voluntary counselling and HIV testing in schools a policy, a research-based provincial schools survey should be conducted to provide a baseline. Once such a policy is implemented, monitoring and evaluation tools should be put in place to help students sustain behaviour change, and also to inform the national database for further policy development

and planning purposes. The students concerned are in an age group that does not have settled sexual habits and patterns, and they are more likely to change their behaviour if prevention efforts reach them before they enter risk zones (Coombe 2002:10).

- 5.7.5** Research is required to explore the perspectives of students (especially orphans) and teachers on the teaching and learning of Biology, given that in this study the performance of orphans was found to be significantly different, and that the study does not explain their poor performance in Biology but not any other subject.
- 5.7.6** Research is required to establish the number of students who have dropped out and to explore flexible alternative modes of educating them, for example. distance education. This study revealed that many students dropped out of school and that very few were able to continue their education. Many were reported to be working, but real growth and development requires a sound educational base.
- 5.7.7** Research is required to explore the impact on educational performance of BEAM and other measures instituted to help orphans. There is a need to investigate the beneficiaries of this assistance with a view to targeting double orphans first amongst vulnerable children, given that this study has revealed that in most subjects double orphans were the worst performers. Orphans without mothers should also be considered ahead of others.
- 5.7.8** Research is required to explore double orphans' building of skills in practical subjects and its link with career development, since the findings of this study demonstrated that double orphans excelled in practical subjects.
- 5.7.9** Research is required to explore the participation of parents (in particular widowers) in the students' education because this study does not explain why, for instance, fathers did not significantly influence the students' learning outcomes, particularly in history and geography.
- 5.7.10** Research is required to explore the significance of the support given to national community home-based care programmes at household level, given the burden of caring for the sick that

students are carrying and its impact on learning outcomes. In this study, caring for the sick was found to increase absenteeism. Those students with parents who had been ill for a year or less were the worst performers, followed by those with parents who had been ill for two to three years, showing that the caring burden impacted on learning. The study shows that students who had been orphaned for two to three years' had difficulty in adapting, and further exploration is required to explain this.

5.7.11 Both qualitative and quantitative research must be done to explore the cited coping mechanisms (praying to God and telling a best friend). This study revealed a possible positive link between coping and better performance. Knowledge derived from research might build specific themes in the cited areas, which could be taught to the emerging generation of orphans.

5.8 Summary

From a national perspective, the students generally performed badly in the 2003 'O' Level Examinations, regardless of whether they were orphaned or not. The National pass rate was (19.6) for the year 2003, which was 1.7 lower than that (21.3) of 2002 (ZIMSEC Statistics: 2004). The findings of the study support the assumption that there is a difference between orphans and non-orphans in respect of the impact of the factors cited on learning outcomes. It appeared that, as orphanhood progressed, learning outcomes improved except for double orphans who continued to struggle.

The assessment of the performance of students according to orphanhood showed that statistically, in most subjects, the difference was not significant except in Biology where the double-orphaned students performed worse than the single orphans and non-orphans. The post hoc analysis showed that in most subjects, double orphans were the worst performers, but in three practical subjects, namely Agriculture, Food and Nutrition and Fashion and Fabrics they performed better than the others. Those students who had lost both parents and whose mothers and fathers had died four years or more before the study, performed better than those in early orphanhood on average.

In the peri-urban area those orphaned for one year or less performed differently ($p < .023$) and had the poorest average examination marks of orphans and non-orphans. Students in early orphanhood exhibited a need for protection from a variety of perspectives. Those students who had been orphaned for two to three years were shown to be deficient in both needs and knowledge and were the most dissatisfied with the HIV and AIDS education given in schools. In the low-density suburbs, in average course work marks, there was a significant difference ($p < .034$) in the performance of those orphaned for two to three years, and they were the poorest performers amongst orphans and non-orphaned children.

Caring for sick parents contributed to absenteeism. How long parents had been ill did not have a statistically significant effect on the performance of students but the burden lessened as the years went by, with those whose parents had been ill for four years and more performing better on average. The single orphans with maternal support performed better than those with fathers only or with both parents alive. This study also indicated that non-orphaned students required support in their educational process, especially where their performance was significantly different although there was no difference in the performance of all categories of orphans in the same environment. The fathers' presence was statistically not significant in influencing the performance of students. The school setting influenced the different impact of factors on learning outcomes, with the following yielding better subject averages: private schools; boarding schools; mixed boys' and girls' schools and high density suburbs.

However, the results of this study are not conclusive. There is a need for further investigations that would include more students and their learning profiles, would closely observe the teaching-learning sessions of the HIV and AIDS, Sexual Reproductive Health and Life skills programme and would conduct interviews with more teachers.

Table 5.1 Findings; Impact on learning; Implications in terms of Maslow's hierarchy; and Recommendations

Findings	Impact on learning	Implications in terms of Maslow's hierarchy	Recommendations
<p>1. <i>Those orphaned 1 yr or less were worst performers in the peri-urban areas (p<.023)</i></p> <p>-lacked books more than any other category</p> <p>-parents had lower monthly income than groups</p> <p>-a greater percentage were absent from school because accompanying sick people to the clinic</p> <p>-the majority in this category had not received enough HIV and AIDS information</p> <p>-a greater percentage of students were pressured into having sexual relations compared to other groups</p>	<p>The period of one year or less of orphanhood presented challenges that impacted negatively on learning</p>	<p>A manifestation of the consequences of sudden loss of basic physiological, safety and security, love and belonging, self-esteem and cognitive needs. When deficiency needs are not satisfied, it is difficult for learning to occur.</p>	<p>There is need for continued support of orphaned students in their households and schools, especially in early orphanhood as they battle with loss of parents and lack of support in managing change.</p> <p>There is need for education on death and for bereavement counselling, grief therapy and emotional rehabilitation sessions to help students cope with death and with abuse, which appears to emanate from an environment whose security they depend on</p> <p>Reinforce implementation of policies on orphan care.</p> <p>Need for further research to replicate the study on a larger scale.</p>
<p>2 <i>Relationship of identified factors indicated that orphans without mothers lacked more than orphans whose mothers were alive, and performed poorly</i></p>	<p>The performance of students in course work marks (p< .001) and average examination marks (p < .005) revealed that there is a significant difference between the performance of orphans without mothers and those whose mothers are alive.</p>	<p>If the needs of psychological comfort, lack of love and acceptance are not met, creative and critical thought processes are unlikely to take place.</p>	<p>Widowers require National Counselling programmes to encourage them to actively support their children's education</p> <p>Research is required to explore widowers' participation in the students' education because this study does not explain why fathers for instance did not significantly influence</p>

			the students' learning outcomes particularly in History and Geography
<p><i>3. Period of orphanhood</i></p> <p>- Period two to three years was characterized by lack of basic needs; they were most dissatisfied with HIV and AIDS education; in low density areas they were received the lowest average course-work marks</p> <p>- The Double orphans who lost parents 4 years before the study continued to suffer lack of basic needs. As a result they performed poorly overall but performed better in practical subjects</p> <p>- Orphans who had lost one parent 4 years before the study had better averages than the rest of the students</p>	<p>The type of orphan (single or double) and length of orphanhood presented different learning challenges</p>	<p>When basic needs are not satisfied higher level needs of learning are difficult to achieve.</p> <p>The need to belong, to have a sense of community and to experience life, as described by Maslow and supported by Kolb, explains why double orphans do well in practical subjects, albeit practical tasks are done in the absence of a parent who would normally do them</p> <p>When there is a deficiency need, the body's capacities are mobilized to satisfy that need first. If all such needs have been satisfied and recur in future, the individual will act to remove the deficiency.</p>	<p>Challenges in the period of two to three year of orphanhood point to issues requiring re-adjustment, while the double orphan requires priority in assistance.</p> <p>Research is needed to explore the possibility of reconstituting the extended family so as to engage communities in supporting the education of double-orphans.</p> <p>Research is also required to explore the building of double orphans' skills in practical subjects and linking this with career development as this study's findings demonstrated that double orphans excelled in practical subjects.</p>
<p><i>4. Coping Mechanisms</i></p> <p>Prayer and peer counselling were the most preferred coping mechanisms</p>	<p>As orphanhood progressed, students performed better. It can be concluded that the way in which students coped influenced learning outcomes.</p>	<p>Maslow stated the need for love, a sense of belonging and interaction, and was supported in this by Erickson. Both theorists espoused the importance of peer interaction in the age group of the students in the study.</p> <p>The use of faith in prayer relates to Maslow's higher level needs of connecting to something beyond the ego</p>	<p>Advocate the use of peer education and peer counselling in the acquisition of life skills.</p> <p>There is a need to reinforce Religious Education and instil in students the knowledge that supports a prayerful life</p> <p>Conduct research to explore the cited coping mechanisms (praying to God; telling a best</p>

			friend). Researched knowledge might build specific themes in the cited areas, which could be taught to the emerging generation of orphans.
<p><i>5. Factors that impacted on learning</i></p> <p>Identified factors in the current study (lack of school fees, books, bus fare, shelter, food, parental guidance and property; duration of orphanhood, psychological factors, and health status of both parents and students) impacted on the learning profile of students</p>	<p>Identified factors impacted differently on the learning of students but illness that preceded death, as in AIDS related orphanhood, increased the burden on the students' learning capacity. However, the longer since the parent had died, the better the orphan's ability to cope with learning challenges.</p>	<p>When food, safety, love and esteem needs are difficult to obtain, it becomes difficult for cognitive, aesthetic and self-actualisation needs to be addressed.</p> <p>The orphans' ability to cope with learning challenges, can be explained with reference to the higher levels in Maslow's hierarchy in which people seek self-fulfilment and realize their potential.</p>	<p>Research is required to explore the impact of BEAM and other measures instituted to help orphans improve their educational performance. There is a need to investigate the beneficiaries of this assistance with a view to targeting double orphans and orphans without mothers ahead of others.</p> <p>Explore the coping mechanisms of orphans on a larger scale with a view to benefiting other orphans who are battling with the challenges of orphanhood</p>
<p><i>6 HIV and AIDS, Sexual Reproductive Health and Life skills –Students' knowledge, attitude and skills</i></p> <p>Students admitted sexual indulgence and gave evidence of sexual abuse.</p> <p>More orphans than non-orphans had failed to receive HIV and AIDS prevention education.</p> <p>In Biology, the performance of double orphans and those students whose mothers had died two to three yrs before the study was statistically different</p>	<p>HIV and AIDS prevention education is defective</p> <p>Orphans lacked knowledge of Biology, which underpins the understanding of reproductive health.</p> <p>What the teachers taught as life-skills and what the students perceived as life skills were different.</p>	<p>Maslow attributes misconception and lack of life-skills to failure to satisfy the lower needs of providing coping, helping, enlightening and empowering information, before higher cognitive needs can be met.</p> <p>Information on HIV and AIDS is important for self-preservation and for sustaining behaviour change. According to Maslow's beliefs, it is difficult for students who are not empowered to seek edifying information.</p> <p>Maslow also posits</p>	<p>Voluntary counselling and testing for HIV should be explored further, with a view to implementing them in schools, since an overwhelming majority of students in this study recognised the importance of knowing one's HIV status as a preventative measure</p> <p>Research should be done to evaluate the National life-skills programme on HIV and AIDS education and prevention, focusing on the acquisition of life skills in the face of the epidemic in order to sustain positive</p>

<p>from that of other groups.</p> <p>Half the teachers stated that they were not properly equipped to use the participatory approach</p>		<p>preconditions for the fulfilment of basic needs, one of which is freedom from harm.</p>	<p>behaviour change among young people in the light of the teachers' lack of skills in the participatory approach.</p> <p>Research is required to explore the perspectives of students (particularly orphans) and teachers' on the teaching-learning process of Biology</p>
<p>7 The school setting to include location (low-density, high-density and peri-urban suburbs); government, private and local authority schools; day schools, mixed day and boarding schools and boarding schools only; and girls' only, boys' only and mixed schools influenced learning outcomes</p>	<p>The area of location impacted on the learning performance of orphans and non-orphans, with a significant difference in respect of both orphans and non-orphans.</p> <p>In other settings non-orphans' performance was markedly different to that of students orphaned for one year or less, two to three years and four years or more, demonstrating that non-orphaned students are also not receiving adequate support in the education process</p>	<p>Maslow advocates an environment conducive to learning, and states that if a deficiency need has been satisfied and recurs in future, the individual acts to remove the deficiency.</p> <p>The area of location that affected both orphans and non-orphans has inherent socio-economic disparities. The better performance of orphans compared to non-orphans in other settings could be attributed to some form of resilience or coping mechanism acquired by orphans as Maslow stipulated above.</p>	<p>The Ministry of Education Sport and Culture should, on the basis of the effect of the different school settings on the students' performance in various subjects, come up with a policy that advocates for the equitable distribution of educational resources.</p> <p>The Ministry of Education, Sport and Culture could also use these findings to explore the use of information, communication and technology in the dissemination of subject-specific information that would strengthen the related teaching-learning processes.</p>

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APPENDICES**APPENDIX A**

**CONSENT FORM FOR TEACHERS’
PARTICIPATION IN THE RESEARCH STUDY
TO BE CONDUCTED BY MRS P. MAKONI**

I agree to participate in this research study on ‘The Relationship of Factors that Impact on Learning in Orphanhood in Zimbabwe.’ I understand that this research is in partial fulfilment of Mrs P. Makoni’s Doctoral degree from the University of South Africa. The research process with its potential risks and benefits has been explained to me and I have agreed to do the following:

- Permit Mrs P. Makoni to observe me while I am teaching.
- Permit Mrs P. Makoni to interview me after the teaching-learning session.

I also understand that:

- My participation in this study is voluntary.
- My participation in this study involves little time commitment on my part and my employer, the Ministry of Education, Sport and Culture, has allowed that time.
- Findings from this study may lead to improved use of participatory strategies in teaching life-skills and may assist the school’s response to the learning needs of children and orphans in particular.

And finally, I understand that:

- Data collected will be kept confidential and reported without individual identification.
- I can choose not to answer any question or to discontinue my participation in the study at any time without adverse effect on my school or me.

If I have any additional questions about this study at any time, I can contact Mrs P. Makoni at the Zimbabwe Open University, Department of Medical Science.

Signature.....

Date.....

APPENDIX B

**CONSENT FORM FOR STUDENTS’
PARTICIPATION IN THE RESEARCH STUDY
TO BE CONDUCTED BY MRS P. MAKONI**

I agree to participate in this research study on ‘The Relationship of Factors that Impact on Learning in Orphanhood in Zimbabwe.’ I understand that this research is in partial fulfillment of Mrs P. Makoni’s Doctoral degree from the University of South Africa. The research process with its potential risks and benefits have been explained to me and I have agreed to do the following:

To complete a detailed questionnaire on my background and household; performance management; and HIV/AIDS prevention.

I also understand that:

- 2 My participation in this study is voluntary.
- 3 My participation in this study involves little time commitment on my part and my school has allowed that time.

Findings from this study may lead to improved use of participatory strategies in teaching life skills and may assist the school’s response to the learning needs of children and orphans in particular.

And finally, I understand that:

- 5 Data collected will be kept confidential and reported without individual identification.
- 6 I can choose not to answer any question or to discontinue my participation in the study at anytime without adverse effect on my school or me.

If I have any additional questions about this study at any time, I can contact Mrs P. Makoni at the Zimbabwe Open University, Department of Medical Science.

Signature.....

Date.....

APPENDIX C

STUDENTS' QUESTIONNAIRE

QUESTIONNAIRE CODE NUMBER:.....

Q.1 Name of School:.....

GENERAL INFORMATION

(This section is to be completed by the officials only)

Q.2 School ID number:.....

Q.3 Name of Interviewer:.....

Q.4 Interviewer number:.....

Q.5 Date of Interview:.....

Q.6 Checked by Supervisor:.....Date:.....

Signature:.....

Q.7 Post coded (Date)..... Signature:.....

Q.8 Edited (Date):.....

Signature:.....

Q.9 Electronically Captured (Date)..... Signature:.....

SECTION A: BACKGROUND AND HOUSEHOLD INFORMATION:

A.1 How old are you?

1) 14 years old or younger

2) 15 years old

3) 16 years old

4) 17 years old

5) 18 years old

6) 19 years old or older

A.2 What is your sex?

1) Male

2) Female

A.3 Is your natural mother alive?

1) Yes

2) No

3) Not sure

A.4 Is your natural father alive?

1) Yes

2) No

3) Not sure

A.5 If you lost one parent when did s/he die?

1) one year or less ago

2) two to three years ago

3) four years or more ago

A.5i If you lost both parents state when:

Mother died?

Father died?

1) one year or less ago

1) one year or less ago

2) two to three years ago

2) two to three years ago

3) four years or more ago

3) four years or more ago

A.6 Do you have sick parents?

Yes 2) No

A.6i If Yes indicate the one who is not well?

Mother 2) Father 3) Both

A.6ii For how long have the parent(s) been ill?

one year or less 2) two to three years 3) four years or more

A.7 Who heads your family?

Both parents are alive 2) Child-headed
 Grandparent 4) Male-headed (surviving parent)
 5) Female-headed (surviving parent) 6) Related Foster parent
 7) Unrelated Foster parent 8) Step-parent

A.8 – A-15 Complete the following regarding the household head in A.7 above

Gender

1) Male 2) Female

A.9 Age

1) Male 2) Female

A.10

Marital Status

1) Married 2) Single
 3) Widowed 4) Separated
 5) Divorced 6) Deserted
 7) Other: Specify.....

A.11

Educational Background

Grade 7 and below
 Form 1 to Form 4
 Form 5 to Form 6
 Diploma level
 Degree level
 Other: Specify.....

A.12 Sources of income:

1) Formal employment 2) Informal employment
 3) Self employment 4) Pension/remittances
 5) Farming 6) Income generating Project
 7) Vending or selling 7) Relatives
 8) Other: specify.....

A.13 Monthly Income

1) \$15 000.00 and below 2) \$16 001.00 - \$34 000.00
 3) \$35 000.00 - \$54 000.00 4) \$55 001.00 - \$74 000.00
 5) \$75 000.00 and above

A.14 Health Status

- | | |
|--------------------------|----------------------|
| 1) Healthy | 2) Sickly but mobile |
| 3) Confined to homestead | 4) Bedridden |
| 5) Aged or elderly | |

A.15 If child is heading household, what is the gender?

- 1) Boy
- 2) Girl

A.15i Is the child in School?

- 1) Yes
- 2) No

A.15ii If answer is Yes: at what level?

- | | |
|------------------|------------------------|
| 1) Primary grade | 2) Secondary Form |
| 2) Tertiary | 4) Other: specify..... |

A.15iii If not in school what are the reasons?

- | | |
|-------------------------------------|------------------------------------|
| 1) Financial difficulties | 2) Ill health |
| 3) Disabled | 4) Assisting with household labour |
| 5) Head ago the household | 6) Completed O/A levels |
| 7) Just decided not to go to school | 8) Other: specify..... |

A.16 With whom do you live during the school term?

(Mark all who live in your household)

- | | |
|---|---------------------|
| 1) natural mother | 2) natural father |
| 3) grandmother | 4) grandfather |
| 5) aunt/uncle | 6) brothers/sisters |
| 7) in school boarding facility with other students of both sexes | |
| 8) in school boarding facility with other students of the same sex as yourself only | |
| 9) other. specify..... | |

A.16i How many children/young people under the age of 18 live in this household during the school term?.....

A.17 With whom do you live during the holidays/ outside of school terms?

(Mark all that live in your household)

- | | |
|---|---------------------|
| 1) natural mother | 2) natural father |
| 3) grandmother | 4) grandfather |
| 5) aunt/uncle | 6) brothers/sisters |
| 7) in school boarding facility with other students of both sexes | |
| 8) in school boarding facility with other students of the same sex as yourself only | |
| 9) other specify..... | |

A.17i How many children/young people under the age of 18 live in this household during the holidays?.....

A.18 What major problem did you face during/after illness/death of parent(s)?.....

.....

A.19 Have you experienced any change in accommodation since the death of parent(s)?

- 1) Yes 2) No

A.19i What changes have you experienced in terms of food/shelter and source of lighting?

- 1) Food.....
 2) Shelter.....
 3) Source of Lighting.....

A.19ii Was your inheritance fairly distributed after the death of parent(s)?

- 1) Yes 2) No 3) Don't know

A.19iii If No, was any property grabbed from you?

- 1) Yes 2) No 3) Don't know

A.20 How many in the family were attending school before illness/death?.....

A.20i How many are no longer attending school?.....

A.20ii Why are they no longer attending school?

- 1) Financial difficulties 2) Ill health
 3) Disabled 4) Assisting with household labour
 5) Heading the household 6) Completed O/A levels
 7) Just decided not to go to school 8) Other: specify.....

A.20iii What are they currently doing?.....

SECTION B: PERFORMANCE MANAGEMENT

B.1 How do you travel to school?

- 1) Board a bus (commuter omnibus) 2) Driven to school (car)
 3) Walk 4) Other: specify.....

B.1i If you go by Bus/Commuter omnibus, do you always have bus fare?

- 1) Yes 2) No

B.1ii If No, how many days on the average do you fail to go to school per term?

- 1) 0-5 days 2) 6-10 days 3) 11-15 days 4) 16 days and above
 2) Other specify.....

B.1iii If you walk, how many kilometers do you cover when going to school?

- 1) 0 to 1km 2) two to three km 3) 4km and above 4) Other: specify.....

B.2 How best can you describe your health:

- 1) Very healthy 2) Healthy 3) Fairly healthy 4) Sickly
 2) Other: specify.....

B.2i If you have been unhealthy, for how long have you not felt well?

- 1) one year or less 2) two to three years 3) four years or more

B.2ii How many days on the average do you fail to go to school per term because of ill health?

- 1) 0-5 days 2) 6-10 days 3) 11-15 days 4) 16 days and above
5) Other: specify.....

B.3 In which of the following extra-curricular activities do you participate?

- 1) Soccer 2) Netball 3) Basket ball 4) Volley ball 5) School choir
3) Athletics 7) Girl Guides 8) Scouts 9) Other specify.....

B.4 What are the major problems that make it difficult to stay in school or perform well?

Reason	Rank				
	(Rank of 1 is indicative of most common reason)				
Inability to pay school fees	1	2	3	4	5
Lack of books	1	2	3	4	5
Lack of uniforms	1	2	3	4	5
Lack of bus-fare	1	2	3	4	5
Repeated academic failure	1	2	3	4	5
Breakup of home	1	2	3	4	5

B.5 During the past term were you involved in any of the following activities that caused you to be absent from school for a day or part of a day? Circle Yes if you were involved in the activity and Yes if it caused you to be absent or No if it did not.

No	Item	Did this Activity		Absent from school	
		Yes	No	Yes	No
1	Work for which you were given money/food	Yes	No	Yes	No
2	Looking after younger children	Yes	No	Yes	No
3	Feeding, bathing or helping a sick person	Yes	No	Yes	No
4	Household chores- (cleaning the house/clothes)	Yes	No	Yes	No
5	Accompanying sick a person to the clinic/doctor	Yes	No	Yes	No

B.6 Do you know of any pupils in your class who in the last 2 school years have dropped out of school because of death in their family?

- 1) Yes 2) No

B.6i If Yes how many?.....

B.6ii What do you think are the 3 main problems that stop these or other children from continuing to attend school?

- 1).....
- 2).....
- 3).....

B.7 Do you think that girls in your class are more likely than boys to drop out or be kept at home when they have lost a parent or have a sick relative?

- 1) Yes 2) No 3) Don't Know

B.8 During the past year did you or other children in your household ever go hungry?

- 1) Yes 2) No 3) Don't know

B.8i If Yes give reason:

- 1) Not enough food 2) No one to cook 3) Other: specify.....

B.8ii How many meals do you have a day?

- 1) 1 meal 2) 2 meals 3) 3 meals 4) Other:specify.....

B.9 In your school do orphans and other vulnerable children receive help in paying school fees or are they given food packages?

- 1) Yes 2) No 3) Don't know

B.10 For every statement choose and tick one of the three alternatives

No, Sometimes and Yes that best describes you. Make sure that for each statement you provide an answer.

Scale:

No	Item	No	Sometimes	Yes
1	I am sad all the time.			
2	Nothing will ever work out for me.			
3	I do everything wrong.			
4	I am bad all the time.			
5	I am sure that terrible things will happen to me.			
6	I hate myself.			
7	All bad things are my fault.			
8	Nothing is fun at all.			
9	I feel like crying every day.			
10	Things bother me all the time.			
11	I do not want to be with people at all.			
12	I cannot make up my mind about things.			
13	I look ugly.			
14	I have to push myself all the time to do my school work.			
15	I have trouble sleeping at night.			
16	I am tired all the time.			
17	Most days I do not feel like eating.			
18	I worry about aches and pains all the time.			
19	I feel lonely all the time.			
20	I never have fun at school.			
21	I do not have many friends			
22	I do very badly in subjects I used to be good in.			
23	I can never be as good as others.			
24	I never do what I am told.			
25	I get into fights all the time.			

B.11 During the past two weeks, on how many days did you come to a class only to find the teacher was absent and there was no teacher for that lesson?

- 1) 0 days 2) 1 day 3) two to three days 4) 4-5 days 5) 5 or more days

B.12 Was the absence due to:

- 1) Illness 2) Funeral attendance 3) Do not know
4) Other: specify.....

B.13 At your school, how many teachers have died of HIV/AIDS in the last 2 years?

- 1)0 2) 1 3) 2 4) 3 5) 4 and above

SECTION C: HIV/AIDS PREVENTION

C.1 Are you taught about HIV/AIDS at school?

- 1) Yes 2) No 3) Not sure

C.2 Where else are you taught about HIV/AIDS?

- 1) At home 2) By colleagues 3) Through the radio/TV/Newspapers
4) Messages on posters 5) Others: specify.....

C.3 Is the message you receive on the prevention of HIV infection the same?

- 1) Yes 2) No 3) Not sure 4) Other: specify.....

C.4 Do you feel you get enough information about HIV/AIDS at school?

- 1) Yes 2) No 3) Not sure 4) Other: specify.....

C.5 Do you know any children in the school who have died after a long illness or were sick with TB or HIV/AIDS?

- 1) Yes 2) No 3) Don't know

C.5i If Yes how many?.....

C.6 Do you think that voluntary counselling and HIV testing is important?

- 1) Yes 2) No 3) Not sure

C.7 Are condoms easily available at this school to those who want to use them?

- 1) Yes 2) No 3) Not sure 4) Other specify.....

C.8 Can one be cured of HIV/AIDS?

- 1) Yes 2) No 3) Not sure

C.9 Give one route by which HIV infection is most commonly spread?

- 1) Sexual intercourse 2) Blood transfusion
3) Mother-to-child transmission

C.10 Have you ever been forced or pressurized to have sexual relations?

- 1) Yes 2) No

C.11 If Yes by whom?

- 1) Teacher 2) Headmaster 3) Parent 4) Relative 5) Fellow student
6) Stranger 7) Other: specify.....

C.12 The last time you had sexual intercourse did you or your partner use a condom?

- 1) I have never had sexual intercourse 2) Yes 3) No
2) Not sure

C.13 How common are sexual relationships between teachers and students in your school?

- 1) Never happen 2) Happen seldom/once in a while
3)Frequent 4)Very frequent 5)Do not know

C.14 How common are sexual relationships between students in your school and older men and women in the community?

- 1) Never happen 2) Happen seldom/once in a while
3)Frequent 4)Very frequent 5)Do not know

C.15 Do you feel that you have enough information to protect yourself from infection and feel confident about dealing with HIV/AIDS issues such as illness or deaths?

- 1) Yes 3) No 4) Not sure

C.15i What life skills have you acquired through the Sexual/Reproductive Health sessions? Give three examples:

- 1.....
2.....
3.....

C.16 Does culture affects the use of acquired life-skills?

- 1) Yes 2) No 3) Don't know

C.16i If yes give reason for your answer.....

C.16ii Suggest 2 ways that can help stop those cultural practices that hinder the use of life skills?

- 1.....
2.....

C.16 How satisfied are you with the HIV/AIDS education you receive at this school?

- 1) Totally satisfied 2) Dissatisfied
3) Satisfied 4) Very satisfied

C.17 When you encounter problems, who do you confide in?

- 1) Teacher
2) Parents
3) Peer - same sex
4) Peer – opposite sex
5) Church leader
6) Other specify.....

C.18 What helps you endure difficult circumstances?

.....
.....
.....

C.18 What is the highest educational level you would wish to have passed by the time you

leave school?.....

C.19 Any other comment you would like us to take note of?

.....
.....
.....
.....
.....

THANK YOU FOR YOUR PARTICIPATION



APPENDIX D

GUIDANCE/COUNSELING TEACHER'S QUESTIONNAIRE

Direct Observation of teaching learning session

General information

- Q1. Name of school..... Form.....
- Q2. Name of interview
- Q3. Interviewer's Number
- Q4. Date of Interview
- Q5. Checked by Supervisor (Date) Signature
- Q6. Post Coded (Date) Signature
- Q7. Edited (Date) Signature
- Q8. Electronically Captured (Date) Signature
- Q9(a) Respondent's Age
- | | | |
|------|--------------------------|----------|
| < 30 | <input type="checkbox"/> | 31 – 40 |
| | <input type="checkbox"/> | 41 – 50 |
| | <input type="checkbox"/> | 51 – 60 |
| | <input type="checkbox"/> | Above 60 |
- Q9 (b) Sex of Respondent Male Female

Teaching – Learning interactions

Please tick the appropriate column for your point of agreement about the following statements relating to the teaching activities of the guidance / counselling teacher.

Statements	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. Teacher was fully prepared to teach the lesson.					
2. Teacher made the objectives of the lesson clear at the beginning.					
3. Audio-visual materials were made relevant and appropriate to the topic covered.					
4. Voice, diction and language used kept students alert and interested in the topic.					
5. Mannerisms used to emphasise the information being discussed.					
6. Lesson was well-linked to previous lesson and related knowledge.					
7. Content of lesson was clear and accurate.					
8. Content of lesson was relevant to objectives.					
9. Teaching method was appropriate in communicating information. (example of participatory approach)					
10. Class participation was allowed at teaching presentation.					

11. Teacher was flexible and allowed students to ask questions.					
12. Control of class behaviour was done so as to achieve objectives of lesson.					
13. Summary of lesson done and provided a total picture of what was covered.					
14. Assignment given was relevant to topic of lesson.					
15. Reading references given were available.					
16. Students given time to experience the behaviour change and encouraged to act out knowledge gained.					

Interview Schedule

D. 1 Is the class on Sexual and Reproductive Health compulsory at this school?

1. Yes 2. No

D. 2 What is the attendance rate?

1. 100% 2. 50% and above 3. 50% and above 4. Other: specify.....

D. 2i What is the reason for non-attendance:

Reason	Rank (Rank 1 indicative of most common reason)				
	1	2	3	4	5
Inability to pay fees	1	2	3	4	5
To earn money	1	2	3	4	5
Lack of uniform	1	2	3	4	5
To work at home (household choices)	1	2	3	4	5
Pregnancy	1	2	3	4	5
Repeated academic failure	1	2	3	4	5
Breakup of home	1	2	3	4	5

D. 3 How do you rate the class performance in the acquisition of knowledge/skills on sexual and reproductive health issues?

1. Excellent 2. Very Good 3. Good 4. Average
5. Fair 6. Other Specify.....

D. 4 Do you have orphans in the class?

1. Yes 2. No

D. 4i If yes how do you rate the participating nature of orphans?

1. Excellent 2. Very Good 3. Good 4. Average
5. Fair 6. Other Specify.....

D4ii Are you aware of students in your school who live in child-headed households?

1. Yes 2. No 3. Don't know

D.4iii Are you aware of orphans who are helped by the Beam fund or the District Administrative Committees (NAC Structures)?

1. Yes 2. No 3. Don't Know

D.4iv If Yes, about how many Form four students are beneficiaries of this funding?

1. 0 2. 1-5 3. 6-10 4. 11-15 5. 16-20 6. 21 and above

D. 5 State the 3 main examples of life skills you teach:

1.
2.
3.

D. 6 Give 3 main strategies you use in the participatory approach?

1.
2.
3.

D. 7 What are the main barriers you encounter in the delivery of quality education?

Type of barrier	Rank (e.g. rank of 1 indicates a serious obstacle)				
1) Poverty	1	2	3	4	5
2) Breakdown of family or traditional values	1	2	3	4	5
3) Political unrest	1	2	3	4	5
4) AIDS death/illness	1	2	3	4	5
5) Lack of resources e.g. lack of infrastructure	1	2	3	4	5
6) Other (specify) _____	1	2	3	4	5
7) Other (specify) _____	1	2	3	4	5
8) Other (specify) _____	1	2	3	4	5

D. 8 What are some of the reasons for students dropping out of school?

Reason	Rank (Rank of 1 is indicative of most common reason)				
Lack of bus fare	1	2	3	4	5
Inability to pay fees	1	2	3	4	5
To earn money	1	2	3	4	5
Lack of Uniforms etc;	1	2	3	4	5
To work at home/household chores	1	2	3	4	5
Pregnancy	1	2	3	4	5
Repeated academic failure	1	2	3	4	5
Breakup of home	1	2	3	4	5
Other (specify):.....	1	2	3	4	5

D. 9 What proportion of the children who dropped out this year are girls?

1. 0 to less than 25%

2. 26 to less than 50%

3. 51 to less than 75%

4. More than 75%

D. 10 Are orphans stigmatised or discriminated against in the school?

1. Yes

2. No

3. Don't know

D.10i Give reasons for your answer

.....

D. 11 What particular problems are associated with orphans?

Problem	Rank (Rank 1 indicative of most common reason)				
	1	2	3	4	5
Depression / sadness	1	2	3	4	5
Absent- mindedness/reduced interest	1	2	3	4	5
Absenteeism	1	2	3	4	5
Lack of food	1	2	3	4	5
Poor appearance-lack of uniforms	1	2	3	4	5
Shunned	1	2	3	4	5
Staff not confident to deal with them	1	2	3	4	5
Ill health	1	2	3	4	5
Other: specify.....	1	2	3	4	5

D.12 How many students sought your counselling services last term?

1. 0 2. 1-5 3. 6-10 4. 11-15 5. 16 and above

D.12i Indicate the three most frequent problem areas the students mentioned?

1.
2.
3.

D. 13 Are there cases of sexual relationships between teachers and pupils in your school?

1. Yes 2. No 3. Don't know

D.13i If yes, how common are such relationships?

1. Very infrequent 2. Infrequent 3. Fairly frequent 4. frequent

D.14 How common are the following types of sexual relationships in your school?

Relationship	Never Occurs	Very Frequent	Fairly frequent	Frequent	Don't Know
Female & male pupils					
Female pupils & male teachers					
Female pupils & older men outside the school					
Male pupils & female teachers					
Other – specify					

D.14i Has the school taken any measures to stop these activities?

1. Yes 2. No 3. Don't Know

D. 14ii Give reason for your answer.....

.....

D.14iii Does culture influence the spread of HIV/AIDS among young people?

1. Yes 2. No 3. Don't know

D.14iv If Yes, explain how this happens.....

.....

D.14v Suggest two ways of curbing those cultural practices that fuel the spread of HIV

- 1.....
 2.....

D.15 Apart from the Reproductive health class you teach, are there any HIV/AIDS prevention activities-at this school?

1. Yes 2. No 3. Don't know

D.15i If Yes what are these activities and what percentage of Form 4 students attended?

No	ACTIVITIES	% Form 4s who Attended
1	Manning in-school youth-friendly corners with Pamphlets or booklets	
2	Voluntary HIV/AIDS Counselling	
3	Awareness posters	
4	Event days eg AIDS DAYS	
5	AIDS theatre/plays/films/videos	

D.16 Has the school or the Ministry of Education provided any HIV/AIDS-prevention training or education for staff at this school?

1. Yes 2. No 3 Don't know

D.16i If yes, approximately what percentage of current staff participated in one or more activities?.....

1. Excellent 2. Very good 3. Good 4. Average 5. Poor

D.16ii What is the level of staff knowledge and ability to protect themselves from HIV and act as role models for pupils?

D.16iii Are condoms regularly available to staff at this school or at a point close by?

- 1 Yes 2 No 3 Don't know

D.17 Do you know of any employees at this school who are infected with HIV or ill with AIDS?

1 Yes 2 No 3 Don't know

D. 18 If a teacher is frequently absent is there a clear procedure to guide management of that individual to limit the disruption caused to students' education?

1 Yes 2 No 3 Don't know

D.18i If yes, how well does this work in practice?.....
.....
.....

D.19 How many teachers have died in this school in the past 2 years?.....

D.20 Are teachers properly equipped to use the participatory method in teaching life skills in the face of HIV/AIDS?

1. Yes 2. No

D.20 Give reasons for your answer.....
.....
.....

D. 21 Does your school collaborate closely with the School Development Committee/Association, Harare Stakeholders and the Community in the fight Against HIV/AIDS?

1 Yes 2 No 3 Don't know

D.20 Give reasons for your answer.....
.....
.....

D.21 Are there any other issues you would like to raise in connection with life-skills education?.....
.....
.....

THANK YOU FOR PARTICIPATING



APPENDIX F

Student Learning Profile

From the Zimbabwe School Examination Council Schedule Report: (May, 2004)

School:.....

Form:.....

Questionnaire Code Number:..... Single orphan/Double orphan/not orphaned (√ appropriately)

SUBJECTS	“O” Level Exams			
Where there is > than 1 tick and record 1 appropriate:	<4 9	50 >	60 >	75>
1 History				
2 Geography				
3 Shona				
4 English Language				
5 Mathematics				
6 Integrated Science/Physics/Chemistry/Biology				
7 Food & Nutrition/Fashion & Fabrics/Woodwork				
8 Computer Studies/Metal Work/Wood Work				
9 Agriculture				
10 Commerce/Accounts				
11 English Literature				
12 Other Specify.....				
13 Total Number of Subjects Passed				
14 Passes “O” Level OR Fails			OR	

Questionnaire Code Number:..... Single orphan/Double orphan/not orphaned (√ appropriately)

SUBJECTS	“O” Level Exams			
Where there is > than 1 tick and record 1 appropriate:	<49	50>	60>	75>
1 History				
2 Geography				
3 Shona				
4 English Language				
5 Mathematics				
6 Integrated Science/Physics/Chemistry/Biology				
7 Food & Nutrition/Fashion & Fabrics/Woodwork				
8 Computer Studies/Metal Work/Wood Work				
9 Agriculture				
10 Commerce/Accounts				
11 English Literature				
12 Other Specify.....				
13 Total Number of Subjects Passed				
14 Passes “O” Level OR Fails			OR	

Ref: C/426/3

*all communications should be addressed to
"The Secretary for Education Sport and Culture"
Telephone: 734051/59 and 734071
Telegraphic address : "EDUCATION"
Fax: 794505*



ZIMBABWE

Ministry of Education Sport and Culture
P.O Box CY 121
Causeway
Zimbabwe

17 February 2003.

Mrs. P Makoni
4 Mansfield Road
Marlborough
Harare.

**RE: PERMISSION TO CARRY OUT RESEARCH ON THE RELATIONSHIP
OF FACTORS THAT IMPACT ON LEARNING IN ORPHANHOOD IN
ZIMBABWE.**

With reference to your application to carry out research on the above mentioned topic in the Ministry of Education's institutions, permission is hereby granted. You are, however, required to liaise with the Provincial Education Director Harare for clearance before carrying out your research.

You are also required to supply the Ministry of Education, Sport and Culture with a copy of your research that may contain information instrumental to the development of Education in Zimbabwe.

L.P. Muranzi
For: **SECRETARY FOR EDUCATION, SPORT AND CULTURE**

MINISTRY OF EDUCATION,
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SCHOOLS DIVISION
17 FEB 2003
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Authority granted

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ANNEXURE B

A Statistical Report on the Observation and Interview Schedules of Guidance and Counselling Teachers

Introduction

Observations of two-hour teaching-learning sessions on life skills and HIV/AIDS education were conducted at the 18 sampled schools. After the lessons, an in-depth interview was conducted with guidance and counselling teachers. The purpose of the interviews was to review the sessions and find out the teachers' perspectives on the factors that impact on the learning of both orphans and non-orphans.

Demographic details

There were four (22.2%) males and 14 (77.8%) females. 13 (72.2%) were aged between 31 and 40 years. Two (11.1%) of the teachers were not more than 30 years of age, another two (11.1%) were aged between 41 and 50 years, whilst one (5.6%) was aged between 51 and 60 years. The total number of teachers interviewed was 18, which is 100 percent (n-18)(100).

Teaching-Learning Interactions

Structured evaluative questionnaires were used and the lessons were rated as indicated in Table 1.1 below:

Table 1.1 Teaching-Learning Interactions

Interaction	Percentage
Content of lesson was clear and accurate	100%
Content of lesson was relevant to objectives	100%
Teachers made the objectives of the lesson clear at the beginning	94.4%
Voice, diction, and language used kept students alert and interested in the topic	94.4%
Class participation was allowed at teaching presentation	94.4%
Teacher was fully prepared to teach the lesson	88.9%
Mannerism used to emphasize the information under discussion	88.9%
Teaching method was appropriate in communicating information (example of participatory approach)	88.9%
Teacher was flexible and allowed students to present their questions	88.9%
Control of class behaviours was done so as to achieve lesson objectives	83.3%
Summary of lesson done that provided a total picture of what was covered	83.3%
Students given time to experience the behaviour change and encouraged to act out knowledge gained	61.1%
Audio-visual materials were made relevant and appropriate to the topic covered	55.6%
Given assignment was relevant to topic of lesson	33.3%
Given reading references were available	11.1%

As depicted in the above table, the lessons were highly rated, with a just above average rating of the time students were given to experience the change of behaviour and on the use of audio-visual materials. Below average rating was given to assignments and reading references. Very few teachers, namely six (33.3%) agreed that the assignments were appropriate, and similarly only two (11.1%) agreed that the reading material referred to was readily available.

Interview schedule

16 (88.9%) teachers agreed that the class on sexual and reproductive health was compulsory at the school. 12 (70.6%) teachers said the attendance rate was 100% whilst five (29.4%) teachers agreed that the attendance rate was between 50% and 100%.

The teachers gave the following reasons for non-attendance, with the first reason being the more common:

Table 1.2 Reasons for non-attendance

Reason	1	2	3	4	5
Inability to pay fees	25%	25%	25%	25%	25%
Earning money	-	43%	14.3%	28.6%	42.9%
Lack of uniform	-	-	14.3%	14.3%	71.4%
Work at home (household chores)	-	-	14.3%	28.6%	57.1%
Pregnancy	-	-	-	-	-
Repeated academic failure	-	-	-	28.6%	71.4%
Break-up of home	-	-	28.6%	42.9%	28.6%
	-	14.3%	42.6%	28.6%	14.3%

It was observed that most teachers tended to associate absenteeism with inability to pay fees or with the students' working for money and the break-up of homes.

All the teachers acknowledged that the acquisition of knowledge and skills on sexual and reproductive health issues by the class was at least good. Four (23.5%) rated it as excellent, nine (52.9%) as very good and another four (23.5%) as good.

All the teachers said that they had orphans in their classes. Seven (38.9%) teachers rated the participation nature of orphans as good, and 11(61.1%) rated them as between average and fair.

14 (77.8%) teachers said that they were aware of students who lived in child-headed households. The same percentage also acknowledged that they knew of students who were helped by BEAM. Nine (42.8%) teachers said that between six and 15 students were being helped with five (35.7%) saying that more than 20 students were.

The teachers were asked to indicate what the school was doing to help orphans. The following activities were mentioned (the most prioritised are mentioned first)

- Fund raising activities organised by AIDS awareness clubs (44.4%)
- Nothing (27.8%)
- Individual teachers assisting with food packages (11.1%)
- AIDS club visits community (5.6%)
- Interaction with the orphans (5.6%)
- Payment of some orphans' fees (5.6%)

It will be noted that a sizeable number of schools were doing nothing to assist orphans.

The teachers went on to mention the three main examples of life skills they taught. The five top-most skills in order of choice were:

- Self reliance
- Self-esteem
- Communication and openness
- Assertiveness
- Resisting peer pressure.

Teachers were asked to indicate the main strategies they used in the participatory approach. The following strategies were mentioned and are set out in order of preference:

- Group work 77.8%
- Role playing 61.1%
- Discussion 33.3%
- Questions and answers 27.8%
- Drama 27.8%

It will be noted that most teachers used group work and role-play in the participatory approach.

The teachers then ranked the obstacles they encountered in the delivery of quality education as shown in the table below.

Table 1.3 Obstacles Encountered in the delivery of Quality Education

Obstacle	Rank
Lack of resources	1
Poverty	2
Breakdown of family or traditional values	3
AIDS deaths/illnesses	4
Political unrest	5

This implied that a lack of resources such as infrastructure and poverty were the main obstacles to good quality education.

The teachers were asked to indicate the main reasons for students' dropping out of school. In order of priority, the most common reasons were:

- Break-up of home
- Earning of money
- Repeated academic failure
- Inability to pay fees
- Lack of bus fare
- Work at home/household chores

As will be noted, when homes disintegrate and poverty affects children, this normally result in students dropping out of school.

12 (75%) teachers agreed that 0 – 25% of girls dropped out of school, whilst two (11.1%) indicated that it was between 26% to 50% and another two (11.1%) indicated that it was above 50%.

One (5.6%) of the counselling teachers said that orphans were stigmatised or discriminated against in school whilst another one (5.6%) did not know whether they were or not. The one who said that they were stigmatised attributed this to the fact that some orphans are shabby and hence laughed at.

16 (88.9%) said that there was no stigmatisation, and attributed this to the following factors.

- orphans and non-orphans got on well
- Counselling and awareness clubs
- No reported cases of stigmatisation
- They hardly noticed any differences among the students.

The following problems were given as the ones usually associated with orphans, in order of the most common:

- Depression/sadness
- Absent-mindedness/reduced interest
- Absenteeism
- Lack of food
- Poor appearance– lack of uniforms.

From the above, one can glean that orphans seem preoccupied and are often sad or depressed.

The teachers were asked to indicate the number of students who sought counselling services during the previous term. The information is given below.

Table 1.4 Number of students seeking counselling services

No. of students	Percentage
1 – 5 students	44.4%
6 – 10 students	33.3%
11 – 15 students	5.6%
16 – 20 students	16.7%

One may easily conclude that few students sought counselling services from teachers, since 14(77.7%) of the teachers indicated that they had counselled not more than 10 students per term. This was in accord with what the students said, namely that normally they approached their parents or peers of the same sex if they needed advice.

The following problems were presented as the ones the students mentioned most frequently during counselling:

- Child abuse at home
- Lack of resources
- Mischief
- Theft

Five (27.8%) teachers indicated that there were sexual relationships between teachers and pupils, nine (50%) disagreed, whilst four (22.2%) did not know whether there were or not. Of those who knew, three (60%) acknowledged that such relationships were not frequent, one (20%) said that they were and one (20%) that they were fairly frequent.

The teachers were asked how common sexual relationships were in the schools. The following types of relationships were indicated as the most common, starting with the most popular:

- Female pupils and older men outside the school
- Female and male pupils
- Female pupils and male teachers.

They also indicated that there were hardly ever relationships between male pupils and female teachers.

15 (83.3%) teachers indicated that the schools had taken measures to stop these relationships. The measures that had been taken were:

- Counselling the individual students
- Educating them on self-awareness
- Dialogue with parents
- Dispelling rumours, investigating and counselling
- Referring cases to the police.

All guidance and counselling teachers agreed that culture influenced the spread of HIV and AIDS among young people. They explained that it was mainly inheritance and polygamy practices that contributed to this.

The following were suggested as major ways of curbing those cultural practices that fuel the spread of HIV: awareness campaigns and educating parents on acceptable cultural practices.

17 (94.4%) teachers agreed that HIV and AIDS prevention activities were carried out at the school. The teachers then indicated the activities and the rate of attendance as follows:

Table 1.5 Attendance rate at Prevention activities

Activity	Attendance Rate		
	Below 50%	50% - 70%	Above 70%
Manning in school friendly corners with Pamphlets or booklets	50%	25%	25%
Voluntary HIV/AIDS counselling	50%	31.3%	18.8%
Awareness posters	29.4%	17.6%	52.9%
Event days e.g. AIDS days	20%	53.3%	26.7%
AIDS theatre/plays/films/videos	14.3%	42.9%	42.9%

It may be observed that there was high attendance when awareness posters were displayed and at AIDS theatre, plays, films or videos and at event days, e.g. AIDS days.

16 (88.9%) teachers said the Ministry of Education provided staff with training or education in the prevention of HIV and AIDS. One (5.6%) did not know whether it did and the other one (5.6%) indicated that training was not given.

Those who said they were given such education indicated the percentage of current staff who participated in one or more activities. The following participation rates were given:

Table 1.6 Participation rates of teachers reported to have undergone training or education on prevention of HIV and AIDS

Participation rate	Percentage of occurrence
Below 20%	56.3%
20% - 40%	25.0%
40% - 50%	0.0%
50% - 70%	12.5%
Above 70%	6.3%

This implies that at the majority of the schools less than 20% of the teachers were trained.

13 (72.2%) teachers indicated that staff had at least a good knowledge of HIV and AIDS, so that they could act as role models for the pupils. Four (22.2%) indicated that the staff's knowledge was average, whilst one (5.6%) indicated that it was fair.

Two (11.1%) teachers indicated that condoms were regularly available to staff.

Eight (44.4%) teachers acknowledged that they knew of employees infected with HIV or suffering from AIDS at their schools.

15 (83.3%) teachers indicated that there was a clear procedure to guide management on the absenteeism of employees. They stated that the head of department made arrangements for substitutes or for teachers to share the extra workload.

The teachers were then asked to indicate the number of fellow teachers at their school who had died during the past two years. The following data was obtained.

Table 1.7 Number of teachers who had passed away during the past two years

Number	Percentage
1	21.4%
2	28.6%
3	21.4%
4	14.3%
5	14.3%

It may be observed that half of the teachers indicated that at least three teachers had passed away.

There was a mixed reaction to the question whether teachers were properly equipped to use the participatory method in teaching life skills in the face of HIV and AIDS. Half said they were not, whilst the other half said they were. Those who said they were fairly well equipped gave the following reasons:

- Staff are briefed on HIV and AIDS awareness in staff meetings
- Teachers use experiential knowledge
- Teachers are educated to acquire the relevant skills
- HIV and AIDS are taught by specialist teachers
- Books and pamphlets are provided.

Those who said they were not equipped gave the following reasons

- Inadequate training
- Inadequate materials and time frames
- Teachers are uncomfortable since they lack skills
- Method did not take root.

14 (77.8%) teachers agreed that schools collaborated closely with the School Development Association (SDA) and other stakeholders including the community in fighting against HIV/AIDS. They explained that they attended workshops organised by NAC, worked closely with SDA and the District AIDS Action Committee, attended workshops by senior teachers, and invited resource persons to form organisations.

Lastly the teachers indicated that they would like the following issues to be addressed in respect of life-skills education.

- Conducting school-level seminars for all children
- Making life-skills training compulsory
- Life-skills education should be made an examinable subject
- Interested teachers should teach life-skills to children
- AIDS levy to be channelled properly
- School to benefit from club activities
- People to be open about HIV and AIDS
- Teachers to be trained in use of the participatory approach
- Videotapes to be made available to teachers
- Availability of booklets and pamphlets on HIV and AIDSs
- All teachers to have some basic skills
- Schools to have a full-time guidance and counselling teacher
- Need for monitoring and evaluation of life-skills education
- Life-skills to be taught to the community.