THE IMPACT OF HIV AND AIDS ON EDUCATION AS PERCEIVED BY SECONDARY SCHOOL LEARNERS IN MASILONYANA DISTRICT IN THE FREE STATE PROVINCE

By

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CHAPTER ONE

ORIENTATION

1.1 INTRODUCTION

The threat posed by the rampant spread of the Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) in Sub-Saharan Africa in general and South Africa in particular, presents unprecedented challenges to the South African intellectual community of educators and learners. South Africa is no exception with regard to the escalating number of deaths caused by the epidemic. It is claimed that 29, 4 million people are living with HIV and AIDS in sub-Saharan Africa where the virus has claimed the lives of 2, 4 million since 2002 (Wadula, 2003:12).

Nowadays, HIV and AIDS is not only a health issue. It also impact negatively on the education sector in many powerful ways. Hence the problem investigated in this study is the impact of HIV and AIDS on education as perceived by secondary school learners.

The Department of Education (2003:5) argues that the epidemic will affect the supply of education services through increasing numbers of deaths. The epidemic will also increase the cost of providing education through the impact it has on the education system itself, on the educator, on the learner, and on dropout rates and absenteeism rates. It is in this context that secondary school learners are targeted in this study in order to find out their perception of the impact of HIV and AIDS on education.

Whiteside (1998:1-6) states that primarily, HIV and AIDS is a disease of the young, rapidly becoming the biggest killer of young people between the ages of fifteen and nineteen, the most likely years for secondary school learners and other individuals to experiment with

multiple partners. Botes and Pelser (2004:44) indicate that teenage pregnancies are a major reason for young black girls not completing their school education. This could imply that secondary school learners are adversely affected by the pandemic; hence the problem investigated is the impact of HIV and AIDS on education as perceived by secondary school learners.

1.2 STATEMENT OF THE PROBLEM

Literature study revealed that HIV and AIDS impact on education across a wide spectrum. Coombe (2000:16-17) indicated that in future fewer children will enrol in school because HIV positive mothers die young, with fewer progeny, children are dying of AIDS complications, and children who are ill, impoverished, orphaned, caring for younger children, or earning and producing, stay out of the system. Qualified educators, teacher educators, and officials will be lost to education through death, illness or departure for other jobs. The cost of illness, burials and death benefits are rising along with additional costs for educator training. This implies that HIV and AIDS impact negatively on education system.

1.3 RESEARCH QUESTIONS OF THE STUDY

It is alarmingly clear that HIV and AIDS have devastating impact on the education system of South Africa. Hence this problem gives rise to the following research questions:

- What is the impact of HIV and AIDS on education?
- What is the impact of HIV and AIDS on education as perceived by secondary school learners in Masilonyana district?
- How can the impact of HIV and AIDS on education be alleviated?

1.4 AIM OF THE STUDY

The above research questions imply that specific aims and objectives should be realised in this study. Therefore, the aim of the study is to investigate the impact of HIV and AIDS on education in Masilonyana district as perceived by secondary school learners. Following are the objectives of this study.

1.4.1 Objectives

The objectives of this study therefore are to:

- determine the impact of HIV and AIDS on education;
- establish the impact of HIV and AIDS on education as perceived by secondary school learners in Masilonyana district; and
- investigate how the impact of HIV and AIDS on education can be alleviated?

As a result of the above objectives, it is important to look at the demarcation of the study, which is discussed briefly in the next paragraph.

1.5 DEMARCATION OF THE STUDY

This study will be undertaken in the field of Psychology of Education as it is confined on the impact of HIV and AIDS on education. The study will be undertaken in secondary schools in peri-urban and rural schools. The research participants are Grades 8 to 12 learners.

1. 6 RESEARCH METHODOLOGY

1.6.1 Targeted population

The targeted population in this study is secondary school learners in the district of Masilonyana. This included secondary schools which fall under the educational district of Lejweleputswa. Questionnaires were administered to 250 learners to gather data on learners' perception of the impact of HIV and AIDS on education. However, 142 questionnaires out of a total of 250 were returned. This indicated a return percentage of 56, 8%. Furthermore, eight learners were also interviewed.

1.6.2 The research sample

In this study, all accessible secondary schools in peri-urban and rural areas of Masilonyana district were placed in alphabetical order from A to J and then the first school was selected. This means that school A was selected. This left the researcher with nine schools from which every second school was selected until the required number (five schools) or participating schools was reached. The breakdown per school is as follows:

Grade 8	=	10
Grade 9	=	10
Grade10	=	10
Grade 11	=	10
Grade 12	=	10
Total	=	50

Table 1.1 Breakdown of research sample

Town	Learners	
	Male	Female
Brandfort	20	20
Theunissen	65	65
Verkeerdevlei	20	20
Winburg	20	20
TOTAL	125	125

Table 1.1 implies that one secondary school was selected from each of the following towns: Bradford, Verkeerdevlei and Winburg. Two schools were selected in Theunissen because it has four secondary schools while other towns had an average of two secondary schools per town.

1.7 DATA COLLECTION

Proponents of empirical surveys such as Furlong, Lovelace and Lovelace (2000:6-7) aptly describe the empirical survey as a systematic observation and recording of events. In this study, both quantitative and qualitative approaches were used to find the perception of respondents on the impact of HIV and AIDS on education.

1.7.1 Quantitative study

Sutter (1998:87) argues that the quantitative study tests specific hypotheses, usually stated in advance and incorporates measures which can be analysed statistically instead of words. Wiersma (1995:8) describes quantitative study as research that defines phenomena in numbers and measures. Two kinds of hypotheses can influence the study, namely research and null hypotheses. The null hypothesis is the most likely type that might influence this study, and its most influence

could be seen in chapter 3 and 4 of this study.

1.7.2 Qualitative study

Leedy and Ormrod (2005:133) indicate that qualitative study consists of various approaches to research in terms of respects, form and application. Therefore, qualitative researchers accept the fact that the researcher's ability to explain and make sense of any critical thinking in social scenario is a prerequisite for effective study.

1.8 DATA GATHERING INSTRUMENTS

1.8.1 Questionnaire

Questionnaires enhance the understanding of human behaviour and attitudes that are unique and distinctive in a natural setting (Radebe, 1999:50). In this case, the natural setting is secondary schools in which learners' behavioural, attitudinal and perceptual tendencies may be analysed. A questionnaire was administered to all participating learners in secondary schools in the Masilonyana district. Questionnaires offer considerable advantages and provide the investigator with an easy accumulation of data (Walker, 1993:91).

Imenda and Muyangwa (2000:152) indicate that in the closed-ended questionnaires the respondents' ticks or circles are the given options. The responses of the learners will be shown in the response schedule representing codes indicated in the Likert Scale:

1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

(Cohen, Marion and Morrison, 2002:253)

Additionally, the true/false statements were also used in some sections

of the questionnaire.

1.8.2 Interviews

An interview is “a method of collecting data that is similar to an oral questionnaire. It can be informal and flexible or structured and focused” (Salkind, 2003:307). Although interviews are helpful in collecting data, the researcher should avoid bias. The bias may take various forms such as a simple smile, a wave of hand, a nod, a frown or by way of looking away. The researcher should avoid bias.

1.9 SIGNIFICANCE OF THE STUDY

The study may enhance awareness of the deadly impact of HIV and AIDS on education in secondary schools in the Masilonyana district in particular and in the Free State province in general. The main beneficiaries of the findings of the research study will be secondary school learners, educators, parents, various levels of government and the community.

Watkins (1996:2) points out that although the baseline study of learners’ knowledge, attitudes and skills could be regarded as helpful to determine their perception of the impact of HIV and AIDS on education, the purpose may not be complete unless the key problem of common perception on the matter is investigated. The common perception of learners with regard to the impact of HIV and AIDS on education can better be investigated by looking at the following findings:

- Drop-out rates are set to increase;
- Absenteeism among learners is bound to increase;
- Increase in demand among sick parents for early childhood education and an increase in preschool intake; and
- Greater demand for second-chance education by learners

returning to education after absence from the system (Coombe, 2000:14).

The implications of the above scenario are that education process is likely to be disrupted, resulting into poor student and educator performance.

1.10 LIMITATIONS OF THE STUDY

The major restrictions which may regularly affect the outcomes of this study are discussed briefly in the next paragraphs.

1.10.1 Attitudes and suspicions

Attitudes and suspicions of some learners toward the researcher's intentions posed a problem and limited the scope of the research process. Hence the same learners did not complete the questionnaire and others refused to be interviewed.

1.10.2 Various levels of schooling

Various groups of participants from Grades 8 to 12 posed a problem to the research study in terms of perception, interpretation and knowledge about HIV and AIDS. Hence learners from different grades might have interpreted questionnaire items differently.

1.10.3 Demography and diversity

The areas which form part of the study may hamper progress and this could become an impediment to the research process. These areas are populated by a diverse composition of South African society, which is mostly conservative in terms of race, location, religion, tradition and history. Nonetheless, greater debate on the topic will be undertaken in the literature review in the next paragraphs.

1.11 PRELIMINARY SCHOLARSHIP REVIEW

De Poy and Gitlin (1998:47) define a literature survey as a process in which the researcher critically reviews the literature that is directly or indirectly related to both the topic and the proposed strategy for conducting the research. This view correlates with the views of Imenda and Muyangwa (2000:12) who state that a literature survey involves locating, reading and evaluating reports of research, as well as reports of casual observations and opinions that are related to the planned research project.

According to Tonks (1996:4) secondary school teenagers have a high level of sexual activity with multiple partners and therefore have all these risk factors. Limson (2004:1) states that the epidemic contributes to making the education system itself a source of risk especially for girls who are often sexually abused. The age category 12 to 18 is identified as the most vulnerable group (Swartz, 2004:4). Kenyon, Heywood and Conway (2004:110) state that the increasing rate of HIV and AIDS cases in all the provinces puts great stress on the educator, the learner, the parent and the government.

Economics and HIV and AIDS Research Division of the University of KwaZulu-Natal emphasises the need to develop creative interventions through sound psycho-social and economic analysis on how the pandemic affect education in general (Anon, 2002:14). Swartz (2004:8) mentions that in African universities, South Africa included, there is an overwhelming atmosphere of ignorance, secrecy, denial and fear of stigmatisation and discrimination in relation to HIV and AIDS. The implication is that the pandemic affect the school environment negatively. It is important to define unfamiliar terms which are used in this study

1.12 DEFINITION OF TERMS

Terms that are defined in this study are HIV and AIDS, trauma, and impact because they might be unfamiliar to the reader.

1.12.1 HIV and AIDS

HIV stands for human immunodeficiency virus. Human means that this is a virus that affects people. *AIDS* is acquired immune deficiency syndrome which is a disease that affects the body's ability to defend itself against certain other diseases (Harrison 2000:114).

1.12.2 Trauma

Trauma refers to the effect on the mind of sudden shock or a terrible experience (Alswang and Van Rensburg, 1993:910). It is any injury, whether physically or emotionally inflicted. It is a serious or critical bodily harm, wound, or shock that results from experience that is emotionally painful, distressful, or shocking which often result in lasting mental and physical effect (Medicine Net, 2006:1).

1.12.3 Impact

Impact means the force of an idea or collision or violent and negative encounter (Alswang and Van Rensburg, 1993:374). Impact could also mean to act from an opposition direction so as to strike or come into contact with, in contact with, upon or against something. It is to lodge firmly or wedge in (Alda, 2007:1).

1.13 PROGRAMME OF THE STUDY

Figure 1.1 Programme of the study

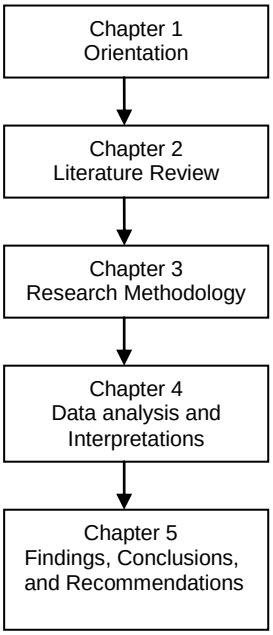


Figure 1 one indicates that Chapter 1 gives an orientation of the problem investigated. The chapter also highlights the significance of the study.

Chapter two reviews literature related to the impact of HIV and AIDS. Furthermore, the chapter reviews the nature and the scope which previous researchers have investigated with regard the impact on HIV and AIDS on education.

Chapter three discusses the research methodology and highlights the two research instruments as well as the two research approaches used in this study. The instruments that were used are questionnaires and interviews which were both linked to quantitative and qualitative approaches respectively.

Chapter four focuses exclusively on data analysis and interpretation.

Chapter five provides findings and conclusions derived from the findings of the study. Finally, recommendations will be made.

1.14 CONCLUSION

To date, most discussions on HIV and AIDS have focused on the devastating human toll and the serious strains that are placed on the national health-care system. However, recent discussions indicate that the pandemic is not solely a health issue, but also a political, psycho-social and socio-economic issue.

It is thus argued that the impact of HIV and AIDS on education is not an option extra, but a matter of life and death (Anon, 2002:9). It is also shown that HIV and AIDS stigma, discrimination, isolation, poverty, orphanage and so forth can affect learners' and educators' performance negatively (Fredricksson & Kanabus, 2006:4).

The next chapter focuses on literature review on the impact of HIV and AIDS on education.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides the background to HIV and AIDS impact on education. It is in this context that the research questions and objectives were formulated.

In the mid 1970s, the scientific community first became aware of an illness that was striking predominantly adults in various parts of the world (Whiteside, 1998:5). Those affected by the disease would gradually waste away and not respond well if treated for common illnesses. But it was not until the early 1980s that the syndrome was identified as the Acquired Immune Deficiency Syndrome (AIDS), the final and fatal stage of infection with Human Immunodeficiency Virus (HIV) (Whiteside, 1998:4). In the 21st century, the AIDS epidemic has reached global proportions (Armstrong, 1991:14).

The pandemic has spread to virtually all corners of the developed and developing world (Whiteside, 1998:1). It is therefore important to look at various definitions of HIV and AIDS.

2.2 DEFINING HIV and AIDS

HIV and AIDS have been defined by many authors worldwide. However, a few definitions are given in the following paragraphs.

2.2.1 What are HIV and AIDS?

Hope (1999:1) defines AIDS as a disease caused by a latent, slow-acting virus

known as the Human Immunodeficiency Virus (HIV). The virus destroys part of the body's immune system, leaving the victim without defenses against certain infections and cancers. Van Dyk (2001: 4) defines AIDS as an acronym for Acquired Immune Deficiency Syndrome. It is acquired because it is not a disease that is inherited. It is caused by a virus called the Human Immunodeficiency Virus (HIV) which enters the human body from outside. Whiteside and Sunter (2000:1) define Acquired Immunodeficiency Syndrome as follows:

The "A" stands for acquired. This means that the virus is not spread through causal contact like flue or chicken pox.

The "I" and the "D" stand for immunodeficiency. The virus attacks a person's immune system and makes it less capable of fighting infections.

The "S" is for syndrome. AIDS is not just one disease but presents itself as a number of diseases that come about as the immune system of a human being fails.

According to Tonks (1996:36-37), Acquired Immune Deficiency Syndrome refers to a group of symptoms that people get from somewhere outside themselves and that weaken the body's ability to defend itself against diseases.

2.3 THE IMPACT OF HIV AND AIDS ON EDUCATION

2.3.1 The impact of HIV and AIDS: An orientation

Coombe (2000:10-17) established that HIV and AIDS have impact on educators, learners, school enrolments, dropout rates, absenteeism rates, rates of poverty and orphanage, as well as the overall quality of education.

Van Dyk (2004: 22) indicates that the impact of the disease on education in general could be disastrous. Marais (2000: 10-11) connects the issue of teenage HIV transmission with the response that has been compromised by a failure to confront and critique the ways in which notions of cultural traits, norms and community values have colluded with the epidemic and thus sabotaged effective intervention strategies. Whiteside (1998:16) highlights how the disease affects education as a process.

2.3.2 The impact of HIV and AIDS on demand and supply of education

- *Supply:* educational staff at all levels will most probably experience increased levels of illness and death amongst themselves, as is happening in the general population. HIV and AIDS therefore impacts negatively on the teaching service in terms of teacher attrition, replacement and deployment. Mvula (2003:120) points out that developing teacher competence to cope with complex cohorts of learners requires a greater outlay of resources in education. He/she indicates further, that HIV and AIDS impact negatively on the country's manpower and the economy.

2.3.2.1 Absenteeism, illness and death

According to Swartz (2004:1-3) absenteeism is likely to increase due to funerals of colleagues. Lorgat (2004:1) mentions that HIV and AIDS have an impact on educators as well. He/she reveals that of the 701 deaths of educators recorded in the ten month period from August 1999 to May 2000, a significant number is considered to be "AIDS related" as indicated by recorded death claims on the South African Democratic Teachers' Union's (SADTU) funeral scheme. Limpson (2004:2) indicates that Zambia has estimated the cost of replacing educators who have died of HIV and AIDS at US $25 million between 2000 and 2010 and

Mozambique's estimate is about twice as much.

Therefore, the negative impact retards economic growth and development. For these reasons, there is a need for more HIV and AIDS education so that education provisioning remains intact.

- *Demand*: the number of school entrants will be lower than would be the case in the absence of HIV and AIDS. This change in numbers will, over time, work its way up the educational system. In addition, children may be kept out of school because their labour is required at home, or because there are no resources to send them to school.

- *Provision of education*: this considers the process and quality. The curriculum should include HIV and AIDS education and look at the special needs of those affected by the disease. This implies a shift of resources from material provision to caring for the sick. Whiteside (1998:16-17) confirms the idea that it is likely that the education sector may be at special risk, for it is both particularly susceptible and vulnerable to HIV and AIDS because of its nature.

- *Numbers*: the projected number of children requiring education will decline. First, the birthrate will decline following the premature death and the reduced fertility of potential mothers and possibly, through the increased use of condoms and the empowerment of women. Second, peri-natal transmission and orphanhood will increase infant and child mortality. Absolute numbers in any cohort will not decline, but rather the rate of increase will be reduced (South African Law Commission, 1997: 2-3).

The implications of HIV and AIDS on education are far-reaching with

regard to the availability of children for education and the preparation for future manpower needs. HIV and AIDS are likely to devastate the education sector in South Africa. Studies show that since 2000, the proportion of potential parents (20-40 years) is decreasing; the number of orphans is increasing while poverty levels and dropout rates at schools are also increasing owing to the pandemic (Coombe, 2000:14).

Coombe (2000:14-17) and Swaison (2002:11) identified several impacts of HIV and AIDS on education. The impacts are discussed in detail in the next subsections of this chapter.

Table 2.1: The consequences of HIV and AIDS: Projections to 2010

	1999	2005	2010
Percentage of SA workforce HIV+	11,5%	20%	22,5%
Percentage of SA workforce AIDS sick	0,4%	1,65%	2,7%
New AIDS cases per annum	145,256	466,365	625,180
Number of AIDS orphans	**153,000**	**1 000,000**	**2 000,000**
Life expectancy of SA females (years)	54	43	37
Life expectancy of SA males (years)	50	43	38

(Swainson, 2002:11).

Table 2.1 reveals that the percentage of South African workforce HIV+ increased by 8,5% between 1999 and 2005 (over a five year period). The percentage will increase by 2,5% between 2005 and 2010 (a projected decline of 6%). The percentage of SA workforce AIDS sick increased by 1, 25% between 1999 and 2005, and will also increase by 1, 05% between 2005 and 2010. New AIDS cases per year increased by 321,109 between 1999 and 2005 and will increase by 158,815 by 2010. This marks a decline of 162,294 cases between 1999 and 2010. The number of AIDS orphans increased by 847,000 to 1 000,000 between 1999 and 2005 and will double to 2 000,000 by 2010. Life expectancy of males (years) declined by 11 years from 54 years in 1999 to 43 in 2005 and will decline

by a further 6 years between 2005 and 2010 (38 years).

2.3.2.2 The impact on absenteeism rates

Coombe (2004:15) maintains that South Africa's education workforce comprises of 443,000 educators. Available estimates point to 12% infection. Infection rates as high as 40% have been reported from parts of Malawi and Uganda. Approximately 53 160 educators in South Africa will die by year 2010. This can be realised by using this simple calculation:

Education workforce:	443 000
Total infected HIV+:	12%
Ten year period:	2010-2000 = 10 years
Therefore:	443 000 x 12/100 = 53 160

There would be many more that fall ill, absent and dying, or pre-occupied with family crisis caused by HIV and AIDS. This implies that 53 160 new educators need to be trained to replace the 53 160 lost due to HIV and AIDS. The replacement of these educators will bear high costs to the Department of Education and by implication to the taxpayer. Infection rates of 20 to 30 percent would mean 88,000 to 133,000 educators would have died of AIDS-related illnesses by 2010.

2.3.2.3 The impact on quality education

Limson (2004:2) showed that HIV and AIDS are draining the supply of education, eroding its quality, weakening demand and access and drying up countries' pools of skilled educators as well as increasing the education sector's costs. In the vast areas of sub-Saharan Africa, HIV and AIDS threatens to destroy decades of investments in economic, social and human development. The

pandemic is presenting particular challenges to the education sector, not least by hindering its capacity to deliver education for all. Coombe (2004:207) provides the following impact of the pandemic on quality of education:

- the decreasing supply of trained educators;
- the loss of educator productivity when they become ill; and as a result, parents and care-givers choose not to educate the children because educational materials are not readily available;
- the learning environment is disorganized;
- when educators become ill, their teaching capacity decreases, further limiting the quality of instruction; and
- educators are forced to take long sick leaves to recover from illnesses as HIV progresses into full-blown AIDS.

2.3.2.4 HIV and AIDS impact on the learner

Anon (2002:1) argued that statistics indicated that adolescents and young adults accounted for a disproportionate share of the increase in HIV infection in South Africa. Therefore, secondary school learners fall within this category and may be infected. Furthermore, learners may be faced with the illness of their parents. They may have to take time off to look after their young siblings at home, care for a sick parent and carry household tasks. This is not only emotionally draining to the learner but may also disrupt the learning process (Anon, 2002:3).

Swartz (2004:6) indicated that the education authorities might be faced with a situation where learners drop out of school because their guardians were unable or unwilling to pay for school requisites. Sickness and death of a learner may also impact on both other learners and educators. In the latter stages of AIDS a sick learner may be absent for almost 80 percent of school days. There

could also be increasing discrimination because of stigma.

HIV and AIDS are causing a lot of pain and trauma in the lives of learners and educators. Many of them are struggling to do well at school because in many schools learning is disrupted when learners get ill. Many educators and parents feel stressed and worried because of problems related to the pandemic (Anon, 2002:4).

HIV and AIDS in our communities eat away at the foundations on which a healthy schooling system is built. A large number of learners will be affected by the illness and death of adults in their households. These learners become emotionally vulnerable because they are traumatized or grieving. They are also physically vulnerable because of poverty and isolation. There is also a risk that they will drop out of school (Department of Education, 2003:4, 16).

2.3.2.5 The impact of HIV and AIDS on the educator

Educators themselves are sometimes sick, or they are worried about a colleague, a relative or a learner who is sick of an AIDS related disease. As a result, educators cannot do their job well (Anon, 2003:3). HIV and AIDS affect educators within schools, but also the way schools operate. In the Central African Republic, 85 percent of educators who died between 1996 and 1998 were HIV positive and they died 10 years before they were due to retire (Limson, 2004:4). In South Africa, education administrators were also affected. At least 12 percent of South Africa's administrative personnel were estimated to be HIV positive (Limson, 2004:1).

The specific costs of HIV and AIDS on education are considerable. Pambrey (2006:1) stated that AIDS was one of the most serious challenges currently facing the education systems of poorer countries. The damaging effect that

AIDS is having on schools is, in turn, aggravating the pandemic itself in a vicious cycle as indicated below:

- the public budget for health and education declines;
- economic growth also declines;
- country's ability to compete in knowledge suffers;
- the overall economy suffers;
- illiteracy increases; while
- skilled workforce declines; and
- quality of human capital deteriorates (Pambrey, 2006:2-3).

In Zimbabwe, it is estimated that 19 percent of male educators and close to 29 percent of female educators were HIV positive. As in many countries, educators are in short supply in Zimbabwe. If one educator is ill, or taking time off to care for family members, or attend to funeral as a result of AIDS, it can seriously disrupt classes (Pambrey, 2006-2).

Educator absenteeism and non-performance could also be attributed to the largely ignored psychological effects of the pandemic. In Zambia more AIDS patients were unable or unwilling to talk about the problem with friends or family. Such isolation, coupled with fear about their own status, took its toll on educators and their ability to teach (Limson, 2004:1).

2.3.2.6 The impact on rates of poverty and orphanage

Poverty is the main constraint to support orphans. Without proper use of resources, to feed, clothe and counsel learners, the basic need for education cannot be realized (Coombe, 2004:202). Table 2.2 below illustrates the impact of HIV and AIDS on orphanage.

Table 2.2: The rate of increase in the number of orphans 1990 to 2010

Year	Children under the age of 15 (millions)	Maternal/ double orphans from all causes (millions)	Maternal/ double orphans as % of children under 15	% of maternal/double orphans caused by AIDS	Number of children orphaned by AIDS (millions)	% of children under age 15 orphaned by AIDS
1990	9.53	4.2	4.5	23.3	1.1	1.2
2000	115.6	8.2	7.8	60.1	4.6	4.6
2010	85.3	9.0	11.6	71.5	7.3	9.8

(Coombe, 2004:202).

The above table reveals that the number of children (in millions) orphaned by AIDS in South Africa was 1.1 million in 1990 and it will increase to 7,3 million by 2010 which represents 9,8 percent increase. In 2003, 15 million children under the age of 18 had been orphaned by HIV and AIDS worldwide. About 12 million of these live in sub-Saharan Africa, and it is expected that this number will have risen to more than 18 million by 2010 (Pennington & Kanabus, 2005:1).

Table 2.3 below illustrates the impact of HIV and AIDS on the rate of orphanage in some African countries.

Table 2.3: The impact of HIV and AIDS on orphanage: Number of orphans due to AIDS – 2003.

COUNTRY	NUMBER OF ORPHANS
Nigeria	1 800 00
South Africa	1 100 000
Tanzania	980 000
Zimbabwe	980 000
Uganda	940 000
DRC	770 000
Ethiopia	720 000
Zambia	630 000

Table 2.4 Percentage of AIDS orphans – 2003

Zimbabwe	78%
Botswana	77%
Swaziland	63%
Zambia	60%
Lesotho	56%
Malawi	48%
Namibia	48%
Uganda	48%

(Pennington & Kanabus, 2005:1).

Tables 2.3 and 2.4 illustrate that AIDS is responsible for leaving vast numbers of children without one or both parents. The ages of orphans are fairly constant across countries. Pennington and Kanabus (2005:1) stated that surveys suggest that overall about 15 percent of orphans are 0-4 years old, 35 percent are 5-9 years old, and 50 percent are 10-14 years old. In Botswana, it is estimated that 110 000 children had lost their parents to AIDS by the end of 2003. By then, it

was estimated that Malawi had 500 000 children orphaned by AIDS.

Fredriksson and Kanabus (2006:1) showed that the number of orphans in South Africa was 1 200 000 at the end of 2005 and the total for sub-Saharan Africa was 12 000 000. This means that the number of school enrolments could possibly decrease in these countries. This is confirmed by Moletsane (2003:10) who estimated that the number of orphans in South Africa, under the age of 15 is expected to grow to 1 000 000 by 2005 and to a staggering 2 500 000 by 2010.

The majority of these will be under the age of 18 and therefore, of school-going age. During 2005, an estimated sub-total of people that died of AIDS was 1 384 000. The pandemic has left behind a great number of orphaned children especially in sub-Saharan Africa as indicated by the table below:

Table 2.5: People living with AIDS – sub-Saharan Africa

Country	People living with HIV Adults (15-49)	Rate %	Women	Children	AIDS deaths	Orphans due to AIDS
Angola	320 000	3.7%	170 000	35 000	30 000	160 000
Botswana	270 000	24.1%	140 000	14 000	18 000	120 000
DRC	1 000 000	3.2%	520 000	120 000	90 000	680 000
Kenya	1 300 000	6.1%	740 000	150 000	140 000	1 100 000
Lesotho	270 000	23.2%	150 000	18 000	23 000	97 000
Madagascar	49 000	0.5%	13 000	1 600	2 900	13 000
Malawi	940 000	14.1%	500 000	91 000	78 000	550 000
Mauritius	4 100	0.6%	< 1 000	-	100	-
Mozambique	1 800 000	16.1%	960 000	140 000	140 000	510 000
Namibia	230 000	19.6%	130 000	17 000	17 000	85 000

South Africa	5 500 000	18.8%	3 100 000	240 000	320 000	1 200 000
Swaziland	220 000	33.4%	120 000	15 000	16 000	63 000
Uganda	1 000 000	6.7%	520 000	110 000	91 000	1 000 000
Tanzania	1 400 000	6.5%	710 000	110 000	140 000	1 100 000
Zambia	1 100 000	17.5%	570 000	130 000	98 000	710 000
Zimbabwe	1 700 000	20.1%	890 000	160 000	180 000	1 100 000
Total sub-Saharan Africa	24500000	6.11%	9 234 000	1 366 000	1 384 000	8 488 000

(Fredriksson & Kanabus, 2006:1-3).

Table 2.5 illustrates that Swaziland has the highest infection rate (33.4%) followed by Botswana (24.1%) and Lesotho (23.2%). Fourth is Zimbabwe (20.1%) while Namibia and South Africa follow (19.6%) and (18.8%) respectively. As regard the number of orphans, South Africa is the highest (1 200 000) followed by Kenya, Zambia and Zimbabwe (all with 1 100 000) while Uganda has 1 000 000. The total number of orphans for the region is 8 488 000 million. These are children that may often be absent from school and may eventually drop out of the school system as a result of the pandemic.

South Africa has the highest number of people (5 500 000) living with HIV (adults 15-49 years) in sub-Saharan Africa. Mozambique comes second (1 800 000) and Zimbabwe (1 700 000). Fourth is Tanzania (1 400 000) followed by Zambia (1 100 000) while the Democratic Republic Congo and Uganda both (1 000 000) rank fifth. These figures could have devastating consequences for education in sub-Saharan Africa in future and also could have negative impact on school enrolments.

2.3.2.7 The impact of HIV and AIDS on school enrolments

Absenteeism and ultimately dropouts are inevitable as learners are forced to stay

out of school to care for their sick parents or relatives. In this way, school enrolments decline. It is estimated that children aged between 7 and 18 did not attend school in two of the nine provinces in South Africa, namely Eastern Cape and Kwa Zulu-Natal where 1 300 000 school-aged children were out of school (Moletsane, 2003:11). The advent of HIV infection followed by AIDS-related mortality will build on already high levels of voluntary or enforced exclusion, aggravating the impact on education and contributing to the decline in school enrolments, absenteeism and dropouts (Moletsane, 2003:12).

2.3.2.8 Availability of children for education

Goldstein (2003:16) argues that HIV and AIDS confront society with its prejudices, stereotypes and discrimination. He/she reminds society that this disease "…reflects and lays bare every aspect of the culture in which it occurs". There is a real danger that families affected by HIV and AIDS might be forced to keep children out of school to care for the sick, to work the land, or even to earn an income. These children may also feel discriminated against or ostracised. Orphans may be totally occupied with the struggle for survival and education may not be an option for them. This is likely to lead to children never enrolling in school (MSN Health, 2003:2).

Furthermore, Science in Africa (2004:1) indicates that the HIV and AIDS epidemic contributes to making the education system itself a source of risk, especially for girls. In one Ugandan district, 31% of school girls surveyed reported being sexually abused, mainly by their educators. Another factor that could lead to a negative impact on education is the low enrolment of learners, especially in poorer countries. These countries cannot afford to provide educational material at the expense of health needs.

2.3.2.9 Affordability of education

In some settings, attendance at school requires a certain cash outlay for fees, books, transport and uniforms. HIV and AIDS may result in the exclusion of children from school because the family income falls, due to death and illness, or simply because family income per capita is reduced by taking in orphans (Kenyon et al., 2004:13). HIV and AIDS knows no barriers. This means that both literate and illiterate youth are at high risk of infection.

2.3.2.10 HIV infection

Children and students at the higher levels of education are becoming sexually active, which means they are not immune to infection. This is true especially of females and this means that HIV infected and ill scholars and students appear in the educational system in South Africa (Swartz, 2004:11). Investment in human capital (attainment of skills and knowledge) serves as the backbone of economic growth, development and prosperity. Hepburn (2002:88) shows that in countries that are quickly losing their human capital, the failure to provide children with basic educational skills only exacerbates a falling economy and a shortage of labour.

2.3.2.11 Supply - labour intensive service

Education is a labour intensive service activity, and the more qualified, skilled and experienced the labour, the better the sector may serve the country. However, Whiteside (1998:136) indicates that the supply of labour with specific reference to education may be affected by the epidemic. Nduru (2004:1) adds that if current trends continue, half a million African youth aged 15 to 24 years could die from AIDS-related illnesses by the year 2005. In addition, over 85 million people might be infected world wide by 2010, with a loss of human life to

AIDS totaling 100 million by 2020. This implies that investment in human capital (skills and knowledge) will be cost incurred for zero returns.

2.3.2.12 Investment in human capital

Ramatisa (2000:54) indicates that as HIV and AIDS becomes more prevalent, the perceived costs and benefits from undertaking new investments in human capital are likely to change. This implies that the total expenditure may shift towards health care and social grants and away from schooling. Therefore, HIV and AIDS reduce the expected lifetime and incentives for individual workers, or their employers to invest in education and training. The basic idea behind this theory of human capital is that the economic capabilities of people are a means of production, so that the embodiment of skill through education and training is as much of a form of investment as the purchase of a machine. The investment made in people through education could lead to certain benefits when such people enter the labour market. However, this investment might be negatively affected by regular absenteeism, illnesses and sudden death caused by HIV and AIDS (Ramatisa, 2000:56-57).

2.3.2.13 Education budget constraints

There may also be a problem with financial resources. The problem of funding from parents and the community has already posed immense problems. Government may also face constraints on the education budget, as some resources are transferred to health care, as there are increasing demands for health and welfare (Whiteside, 1998:38). Hepburn (2002:9) strongly affirms that families are sometimes required to pay for teaching materials and supplies, uniforms, recreational activities and levies for school development, maintenance and construction. Paying for these expenses is difficult and burdensome for households who are seriously weakened by HIV and AIDS. Reasons for this

include:

- the loss of income from the lack of employment and other activities;
- in rural areas, a reduction in farming which decreases income generating potential;
- high costs of health care and medication; and
- a growing number of households headed by children (Hepburn, 2002:9).

Therefore, to supplement income, children may drop out of school and engage in income generating activities. Ebersohn and Eloff (2002:77) highlight the educational effects of HIV and AIDS. They indicate that a marked decline in school attendance already characterised the South African education landscape. HIV infected children shy away from disclosure.

There are some causes, among them illness, morbidity and death, fear of discovery and shaming at school, increased demand for child labour, including caring for sick relatives-both within and outside homes and inability to pay school fees (Ebersohn and Eloff, 2002:78).

Therefore, the long-term impact on educational development and limited literacy on South Africa's social and economic systems is inestimable. Schoub (1999:3) shows that costs, both of drugs as well as laboratory monitoring, remains a major consideration in the management of HIV and AIDS infection, especially in South Africa. According to Anon (2004:6-7) more and more resources in the budget are transferred from capital accumulation to the national health system and infrastructure.

2.3.2.14 Psycho-social impact of HIV and AIDS on education

South African Law Commission (1997: 1) showed that learners may be faced

with illness of their parents. These learners may have to take time off to look after young ones at home, care for a sick parent and carry out household tasks. This is not only emotionally draining to the learner but may disrupt the learning process. Swaison (2002:16) pointed out that morale is likely to fall significantly as educators and learners try to cope emotionally and financially with sickness and death among relatives, friends and colleagues. They have to wrestle with the uncertainty about their own future and that of their dependents. The quality of teaching and learning will inevitable be compromised.

Fredriksson and Kanabus (2006:1) argued that stigma is a powerful tool of social control. It can be used to marginalize, exclude and exercise power over individuals who show certain characteristics associated with HIV and AIDS. There could be a societal rejection of those who are affected of HIV and AIDS. Limson, (2002:2) indicated that in Zambia, more than two-thirds of the samples of educators with relatives who were ill with or had died of AIDS were unwilling or unable to talk about the problem with friends or family. Such isolation, coupled with fear about their own HIV status, took its toll on educators and their ability to teach.

2.3.2.15 Alleviating the impact of HIV and AIDS on education

There are several strategies to prevent absenteeism and dropout from school as a result of HIV and AIDS. Moletsane (2003:12) for example, identified the following strategies that can be helpful:

- Schools should look at introducing alternatives that would allow learners to perform their familial responsibilities and still access educational programmes.
- These may include adopting models in which classes meet later in the

afternoon.

- Cheaper models of schooling are needed so that all learners may access education regardless of their economic and HIV status.
- The curriculum needs to integrate HIV and AIDS education content in the school and in teacher education.
- Educators must move from a narrow HIV education curriculum campaign towards a broader HIV and education paradigm.
- Curricula activities and programmes must continue to include the teaching and reinforcement of strategies to prevent infection.
- Life skills programmes which promote positive social behaviour, including the removal of AIDS stigma and silence, need to be fully implemented.
- As learners assume more adult roles such as income generation, schools need to provide them with skills, knowledge and values they need to fulfill these through contextual relevant content.

In an HIV environment, pedagogical issues will need vigilant attention. Strategies for addressing the special educational needs of learners and educators traumatized by the pandemic-related impact need to be identified. Pennington and Kanabus (2005:3-4) provided the following strategies as the way forward:

- That orphans should be cared for in family units through extended family networks, foster families and adoption, and that siblings should not be separated.
- The community needs to be supportive of children when they are orphaned.
- Keeping orphans at school is crucial for their future.
- Children should be empowered by regarding them as active members of a community rather than just victims.
- Much can be done to ensure the legal and human rights of AIDS orphans.

2.4 CONCLUSION

The economic and social impact of HIV and AIDS has been manifested in the deterioration of Sub-Saharan Africa's educational systems. Valuable financial and human resources are siphoned off, leaving few resources for education. In some countries, the budgets for educational material may have been reduced to almost zero. But above all, education may be affected in the following way:

- There may be a decreased upswing of education and less continuity as education is entirely disrupted by the illness and deaths of educators and learners, and by declining resources in education. There may be increased problems of those schools facing changing demands, a decreased supply of learners, and funding.

- Absenteeism and the loss of learners might lead to a reduction in staff numbers. Furthermore, there could be a growing shortage of resources from parents, the community and the state, as these resources are transferred away from education to health care. However, the education sector has a vital role to play in prevention activities, as HIV and AIDS prevention messages and education should begin at an early age. All stakeholders are encouraged to take part in helping learners cope with the impact.

Chapter three is the research design and methodology whereby the research participants, the research design, the sampling plan, data gathering procedures and the apparatus and measuring instruments used in this study are discussed in detail.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

Chapter Three gives an overview of the research design and methodology. It further explains the quantitative and qualitative approaches used in this study. In a research study, the researcher may choose one approach, or at times, use both approaches to effectively conduct research. Each approach uses several specific research techniques. For example, surveys, interviews and historical analysis are used with much overlap between the type of data and the style of the research (Neuman, 1994:14).

The researcher needs to decide the research design and methodology intended for use in the study. In this study, literature review, questionnaires and interviews were selected to gather data.

3.2 RESEARCH DESIGN AND METHODOLOGY

Imenda and Muyangwa (2000:3) explain research design as how the study is to be carried out. Accordingly, Mouton (2002:36) argues that research design and methodology is the required execution of certain stages in the research process. The research method is therefore any plan of action or structure of the investigation used to obtain evidence to answer the research questions and to solve problems stated in the study. Therefore, it implies the basic plan of action. Additionally, Cohen et al. (2002:75) refer to research design and methodology as the establishment of the practicalities of the research which addresses issues such as:

- specific purposes of the research;
- general research purposes and aims;

- specific research questions;
- research focus;
- main methodology of the research (e.g. a quantitative research, an ethnographic study and experiment, a case study etc.);
- validity and reliability;
- kinds of data collected;
- sampling;
- documentary sources (where else will data be available);
- instrumentation; and
- who will undertake the research.

3.2.1 Quantitative study

Traditionally, both quantitative and qualitative research studies are conducted in education. The difference between the two approaches is embedded in the way in which the results are presented (cf. 4.2 and 4.3). Quantitative research presents statistical results represented in numbers, while qualitative research presents facts in a narration of words. What makes the two approaches different is the way each views reality and the world. Each has different assumptions about the world, different purposes for researching, different research methods, and differences in the researcher's role and differences in the importance of the context (Moduka, 2001:38).

Quantitative study involves choosing participants and data collection techniques such as questionnaires. It consists of research in which the data can be analysed in terms of numbers. Quantitative researchers collect facts and study the relationship of one set of facts to another. They use techniques that are likely to produce quantified and if possible, generalised conclusions (Best & Khan, 2003:75).

Moduka (2001:38) explains that most quantitative data techniques are data condensers; that is, they condense data in order to see the big

picture. On the other hand, qualitative methods are best understood as data enhancers. When data are enhanced, it is possible to see key aspects of cases more clearly. Furthermore, the way in which the research study processes are carried out also becomes clearer.

3.2.2 Qualitative study

Although a questionnaire was used as primary instrument to collect data, interviews were also conducted to validate gathered data through the questionnaire (Moeketsi, 2004:117). According to Bell (1999:7), researchers adopting a qualitative perspective are more concerned in understanding individuals' perception of the world. They seek insight rather than statistical analysis.

Radebe (1999:208) rightly cites the fact that qualitative research reveals all that interviewees feel about a situation in which they find themselves. Therefore, qualitative research is adopted in this study; firstly, to collect data directly and verbally and secondly, to supplement and strengthen data collected quantitatively.

The main aim is to investigate the impact of HIV and AIDS on education as perceived secondary school learners (cf.1.4). Therefore, learners' perception on the impact of HIV and AIDS on education is of great importance. It will assist in achievement of the aim and objectives of the study.

3.3 SAMPLING TECHNIQUES

3.3.1 Simple random sampling

According to Somekh and Lewin (2005:217), simple random sampling is the simplest strategy in which each population member has an equal chance of selection through pulling names from a hat or assigning each member a unique number and using random numbers

for selection. Ritchie and Lewis (2005:77) show that there are two most important strategies for social research sampling, namely: probability and non-probability samples. Probability sampling is for statistical research and non-probability sampling is for qualitative research. In this study, both strategies were used.

3.3.2 Effecting the simple random sampling

Sample selection is the primary technique used to collect data and the manner in which cases rich in information, present themselves. The reasoning behind sampling is associated with the purpose of the study and the research problem studied (Smith, 1998:97).

The researcher did simple random sampling to select the sample of participants. Imenda and Muyangwa (2000:120) show that in simple random sampling, all the individuals in the defined population have an equal and independent chance of being selected as a member of the sample. This means that the selection of one individual does not affect in any way, the chances of selection of another individual. On the other hand, Motseke (2000:105) explains the simple random sampling technique as a process by which every individual in the accessible population has an equal and independent chance of being selected as a member of the sample.

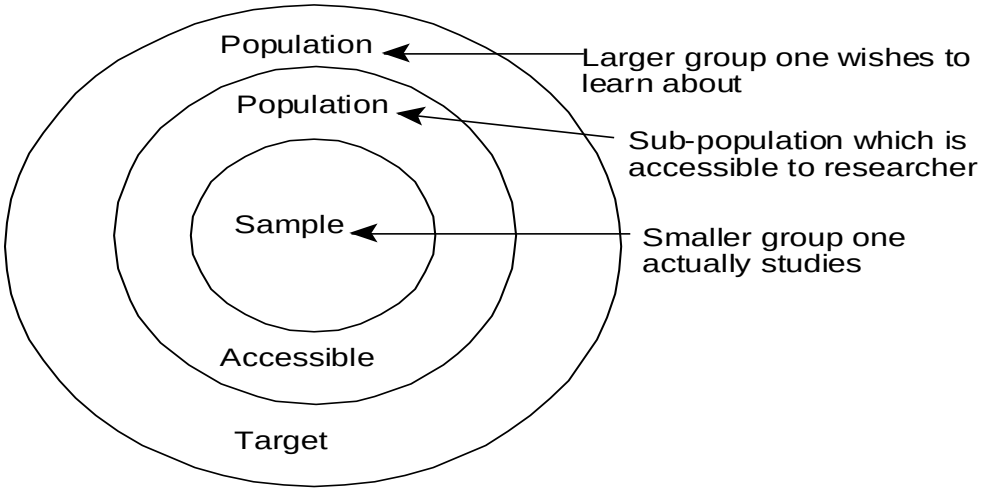
In this study, all accessible schools were placed in alphabetical order from A to J and then the first school was selected. This means that school A was selected. This left the researcher with nine schools from which every second school was selected until the required number (five schools) of participating schools was reached. Participation would be voluntary, since this was a condition put by the Free State Department of Education. (cf. Annexure A).

For interviews, the researcher used systematic random sample through which every 25th learner in each participating school was selected from each school

grade. This means that five learners would be initially selected from each school. Out of the five initial selections, five pieces of papers were cut and names of participating learners were written on them. Two randomly selected names would represent each school, giving the researcher a total of ten learners to be interviewed. However, eight out of ten were able to give interviews.

Target population means that section of people which is to be participants in the study (cf. section 3.7). In this study, target population consisted of secondary school learners who formed part of the research sample.

Figure 3.1: Relationships amongst the three levels of population



(Imenda and Muyangwa, 2000:118).

Therefore, Imenda and Muyangwa (2000:118-121) define target population, accessible population and the research sample as indicated below:

Target population: may be defined as the group of subjects to whom the findings of a given study will be generalised. In this study it would be all secondary school learners in Masilonyana district.

Accessible population: refers to a sub-population of the target population which is close enough to the researcher and which possesses the same major and critical characteristics of the target population. In this study, it would be learners in selected schools in Masilonyana district.

Research sample: it is a small group of subjects that possess the main characteristics of the accessible population. In this study, this would be secondary school learners in Masilonyana district who actually took part in the study. A research sample is therefore a group of people taking part in a given study and about whom information is to be collected. These people are often referred to as the subjects, the sample or the participants.

3.3.3 Research sample

In this study, the research sample refers to all secondary school learners in Masilonyana district who actually too part in answering the questionnaire and interview questions (cf 1.6.2). Sample selection is the primary technique used to collect data and the manner in which cases rich in information, present themselves. The reasoning behind sampling is associated with the purpose of the study and the research problem studied (Smith, 1998:97).

3.4 DATA COLLECTION

3.4.1 The research instruments

The reason for using both instruments (questionnaire and interview) is that the same consideration and techniques used for constructing questionnaires may also be used in constructing interview schedules. However, as indicated in the previous paragraph, interviews are more time consuming and expensive than questionnaires. Their advantage

over questionnaires is that they provide the researcher with the opportunity for face-to-face interaction with the respondent.

Therefore, both the questionnaire and the interview were used in this study because of the following factors which influenced the researcher's choice:

- the size of the sample which consisted of a large number of subjects;
- questionnaires may not elicit as high a completion rate as expected;
- systematic differences in the characteristics of respondents (Ary et al., 1990:421).

Morse (1994:300) argues that interviews are the most used method for qualitative research where both the researcher and respondent influence each other. The interviews in this case involve a process of unveiling personal feelings, beliefs, wishes, problems, experiences and behaviours. Additionally, Cohen et al. (2002:267) identify three important conceptions of interviews namely: a pure information transfer, a transaction and an encounter which shares many of the features of everyday life.

3.4.1.1 Literature review

The literature review consists of the review of literature in order to gather as much background to the problem as possible. Such data is analysed and synthesized in order to arrive at some definite conclusions. It also provides a comprehensive overview of existing research as a preliminary step in the researcher's preparation for the study of the impact of HIV and AIDS on education. Literature review furthermore provides necessary assistance and guidance needed for the problem to investigated (Radebe, 1999:5-6).

Imenda and Muyangwa (2000:12) define literature study as involving locating, reading and evaluating reports of research as well as reports of casual observations and opinions that are related to the researcher's planned research project. The literature study aims at obtaining a detailed knowledge of the topic being studied. In this study, literature on the impact of HIV and AIDS was studied in detail with the purpose of investigating the impact of HIV and AIDS on education and to answer the research questions and achieve the research objectives.

De Poy and Gitlin (1998:17) refer to literature study as a process in which the researcher critically reviews literature that is directly or indirectly related to both the topic and proposed strategy of conducting the research. In this study both primary and secondary sources will be used to gather data and to establish what other researchers found on the subject. Leedy and Ormrod (2005:64) state that "Those who conduct research belong to a community of scholars, each of whom has journeyed into the unknown to bring back an insight, a truth, a point of light. What they have recorded of their journeys and findings will make it easier for you to explore the unknown: to help you also discover an insight, a truth, or a point of light." This implies that no new researcher can start on his own effort without consulting what expert source have written about the topic being investigated and come up with true perceptions of or ideas of respondent. Literature reviewed also provided information that was used to construct the questionnaire.

3.4.1.2 The questionnaire as a research tool

Walker (1993:91) refers to a questionnaire as a formalised and stylised interview by proxy which is normally applicable to a large sample. Questionnaires consist of a variety of instruments in which the subject responds to written questions to elicit reactions, beliefs and attitudes (McMillan & Schumacher, 1996:46).

- Construction of the questionnaire

In this study, the Likert scale questionnaire was constructed to gather information from the learners. A Likert scale was constructed by assembling a number of statements about an object (Moduka, 2001:40). True/false statements and strongly disagree, disagree, agree and strongly agree were selected for this purpose. Each of these categories represented points 1, 2, 3 and 4 respectively. Questionnaires have many advantages and disadvantages in the research process. Walker (1993:48-49) lists the advantages of using questionnaires as follows:

- questionnaires are easy to administer;
- are quick to fill in;
- retain relevance of questions;
- are easy to follow up; and
- provide direct comparisons of groups and individuals.

Mouton (2001:103) indicates that questionnaires have some disadvantages which researchers need to take into consideration. Therefore, the following can be considered as disadvantageous to the research if:

- no piloting or pre-testing is done;
- words are too vague or ambiguous to the respondents;
- there are double-barrelled questions. These are questions that combine two or more questions in one;
- there are term order effects : the order or sequence of questions may affect response accuracy and response rates;
- questions measure constructs or attitudes that do not exist; and
- there are leading questions.

Therefore, questionnaires were used in this study because they helped to glean information from large numbers of people.

- Structure of the questionnaire

De Vos, Strydom, Fouché, and Delport (2002:175) state that before the researcher can decide on the nature of the questionnaire, there must be clarity on precisely what information is to be obtained. The questionnaire must be brief, including only those questions that are absolutely necessary for collecting all the relevant information. In the case of mailed questionnaires clear instructions must be given to the respondent about the method according to which the questionnaires are to be competed (de Vos et al., 2002:176). In this study, the questionnaires were delivered to schools by the researcher and recollected within a period of two weeks.

The researcher telephoned principals of participating schools in order to make appointments for the delivery of questionnaires to the learners. On arrival at the schools, the researcher produced official documents from the Free State Department of Education which authorised the researcher to conduct the study. Part one of the questionnaires consisted of personal data and called for general information about the respondents regarding their gender, age and school grade. With this type of questions, information obtained can be logically divided in simpler form and categorised (Greeff, 2005:180).

Part two of the questionnaire investigated the impact of HIV and AIDS on education. This section was constructed to provide information on the impact of HIV and AIDS on education. It formed the main part of the study. It investigated the learners'' perception of the impact of HIV and AIDS on education. For this section, a four Likert scale namely strongly disagrees, disagree, agree and strongly agree was used because of the statement given. The respondents were to indicate the rate at which they agree or disagree with the statement.

Part three of the questionnaire focused on managing the impact of HIV and AIDS on education.

- Administration of the questionnaire

The Life Orientation teachers supervised the completion, handling and collection of completed questionnaires by respondents. The researchers ensured that there was constant communication between those administering the questionnaires and the researcher. Therefore, a smooth completion of the questionnaires was ensured. After the questionnaires were inspected by the researcher, and a thorough area numbers identified, the questionnaires were sent to the statistician who advised on the capturing of the raw data. The data was then analysed according to three data analysis methods, namely, frequency distribution, chi-square and Kendal Tau.

3.4.1.3 Interviews

The interview is the most commonly used qualitative technique because it allows the researcher to produce a rich and varied data set in a less formal setting. It can be structured or unstructured in form. It differs from the questionnaire in the nature of its questions and the manner of presentation (Kitchin & Tate, 2000:212). An interview also allows a more thorough examination of experiences, feelings or opinions that closed questions could never hope to capture (Kitchin & Tate, 2000:213). The interview is an effective method of conducting a survey and Wiersma (2000:183-184) summarises the advantages of an interview over the use of a questionnaire as follows:

- if the interview is granted, there is no problem with non-response;
- the interview provides an opportunity for in-depth probing, elaboration and clarification of items, if necessary;
- completion of the survey can be standardised;
- there tends to be success with obtaining responses to open-ended items;
- it is easier to avoid the omission of items;
- interviews may be used with individuals from whom data cannot

otherwise be obtained.

Although interviews have these advantages, there are disadvantages as well. Prospective interviewees may simply not be interested, or may be unwilling to provide certain information because of fear of failure to provide the needed facts.

A tape recorder was used with the permission of the interviewees to record and capture the entire interview process verbatim. Interviews are the most common and flexible research method. Structured interviews were held with eight secondary school learners. Interviews were limited to approximately thirty minutes. Seven structured questions were asked in English but respondents were allowed to answer in the language that they preferred to elaborate on the issue. However, interviews are time consuming and expensive to conduct (Ary, Jacobs & Razavieh, 1990:418).

The following section highlights an analysis for collected data.

3.5 DATA ANALYSIS

3.5.1 Procedures for analysing questionnaire data

Quantitative data in professional research can be analysed manually or by computer (de Vos et al., 2002:222-223). Interpreting data is nothing else but a skill. While the ability to interpret data is essential in learning generally, it is of vital importance in any research. Data are being constantly interpreted when news is watched on television, when weather maps are observed, when listening to the radio or to a lecturer, when looking at photographs or magazines, and so on (Imenda & Muyangwa, 2002:166). Accordingly, once research has been carried out, the next step for the researcher is to see whether or not the data collected support or contradict the hypothesis being tested, or the research questions being asked. This section attempts to highlight

statistical techniques that were used to analyse questionnaire data.

3.5.1.1 Collection and storage of data

Smith (1998:101) indicates that after administering research instruments, the collected data are scored and processed to facilitate analysis. The data so collected, should be scored accurately and consistently to avoid inaccurate or misleading conclusions being drawn from them.

Data may take many forms (Wiersma, 2000: 323) and when they take numerical forms such as scores or frequencies, the usual course of action is to perform an appropriate type of statistical analysis. When data are presented as numbers, they are usually accorded some form of statistical - quantitative meaning. That is why statistical analyses are commonly associated with quantitative research. Statistics refer to bits of information and may also mean the theory, procedures and methodology by which data are summarised (Wiersma, 2000:325).

Wiersma (2000:336-337) discusses data analysis by computers. Unless the quantity of the research data is very limited, most statistical analyses are done on a computer. Computers are extremely useful for data analysis because of their functionality, speed, accuracy consistency and accessibility.

Therefore, computers are extremely useful for data analysis because they are functional, fast, accurate and accessible. In this study, the Microsoft Excel was used to capture and store data derived from questionnaires, while the SPSS (Statistical Package for the Social Sciences) was used to interpret quantitative data. Most of these procedures discussed in this paragraph reflect data analysis in the quantitative method.

Gilbert (1993:5) notes that there are two commonly used computer

programmes for data analysis. The programmes are the Generalised Linear Interactive Modeling (GLM) and the Statistical Package for the Social Sciences (SPSS). According to Fraenkel and Wallen (1993:159), a common way to list quantitative data is to prepare a frequency distribution which is done in rank order from high to low; all scores are to be summarized.

3.5.1.2 Descriptive statistics

Descriptive statistics is the first step in the analysis of data. Describing data usually means computing a set of descriptive statistics, known so that the general characteristics of a set or distribution of scores is achieved (Salkind, 2003:154). According to Leedy and Ormrod (2005:179), descriptive statistics means to identify the characteristics of an observed phenomenon or exploring possible correlations among two or more phenomena. Descriptive statistics was used in this study to observe and compare the number or percentage of values as outlined in the four item Likert Scale.

3.5.1.3 Chi-square test used as a technique for data analysis

The next important statistical technique used in this study is the Chi-square test. This statistical technique measures the degree of difference between two variables and in this study it measures the degree of responses or differences according to area, gender, and age and school grade regarding the questions. Chi-square test is commonly used in quantitative research. McMillan and Schumacher (1997:631) refer to chi-square (X^2) as a statistical procedure that is used as an inferential statistic with normal data, such as data used in this study. Ary et al. (1990:209) mention that in a chi-square test, two sets of frequencies are compared, namely: to the actual frequencies obtained by observation, whereas expected frequencies are theoretical frequencies used mostly for comparison. Ary et al. (1990:210) apply the chi-Square formula as shown below:

Where: X^2 = the value of chi-square
Fo = the observed frequency
Fe = the expected frequency

In order to determine the significance of chi-square in quantitative research analysis, the table of X^2 value is used and this table reflects the usefulness of the chi-square assumptions, as discussed in the next paragraph.

3.5.1.4 Assumptions of chi-square tests

Chi-square is simple to use. However, there are assumptions that should be met if valid interpretations of the study are to be achieved. Ary et al. (1990:213) list some of these assumptions as follows:

- Observations should be independent. This implies that the subjects in each sample should be randomly and independently selected;
- The categories should be mutually exclusive. This means that each observation may appear in one and only one of the categories in the table;
- The observations are measured as frequencies.

Therefore, the requirements of chi-square are fully implemented in this study because the degree of the respondents' independence, random selection criteria and measurement of frequencies and comparison, are regarded as key pillars of the empirical study. Ary et al. (1990:215) summarize the definition of chi-square as an index used to determine the significance of the differences between proportions of subjects, objects and events that fall into different categories by observed frequencies and expected frequencies.

3.5.1.5 Cross-tabulation (Contingency tables)

Cross-tabulation is a technique for displaying the joint-frequency distributions for two variables. It is a technique that is best used for numerical variables classified into categories and/or for nominal measurement (de Vos et al., 2002:242). Tables presenting data analysis according to cross-tabulation are used in this study to validate these data further. In this study, independent variables were cross-tabled with specific dependent variables.

The following information was provided by the Institutional Research Institute of the Central University of Technology, Free State:

- Frequency tables: that highlighted frequency responses by respondents.
- Cross tabulation: De Vaus (2002:237) asserted that cross tabulation is one of a number of ways of showing whether two variables are linked to each other. They can provide a great deal of detail about a relationship between two variables. In this study, identified independent variables were cross-tabled with specific dependent variables.

The p-value ("waarskynlikheids" value) was also provided by the computer centre and therefore, the researcher did not have to calculate the chi-square (X^2) results according to the degrees of freedom from a standardised table.

- Chi-square tests: McMillan and Schumacher (**1997:631**) referred to chi-square (X^2) as a statistical procedure that is used as an inferential statistic with normal data such as data used in this study. Burton (2000:391) defined chi-square as a measure of the distance between two tables. A big chi-square value denotes a big distance and a small chi-square value a small distance. The formula for the chi-square test is:

$$X^2 = \sum \frac{(O - E)^2}{}$$

$$\sum \frac{(O - E)^2}{E}$$

Where: X^2 : Chi-square

$\sum$: sum

= : Equals

$(O - E)^2$: (Observed minus Expected) squared (Burton, 2000:391).

The chi-square was used in this study to determine whether a relationship exists between two or more categorical variables, or whether the categories obtained from one sample of individuals are similar to the categories obtained from another sample. The chi-square is however, on itself not a measure to determine a relationship between numbers. A null hypothesis should be stated first. De Vos (1998:120) declared that the null hypothesis is "a statistical position which states, essentially, that there is no relation between the variables (of the problem). If the null hypothesis is rejected, it can be stated that the sampling result is statistical significant or that statistical significance is obtained.

To determine if the null hypothesis should be rejected or accepted, the applicable rule of determination for the chosen statistics should be applied. The rule of determination which is valid in this study is that if p < 0, 05 which represents a statistical position of 95% between two variables, while p < 0,01 represents a statistical significance of 99% between two or more variables. If the null hypothesis is rejected, there is a statistical significance between two or more variables. If the null hypothesis is accepted, then there is no statistical significance between two or more variables (De Vos et al., 2001:233).

In this study, the presentation of the chi-square and cross tabulation was done according to the example outlined in Vorster (2001:83): X^2 (6) = 20, 7; p<0, 05. According to this example, the chi-square calculation presents, with 6 degrees of freedom, a value of 20, 7. The calculated p-value is therefore smaller than 0, 05 and the null

hypothesis can be rejected.

In this study, the p value (probability value) was provided by the Institutional Research Institute of the Central University of Technology, Free State. Therefore, the researcher made calculations according to the degrees of freedom from a standardized table. Mouton and Prosesky (**2006:483**) indicate that null hypothesis determines the statistical relationship between the dependent and independent variables, as well as establishing the amount of influence the compounding variables may have on the study.

3.5.2 Procedures for analyzing interview data

Interview data analysis is more flexible to use than quantitative data analysis (Walker, 1993:141). The tape-recorded interviews were transcribed. The transcribed texts were then analysed and their functional meaning described. In this study, interviews with learners were conducted to determine the impact of HIV and AIDS on education.

3.5.2.1 Format of interviews

Structured interviews were held, with eight learners. Interviews were limited to a maximum of forty minutes. Seven structured questions (cf. Annexure F) were asked in English but respondents were given the option of answering in the language that they preferred. This was done to facilitate fluency and understanding between the researcher and the respondent, as well as to enable the interviewees to use any language in which they felt comfortable to express their real feelings and meanings.

The procedure for analyzing and interpreting these interview data for this study conformed to the three stages of data analysis suggested by Miles and Huberman, as cited in Wellington (2000:134). In this study,

data derived from the interview questions were collected, summarized, coded and sorted into themes, while the final stage was about interpreting and giving meaning to the data.

3.5.2.2 Triangulation

In this study, triangulation would be applied by using two methods of data gathering namely, questionnaire and interviews. Data would be collected from grades 8 to 12 learners and consistency could be checked by adding interviews to supplement data obtained through questionnaire. In combining the use of the two research instruments, the researcher re-enforces the likelihood of higher validity and reliability.

3.6 TRUSTWORTHINESS

An essential attribute of research instruments is the existence of reliability and validity, the latter being the most important characteristic (Smith, 1998:94).

3.6.1 Validity

Validity is often related to the operationalisation of concepts (Mason, 2002:38). This means that the researcher needs to be able to demonstrate that concepts can be identified, observed or measured in the way it has been planned. On the other hand, Wiersma (2000:102) argues that experimental validity that includes both internal and external validity for interpreting the results for generalisation should be followed. In this study, the measurement of the validity of the questionnaire instrument was enhanced by eliciting the services of a statistician who helped in the identification of measures of validity and the interpretation of answers from respondents.

Validity is a methodological tradition for evaluating research and

evidence. In other words: *How will I turn my data into evidence which can be used to validate the data?*

How will I address my research questions? How will I be able to demonstrate that my evidence is meaningful, my arguments convincing and my research of good quality? (Mason: 2002:38-39). Validity goes along with reliability (cf. 3.6.2).

Validity has to be argued for as it is not proven (de Vaus, 2002:27). According to Motseke (1998:136), validity is the degree to which a research tool actually measures what it is said to measure or the extent to which findings correctly represent what is happening in the situation. The most important research tool used to measure validity in this study is construct validity. Motseke (1998:137) defines the construct validity of an instrument or tool as the extent to which a researcher can be certain that the instrument represents the construct whose name appears in the title.

3.6.2 Reliability

Reliability involves the accuracy of the researcher's study methods and techniques, and to what degree it can be maximised. Mason (2002:187) states that if there is consistency with which the research tools produce the same results then reliability will have been measured. Additionally, Norman, Denzin and Lincoln (2000:284) mention that reliability is traditionally associated with accuracy, stability, consistency and the repeatability of the study. On the other hand, Smith (1998:96) refers to reliability as dependability or credibility. This means the ratio to which a test constantly measures what it is intended to measure. In order to enhance validity and reliability, the researcher elicited the services of the statistician who helped to determine the accuracy and precision of the research instruments used.

3.6.3 Item analysis

Data analysis relies on measurements being both reliable and valid. A reliable measure is one on which a researcher can depend for obtaining consistent responses (De Vaus, 2002:17). Furthermore, reliability may also be described as the ratio of the variance of the actual score to the variance of the observed score (Motseke, 1998:135).

In order to ensure reliability, the questions formulated were first discussed with the statistician several times so that questionnaires and interview questions could be accurately constructed for data gathering. All respondents were given the same directions and had the same time frame in which to respond to the questionnaire and answer interview questions. The pilot study was not conducted because of the time constraint on both the respondents and the researcher.

3.7 CONCLUSION

Chapter Three manifests data collection to be inherent in all research studies. Instruments used for data collection are supported with reasons for their specific selection and use.

Quantitative and qualitative research designs and the reasons for the selection of these methods of research are also discussed, as well as the validity and reliability of the questionnaire.

The procedures for analyzing questionnaire and interview data were also explained in detail.

The rationale for combining quantitative and qualitative approaches in this study is also explained in detail in this chapter.

Chapter four will deal exclusively with data presentation, analysis and interpretation.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

Chapter Four focuses on data presentation, analysis and interpretation. It provides data analysis on the perceived impact of HIV and AIDS on education as perceived by secondary schools in Masilonyana district. The SPSS software used to perform the statistical procedures was chosen in line with the type of data that was captured.

Mvula (2003:158), refers to data analysis as a process of selecting, sorting, focusing and discarding data with the purpose of bringing order and structure to the data collected. Bryman and Cramer (1990:7) argue that one of the major aims of much of the quantitative research in the social sciences is the demonstration of causality whereby one variable has an impact upon another, hence the application of the terms, dependent and independent variable, as identified in the tables.

Qualitative data analysis is more flexible to use than quantitative data analysis (Walker, 1993:141). In this study, the tape-recorded interviews were transcribed and analyses were made from the transcription. The procedure used conformed to three stages of data analysis as suggested by Miles and Huberman as cited in Wellington (2000:134). Therefore, data derived from qualitative approach was collected, summarised, coded and sorted into themes while the final stage was interpreting and giving meaning to data.

4.2 QUANTITATIVE DATA ANALYSIS

This section deals exclusively with determining the level of learners' perception about the impact of HIV and AIDS on education.

4.2.1 Biographical data for learners

This section provides biographical data for learners according to area, gender, age and

school grade. It also illustrates number of counts and percentage response.

Table 4.1 Biographical data for learners (N=142)

Personal Items	**% RESPONDENTS ACCORDING TO GENDER, AGE & GRADE**										**%Total**
1.Gender	Male					Female					
	272 (43.0%)					360 (57.0%)					100
2. Age	13	14	15	16	17	18	19	20	21	22	
Count	29	42	73	102	102	97	102	45	16	6	
%	4.6	6.7	11.6	16.1	19.1	15.3	16.1	7.1	2.5	0.9	100
3. Grade	8		9		10		11		12		
Count	107		125		181		137		82		
%	16.9		19.8		28.6		21.7		13.0		100

Table 4.1 illustrates that most questionnaires were given to Grades 8, 9 and 10 learners and fewer questionnaires were given to Grades 11 and 12. One major reason for taking this action could be that Grade 11 learners were already being engaged into preparations for Grade 12 work for the next year while Grade 12 could be busy preparing for the year's Grade 12 public examination. Despite this minor setback, the response rate was positive.

Table 4.2: Frequency distribution of respondents **(N = 142)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	30	21.1	21.1	21.1
	2	60	42.3	42.3	63.4
	3	24	16.9	16.9	80.3
	4	28	19.7	19.7	100.0
	Total	142	100.0	100.0	

Table 4.2 indicates that 21, 1% of respondents were from area 1 (Brandfort), 42, 3% were from area 2 (Theunissen), 16, 9% were from area 3 (Verkeerdevlei while 19, 7% were from area 4 (Winburg).

Table 4.3: Frequency distribution in terms of gender (N = 142)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	68	47.9	47.9	47.9
	Female	74	52.1	52.1	100.0
	Total	142	100.0	100.0	

Table 4.3 provides division of respondents according to gender. 47, 9% of them were

male learners and 52, 1% were female learners.

Table 4.4: Frequency distribution in terms of age (N = 142)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13	1	.7	.7	.7
	14	13	9.2	9.2	9.9
	15	28	19.7	19.7	29.6
	16	22	15.5	15.5	45.1
	17	31	21.8	21.8	66.9
	18	26	18.3	18.3	85.2
	19	16	11.3	11.3	96.5
	20	4	2.8	2.8	99.3
	22	1	.7	.7	100.0
	Total	142	100.0	100.0	

Table 4.4 shows that 0, 7% of respondents were 13 years of age, 9, 2% of them were 14 years of age, 19,7% were 15 years old, 15,5% were 16 years old, 21,8% were 17 years old, 18,3% were 18 years old, 11,3% were 19 years old, 2,8% were 20 years old while 0,7% were 22 years old.

Table 4.5: Frequency distribution in terms of grade (N = 142)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Grade 8	24	16.9	16.9	16.9
	Grade 9	23	16.2	16.2	33.1
	Grade 10	38	26.8	26.8	59.9
	Grade 11	29	20.4	20.4	80.3
	Grade 12	28	19.7	19.7	100.0
	Total	142	100.0	100.0	

Table 4.5 above shows that 16, 9% of respondents were in grade 8, and that 16, 2% were in grade 9. It also indicates that 26, 8% of them were in grade 10 while 20, 4% were in grade 11. The table also points out that grade 12 learners comprised 19, 7% of the total learners.

4.2.2 Data analysis on the impact of HIV and AIDS on education

Data on the impact of HIV and AIDS on education is presented according to area, age, gender, and school grade of the respondents.

4.2.2.1 The impact of HIV and AIDS on education as perceived by secondary school learners.

Item 5 of the questionnaire was meant to establish if secondary school enrolment rates

were decreasing owing to HIV and AIDS. Table 4.6 illustrates the results from the responses of learners.

Table 4.6: Frequency distribution in terms of the impact of HIV and AIDS on education as perceived by secondary school learners (N = 142)

	Strongly Disagree		Disagree		Agree		Strongly Agree	
	Count	Row %	Count	Row %	Count	Row %	Count	Row %
Secondary enrolment rates decrease owing to HIV & AIDS	20	14.1%	38	26.8%	55	38.7%	29	20.4 %
Drop-out rates at secondary schools	13	9.2%	46	32.4%	58	40.8%	25	17.6 %
There is negative secondary population growth rate	24	16.9%	40	28.2%	46	32.4%	32	22.5 %
Absenteeism from school by learners affected by HIV & AIDS	22	15.5%	40	28.2%	55	38.7%	25	17.6 %
Greater demand for second-chance education by learners returning to education after absence	7	4.9%	30	21.1%	80	56.3%	25	17.6 %
Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	3	2.1%	24	16.9%	73	51.4%	42	29.6 %
Families have less disposable income for school fees and uniforms	12	8.5%	18	12.7%	66	46.5%	46	32.4 %
FS Department of Education is losing key teachers	8	5.6%	24	16.9%	65	45.8%	45	31.7 %
HIV infection among teachers is above that of the population as a whole	27	19.0%	33	23.2%	56	39.4%	26	18.3 %
Teachers are required to take responsibilities for AIDS orphans within the extended family	6	4.2%	26	18.3%	73	51.4%	37	26.1 %
Job mobility among teachers is increasing as a result of the AIDS pandemic	8	5.6%	43	30.3%	68	47.9%	23	16.2 %
Greater numbers of teachers are leaving the profession to other sectors	12	8.5%	29	20.4%	67	47.2%	34	23.9 %
More teachers are to be trained to keep up with the demand for teachers	7	4.9%	19	13.4%	69	48.6%	47	33.1 %
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	8	5.6%	31	21.8%	68	47.9%	35	24.6 %
New recruitment do not make up for the loss of the education services of most experienced educators	6	4.2%	25	17.6%	74	52.1%	37	26.1 %
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	5	3.5%	33	23.2%	87	61.3%	17	12.0 %
The HIV and AIDS pandemic have traumatic impact on teachers.	8	5.6%	17	12.0%	66	46.5%	51	35.9 %
The HIV and AIDS pandemic have traumatic impact on learners.	4	2.8%	19	13.4%	60	42.3%	59	41.5 %
The work of teachers affected by HIV and AIDS is being compromised by period of illness	4	2.8%	21	14.8%	75	52.8%	42	29.6 %
Teachers affected by HIV positive lose interest in improving their qualifications	9	6.3%	13	9.2%	63	44.4%	57	40.1 %
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	7	4.9%	24	16.9%	80	56.3%	31	21.8 %
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	8	5.6%	27	19.0%	59	41.5%	48	33.8 %
The quality of teaching and learning is inevitably compromised	6	4.2%	29	20.4%	83	58.5%	24	16.9 %
Learners are losing parents and siblings to HIV and AIDS	5	3.5%	5	3.5%	53	37.3%	79	55.6 %
Orphaned learners may move long distances to find new homes	10	7.0%	11	7.7%	70	49.3%	51	35.9 %
Many schools lose their principals to HIV and AIDS	22	15.5%	30	21.1%	49	34.5%	41	28.9 %
Many schools lose experienced teacher-mentors to HIV and AIDS	8	5.6%	23	16.2%	59	41.5%	52	36.6 %
The quality of education is declining as young and less-experienced teachers replace experienced ones.	4	2.8%	26	18.3%	58	40.8%	54	38.0 %

The table indicates that 59.1% of respondents either agreed or strongly agreed that secondary school enrolment rates were decreasing owing to HIV and AIDS while 40, 9% of them either strongly disagreed or disagreed with the statement.

This implies that secondary school learners perceived that enrolment rates were decreasing owing to HIV and AIDS.

Item 6 of the questionnaire was posed to find out if dropout rates were rising owing to HIV and AIDS. The table above shows that the majority of respondents (58,4%) either agreed or strongly agreed that dropout rates at secondary schools were rising owing to HIV and AIDS. However, 41,6% of them either strongly disagreed or disagreed with the statement.

Item 7 of the questionnaire was asked to establish if there was negative secondary school population growth rate owing to HIV and AIDS. The table illustrates that 54, 9% of respondents either agreed or strongly agreed to the statement while 45, 1% of them did not claim so.

This could imply that there was negative secondary school population growth rate owing to HIV and AIDS.

Item 8 of the questionnaire was asked to find out if absenteeism from school by learners affected by HIV and AIDS is rising. The table shows that 66, 3% of respondents perceived that absenteeism from school by learners affected by HIV and AIDS was rising while 43, 7% of them did not perceive so.

This could also imply that the respondents perceived that absenteeism from school by learners affected by HIV and AIDS was rising.

Item 9 of the questionnaire was posed to investigate if there was greater demand for second-chance education by learners returning to school after absence from the system. 73, 9% of respondents either agreed or strongly agreed that there was greater demand for second-chance education by learners returning to education after absence from the system. However, 26, 0% of them either strongly disagreed or disagreed to the statement.

This also could imply that there was greater demand for second-chance education by learners returning to education after absence from the system.

Item 10 of the questionnaire was drawn up to establish if there was greater demand for flexible learning opportunities for learners who were care-givers or wage-earners. The majority of respondents (81, 0%) either agreed or strongly agreed to the statement while 19, 0% of them did not claim so.

This could also imply that there was greater demand for flexible learning opportunities for learners who were care-givers or wage-earners.

Item 11 of the questionnaire was posed to establish if families have less disposable income for school fees and uniforms. 78, 9% of respondents either agreed or strongly agreed to the statement while 21, 2% of them did not claim so.

This could imply that families had less disposable income for school fees and uniforms.

Item 12 was constructed to establish if Free State Department of Education was losing key educators to HIV and AIDS at increasing rates. The majority of respondents (77, 5%) either agreed or strongly agreed to the statement while 22, 5% of them did not claim so.

This also could imply that the Free State Department of Education was losing key educators to HIV and AIDS.

Item 13 was asked to find out if the incidence of HIV and AIDS infection among educators was above that of the population as a whole. The majority of respondents (57, 7%) either agreed or strongly agreed to the statement while 42, 2% of them either strongly disagreed or disagreed to the statement.

This also could imply that the incidence of HIV and AIDS infection among educators was above that of the population as a whole.

Item 14 was constructed to determine if educators were required to take responsibilities for AIDS orphans within the extended family. The majority of respondents (77, 5%) either agreed or strongly agreed to the statement while 22, 5% of them did not claim so.

This could imply that educators were required to take responsibilities for AIDS orphans within the extended family.

Item 15 was constructed to establish if job movement/mobility among educators was increasing as a result of the AIDS pandemic. The majority of respondents (64, 1%) showed that job movement/mobility among educators was increasing as a result of the AIDS pandemic. However, 35, 9% of respondents did not claim so.

This could imply that job mobility among educators was increasing as a result of the pandemic.

Item 16 was posed to determine if greater numbers of educators were leaving the profession and were attracted to better jobs in other sectors where skilled personnel were laid low by HIV and AIDS. The majority of respondents (71, 1%) showed that greater numbers of educators were leaving the profession, and were attracted to better jobs in other sectors where skilled personnel was laid low by HIV and AIDS.

This could mean that there was job mobility among educators to other sectors where skilled personnel were laid low by HIV and AIDS.

Item 17 was posed to find out if more educators were to be trained to keep up with the demand for educators. 81, 7% of respondents either agree or strongly agree to the statement.

This could imply that more educators were to be trained to keep up with the demand for educators.

Item 18 was drawn up to determine if high learner-educator ratio that results owing to HIV and AIDS was negatively affecting the quality of education. 78, 2% of respondents either agree or strongly agree to the statement.

This could imply that high learner-educator ratio that results owing to HIV and AIDS was negatively affecting the quality of education.

Item 19 was asked to find out if new educator recruitments did not make up for the loss of the education service's most experienced senior educators, managers and science and mathematics specialists. 78, 2% of respondents either agree or strongly agree to the statement.

This could imply that new educator recruitments did not make up for the loss of the education service's most experienced senior educators, managers and science and mathematics specialists.

Item 20 was asked to establish if recruitment of trainees to replace educators lost to the service was inhibited by fewer secondary school leavers available for educator training. The majority of respondents (73, 3%) either agreed or strongly agreed to the statement.

This could also imply that recruitment of trainees to replace educators lost to the service was inhibited by fewer secondary school leavers available for educator training.

Item 21 was constructed to establish if HIV and AIDS pandemic have a traumatic (emotional shock) impact on education. The majority of respondents (82, 4%) either agreed or strongly agreed to the statement.

This could imply that HIV and AIDS pandemic had a traumatic impact on education.

Item 22 was posed to determine if HIV and AIDS pandemic have a traumatic impact on learners. The majority of respondents (83, 8%) either agreed or strongly agreed to the statement.

This could imply that HIV and AIDS pandemic had a traumatic impact on learners.

Item 23 was posed to establish if the work of educators who were HIV positive and those who have developed full blown AIDS was being compromised by periods of illness. The majority of respondents (82, 4%) either agreed or strongly agreed to the statement.

This could also imply that the work of educators who were HIV positive and those who have developed full blown AIDS was being compromised by periods of illness.

Item 24 was asked to find out if educators who were HIV positive lost interest in improving their qualifications. The majority of respondents (84, 5%) either agreed or strongly agreed to the statement.

This could also imply that educators who were HIV positive lost interest in improving their qualifications.

Item 25 was formulated to determine if educators who believe that they were HIV negative lose morale as they cope emotionally and financially with sickness and death among relatives, friends and colleagues. 78, 1% of respondents either agrees or strongly agrees to the statement.

This could imply that educators who believe that they were HIV negative lose morale as they cope emotionally and financially with sickness and death among relatives, friends and colleagues.

Item 26 was constructed to find out if educators have to take on additional teaching and other work related duties in order to cover for sick colleagues. 78, 1% or respondents either agreed or strongly agreed to the statement.

This could imply that educators have to take on additional teaching and other work related duties in order to cover for sick colleagues.

Item 27 was posed to establish if the quality of teaching and learning was inevitably compromised. The majority of respondents (75, 4%) either agreed or strongly agreed to the statement.

This also could imply that the quality of teaching and learning was inevitably compromised.

Item 28 was asked to find out if learners were losing parents and siblings to HIV and AIDS. The majority of respondents (92, 9%) either agreed or strongly agreed to the statement.

This could imply that learners were losing parents and siblings to HIV and AIDS.

Item 29 was asked to determine if orphaned learners might move long distances to find new homes. The majority of respondents (85, 2%) either agreed or strongly agreed to the statement.

This could also imply that orphaned learners were to move long distances to find new homes. Hence learners may be forced to change school, or drop out of the school altogether.

Item 30 was posed to establish if many schools lose their principals to HIV and AIDS. The majority of respondents (63, 4%) either agreed or strongly agreed to the statement.

This could also imply that many schools lose their principals to HIV and AIDS.

Item 31 was posed to determine if many schools lost educator-mentors to HIV and AIDS. The majority of respondents (78, 1%) either agreed or strongly agreed to the statement.

This could also imply that many schools lost educator-mentors to HIV and AIDS.

Item 32 was established to find out if the quality of education was declining as young and less-experienced educators replace experienced ones. The majority of respondents (78, 8%) perceived that the quality of education was declining as young and less-experienced educators replaced experienced ones.

This could also imply that the quality of education was declining as young and less-experienced educators replace experienced ones.

4.2.3 Data analysis on the management of the impact of HIV and AIDS on education as perceived by secondary school learners

Table 4.7: Teachers need much more information about the impact of AIDS on the Education Sector itself (N=142).

		Area				Total
		1	2	3	4	
Teachers need much more information about the impact of AIDS on the education sector itself	Strongly Disagree	0	1	0	1	2
	Disagree	0	6	3	3	12
	Agree	13	23	11	15	62
	Strongly Agree	17	30	10	9	66
Total		30	60	24	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.294(a)	9	.505
Likelihood Ratio	11.306	9	.255
Linear-by-Linear Association	5.340	1	.021
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.166	.068	-2.409	.016
	Kendall's tau-c	-.143	.059	-2.409	.016
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely the need for information and the impact of HIV and AIDS on education. However the sign of the coefficient indicates that there is a negative and fairly weak relationship between the variables. The table shows that the majority of respondents (128 out of 142) either agreed or strongly agreed to the statement. This also could imply that educators needed much more information about the impact of AIDS on the education sector itself.

Table 4.8: Teachers need to understand how HIV and AIDS are likely to influence learners (N=142).

		Area				
		1	2	3	4	Total
Teachers need to understand how HIV and AIDS are likely to influence learners	Strongly Disagree	1	1	0	1	3
	Disagree	1	1	0	0	2
	Agree	7	25	11	19	62
	Strongly Agree	21	33	13	8	75
Total		30	60	24	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.137(a)	9	.118
Likelihood Ratio	15.588	9	.076
Linear-by-Linear Association	4.558	1	.033
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.202	.075	-2.695	.007
	Kendall's tau-c	-.165	.061	-2.695	.007
N of Valid Cases		142			

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According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely HIV and AIDS and the influence on learners. However the sign of the coefficient indicates that there is a negative and fairly weak relationship between the need for educators to understand how HIV and AIDS is likely to influence the learners. The table provides that the majority of respondents (137 out of 142) either agreed or strongly agreed to the statement. This could imply that educators needed to understand how the pandemic was likely to influence learners.

Table 4.9: Teachers need to understand how HIV and AIDS are likely to influence quality of education (N=142).

		Area				
		1	2	3	4	Total
Teachers need to understand how HIV and AIDS are likely to influence the quality of education	Strongly Disagree	0	1	0	0	1
	Disagree	0	4	3	1	8
	Agree	11	18	10	16	55
	Strongly Agree	19	37	11	11	78
Total		30	60	24	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.599(a)	9	.237
Likelihood Ratio	13.055	9	.160
Linear-by-Linear Association	3.694	1	.055
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.160	.069	-2.316	.021
	Kendall's tau-c	-.133	.057	-2.316	.021
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely HIV and AIDS and the quality of education. However the sign of the coefficient indicates that we have a negative and fairly weak relationship between the variables. The table also indicates that the majority of respondents (133 out of 142) either agreed or strongly agreed to the statement. This also could imply that educators needed to understand how HIV and AIDS were likely to influence the quality of education.

Table 4.10: Creative plans to manage the effects of the pandemic on the education system are important (N=142)

		Area				Total
		1	2	3	4	
Creative plans to manage the effects of the pandemic on the education system are important	Strongly Disagree	1	0	0	0	1
	Disagree	5	7	2	1	15
	Agree	18	29	15	15	77
	Strongly Agree	6	24	7	12	49
Total		30	60	24	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.261(a)	9	.330
Likelihood Ratio	10.203	9	.334
Linear-by-Linear Association	4.376	1	.036
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.143	.070	2.018	.044
	Kendall's tau-c	.122	.061	2.018	.044
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely creative plans and the management of the effects of the pandemic. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also illustrates that the majority of respondents (88, 72%) either agreed or strongly agreed to the statement. This could imply that creative plans to manage the effects of HIV and AIDS on education were important if education and training of reasonable quality were to be provided.

Table 4.11: All learners should take responsible decisions about their sexual behaviour (N=142).

		Age in completed years									Total
		13	14	15	16	17	18	19	20	22	
All learners should take responsible decisions about their sexual behaviour	Disagree	0	1	1	1	0	0	0	0	0	3
	Agree	0	3	10	8	10	6	1	2	0	40
	Strongly Agree	1	9	17	13	21	20	15	2	1	99
Total		1	13	28	22	31	26	16	4	1	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.790(a)	16	.688
Likelihood Ratio	15.001	16	.525
Linear-by-Linear Association	3.809	1	.051
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.139	.070	1.971	.049
	Kendall's tau-c	.125	.064	1.971	.049
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely responsible decisions and sexual behaviour. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also provides that the majority of respondents (98,87%) either agreed or strongly agreed to the statement. This could also imply that all learners should take responsible decisions about their sexual behaviour.

Table 4.12: Orphaned learners may move long distances to find new homes (N = 142)

		Area				Total
		1	2	3	4	
Orphaned learners may move long distances to find new homes	Strongly Disagree	1	3	2	4	10
	Disagree	3	4	2	2	11
	Agree	12	29	13	16	70
	Strongly Agree	14	24	7	6	51
Total		30	60	24	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.582(a)	9	.577
Likelihood Ratio	7.489	9	.586
Linear-by-Linear Association	5.086	1	.024
N of Valid Cases	142		

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-.163	.072	-2.238	.025
	Kendall's tau-c	-.144	.064	-2.238	.025
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely orphaned learners and move long distance. However the sign of the coefficient indicates that we have a negative and fairly weak relationship between the variables. This also shows that 121 respondents either agree or strongly agreed to the statement. This also implies that orphaned learners might have to move long distances to find new homes.

Table 4.13: Drop-out rates at secondary schools because of HIV and AIDS (N=142)

		Age in completed years									Total
		13	14	15	16	17	18	19	20	22	
Drop-out rates at secondary schools	Strongly Disagree	0	3	5	2	1	1	1	0	0	13
	Disagree	1	4	6	13	7	11	4	0	0	46
	Agree	0	4	12	4	19	10	7	2	0	58
	Strongly Agree	0	2	5	3	4	4	4	2	1	25
Total		1	13	28	22	31	26	16	4	1	142

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.525(a)	24	.093
Likelihood Ratio	32.239	24	.121
Linear-by-Linear Association	7.123	1	.008
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.163	.072	2.242	.025
	Kendall's tau-c	.165	.073	2.242	.025
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely drop-out rates and HIV and AIDS. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also indicates that 83 respondents out of a total of 142 either agreed or strongly agreed to the statement. This could imply that dropout rates at secondary schools are rising owing to HIV and AIDS.

Table 4.14: Absenteeism from school by learners affected by HIV & AIDS (N=142)

		Age in completed years									Total
		13	14	15	16	17	18	19	20	22	
Absenteeism from school by learners affected by HIV & AIDS	Strongly Disagree	0	4	5	4	3	4	1	1	0	22
	Disagree	1	5	7	9	7	6	5	0	0	40
	Agree	0	3	12	6	15	12	5	2	0	55
	Strongly Agree	0	1	4	3	6	4	5	1	1	25
Total		1	13	28	22	31	26	16	4	1	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.015(a)	24	.638
Likelihood Ratio	20.676	24	.658
Linear-by-Linear Association	6.506	1	.011
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.167	.069	2.428	.015
	Kendall's tau-c	.172	.071	2.428	.015
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, absenteeism and HIV and AIDS.

However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also indicates that 80 respondents out of a total of 142 either agreed or strongly agreed to the statement. This could also imply that absenteeism from school by learners affected by the pandemic was rising.

Table 4.15: High learner-educator ratio that result owing to HIV & AIDS affect quality of Education (N=142)

		Age in completed years									Total
		13	14	15	16	17	18	19	20	22	
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Strongly Disagree	0	2	3	0	1	2	0	0	0	8
	Disagree	1	3	6	7	6	6	2	0	0	31
	Agree	0	7	11	13	16	9	7	4	1	68
	Strongly Agree	0	1	8	2	8	9	7	0	0	35
Total		1	13	28	22	31	26	16	4	1	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.408(a)	24	.333
Likelihood Ratio	29.756	24	.193
Linear-by-Linear Association	5.803	1	.016
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.163	.066	2.442	.015
	Kendall's tau-c	.161	.066	2.442	.015
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely high learner-educator ratio and HIV and AIDS. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also indicates that 103 respondents out of a total of 142 either agreed or strongly agreed to the statement. This could imply that high learner-educator ratio that results owing to the pandemic is negatively affecting the quality of education.

Table 4.16: The quality of teaching and learning is inevitably compromised because of HIV and AIDS (N=142)

		Age in completed years									Total
		13	14	15	16	17	18	19	20	22	
The quality of teaching and learning is inevitably compromised	Strongly Disagree	0	1	3	1	0	1	0	0	0	6
	Disagree	1	3	8	6	6	4	1	0	0	29
	Agree	0	9	14	12	16	15	12	4	1	83
	Strongly Agree	0	0	3	3	9	6	3	0	0	24
Total		1	13	28	22	31	26	16	4	1	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.932(a)	24	.465
Likelihood Ratio	28.284	24	.248
Linear-by-Linear Association	9.237	1	.002
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.211	.056	3.633	.000
	Kendall's tau-c	.196	.054	3.633	.000
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely the quality of teaching and learning and HIV and AIDS. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also illustrates that 107 respondents out of a total of 142 either agree or strongly agreed to the statement. This could again imply that the quality of teaching and learning is inevitably compromised.

Table 4.17: Many schools lose their principals to HIV and AIDS (N=142)

		Age in completed years									Total
		13	14	15	16	17	18	19	20	22	
Many schools lose their principals to HIV and AIDS	Strongly Disagree	0	3	5	7	5	1	0	0	1	22
	Disagree	0	4	7	5	6	5	3	0	0	30
	Agree	0	2	10	3	12	10	10	2	0	49
	Strongly Agree	1	4	6	7	8	10	3	2	0	41
Total		1	13	28	22	31	26	16	4	1	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.534(a)	24	.168
Likelihood Ratio	33.115	24	.102
Linear-by-Linear Association	3.047	1	.081
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.128	.065	1.985	.047
	Kendall's tau-c	.134	.067	1.985	.047
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely many schools lose their principals and HIV and AIDS. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also demonstrates that 90 respondents out of a total of 142 either agreed or strongly agreed to the statement. This could imply that many schools lost their principals to HIV and AIDS.

Table 4.18: Many schools lose experienced educator-mentors to HIV and AIDS (N=142)

		Age in completed years									Total
		13	14	15	16	17	18	19	20	22	
Many schools lose experienced teacher-mentors to HIV and AIDS	Strongly Disagree	0	0	4	3	0	1	0	0	0	8
	Disagree	0	3	4	5	6	5	0	0	0	23
	Agree	0	9	10	6	14	10	6	3	1	59
	Strongly Agree	1	1	10	8	11	10	10	1	0	52
Total		1	13	28	22	31	26	16	4	1	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.802(a)	24	.228
Likelihood Ratio	34.808	24	.071
Linear-by-Linear Association	5.083	1	.024
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.156	.060	2.559	.011
	Kendall's tau-c	.154	.060	2.559	.011
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely many schools lose experienced educator-mentors and HIV and AIDS. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also shows that 111 respondents out of a total of 142 either agreed or strongly agreed to the statement. This could imply that learners perceived many schools lost experienced educator-mentors to HIV and AIDS.

Table 4.19: More teachers are to be trained to keep up with the demand for teachers (N=142)

		Present Grade					Total
		Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
More teachers are to be trained to keep up with the demand for teachers	Strongly Disagree	3	1	2	1	0	7
	Disagree	6	2	6	2	3	19
	Agree	12	9	19	15	14	69
	Strongly Agree	3	11	11	11	11	47
Total		24	23	38	29	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.177(a)	12	.290
Likelihood Ratio	15.282	12	.226
Linear-by-Linear Association	6.263	1	.012
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.155	.069	2.227	.026
	Kendall's tau-c	.146	.066	2.227	.026
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables namely more educators are to be trained and the demand for educators. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also illustrates that the majority of respondents (116 out of 142) either agreed or strongly agreed to the statement. This could imply that more educators were to be trained to keep up with the demand for educators.

Table 4.20: Teachers affected by HIV positive lose interest in improving their qualifications (N = 142

		Present Grade					Total
		Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
Teachers affected by HIV positive lose interest in improving their qualifications	Strongly Disagree	2	1	5	1	0	9
	Disagree	4	2	2	2	3	13
	Agree	11	13	14	14	11	63
	Strongly Agree	7	7	17	12	14	57
Total		24	23	38	29	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.263(a)	12	.507
Likelihood Ratio	12.327	12	.420
Linear-by-Linear Association	3.764	1	.052
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.135	.068	1.973	.049
	Kendall's tau-c	.127	.065	1.973	.049
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely educators affected by HIV positive lose interest and improving their qualifications. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also demonstrates that 120 respondents out of 142 either agreed or strongly agreed to the statement. This could imply that educators affected by the pandemic lose interest in improving their qualifications.

Table 4.21: The quality of teaching and learning is inevitably compromised (N=142)

		Present Grade					Total
		Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
The quality of teaching and learning is inevitably compromised	Strongly Disagree	1	1	4	0	0	6
	Disagree	7	7	7	5	3	29
	Agree	15	11	23	16	18	83
	Strongly Agree	1	4	4	8	7	24
Total		24	23	38	29	28	142

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.539(a)	12	.168
Likelihood Ratio	18.637	12	.098
Linear-by-Linear Association	8.248	1	.004
N of Valid Cases	142		

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.209	.062	3.307	.001
	Kendall's tau-c	.190	.057	3.307	.001
N of Valid Cases		142			

According to the above table, the significance value (typically less than 0.05) indicates that there is a relationship between the two variables, namely the quality of teaching and learning and is compromised. However the sign of the coefficient indicates that we have a positive but fairly weak relationship between the variables. This is indicated by the absolute value. The table also illustrates that 107 respondents out of a total of 142 either agreed or strongly agreed that the quality of teaching and learning was inevitably compromised.

Table 4.22: Impact of HIV and AIDS on the education system (N=142)

		Area							
		1		2		3		4	
		Count	Column %	Count	Column %	Count	Column %	Count	Column %
Secondary enrolment rates decrease owing to HIV & AIDS	Strongly Disagree	2	6.7%	9	15.0%	2	8.3%	7	25.0%
	Disagree	10	33.3 %	12	20.0%	8	33.3%	8	28.6%
	Agree	9	30.0 %	26	43.3%	11	45.8%	9	32.1%
	Strongly Agree	9	30.0 %	13	21.7%	3	12.5%	4	14.3%
Drop-out rates at secondary schools	Strongly Disagree	4	13.3 %	5	8.3%	1	4.2%	3	10.7%
	Disagree	7	23.3 %	21	35.0%	11	45.8%	7	25.0%
	Agree	13	43.3 %	23	38.3%	9	37.5%	13	46.4%
	Strongly Agree	6	20.0 %	11	18.3%	3	12.5%	5	17.9%
There is negative secondary population growth rate	Strongly Disagree	5	16.7 %	9	15.0%	6	25.0%	4	14.3%
	Disagree	6	20.0 %	19	31.7%	8	33.3%	7	25.0%
	Agree	10	33.3 %	19	31.7%	7	29.2%	10	35.7%
	Strongly Agree	9	30.0 %	13	21.7%	3	12.5%	7	25.0%
Absenteeism from school by learners affected by HIV & AIDS	Strongly Disagree	6	20.0 %	7	11.7%	5	20.8%	4	14.3%
	Disagree	12	40.0 %	13	21.7%	8	33.3%	7	25.0%

	Agree	8	26.7 %	27	45.0%	7	29.2%	13	46.4%
	Strongly Agree	4	13.3 %	13	21.7%	4	16.7%	4	14.3%
Greater demand for second-chance education by learners returning to education after absence	Strongly Disagree	1	3.3%	3	5.0%	2	8.3%	1	3.6%
	Disagree	8	26.7 %	13	21.7%	4	16.7%	5	17.9%
	Agree	16	53.3 %	34	56.7%	14	58.3%	16	57.1%
	Strongly Agree	5	16.7 %	10	16.7%	4	16.7%	6	21.4%
Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	Strongly Disagree	1	3.3%	1	1.7%	0	.0%	1	3.6%
	Disagree	6	20.0 %	4	6.7%	8	33.3%	6	21.4%
	Agree	14	46.7 %	36	60.0%	10	41.7%	13	46.4%
	Strongly Agree	9	30.0 %	19	31.7%	6	25.0%	8	28.6%
Families have less disposable income for school fees and uniforms	Strongly Disagree	3	10.0 %	4	6.7%	2	8.3%	3	10.7%
	Disagree	4	13.3 %	7	11.7%	6	25.0%	1	3.6%
	Agree	11	36.7 %	31	51.7%	12	50.0%	12	42.9%
	Strongly Agree	12	40.0 %	18	30.0%	4	16.7%	12	42.9%
FS Department of Education is losing key teachers	Strongly Disagree	5	16.7 %	2	3.3%	1	4.2%	0	.0%
	Disagree	3	10.0 %	10	16.7%	8	33.3%	3	10.7%
	Agree	16	53.3 %	24	40.0%	10	41.7%	15	53.6%
	Strongly Agree	6	20.0 %	24	40.0%	5	20.8%	10	35.7%
HIV infection among teachers is above that of the population as a whole	Strongly Disagree	7	23.3 %	5	8.3%	6	25.0%	9	32.1%
	Disagree	6	20.0 %	21	35.0%	2	8.3%	4	14.3%
	Agree	11	36.7 %	22	36.7%	11	45.8%	12	42.9%
	Strongly Agree	6	20.0 %	12	20.0%	5	20.8%	3	10.7%
Teachers are required to take responsibilities for AIDS orphans within the extended family	Strongly Disagree	1	3.3%	2	3.3%	1	4.2%	2	7.1%
	Disagree	8	26.7 %	10	16.7%	4	16.7%	4	14.3%
	Agree	17	56.7 %	28	46.7%	13	54.2%	15	53.6%
	Strongly Agree	4	13.3 %	20	33.3%	6	25.0%	7	25.0%
Job mobility among teachers is increasing as a result of the AIDS pandemic	Strongly Disagree	2	6.7%	2	3.3%	4	16.7%	0	.0%
	Disagree	11	36.7 %	16	26.7%	9	37.5%	7	25.0%
	Agree	14	46.7 %	32	53.3%	8	33.3%	14	50.0%
	Strongly Agree	3	10.0 %	10	16.7%	3	12.5%	7	25.0%
Greater numbers of teachers are	Strongly Disagree	4	13.3 %	4	6.7%	0	.0%	4	14.3%

leaving the profession to other sectors									
	Disagree	8	26.7 %	9	15.0%	8	33.3%	4	14.3%
	Agree	15	50.0 %	30	50.0%	9	37.5%	13	46.4%
	Strongly Agree	3	10.0 %	17	28.3%	7	29.2%	7	25.0%
More teachers are to be trained to keep up with the demand for teachers	Strongly Disagree	2	6.7%	2	3.3%	1	4.2%	2	7.1%
	Disagree	3	10.0 %	5	8.3%	4	16.7%	7	25.0%
	Agree	15	50.0 %	32	53.3%	11	45.8%	11	39.3%
	Strongly Agree	10	33.3 %	21	35.0%	8	33.3%	8	28.6%
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Strongly Disagree	1	3.3%	5	8.3%	1	4.2%	1	3.6%
	Disagree	7	23.3 %	13	21.7%	6	25.0%	5	17.9%
	Agree	14	46.7 %	27	45.0%	13	54.2%	14	50.0%
	Strongly Agree	8	26.7 %	15	25.0%	4	16.7%	8	28.6%
New recruitment do not make up for the loss of the education services of most experienced educators	Strongly Disagree	1	3.3%	2	3.3%	1	4.2%	2	7.1%
	Disagree	6	20.0 %	7	11.7%	10	41.7%	2	7.1%
	Agree	15	50.0 %	36	60.0%	7	29.2%	16	57.1%
	Strongly Agree	8	26.7 %	15	25.0%	6	25.0%	8	28.6%
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	Strongly Disagree	1	3.3%	2	3.3%	0	.0%	2	7.1%
	Disagree	8	26.7 %	10	16.7%	9	37.5%	6	21.4%
	Agree	20	66.7 %	39	65.0%	15	62.5%	13	46.4%
	Strongly Agree	1	3.3%	9	15.0%	0	.0%	7	25.0%
The HIV and AIDS pandemic have traumatic impact on teachers.	Strongly Disagree	3	10.0 %	3	5.0%	0	.0%	2	7.1%
	Disagree	4	13.3 %	6	10.0%	2	8.3%	5	17.9%
	Agree	13	43.3 %	25	41.7%	15	62.5%	13	46.4%
	Strongly Agree	10	33.3 %	26	43.3%	7	29.2%	8	28.6%
The HIV and AIDS pandemic have traumatic impact on learners.	Strongly Disagree	2	6.7%	0	.0%	1	4.2%	1	3.6%
	Disagree	4	13.3 %	6	10.0%	4	16.7%	5	17.9%
	Agree	11	36.7 %	25	41.7%	10	41.7%	14	50.0%
	Strongly Agree	13	43.3 %	29	48.3%	9	37.5%	8	28.6%
The work of teachers affected by HIV and AIDS is being compromised by period of illness	Strongly Disagree	2	6.7%	0	.0%	0	.0%	2	7.1%
	Disagree	1	3.3%	10	16.7%	5	20.8%	5	17.9%

	Agree	16	53.3 %	33	55.0%	13	54.2%	13	46.4%
	Strongly Agree	11	36.7 %	17	28.3%	6	25.0%	8	28.6%
Teachers affected by HIV positive lose interest in improving their qualifications	Strongly Disagree	0	.0%	4	6.7%	2	8.3%	3	10.7%
	Disagree	3	10.0 %	6	10.0%	3	12.5%	1	3.6%
	Agree	14	46.7 %	26	43.3%	10	41.7%	13	46.4%
	Strongly Agree	13	43.3 %	24	40.0%	9	37.5%	11	39.3%
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Strongly Disagree	2	6.7%	1	1.7%	1	4.2%	3	10.7%
	Disagree	5	16.7 %	11	18.3%	5	20.8%	3	10.7%
	Agree	17	56.7 %	29	48.3%	16	66.7%	18	64.3%
	Strongly Agree	6	20.0 %	19	31.7%	2	8.3%	4	14.3%
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Strongly Disagree	3	10.0 %	3	5.0%	1	4.2%	1	3.6%
	Disagree	7	23.3 %	8	13.3%	7	29.2%	5	17.9%
	Agree	13	43.3 %	26	43.3%	7	29.2%	13	46.4%
	Strongly Agree	7	23.3 %	23	38.3%	9	37.5%	9	32.1%
The quality of teaching and learning is inevitably compromised	Strongly Disagree	0	.0%	3	5.0%	2	8.3%	1	3.6%
	Disagree	5	16.7 %	11	18.3%	8	33.3%	5	17.9%
	Agree	19	63.3 %	38	63.3%	10	41.7%	16	57.1%
	Strongly Agree	6	20.0 %	8	13.3%	4	16.7%	6	21.4%
Learners are losing parents and siblings to HIV and AIDS	Strongly Disagree	2	6.7%	2	3.3%	1	4.2%	0	.0%
	Disagree	0	.0%	2	3.3%	0	.0%	3	10.7%
	Agree	12	40.0 %	22	36.7%	8	33.3%	11	39.3%
	Strongly Agree	16	53.3 %	34	56.7%	15	62.5%	14	50.0%
Orphaned learners may move long distances to find new homes	Strongly Disagree	1	3.3%	3	5.0%	2	8.3%	4	14.3%
	Disagree	3	10.0 %	4	6.7%	2	8.3%	2	7.1%
	Agree	12	40.0 %	29	48.3%	13	54.2%	16	57.1%
	Strongly Agree	14	46.7 %	24	40.0%	7	29.2%	6	21.4%
Many schools lose their principals to HIV and AIDS	Strongly Disagree	5	16.7 %	10	16.7%	5	20.8%	2	7.1%
	Disagree	7	23.3 %	10	16.7%	9	37.5%	4	14.3%
	Agree	9	30.0 %	23	38.3%	6	25.0%	11	39.3%
	Strongly Agree	9	30.0 %	17	28.3%	4	16.7%	11	39.3%
Many schools lose experienced teacher-mentors to HIV and AIDS	Strongly Disagree	3	10.0 %	3	5.0%	2	8.3%	0	.0%

	Disagree	4	13.3 %	8	13.3%	5	20.8%	6	21.4%
	Agree	13	43.3 %	21	35.0%	11	45.8%	14	50.0%
	Strongly Agree	10	33.3 %	28	46.7%	6	25.0%	8	28.6%
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Strongly Disagree	2	6.7%	0	.0%	2	8.3%	0	.0%
	Disagree	7	23.3 %	10	16.7%	6	25.0%	3	10.7%
	Agree	13	43.3 %	21	35.0%	6	25.0%	18	64.3%
	Strongly Agree	8	26.7 %	29	48.3%	10	41.7%	7	25.0%

The table illustrates that 53, 6% of respondents either strongly disagreed or disagreed to the statement while the minority (46, 4%) of them either agreed or strongly agreed to the statement. This could imply that secondary school learners perceived that enrolment rates were not decreasing owing to the pandemic.

The table also shows that 64, 3% of respondents either agreed or strongly agreed that dropout rates at secondary schools were rising owing to HIV and AIDS. This could imply that dropout rates were increasing at secondary schools owing to HIV and AIDS.

The table also provides that 60, 7% of respondents either agreed or strongly agreed that there was negative secondary school population growth rate owing to HIV and AIDS. This could also imply that there was negative secondary school population growth rate owing to the pandemic.

The table also demonstrates that 60, 7% of respondents either agreed or strongly agreed that absenteeism from school affected by HIV and AIDS was rising owing to the pandemic. It also shows that there is greater demand for second chance education by learners returning to education after absence from the system. 78, 5% of respondents either agree or strongly agreed to the statement. This could imply that there was greater demand for second chance education by learners returning to education after absence from the system.

The table also illustrates that 75, 0% of respondents either agreed or strongly agreed that there was demand for flexible learning opportunities for learners who are care-givers or wage-earners. This could imply that there is demand for flexible learning opportunities for

learners who are care-givers and those who are wage-earners. The table also indicates that 85, 8% of respondents either agreed or strongly agreed that families have less disposable income for school fees and uniform. This could imply that families did not have income for school fees and uniforms.

Eighty nine comma three percent of respondents either agreed or strongly agreed that the Free State Department of Education was losing key educators to HIV and AIDS at increasing rates. This could also imply that the Free State Department of Education was losing key educators to HIV and AIDS. The table also indicates that 78, 6% of respondents agreed or strongly agreed that educators were required to take responsibilities for AIDS orphans within the extended families. The table also indicates that there was job movement/mobility among educators (75, 0%) as a result of the pandemic. This also could imply that educators were required to take responsibilities for AIDS orphans within the extended families. There was job mobility among the educators as a result of the pandemic.

The table indicates that 71, 4% of respondents either agreed or strongly agreed that grater numbers of educators were leaving the profession and are attracted to better jobs in other sectors where skilled personnel was laid low by HIV and AIDS. This could also indicate that secondary school learners perceived that there was job mobility among the educators.

Table 4.23: Chi-square test (N=142)

Pearson Chi-Square Tests

		Area
Secondary enrolment rates decrease owing to HIV & AIDS	Chi-square	10.263
	df	9
	Sig.	.330(a)
Drop-out rates at secondary schools	Chi-square	4.929
	df	9
	Sig.	.840(a)
There is negative secondary population growth rate	Chi-square	4.573
	df	9
	Sig.	.870
Absenteeism from school by learners affected by HIV & AIDS	Chi-square	7.938
	df	9
	Sig.	.540(a)
Greater demand for second-chance education by learners returning to education after absence	Chi-square	1.995
	df	9
	Sig.	.992(a)

Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	Chi-square	10.961
	df	9
	Sig.	.278(a,b)
Families have less disposable income for school fees and uniforms	Chi-square	9.779
	df	9
	Sig.	.369(a)
FS Department of Education is losing key teachers	Chi-square	18.939
	df	9
	Sig.	.026(*,a)
HIV infection among teachers is above that of the population as a whole	Chi-square	15.465
	df	9
	Sig.	.079
Teachers are required to take responsibilities for AIDS orphans within the extended family	Chi-square	5.840
	df	9
	Sig.	.756(a)
Job mobility among teachers is increasing as a result of the AIDS pandemic	Chi-square	12.447
	df	9
	Sig.	.189(a)
Greater numbers of teachers are leaving the profession to other sectors	Chi-square	11.977
	df	9
	Sig.	.215(a)
More teachers are to be trained to keep up with the demand for teachers	Chi-square	6.284
	df	9
	Sig.	.711(a)
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Chi-square	2.891
	df	9
	Sig.	.968(a)
New recruitment do not make up for the loss of the education services of most experienced educators	Chi-square	15.077
	df	9
	Sig.	.089(a)
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	Chi-square	15.768
	df	9
	Sig.	.072(a,b)
The HIV and AIDS pandemic have traumatic impact on teachers.	Chi-square	7.228
	df	9
	Sig.	.613(a)
The HIV and AIDS pandemic have traumatic impact on learners.	Chi-square	7.149
	df	9
	Sig.	.622(a,b)
The work of teachers affected by HIV and AIDS is being compromised by period of illness	Chi-square	10.382
	df	9
	Sig.	.320(a,b)
Teachers affected by HIV positive lose interest in improving their qualifications	Chi-square	4.465
	df	9
	Sig.	.878(a)
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Chi-square	11.225
	df	9
	Sig.	.261(a)
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Chi-square	6.566
	df	9
	Sig.	.682(a)
The quality of teaching and learning is inevitably compromised	Chi-square	7.219
	df	9

	Sig.	.614(a)
Learners are losing parents and siblings to HIV and AIDS	Chi-square	8.484
	df	9
	Sig.	.486(a,b)
Orphaned learners may move long distances to find new homes	Chi-square	7.582
	df	9
	Sig.	.577(a)
Many schools lose their principals to HIV and AIDS	Chi-square	9.636
	df	9
	Sig.	.381
Many schools lose experienced teacher-mentors to HIV and AIDS	Chi-square	8.545
	df	9
	Sig.	.480(a)
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Chi-square	18.437
	df	9
	Sig.	.030(*,a,b)

From the above chi-square table, there is no relationship between the age in completed years and some of the statements on the impact of HIV and AIDS on education. However there is a relationship between age in completed years and the highlighted statements since their low significance value (typically below 0.05) indicates that there may be some relationship between the two variables, age of learners in completed years and some statements on the impact of HIV and AIDS.

Table 4.24: Cross-tabulation in terms of gender (N=142)

		Gender			
		Male		Female	
		Count	Column %	Count	Column %
Secondary enrolment rates decrease owing to HIV & AIDS	Strongly Disagree	11	16.2%	9	12.2%
	Disagree	17	25.0%	21	28.4%
	Agree	28	41.2%	27	36.5%
	Strongly Agree	12	17.6%	17	23.0%
Drop-out rates at secondary schools	Strongly Disagree	7	10.3%	6	8.1%
	Disagree	26	38.2%	20	27.0%
	Agree	24	35.3%	34	45.9%
	Strongly Agree	11	16.2%	14	18.9%
There is negative secondary population growth rate	Strongly Disagree	11	16.2%	13	17.6%
	Disagree	20	29.4%	20	27.0%
	Agree	20	29.4%	26	35.1%
	Strongly Agree	17	25.0%	15	20.3%
Absenteeism from school by learners affected by HIV & AIDS	Strongly Disagree	10	14.7%	12	16.2%
	Disagree	17	25.0%	23	31.1%
	Agree	30	44.1%	25	33.8%
	Strongly Agree	11	16.2%	14	18.9%
Greater demand for second-chance education by learners returning to education after absence	Strongly Disagree	4	5.9%	3	4.1%
	Disagree	13	19.1%	17	23.0%
	Agree	36	52.9%	44	59.5%
	Strongly Agree	15	22.1%	10	13.5%
Greater demand for flexible	Strongly Disagree	3	4.4%	0	.0%

learning opportunities for learners who are care-givers or wage earners	Disagree	11	16.2%	13	17.6%
	Agree	36	52.9%	37	50.0%
	Strongly Agree	18	26.5%	24	32.4%
Families have less disposable income for school fees and uniforms	Strongly Disagree	5	7.4%	7	9.5%
	Disagree	8	11.8%	10	13.5%
	Agree	30	44.1%	36	48.6%
	Strongly Agree	25	36.8%	21	28.4%
FS Department of Education is losing key teachers	Strongly Disagree	5	7.4%	3	4.1%
	Disagree	8	11.8%	16	21.6%
	Agree	30	44.1%	35	47.3%
	Strongly Agree	25	36.8%	20	27.0%
HIV infection among teachers is above that of the population as a whole	Strongly Disagree	16	23.5%	11	14.9%
	Disagree	11	16.2%	22	29.7%
	Agree	29	42.6%	27	36.5%
	Strongly Agree	12	17.6%	14	18.9%
Teachers are required to take responsibilities for AIDS orphans within the extended family	Strongly Disagree	4	5.9%	2	2.7%
	Disagree	15	22.1%	11	14.9%
	Agree	35	51.5%	38	51.4%
	Strongly Agree	14	20.6%	23	31.1%
Job mobility among teachers is increasing as a result of the AIDS pandemic	Strongly Disagree	6	8.8%	2	2.7%
	Disagree	16	23.5%	27	36.5%
	Agree	34	50.0%	34	45.9%
	Strongly Agree	12	17.6%	11	14.9%
Greater numbers of teachers are leaving the profession to other sectors	Strongly Disagree	5	7.4%	7	9.5%
	Disagree	13	19.1%	16	21.6%
	Agree	29	42.6%	38	51.4%
	Strongly Agree	21	30.9%	13	17.6%
More teachers are to be trained to keep up with the demand for teachers	Strongly Disagree	4	5.9%	3	4.1%
	Disagree	10	14.7%	9	12.2%
	Agree	29	42.6%	40	54.1%
	Strongly Agree	25	36.8%	22	29.7%
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Strongly Disagree	3	4.4%	5	6.8%
	Disagree	17	25.0%	14	18.9%
	Agree	32	47.1%	36	48.6%
	Strongly Agree	16	23.5%	19	25.7%
New recruitment do not make up for the loss of the education services of most experienced educators	Strongly Disagree	5	7.4%	1	1.4%
	Disagree	13	19.1%	12	16.2%
	Agree	33	48.5%	41	55.4%
	Strongly Agree	17	25.0%	20	27.0%
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	Strongly Disagree	5	7.4%	0	.0%
	Disagree	18	26.5%	15	20.3%
	Agree	37	54.4%	50	67.6%
	Strongly Agree	8	11.8%	9	12.2%
The HIV and AIDS pandemic have traumatic impact on teachers.	Strongly Disagree	2	2.9%	6	8.1%
	Disagree	9	13.2%	8	10.8%
	Agree	33	48.5%	33	44.6%
	Strongly Agree	24	35.3%	27	36.5%
The HIV and AIDS pandemic have traumatic impact on learners.	Strongly Disagree	2	2.9%	2	2.7%
	Disagree	11	16.2%	8	10.8%
	Agree	31	45.6%	29	39.2%
	Strongly Agree	24	35.3%	35	47.3%
The work of teachers affected by HIV and AIDS is being compromised by period of	Strongly Disagree	2	2.9%	2	2.7%
	Disagree	9	13.2%	12	16.2%

illness	Agree	40	58.8%	35	47.3%
	Strongly Agree	17	25.0%	25	33.8%
Teachers affected by HIV positive lose interest in improving their qualifications	Strongly Disagree	5	7.4%	4	5.4%
	Disagree	3	4.4%	10	13.5%
	Agree	36	52.9%	27	36.5%
	Strongly Agree	23	33.8%	33	44.6%
	5	1	1.5%	0	.0%
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Strongly Disagree	5	7.4%	2	2.7%
	Disagree	12	17.6%	12	16.2%
	Agree	38	55.9%	42	56.8%
	Strongly Agree	13	19.1%	18	24.3%
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Strongly Disagree	4	5.9%	4	5.4%
	Disagree	11	16.2%	16	21.6%
	Agree	32	47.1%	27	36.5%
	Strongly Agree	21	30.9%	27	36.5%
The quality of teaching and learning is inevitably compromised	Strongly Disagree	3	4.4%	3	4.1%
	Disagree	12	17.6%	17	23.0%
	Agree	40	58.8%	43	58.1%
	Strongly Agree	13	19.1%	11	14.9%
Learners are losing parents and siblings to HIV and AIDS	Strongly Disagree	0	.0%	5	6.8%
	Disagree	4	5.9%	1	1.4%
	Agree	28	41.2%	25	33.8%
	Strongly Agree	36	52.9%	43	58.1%
Orphaned learners may move long distances to find new homes	Strongly Disagree	4	5.9%	6	8.1%
	Disagree	8	11.8%	3	4.1%
	Agree	33	48.5%	37	50.0%
	Strongly Agree	23	33.8%	28	37.8%
Many schools lose their principals to HIV and AIDS	Strongly Disagree	11	16.2%	11	14.9%
	Disagree	16	23.5%	14	18.9%
	Agree	21	30.9%	28	37.8%
	Strongly Agree	20	29.4%	21	28.4%
Many schools lose experienced teacher-mentors to HIV and AIDS	Strongly Disagree	5	7.4%	3	4.1%
	Disagree	9	13.2%	14	18.9%
	Agree	26	38.2%	33	44.6%
	Strongly Agree	28	41.2%	24	32.4%
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Strongly Disagree	1	1.5%	3	4.1%
	Disagree	15	22.1%	11	14.9%
	Agree	23	33.8%	35	47.3%
	Strongly Agree	29	42.6%	25	33.8%

The table above illustrates that 59, 5% of respondents either agreed or strongly agreed that secondary school enrolments rates were decreasing owing to HIV and AIDS. The table also indicates that 64, 8% of respondents either agreed or strongly agreed that dropout rates at secondary schools were rising owing to HIV and AIDS. It also demonstrates that the majority of respondents (55, 4%) either agreed or strongly agreed that there was negative secondary school population growth rate owing to HIV and AIDS.

The table also indicates that 83, 8% of respondents either agreed or strongly agreed that

more educators are to be trained to keep up with the demand for educators. This could imply that there is a need to train even more educators to replace the loss to HIV and AIDS. The table also shows that 86, 5% of respondents either agreed or strongly agreed that the HIV and AIDS pandemic have traumatic impact on learners. It also indicates that 81, 1% of respondents either agreed or strongly agreed that the pandemic has traumatic impact on educators.

Eighty-one comma one percent of respondents either agreed or strongly agreed that educators who believe they are HIV negative lose morale as they cope emotionally and financially with sickness and death among relatives, friends and colleagues. This could imply that HIV and AIDS have traumatic impact on both learners and educators. The table also illustrates that the majority of respondents (77, 0%) either agreed or strongly agreed that many schools lose experienced educator-mentors to HIV and AIDS. The table also provides that the quality of education is declining as young and less experienced educators replace experienced ones. This could also imply that educators had to cope with illnesses and deaths of relatives, friends and colleagues lost morale. It could be that many schools lost experienced educator-mentors to HIV and AIDS.

Table 4.25: Chi-square test in terms of gender (N=142)

		Gender
Secondary enrolment rates decrease owing to HIV & AIDS	Chi-square	1.250
	df	3
	Sig.	.741
Drop-out rates at secondary schools	Chi-square	2.695
	df	3
	Sig.	.441
There is negative secondary population growth rate	Chi-square	.822
	df	3
	Sig.	.844
Absenteeism from school by learners affected by HIV & AIDS	Chi-square	1.646
	df	3
	Sig.	.649
Greater demand for second-chance education by learners returning to education after absence	Chi-square	2.227
	df	3
	Sig.	.527(a)
Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	Chi-square	3.791
	df	3
	Sig.	.285(a)
Families have less disposable income for school fees and uniforms	Chi-square	1.197
	df	3
	Sig.	.754
FS Department of	Chi-square	3.860

Education is losing key teachers	df	3
	Sig.	.277(a)
HIV infection among teachers is above that of the population as a whole	Chi-square	4.573
	df	3
	Sig.	.206
Teachers are required to take responsibilities for AIDS orphans within the extended family	Chi-square	3.347
	df	3
	Sig.	.341(a)
Job mobility among teachers is increasing as a result of the AIDS pandemic	Chi-square	4.612
	df	3
	Sig.	.203(a)
Greater numbers of teachers are leaving the profession to other sectors	Chi-square	3.488
	df	3
	Sig.	.322
More teachers are to be trained to keep up with the demand for teachers	Chi-square	1.890
	df	3
	Sig.	.595(a)
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Chi-square	1.031
	df	3
	Sig.	.794(a)
New recruitment do not make up for the loss of the education services of most experienced educators	Chi-square	3.568
	df	3
	Sig.	.312(a)
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	Chi-square	7.033
	df	3
	Sig.	.071(a)
The HIV and AIDS pandemic have traumatic impact on teachers.	Chi-square	1.985
	df	3
	Sig.	.575(a)
The HIV and AIDS pandemic have traumatic impact on learners.	Chi-square	2.342
	df	3
	Sig.	.505(a)
The work of teachers affected by HIV and AIDS is being compromised by period of illness	Chi-square	2.036
	df	3
	Sig.	.565(a)
Teachers affected by HIV positive lose interest in improving their qualifications	Chi-square	7.712
	df	4
	Sig.	.103(a,b)
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Chi-square	2.042
	df	3
	Sig.	.564(a)
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Chi-square	1.849
	df	3
	Sig.	.604(a)
The quality of teaching and learning is inevitably compromised	Chi-square	.885
	df	3
	Sig.	.829(a)
Learners are losing parents and siblings to HIV and AIDS	Chi-square	7.350
	df	3
	Sig.	.062(a)
Orphaned learners may move long distances to find new homes	Chi-square	3.144
	df	3
	Sig.	.370

Many schools lose their principals to HIV and AIDS	Chi-square	.906
	df	3
	Sig.	.824
Many schools lose experienced teacher-mentors to HIV and AIDS	Chi-square	2.476
	df	3
	Sig.	.480(a)
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Chi-square	4.148
	df	3
	Sig.	.246(a)

From the above chi-square table, there is no relationship between gender and all the statements on the impact of HIV and AIDS on education. This could imply that there is no significant relationship between the above variables.

Table 4.26: Cross-tabulation in terms of age (N=142)

		Age in completed years								
		13	14	15	16	17	18	19	20	22
		Column %	Column %	Column %	Column %	Column %	Column %	Column %	Column %	Column %
Secondary enrolment rates decrease owing to HIV & AIDS	Strongly Disagree	.0%	23.1%	21.4%	13.6%	6.5%	11.5%	12.5%	25.0%	.0%
	Disagree	100.0%	15.4%	7.1%	27.3%	32.3%	38.5%	37.5%	25.0%	.0%
	Agree	.0%	30.8%	42.9%	36.4%	51.6%	30.8%	31.3%	25.0%	100.0%
	Strongly Agree	.0%	30.8%	28.6%	22.7%	9.7%	19.2%	18.8%	25.0%	.0%
Drop-out rates at secondary schools	Strongly Disagree	.0%	23.1%	17.9%	9.1%	3.2%	3.8%	6.3%	.0%	.0%
	Disagree	100.0%	30.8%	21.4%	59.1%	22.6%	42.3%	25.0%	.0%	.0%
	Agree	.0%	30.8%	42.9%	18.2%	61.3%	38.5%	43.8%	50.0%	.0%
	Strongly Agree	.0%	15.4%	17.9%	13.6%	12.9%	15.4%	25.0%	50.0%	100.0%
There is negative secondary population growth rate	Strongly Disagree	.0%	23.1%	17.9%	13.6%	16.1%	19.2%	18.8%	.0%	.0%
	Disagree	.0%	23.1%	35.7%	31.8%	22.6%	30.8%	18.8%	50.0%	.0%
	Agree	100.0%	30.8%	25.0%	36.4%	29.0%	30.8%	50.0%	25.0%	.0%
	Strongly Agree	.0%	23.1%	21.4%	18.2%	32.3%	19.2%	12.5%	25.0%	100.0%
Absenteeism from school by learners affected by HIV & AIDS	Strongly Disagree	.0%	30.8%	17.9%	18.2%	9.7%	15.4%	6.3%	25.0%	.0%
	Disagree	100.0%	38.5%	25.0%	40.9%	22.6%	23.1%	31.3%	.0%	.0%
	Agree	.0%	23.1%	42.9%	27.3%	48.4%	46.2%	31.3%	50.0%	.0%
	Strongly Agree	.0%	7.7%	14.3%	13.6%	19.4%	15.4%	31.3%	25.0%	100.0%
Greater demand for second-chance education by learners returning to education after absence	Strongly Disagree	.0%	23.1%	3.6%	4.5%	3.2%	.0%	6.3%	.0%	.0%
	Disagree	.0%	15.4%	14.3%	40.9%	19.4%	19.2%	18.8%	25.0%	.0%
	Agree	100.0%	38.5%	64.3%	45.5%	54.8%	57.7%	68.8%	75.0%	.0%
	Strongly Agree	.0%	23.1%	17.9%	9.1%	22.6%	23.1%	6.3%	.0%	100.0%
Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	Strongly Disagree	.0%	.0%	3.6%	9.1%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	15.4%	28.6%	9.1%	16.1%	15.4%	6.3%	25.0%	100.0%
	Agree	.0%	53.8%	39.3%	50.0%	51.6%	53.8%	68.8%	75.0%	.0%

	Strongly Agree	100.0%	30.8%	28.6%	31.8%	32.3%	30.8%	25.0%	.0%	.0%
Families have less disposable income for school fees and uniforms	Strongly Disagree	.0%	.0%	14.3%	13.6%	3.2%	11.5%	6.3%	.0%	.0%
	Disagree	100.0%	15.4%	7.1%	22.7%	6.5%	7.7%	18.8%	25.0%	.0%
	Agree	.0%	38.5%	32.1%	40.9%	58.1%	50.0%	62.5%	25.0%	100.0%
	Strongly Agree	.0%	46.2%	46.4%	22.7%	32.3%	30.8%	12.5%	50.0%	.0%
FS Department of Education is losing key teachers	Strongly Disagree	.0%	.0%	3.6%	4.5%	6.5%	11.5%	6.3%	.0%	.0%
	Disagree	.0%	15.4%	21.4%	22.7%	6.5%	23.1%	12.5%	25.0%	.0%
	Agree	100.0%	53.8%	28.6%	45.5%	54.8%	50.0%	50.0%	.0%	100.0%
	Strongly Agree	.0%	30.8%	46.4%	27.3%	32.3%	15.4%	31.3%	75.0%	.0%
HIV infection among teachers is above that of the population as a whole	Strongly Disagree	.0%	23.1%	21.4%	22.7%	12.9%	26.9%	6.3%	25.0%	.0%
	Disagree	100.0%	15.4%	17.9%	27.3%	22.6%	19.2%	31.3%	25.0%	100.0%
	Agree	.0%	30.8%	35.7%	31.8%	48.4%	46.2%	37.5%	50.0%	.0%
	Strongly Agree	.0%	30.8%	25.0%	18.2%	16.1%	7.7%	25.0%	.0%	.0%
Teachers are required to take responsibilities for AIDS orphans within the extended family	Strongly Disagree	.0%	30.8%	.0%	.0%	3.2%	.0%	.0%	25.0%	.0%
	Disagree	.0%	23.1%	17.9%	27.3%	12.9%	7.7%	31.3%	25.0%	.0%
	Agree	100.0%	23.1%	39.3%	36.4%	67.7%	65.4%	56.3%	50.0%	100.0%
	Strongly Agree	.0%	23.1%	42.9%	36.4%	16.1%	26.9%	12.5%	.0%	.0%
Job mobility among teachers is increasing as a result of the AIDS pandemic	Strongly Disagree	.0%	.0%	7.1%	13.6%	3.2%	7.7%	.0%	.0%	.0%
	Disagree	100.0%	53.8%	17.9%	40.9%	25.8%	30.8%	25.0%	25.0%	.0%
	Agree	.0%	30.8%	57.1%	31.8%	48.4%	46.2%	62.5%	75.0%	100.0%
	Strongly Agree	.0%	15.4%	17.9%	13.6%	22.6%	15.4%	12.5%	.0%	.0%
Greater numbers of teachers are leaving the profession to other sectors	Strongly Disagree	.0%	7.7%	7.1%	9.1%	12.9%	3.8%	12.5%	.0%	.0%
	Disagree	.0%	38.5%	7.1%	27.3%	16.1%	26.9%	6.3%	75.0%	.0%
	Agree	.0%	30.8%	50.0%	59.1%	41.9%	50.0%	56.3%	.0%	100.0%
	Strongly Agree	100.0%	23.1%	35.7%	4.5%	29.0%	19.2%	25.0%	25.0%	.0%
More teachers are to be trained to keep up with the demand for teachers	Strongly Disagree	.0%	.0%	3.6%	13.6%	.0%	7.7%	6.3%	.0%	.0%
	Disagree	.0%	15.4%	28.6%	4.5%	3.2%	3.8%	18.8%	50.0%	100.0%
	Agree	100.0%	61.5%	32.1%	59.1%	54.8%	65.4%	18.8%	25.0%	.0%
	Strongly Agree	.0%	23.1%	35.7%	22.7%	41.9%	23.1%	56.3%	25.0%	.0%
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Strongly Disagree	.0%	15.4%	10.7%	.0%	3.2%	7.7%	.0%	.0%	.0%
	Disagree	100.0%	23.1%	21.4%	31.8%	19.4%	23.1%	12.5%	.0%	.0%
	Agree	.0%	53.8%	39.3%	59.1%	51.6%	34.6%	43.8%	100.0%	100.0%
	Strongly Agree	.0%	7.7%	28.6%	9.1%	25.8%	34.6%	43.8%	.0%	.0%
New recruitment do not make up for the loss of the education services of most experienced educators	Strongly Disagree	.0%	7.7%	10.7%	.0%	.0%	.0%	6.3%	25.0%	.0%
	Disagree	.0%	.0%	21.4%	27.3%	22.6%	15.4%	6.3%	25.0%	.0%
	Agree	100.0%	53.8%	42.9%	36.4%	58.1%	65.4%	56.3%	25.0%	100.0%
	Strongly Agree	.0%	38.5%	25.0%	36.4%	19.4%	19.2%	31.3%	25.0%	.0%
Recruitment of trainees is inhibited by fewer secondary school	Strongly Disagree	.0%	15.4%	3.6%	.0%	.0%	7.7%	.0%	.0%	.0%

leavers available for teacher training										
	Disagree	.0%	15.4%	25.0%	36.4%	22.6%	19.2%	25.0%	.0%	.0%
	Agree	100.0%	61.5%	53.6%	45.5%	71.0%	53.8%	75.0%	100.0%	100.0%
	Strongly Agree	.0%	7.7%	17.9%	18.2%	6.5%	19.2%	.0%	.0%	.0%
The HIV and AIDS pandemic have traumatic impact on teachers.	Strongly Disagree	.0%	7.7%	10.7%	4.5%	3.2%	.0%	12.5%	.0%	.0%
	Disagree	.0%	15.4%	.0%	4.5%	12.9%	26.9%	6.3%	25.0%	100.0%
	Agree	.0%	61.5%	32.1%	54.5%	51.6%	42.3%	56.3%	25.0%	.0%
	Strongly Agree	100.0%	15.4%	57.1%	36.4%	32.3%	30.8%	25.0%	50.0%	.0%
The HIV and AIDS pandemic have traumatic impact on learners.	Strongly Disagree	.0%	15.4%	.0%	4.5%	.0%	.0%	6.3%	.0%	.0%
	Disagree	.0%	23.1%	14.3%	13.6%	9.7%	11.5%	12.5%	25.0%	.0%
	Agree	100.0%	46.2%	32.1%	27.3%	54.8%	42.3%	43.8%	50.0%	100.0%
	Strongly Agree	.0%	15.4%	53.6%	54.5%	35.5%	46.2%	37.5%	25.0%	.0%
The work of teachers affected by HIV and AIDS is being compromised by period of illness	Strongly Disagree	.0%	.0%	.0%	.0%	.0%	7.7%	.0%	25.0%	100.0%
	Disagree	.0%	23.1%	17.9%	22.7%	12.9%	11.5%	6.3%	.0%	.0%
	Agree	100.0%	61.5%	64.3%	36.4%	48.4%	46.2%	68.8%	50.0%	.0%
	Strongly Agree	.0%	15.4%	17.9%	40.9%	38.7%	34.6%	25.0%	25.0%	.0%
Teachers affected by HIV positive lose interest in improving their qualifications	Strongly Disagree	.0%	15.4%	3.6%	13.6%	6.5%	3.8%	.0%	.0%	.0%
	Disagree	.0%	15.4%	10.7%	13.6%	6.5%	7.7%	.0%	.0%	100.0%
	Agree	.0%	53.8%	42.9%	45.5%	38.7%	46.2%	56.3%	25.0%	.0%
	Strongly Agree	100.0%	15.4%	42.9%	27.3%	48.4%	38.5%	43.8%	75.0%	.0%
	5	.0%	.0%	.0%	.0%	.0%	3.8%	.0%	.0%	.0%
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Strongly Disagree	.0%	7.7%	7.1%	4.5%	3.2%	7.7%	.0%	.0%	.0%
	Disagree	.0%	23.1%	21.4%	22.7%	22.6%	3.8%	12.5%	.0%	.0%
	Agree	100.0%	61.5%	32.1%	63.6%	51.6%	65.4%	68.8%	75.0%	100.0%
	Strongly Agree	.0%	7.7%	39.3%	9.1%	22.6%	23.1%	18.8%	25.0%	.0%
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Strongly Disagree	.0%	.0%	3.6%	9.1%	6.5%	7.7%	6.3%	.0%	.0%
	Disagree	.0%	38.5%	17.9%	18.2%	19.4%	15.4%	18.8%	.0%	.0%
	Agree	100.0%	23.1%	39.3%	45.5%	51.6%	38.5%	37.5%	50.0%	.0%
	Strongly Agree	.0%	38.5%	39.3%	27.3%	22.6%	38.5%	37.5%	50.0%	100.0%
The quality of teaching and learning is inevitably compromised	Strongly Disagree	.0%	7.7%	10.7%	4.5%	.0%	3.8%	.0%	.0%	.0%
	Disagree	100.0%	23.1%	28.6%	27.3%	19.4%	15.4%	6.3%	.0%	.0%
	Agree	.0%	69.2%	50.0%	54.5%	51.6%	57.7%	75.0%	100.0%	100.0%
	Strongly Agree	.0%	.0%	10.7%	13.6%	29.0%	23.1%	18.8%	.0%	.0%
Learners are losing parents and siblings to HIV and AIDS	Strongly Disagree	.0%	.0%	.0%	4.5%	3.2%	3.8%	12.5%	.0%	.0%
	Disagree	.0%	.0%	3.6%	9.1%	3.2%	.0%	6.3%	.0%	.0%
	Agree	.0%	23.1%	25.0%	50.0%	45.2%	42.3%	31.3%	50.0%	.0%
	Strongly Agree	100.0%	76.9%	71.4%	36.4%	48.4%	53.8%	50.0%	50.0%	100.0%
Orphaned learners may move long distances to find new homes	Strongly Disagree	.0%	7.7%	3.6%	9.1%	9.7%	11.5%	.0%	.0%	.0%

	Disagree	100.0%	30.8%	.0%	9.1%	9.7%	3.8%	.0%	.0%	.0%
	Agree	.0%	46.2%	60.7%	36.4%	45.2%	38.5%	68.8%	100.0%	.0%
	Strongly Agree	.0%	15.4%	35.7%	45.5%	35.5%	46.2%	31.3%	.0%	100.0%
Many schools lose their principals to HIV and AIDS	Strongly Disagree	.0%	23.1%	17.9%	31.8%	16.1%	3.8%	.0%	.0%	100.0%
	Disagree	.0%	30.8%	25.0%	22.7%	19.4%	19.2%	18.8%	.0%	.0%
	Agree	.0%	15.4%	35.7%	13.6%	38.7%	38.5%	62.5%	50.0%	.0%
	Strongly Agree	100.0%	30.8%	21.4%	31.8%	25.8%	38.5%	18.8%	50.0%	.0%
Many schools lose experienced teacher-mentors to HIV and AIDS	Strongly Disagree	.0%	.0%	14.3%	13.6%	.0%	3.8%	.0%	.0%	.0%
	Disagree	.0%	23.1%	14.3%	22.7%	19.4%	19.2%	.0%	.0%	.0%
	Agree	.0%	69.2%	35.7%	27.3%	45.2%	38.5%	37.5%	75.0%	100.0%
	Strongly Agree	100.0%	7.7%	35.7%	36.4%	35.5%	38.5%	62.5%	25.0%	.0%
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Strongly Disagree	.0%	.0%	3.6%	4.5%	.0%	7.7%	.0%	.0%	.0%
	Disagree	.0%	23.1%	25.0%	22.7%	16.1%	15.4%	.0%	25.0%	100.0%
	Agree	100.0%	61.5%	32.1%	36.4%	38.7%	42.3%	43.8%	50.0%	.0%
	Strongly Agree	.0%	15.4%	39.3%	36.4%	45.2%	34.6%	56.3%	25.0%	.0%

Item 5 of part two of the questionnaire was posed to establish if secondary school enrolment rates were decreasing owing to HIV and AIDS. Table 4, 26 above illustrates that 100, 0% of respondents aged 13, 50, 0% aged 18, 50, 0% aged 19 and 50, 0% aged 20 either strongly disagreed to the statement while 61, 6% of them aged 14, 71, 5% aged 15, 59, 1% aged 16 and 61, 3% aged 17 either agreed or strongly agreed to the statement. On the other hand, 100, 0% of respondents aged 22 agreed to the statement.

This could imply that respondents belonging to different age categories had different perceptions regarding the questionnaire statement. However, the majority either agreed or strongly agreed to the statement.

Item 6 was also posed to determine if dropout rates at secondary schools were rising owing to HIV and AIDS. The table indicates that 100, 0% of respondents aged 13 strongly disagreed to the statement while all other respondents in other age categories either agreed or strongly agreed to the statement. This could imply that age had an influence on the decision taken by respondents in the age category 13 who perceived that drop-out rates at secondary schools were rising owing to pandemic.

Item 8 was posed to determine if absenteeism from school by learners affected by HIV and AIDS was rising. The table indicates that respondents aged 13 strongly disagreed to the statement while those aged 14 and 16 either strongly disagreed or disagreed to the

statement. The table also indicates that 69, 3% and 59, 1% of respondents aged 14 and 16 either strongly disagreed or disagreed to the statement. Fifty seven comma two aged 15, 67, 8% aged 17, 61, 6% aged 18, 62, 6% aged 19 and 75, 0% aged 20 either agreed or strongly agreed to the statement. This implies that the majority of respondents either agreed or strongly agreed to the statement.

Item 13 was asked to establish if the incidence of HIV infection among educators was above that of the population as a whole. The table illustrates those respondents aged 13 strongly disagreed to the statement while 50, 0% of those aged 22 either agreed or strongly agreed to the statement. However, the majority of respondents either agreed or strongly agreed to the statement. This could also imply that age had an influence in the decision being taken by respondents in the age category 13 who perceived that the incidence of HIV infection among educators was not above that of the population as a whole.

Item 23 of the questionnaire was asked to determine if the work of educators who are HIV positive and those who have developed full blown AIDS is being compromised by periods of illness. The table points out that 100, 0% of respondents aged 13 and 22 agreed and strongly disagreed to the statement respectively. The majority of respondents of other age categories either agreed or strongly agreed to the statement.

This could mean that the work of educators who are HIV positive and those who have developed full blown AIDS is being compromised by periods of illness. The difference in response between age categories 13 and 22 could mean that age had an influence on decision being made.

Item 32 was asked to find out if the quality of education was declining as young and less-experienced educators replaced experienced ones. The table indicates that 100, 0% of respondents aged 13 and 100, 0% aged 22 agreed and disagreed to the statement respectively. This could imply that the difference in age influenced different perception as regard the statement. The majority of respondents of age categories 14 to 20 either agreed or strongly agreed to the statement. This also could indicate that the quality of education was declining as young and less-experienced educators replaced experienced ones.

Table 4.27: Chi-square test in terms of age (N=142)

		Age in completed years
Secondary enrolment rates decrease owing to HIV & AIDS	Chi-square	20.971
	df	24
	Sig.	.640(a,b)
Drop-out rates at secondary schools	Chi-square	33.525
	df	24
	Sig.	.093(a,b)
There is negative secondary population growth rate	Chi-square	13.823
	df	24
	Sig.	.951(a,b)
Absenteeism from school by learners affected by HIV & AIDS	Chi-square	21.015
	df	24
	Sig.	.638(a,b)
Greater demand for second-chance education by learners returning to education after absence	Chi-square	27.131
	df	24
	Sig.	.298(a,b)
Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	Chi-square	22.556
	df	24
	Sig.	.546(a,b)
Families have less disposable income for school fees and uniforms	Chi-square	26.864
	df	24
	Sig.	.311(a,b)
FS Department of Education is losing key teachers	Chi-square	20.127
	df	24
	Sig.	.690(a,b)
HIV infection among teachers is above that of the population as a whole	Chi-square	17.673
	df	24
	Sig.	.819(a,b)
Teachers are required to take responsibilities for AIDS orphans within the extended family	Chi-square	50.196
	df	24
	Sig.	.001(*,a,b)
Job mobility among teachers is increasing as a result of the AIDS pandemic	Chi-square	18.945
	df	24
	Sig.	.755(a,b)
Greater numbers of teachers are leaving the profession to other sectors	Chi-square	29.129
	df	24
	Sig.	.215(a,b)
More teachers are to be trained to keep up with the demand for teachers	Chi-square	41.518
	df	24
	Sig.	.015(*,a,b)
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Chi-square	26.408
	df	24
	Sig.	.333(a,b)
New recruitment do not make up for the loss of the education services of most experienced educators	Chi-square	24.135
	df	24
	Sig.	.454(a,b)
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	Chi-square	22.861
	df	24
	Sig.	.528(a,b)
The HIV and AIDS	Chi-square	33.564

pandemic have traumatic impact on teachers.	df	24
	Sig.	.093(a,b)
The HIV and AIDS pandemic have traumatic impact on learners.	Chi-square	23.025
	df	24
	Sig.	.518(a,b)
The work of teachers affected by HIV and AIDS is being compromised by period of illness	Chi-square	58.534
	df	24
	Sig.	.000(*,a,b)
Teachers affected by HIV positive lose interest in improving their qualifications	Chi-square	30.725
	df	32
	Sig.	.531(a,b)
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Chi-square	19.968
	df	24
	Sig.	.699(a,b)
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Chi-square	13.238
	df	24
	Sig.	.962(a,b)
The quality of teaching and learning is inevitably compromised	Chi-square	23.932
	df	24
	Sig.	.465(a,b)
Learners are losing parents and siblings to HIV and AIDS	Chi-square	18.734
	df	24
	Sig.	.766(a,b)
Orphaned learners may move long distances to find new homes	Chi-square	40.028
	df	24
	Sig.	.021(*,a,b)
Many schools lose their principals to HIV and AIDS	Chi-square	30.534
	df	24
	Sig.	.168(a,b)
Many schools lose experienced teacher-mentors to HIV and AIDS	Chi-square	28.802
	df	24
	Sig.	.228(a,b)
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Chi-square	20.510
	df	24
	Sig.	.667(a,b)

From the above chi-square table, there is no relationship between the age in completed years and some of the statements on the impact of HIV and AIDS on education. However there is a relationship between age in completed years and the highlighted statements since their low significance value (typically below 0.05) indicates that there may be some relationship between the variables. For example those educators are expected to take responsibilities for AIDS orphans within the extended family.

Table 4.28: Cross-tabulation in terms of school grade (N=142)

		Present Grade									
		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12	
		Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Secondary enrolment rates decrease owing to HIV & AIDS	Strongly Disagree	3	12.5%	6	26.1%	4	10.5%	1	3.4%	6	21.4%
	Disagree	5	20.8%	1	4.3%	10	26.3%	11	37.9%	11	39.3%
	Agree	8	33.3%	10	43.5%	19	50.0%	13	44.8%	5	17.9%
	Strongly Agree	8	33.3%	6	26.1%	5	13.2%	4	13.8%	6	21.4%
Drop-out rates at secondary schools	Strongly Disagree	2	8.3%	7	30.4%	3	7.9%	1	3.4%	0	.0%
	Disagree	7	29.2%	4	17.4%	13	34.2%	13	44.8%	9	32.1%
	Agree	10	41.7%	7	30.4%	18	47.4%	11	37.9%	12	42.9%
	Strongly Agree	5	20.8%	5	21.7%	4	10.5%	4	13.8%	7	25.0%
There is negative secondary population growth rate	Strongly Disagree	2	8.3%	4	17.4%	9	23.7%	6	20.7%	3	10.7%
	Disagree	6	25.0%	8	34.8%	14	36.8%	6	20.7%	6	21.4%
	Agree	11	45.8%	5	21.7%	8	21.1%	10	34.5%	12	42.9%
	Strongly Agree	5	20.8%	6	26.1%	7	18.4%	7	24.1%	7	25.0%
Absenteeism from school by learners affected by HIV & AIDS	Strongly Disagree	3	12.5%	7	30.4%	4	10.5%	3	10.3%	5	17.9%
	Disagree	7	29.2%	4	17.4%	14	36.8%	9	31.0%	6	21.4%
	Agree	12	50.0%	9	39.1%	11	28.9%	12	41.4%	11	39.3%
	Strongly Agree	2	8.3%	3	13.0%	9	23.7%	5	17.2%	6	21.4%
Greater demand for second-chance education by learners returning to education after absence	Strongly Disagree	2	8.3%	1	4.3%	2	5.3%	1	3.4%	1	3.6%
	Disagree	4	16.7%	4	17.4%	9	23.7%	7	24.1%	6	21.4%
	Agree	13	54.2%	15	65.2%	21	55.3%	15	51.7%	16	57.1%
	Strongly Agree	5	20.8%	3	13.0%	6	15.8%	6	20.7%	5	17.9%
Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	Strongly Disagree	1	4.2%	1	4.3%	1	2.6%	0	.0%	0	.0%
	Disagree	2	8.3%	7	30.4%	7	18.4%	3	10.3%	5	17.9%
	Agree	12	50.0%	7	30.4%	24	63.2%	19	65.5%	11	39.3%
	Strongly Agree	9	37.5%	8	34.8%	6	15.8%	7	24.1%	12	42.9%
Families have less disposable income for school fees and uniforms	Strongly Disagree	1	4.2%	3	13.0%	3	7.9%	2	6.9%	3	10.7%
	Disagree	3	12.5%	2	8.7%	5	13.2%	5	17.2%	3	10.7%
	Agree	12	50.0%	9	39.1%	18	47.4%	14	48.3%	13	46.4%
	Strongly Agree	8	33.3%	9	39.1%	12	31.6%	8	27.6%	9	32.1%
FS Department of Education is losing key teachers	Strongly Disagree	0	.0%	1	4.3%	3	7.9%	2	6.9%	2	7.1%
	Disagree	7	29.2%	5	21.7%	2	5.3%	4	13.8%	6	21.4%
	Agree	8	33.3%	11	47.8%	22	57.9%	13	44.8%	11	39.3%
	Strongly Agree	9	37.5%	6	26.1%	11	28.9%	10	34.5%	9	32.1%

HIV infection among teachers is above that of the population as a whole	Strongly Disagree	3	12.5%	6	26.1%	6	15.8%	6	20.7%	6	21.4%
	Disagree	7	29.2%	4	17.4%	6	15.8%	5	17.2%	11	39.3%
	Agree	6	25.0%	7	30.4%	20	52.6%	14	48.3%	9	32.1%
	Strongly Agree	8	33.3%	6	26.1%	6	15.8%	4	13.8%	2	7.1%
Teachers are required to take responsibilities for AIDS orphans within the extended family	Strongly Disagree	2	8.3%	2	8.7%	0	.0%	0	.0%	2	7.1%
	Disagree	5	20.8%	3	13.0%	11	28.9%	5	17.2%	2	7.1%
	Agree	10	41.7%	12	52.2%	15	39.5%	18	62.1%	18	64.3%
	Strongly Agree	7	29.2%	6	26.1%	12	31.6%	6	20.7%	6	21.4%
Job mobility among teachers is increasing as a result of the AIDS pandemic	Strongly Disagree	1	4.2%	3	13.0%	1	2.6%	2	6.9%	1	3.6%
	Disagree	7	29.2%	6	26.1%	11	28.9%	8	27.6%	11	39.3%
	Agree	11	45.8%	10	43.5%	22	57.9%	11	37.9%	14	50.0%
	Strongly Agree	5	20.8%	4	17.4%	4	10.5%	8	27.6%	2	7.1%
Greater numbers of teachers are leaving the profession to other sectors	Strongly Disagree	2	8.3%	0	.0%	4	10.5%	3	10.3%	3	10.7%
	Disagree	5	20.8%	5	21.7%	7	18.4%	4	13.8%	8	28.6%
	Agree	10	41.7%	13	56.5%	19	50.0%	13	44.8%	12	42.9%
	Strongly Agree	7	29.2%	5	21.7%	8	21.1%	9	31.0%	5	17.9%
More teachers are to be trained to keep up with the demand for teachers	Strongly Disagree	3	12.5%	1	4.3%	2	5.3%	1	3.4%	0	.0%
	Disagree	6	25.0%	2	8.7%	6	15.8%	2	6.9%	3	10.7%
	Agree	12	50.0%	9	39.1%	19	50.0%	15	51.7%	14	50.0%
	Strongly Agree	3	12.5%	11	47.8%	11	28.9%	11	37.9%	11	39.3%
High learner-teacher ratio that result owing to HIV & AIDS affect quality of Education	Strongly Disagree	4	16.7%	1	4.3%	2	5.3%	0	.0%	1	3.6%
	Disagree	5	20.8%	5	21.7%	9	23.7%	7	24.1%	5	17.9%
	Agree	11	45.8%	13	56.5%	17	44.7%	14	48.3%	13	46.4%
	Strongly Agree	4	16.7%	4	17.4%	10	26.3%	8	27.6%	9	32.1%
New recruitment do not make up for the loss of the education services of most experienced educators	Strongly Disagree	1	4.2%	1	4.3%	2	5.3%	1	3.4%	1	3.6%
	Disagree	3	12.5%	3	13.0%	10	26.3%	5	17.2%	4	14.3%
	Agree	13	54.2%	11	47.8%	20	52.6%	17	58.6%	13	46.4%
	Strongly Agree	7	29.2%	8	34.8%	6	15.8%	6	20.7%	10	35.7%
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	Strongly Disagree	2	8.3%	0	.0%	1	2.6%	1	3.4%	1	3.6%
	Disagree	4	16.7%	7	30.4%	8	21.1%	7	24.1%	7	25.0%
	Agree	13	54.2%	14	60.9%	24	63.2%	18	62.1%	18	64.3%
	Strongly Agree	5	20.8%	2	8.7%	5	13.2%	3	10.3%	2	7.1%
The HIV and AIDS pandemic have traumatic	Strongly Disagree	4	16.7%	0	.0%	2	5.3%	0	.0%	2	7.1%

impact on teachers.											
	Disagree	2	8.3%	4	17.4%	4	10.5%	4	13.8%	3	10.7%
	Agree	8	33.3%	13	56.5%	14	36.8%	15	51.7%	16	57.1%
	Strongly Agree	10	41.7%	6	26.1%	18	47.4%	10	34.5%	7	25.0%
The HIV and AIDS pandemic have traumatic impact on learners.	Strongly Disagree	2	8.3%	0	.0%	0	.0%	0	.0%	2	7.1%
	Disagree	6	25.0%	1	4.3%	4	10.5%	6	20.7%	2	7.1%
	Agree	7	29.2%	12	52.2%	17	44.7%	11	37.9%	13	46.4%
	Strongly Agree	9	37.5%	10	43.5%	17	44.7%	12	41.4%	11	39.3%
The work of teachers affected by HIV and AIDS is being compromised by period of illness	Strongly Disagree	0	.0%	2	8.7%	0	.0%	2	6.9%	0	.0%
	Disagree	4	16.7%	4	17.4%	8	21.1%	1	3.4%	4	14.3%
	Agree	14	58.3%	10	43.5%	24	63.2%	14	48.3%	13	46.4%
	Strongly Agree	6	25.0%	7	30.4%	6	15.8%	12	41.4%	11	39.3%
Teachers affected by HIV positive lose interest in improving their qualifications	Strongly Disagree	2	8.3%	1	4.3%	5	13.2%	1	3.4%	0	.0%
	Disagree	4	16.7%	2	8.7%	2	5.3%	2	6.9%	3	10.7%
	Agree	11	45.8%	13	56.5%	14	36.8%	14	48.3%	11	39.3%
	Strongly Agree	7	29.2%	7	30.4%	17	44.7%	11	37.9%	14	50.0%
	5	0	.0%	0	.0%	0	.0%	1	3.4%	0	.0%
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Strongly Disagree	1	4.2%	1	4.3%	2	5.3%	1	3.4%	2	7.1%
	Disagree	4	16.7%	2	8.7%	7	18.4%	8	27.6%	3	10.7%
	Agree	12	50.0%	15	65.2%	22	57.9%	12	41.4%	19	67.9%
	Strongly Agree	7	29.2%	5	21.7%	7	18.4%	8	27.6%	4	14.3%
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Strongly Disagree	0	.0%	1	4.3%	3	7.9%	2	6.9%	2	7.1%
	Disagree	7	29.2%	3	13.0%	4	10.5%	7	24.1%	6	21.4%
	Agree	8	33.3%	9	39.1%	22	57.9%	9	31.0%	11	39.3%
	Strongly Agree	9	37.5%	10	43.5%	9	23.7%	11	37.9%	9	32.1%
The quality of teaching and learning is inevitably compromised	Strongly Disagree	1	4.2%	1	4.3%	4	10.5%	0	.0%	0	.0%
	Disagree	7	29.2%	7	30.4%	7	18.4%	5	17.2%	3	10.7%
	Agree	15	62.5%	11	47.8%	23	60.5%	16	55.2%	18	64.3%
	Strongly Agree	1	4.2%	4	17.4%	4	10.5%	8	27.6%	7	25.0%
Learners are losing parents and siblings to HIV and AIDS	Strongly Disagree	0	.0%	0	.0%	2	5.3%	1	3.4%	2	7.1%
	Disagree	0	.0%	2	8.7%	2	5.3%	0	.0%	1	3.6%
	Agree	7	29.2%	9	39.1%	16	42.1%	8	27.6%	13	46.4%
	Strongly Agree	17	70.8%	12	52.2%	18	47.4%	20	69.0%	12	42.9%
Orphaned learners may move long distances to find new homes	Strongly Disagree	1	4.2%	4	17.4%	2	5.3%	2	6.9%	1	3.6%

	Disagree	5	20.8%	1	4.3%	1	2.6%	2	6.9%	2	7.1%
	Agree	11	45.8%	11	47.8%	21	55.3%	11	37.9%	16	57.1%
	Strongly Agree	7	29.2%	7	30.4%	14	36.8%	14	48.3%	9	32.1%
Many schools lose their principals to HIV and AIDS	Strongly Disagree	3	12.5%	5	21.7%	7	18.4%	3	10.3%	4	14.3%
	Disagree	4	16.7%	4	17.4%	9	23.7%	7	24.1%	6	21.4%
	Agree	10	41.7%	7	30.4%	13	34.2%	11	37.9%	8	28.6%
	Strongly Agree	7	29.2%	7	30.4%	9	23.7%	8	27.6%	10	35.7%
Many schools lose experienced teacher-mentors to HIV and AIDS	Strongly Disagree	1	4.2%	3	13.0%	2	5.3%	1	3.4%	1	3.6%
	Disagree	3	12.5%	4	17.4%	5	13.2%	6	20.7%	5	17.9%
	Agree	13	54.2%	7	30.4%	16	42.1%	12	41.4%	11	39.3%
	Strongly Agree	7	29.2%	9	39.1%	15	39.5%	10	34.5%	11	39.3%
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Strongly Disagree	1	4.2%	0	.0%	0	.0%	2	6.9%	1	3.6%
	Disagree	3	12.5%	7	30.4%	10	26.3%	4	13.8%	2	7.1%
	Agree	11	45.8%	9	39.1%	14	36.8%	7	24.1%	17	60.7%
	Strongly Agree	9	37.5%	7	30.4%	14	36.8%	16	55.2%	8	28.6%

Item 5 was posed to find out if secondary school enrolment rates were decreasing owing to HIV and AIDS. The above indicates that the majority of respondents (grade 8 to 11) either agreed or strongly agreed to the statement while 60, 7% of grade 12 wither strongly disagreed or disagreed to the statement.

This also could imply that school grade had an influence in grade 12 respondents taking a different response from the rest of the grade categories.

Item 6 was also asked to find out if dropout rates at secondary schools were rising owing to HIV and AIDS. The table indicates that respondents of all school grades (8 to 12) either agreed or strongly agreed to the statement.

This could imply that dropout rates at secondary schools were rising owing to HIV and AIDS.

Item 7 was also asked to investigate if there was negative secondary school population growth rate owing to HIV and AIDS. The table above illustrates that the majority of respondents (4 grades out of 5) either agreed or strongly agreed to the statement.

This could imply that there were negative secondary school population growth rates owing

to the pandemic.

Item 8 was constructed to investigate if absenteeism from school by learners affected by HIV and AIDS was rising. The table above indicates that most respondents of all school grades either agreed or strongly agreed to the statement.

This could also imply that absenteeism from school by learners affected by HIV and AIDS was rising.

Item 9 was asked to find out if there is grater demand for second-chance education by learners returning to school after absence from the system. The table above shows that the majority of respondents of all school grades either agreed or strongly agreed to the statement.

This could again imply that there is grater demand for second-chance education by learners returning to education after absence from the system.

Item 25 of the questionnaire was drawn up to determine if educators who believe that they are HIV negative lose morale as they cope emotionally and financially with sickness and death of among relatives, friends and colleagues.

The table indicates that the majority of respondents of all school grades either agreed or strongly agreed to the statement.

Item 27 was posed to determine if the quality of teaching and learning was inevitable compromised. The table demonstrates that the majority of respondents of all schools grades either agreed or strongly agreed to the statement.

Item 30 was constructed to establish if many schools lost their principals to HIV and AIDS. The table also points out that the majority of responses from all school grades either agreed or strongly agreed to the statement.

This could imply that many schools lost their principals to HIV and AIDS pandemic.

Item 31 was constructed to investigate if many schools lose experienced educator-

mentors to HIV and AIDS. The table also shows that the majority of responses from all school grades either agreed or strongly agreed to the statement.

This could imply that many schools lost their experienced educator-mentors to the pandemic.

Table 4.29: Chi-square test in terms of school grade (N=142)

		Present Grade
Secondary enrolment rates decrease owing to HIV & AIDS	Chi-square	22.696
	df	12
	Sig.	.030(*,a)
Drop-out rates at secondary schools	Chi-square	21.808
	df	12
	Sig.	.040(*,a)
There is negative secondary population growth rate	Chi-square	10.637
	df	12
	Sig.	.560(a)
Absenteeism from school by learners affected by HIV & AIDS	Chi-square	11.421
	df	12
	Sig.	.493(a)
Greater demand for second-chance education by learners returning to education after absence	Chi-square	2.549
	df	12
	Sig.	.998(a)
Greater demand for flexible learning opportunities for learners who are care-givers or wage earners	Chi-square	16.658
	df	12
	Sig.	.163(a,b)
Families have less disposable income for school fees and uniforms	Chi-square	3.121
	df	12
	Sig.	.995(a)
FS Department of Education is losing key teachers	Chi-square	10.927
	df	12
	Sig.	.535(a)
HIV infection among teachers is above that of the population as a whole	Chi-square	17.088
	df	12
	Sig.	.146(a)
Teachers are required to take responsibilities for AIDS orphans within the extended family	Chi-square	14.274
	df	12
	Sig.	.284(a,b)
Job mobility among teachers is increasing as a result of the AIDS pandemic	Chi-square	10.588
	df	12
	Sig.	.565(a)
Greater numbers of teachers are leaving the profession to other sectors	Chi-square	6.345
	df	12
	Sig.	.898(a)
More teachers are to be trained to keep up with the demand for teachers	Chi-square	14.177
	df	12
	Sig.	.290(a)
High learner-teacher ratio	Chi-square	9.817

that result owing to HIV & AIDS affect quality of Education	df	12
	Sig.	.632(a)
New recruitment do not make up for the loss of the education services of most experienced educators	Chi-square	6.743
	df	12
	Sig.	.874(a,b)
Recruitment of trainees is inhibited by fewer secondary school leavers available for teacher training	Chi-square	6.258
	df	12
	Sig.	.903(a,b)
The HIV and AIDS pandemic have traumatic impact on teachers.	Chi-square	15.431
	df	12
	Sig.	.219(a)
The HIV and AIDS pandemic have traumatic impact on learners.	Chi-square	15.066
	df	12
	Sig.	.238(a,b)
The work of teachers affected by HIV and AIDS is being compromised by period of illness	Chi-square	17.261
	df	12
	Sig.	.140(a,b)
Teachers affected by HIV positive lose interest in improving their qualifications	Chi-square	15.205
	df	16
	Sig.	.510(a,b)
Teachers who believe the are HIV negative lose morale as they cope emotionally and financially	Chi-square	8.307
	df	12
	Sig.	.761(a)
Teachers have to take additional teaching and other work-related duties to cover for sick colleagues	Chi-square	11.344
	df	12
	Sig.	.500(a)
The quality of teaching and learning is inevitably compromised	Chi-square	16.539
	df	12
	Sig.	.168(a,b)
Learners are losing parents and siblings to HIV and AIDS	Chi-square	12.269
	df	12
	Sig.	.424(a,b)
Orphaned learners may move long distances to find new homes	Chi-square	14.706
	df	12
	Sig.	.258(a)
Many schools lose their principals to HIV and AIDS	Chi-square	3.769
	df	12
	Sig.	.987(a)
Many schools lose experienced teacher-mentors to HIV and AIDS	Chi-square	5.868
	df	12
	Sig.	.923(a)
The quality of education is declining as young and less-experienced teachers replace experienced ones.	Chi-square	17.758
	df	12
	Sig.	.123(a,b)

From the above chi-square table, there is no relationship between the age in completed years and some of the statements on the impact of HIV and AIDS on education. For example that the quality of education is declining as young and less-experienced educators replace experienced ones. This is because the chi-square significance is above 0,05 indicating that there results are invalid for such statements. However there is a

relationship between age in completed years and the highlighted statements since their low significance value (typically below 0.05) indicates that there may be some relationship between the two variables, namely that secondary school enrolments decrease and of HIV and AIDS.

Table 4.30: Cross-tabulation in terms of gender (N=142)

		Gender			
		Male		Female	
		Count	Column %	Count	Column %
Learners need to learn about sexual practices	Strongly Disagree	3	4.4%	2	2.7%
	Disagree	4	5.9%	7	9.5%
	Agree	20	29.4%	25	33.8%
	Strongly Agree	41	60.3%	40	54.1%
Learners need to learn about HIV and AIDS-relate behaviours	Strongly Disagree	0	.0%	1	1.4%
	Disagree	4	5.9%	3	4.1%
	Agree	20	29.4%	27	36.5%
	Strongly Agree	44	64.7%	43	58.1%
New, more robust evidence must inform HIV and AIDS teaching, learning that are offered at our school.	Strongly Disagree	1	1.5%	1	1.4%
	Disagree	4	5.9%	4	5.4%
	Agree	31	45.6%	40	54.1%
	Strongly Agree	32	47.1%	29	39.2%
Learners, parents and communities need health education aimed at controlling the disease	Strongly Disagree	1	1.5%	1	1.4%
	Disagree	5	7.4%	6	8.1%
	Agree	23	33.8%	31	41.9%
	Strongly Agree	39	57.4%	36	48.6%
Teachers need much more information about the impact of AIDS on the education sector itself	Strongly Disagree	1	1.5%	1	1.4%
	Disagree	5	7.4%	7	9.5%
	Agree	29	42.6%	33	44.6%
	Strongly Agree	33	48.5%	33	44.6%
Teachers need to understand how HIV and AIDS are likely to influence the teaching service	Strongly Disagree	2	2.9%	1	1.4%
	Disagree	2	2.9%	7	9.5%
	Agree	27	39.7%	37	50.0%
	Strongly Agree	37	54.4%	29	39.2%
Teachers need to understand how HIV and AIDS are likely to influence classrooms	Strongly Disagree	1	1.5%	1	1.4%
	Disagree	6	8.8%	5	6.8%
	Agree	25	36.8%	38	51.4%
	Strongly Agree	36	52.9%	30	40.5%
Teachers need to understand how HIV and AIDS are likely to influence learners	Strongly Disagree	2	2.9%	1	1.4%
	Disagree	0	.0%	2	2.7%
	Agree	35	51.5%	27	36.5%
	Strongly Agree	31	45.6%	44	59.5%
Teachers need to understand how HIV and AIDS are likely to influence the quality of education	Strongly Disagree	1	1.5%	0	.0%
	Disagree	4	5.9%	4	5.4%
	Agree	25	36.8%	30	40.5%
	Strongly Agree	38	55.9%	40	54.1%
Teachers need to understand what is happening in other sectors of the economy losing trained and experienced personnel	Strongly Disagree	4	5.9%	0	.0%
	Disagree	7	10.3%	8	10.8%
	Agree	29	42.6%	40	54.1%
	Strongly Agree	28	41.2%	26	35.1%

Strategies are needed for reducing the impact of HIV and AIDS on education	Strongly Disagree	2	2.9%	2	2.7%
	Disagree	2	2.9%	6	8.1%
	Agree	39	57.4%	40	54.1%
	Strongly Agree	25	36.8%	26	35.1%
Creative plans to manage the effects of the pandemic on the education system are important	Strongly Disagree	1	1.5%	0	.0%
	Disagree	6	8.8%	9	12.2%
	Agree	35	51.5%	42	56.8%
	Strongly Agree	26	38.2%	23	31.1%
Every learner should understand the causes and consequences of HIV and AIDS	Strongly Disagree	0	.0%	0	.0%
	Disagree	3	4.4%	3	4.1%
	Agree	21	30.9%	20	27.0%
	Strongly Agree	44	64.7%	51	68.9%
All learners should lead healthy lifestyles	Strongly Disagree	0	.0%	0	.0%
	Disagree	2	2.9%	3	4.1%
	Agree	29	42.6%	29	39.2%
	Strongly Agree	37	54.4%	42	56.8%
All learners should take responsible decisions about their sexual behaviour	Strongly Disagree	0	.0%	0	.0%
	Disagree	2	2.9%	1	1.4%
	Agree	21	30.9%	19	25.7%
	Strongly Agree	45	66.2%	54	73.0%

Table 4.31: Chi-square test in terms of gender (N=142)

		Gender
Learners need to learn about sexual practices	Chi-square	1.335
	df	3
	Sig.	.721(a)
Learners need to learn about HIV and AIDS-relate behaviours	Chi-square	1.947
	df	3
	Sig.	.584(a,b)
New, more robust evidence must inform HIV and AIDS teaching, learning that are offered at our school.	Chi-square	1.037
	df	3
	Sig.	.792(a,b)
Learners, parents and communities need health education aimed at controlling the disease	Chi-square	1.145
	df	3
	Sig.	.766(a,b)
Teachers need much more information about the impact of AIDS on the education sector itself	Chi-square	.338
	df	3
	Sig.	.953(a,b)
Teachers need to understand how HIV and AIDS are likely to influence the teaching service	Chi-square	5.399
	df	3
	Sig.	.145(a)
Teachers need to understand how HIV and AIDS are likely to influence classrooms	Chi-square	3.071
	df	3
	Sig.	.381(a,b)
Teachers need to understand how HIV and AIDS are likely to influence learners	Chi-square	5.375
	df	3
	Sig.	.146(a,b)
Teachers need to understand how HIV and AIDS are likely to influence the quality of education	Chi-square	1.255
	df	3
	Sig.	.740(a,b)
Teachers need to understand what is happening in other	Chi-square	5.651
	df	3

sectors of the economy losing trained and experienced personnel	Sig.	.130(a)
Strategies are needed for reducing the impact of HIV and AIDS on education	Chi-square	1.782
	df	3
	Sig.	.619(a)
Creative plans to manage the effects of the pandemic on the education system are important	Chi-square	2.170
	df	3
	Sig.	.538(a,b)
Every learner should understand the causes and consequences of HIV and AIDS	Chi-square	.287
	df	2
	Sig.	.866(a)
All learners should lead healthy lifestyles	Chi-square	.263
	df	2
	Sig.	.877(a)
All learners should take responsible decisions about their sexual behaviour	Chi-square	1.000
	df	2
	Sig.	.607(a)

From the above chi-square table, there is no relationship between gender and all the statements on the impact of HIV and AIDS on education. This is indicated by the chi-square significance value that is above 0, 05. This also shows that the chi-square results are invalid. The implication could be that gender has no influence on the impact of HIV and AIDS on education as perceived by secondary school learners.

Table 4.32: Cross-tabulation in terms of age (N=142)

		13	14	15	16	17	18	19	20	22
		Column %	Column %	Column %	Column %	Column %	Column %	Column %	Column %	Column %
Learners need to learn about sexual practices	Strongly Disagree	.0%	.0%	10.7%	4.5%	.0%	3.8%	.0%	.0%	.0%
	Disagree	.0%	15.4%	10.7%	18.2%	.0%	7.7%	.0%	.0%	.0%
	Agree	.0%	30.8%	21.4%	40.9%	35.5%	38.5%	25.0%	25.0%	.0%
	Strongly Agree	100.0%	53.8%	57.1%	36.4%	64.5%	50.0%	75.0%	75.0%	100.0%
Learners need to learn about HIV and AIDS-relate behaviours	Strongly Disagree	.0%	.0%	.0%	.0%	.0%	3.8%	.0%	.0%	.0%
	Disagree	.0%	15.4%	.0%	4.5%	12.9%	.0%	.0%	.0%	.0%
	Agree	.0%	30.8%	39.3%	31.8%	38.7%	30.8%	18.8%	50.0%	.0%
	Strongly Agree	100.0%	53.8%	60.7%	63.6%	48.4%	65.4%	81.3%	50.0%	100.0%
New, more robust evidence must inform HIV and AIDS teaching, learning that are offered at our school.	Strongly Disagree	.0%	7.7%	3.6%	.0%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	.0%	3.6%	.0%	9.7%	3.8%	12.5%	25.0%	.0%
	Agree	.0%	30.8%	46.4%	50.0%	51.6%	69.2%	37.5%	50.0%	100.0%
	Strongly Agree	100.0%	61.5%	46.4%	50.0%	38.7%	26.9%	50.0%	25.0%	.0%
Learners, parents and communities	Strongly Disagree	.0%	7.7%	3.6%	.0%	.0%	.0%	.0%	.0%	.0%

need health education aimed at controlling the disease										
	Disagree	.0%	.0%	10.7%	18.2%	3.2%	.0%	6.3%	50.0%	.0%
	Agree	.0%	38.5%	28.6%	18.2%	41.9%	73.1%	31.3%	.0%	.0%
	Strongly Agree	100.0%	53.8%	57.1%	63.6%	54.8%	26.9%	62.5%	50.0%	100.0%
Teachers need much more information about the impact of AIDS on the education sector itself	Strongly Disagree	.0%	.0%	3.6%	.0%	.0%	3.8%	.0%	.0%	.0%
	Disagree	.0%	23.1%	17.9%	.0%	3.2%	.0%	6.3%	25.0%	100.0%
	Agree	.0%	30.8%	28.6%	54.5%	51.6%	34.6%	62.5%	75.0%	.0%
	Strongly Agree	100.0%	46.2%	50.0%	45.5%	45.2%	61.5%	31.3%	.0%	.0%
Teachers need to understand how HIV and AIDS are likely to influence the teaching service	Strongly Disagree	.0%	.0%	10.7%	.0%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	15.4%	7.1%	.0%	3.2%	11.5%	6.3%	.0%	.0%
	Agree	.0%	46.2%	35.7%	54.5%	58.1%	34.6%	37.5%	50.0%	100.0%
	Strongly Agree	100.0%	38.5%	46.4%	45.5%	38.7%	53.8%	56.3%	50.0%	.0%
Teachers need to understand how HIV and AIDS are likely to influence classrooms	Strongly Disagree	.0%	7.7%	3.6%	.0%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	7.7%	7.1%	13.6%	12.9%	3.8%	.0%	.0%	.0%
	Agree	.0%	53.8%	35.7%	31.8%	35.5%	46.2%	75.0%	75.0%	100.0%
	Strongly Agree	100.0%	30.8%	53.6%	54.5%	51.6%	50.0%	25.0%	25.0%	.0%
Teachers need to understand how HIV and AIDS are likely to influence learners	Strongly Disagree	.0%	.0%	7.1%	4.5%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	7.7%	.0%	.0%	.0%	3.8%	.0%	.0%	.0%
	Agree	.0%	46.2%	39.3%	31.8%	45.2%	42.3%	56.3%	75.0%	100.0%
	Strongly Agree	100.0%	46.2%	53.6%	63.6%	54.8%	53.8%	43.8%	25.0%	.0%
Teachers need to understand how HIV and AIDS are likely to influence the quality of education	Strongly Disagree	.0%	.0%	.0%	4.5%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	15.4%	10.7%	.0%	6.5%	3.8%	.0%	.0%	.0%
	Agree	.0%	38.5%	25.0%	50.0%	61.3%	26.9%	25.0%	50.0%	.0%
	Strongly Agree	100.0%	46.2%	64.3%	45.5%	32.3%	69.2%	75.0%	50.0%	100.0%
Teachers need to understand what is happening in other sectors of the economy losing trained and experienced personnel	Strongly Disagree	.0%	7.7%	.0%	9.1%	.0%	3.8%	.0%	.0%	.0%
	Disagree	.0%	15.4%	10.7%	22.7%	6.5%	3.8%	.0%	25.0%	100.0%
	Agree	100.0%	38.5%	46.4%	36.4%	64.5%	50.0%	50.0%	25.0%	.0%
	Strongly Agree	.0%	38.5%	42.9%	31.8%	29.0%	42.3%	50.0%	50.0%	.0%
Strategies are needed for reducing the impact of HIV and AIDS on education	Strongly Disagree	.0%	15.4%	3.6%	4.5%	.0%	.0%	.0%	.0%	.0%

	Disagree	.0%	15.4%	.0%	13.6%	.0%	11.5%	.0%	.0%	.0%
	Agree	.0%	38.5%	57.1%	54.5%	51.6%	61.5%	62.5%	100.0%	.0%
	Strongly Agree	100.0%	30.8%	39.3%	27.3%	48.4%	26.9%	37.5%	.0%	100.0%
Creative plans to manage the effects of the pandemic on the education system are important	Strongly Disagree	.0%	.0%	.0%	4.5%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	23.1%	10.7%	4.5%	6.5%	15.4%	.0%	50.0%	.0%
	Agree	100.0%	61.5%	50.0%	59.1%	58.1%	50.0%	56.3%	.0%	100.0%
	Strongly Agree	.0%	15.4%	39.3%	31.8%	35.5%	34.6%	43.8%	50.0%	.0%
Every learner should understand the causes and consequences of HIV and AIDS	Strongly Disagree	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	7.7%	7.1%	13.6%	.0%	.0%	.0%	.0%	.0%
	Agree	.0%	38.5%	25.0%	22.7%	32.3%	26.9%	25.0%	75.0%	.0%
	Strongly Agree	100.0%	53.8%	67.9%	63.6%	67.7%	73.1%	75.0%	25.0%	100.0%
All learners should lead healthy lifestyles	Strongly Disagree	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	7.7%	3.6%	4.5%	3.2%	.0%	.0%	25.0%	.0%
	Agree	.0%	46.2%	39.3%	45.5%	32.3%	50.0%	31.3%	50.0%	100.0%
	Strongly Agree	100.0%	46.2%	57.1%	50.0%	64.5%	50.0%	68.8%	25.0%	.0%
All learners should take responsible decisions about their sexual behaviour	Strongly Disagree	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
	Disagree	.0%	7.7%	3.6%	4.5%	.0%	.0%	.0%	.0%	.0%
	Agree	.0%	23.1%	35.7%	36.4%	32.3%	23.1%	6.3%	50.0%	.0%
	Strongly Agree	100.0%	69.2%	60.7%	59.1%	67.7%	76.9%	93.8%	50.0%	100.0%

Table 4.33: Chi-square test in terms of age (N=142)

		Age in completed years
Learners need to learn about sexual practices	Chi-square	21.945
	df	24
	Sig.	.583(a,b)
Learners need to learn about HIV and AIDS-relate behaviours	Chi-square	20.457
	df	24
	Sig.	.671(a,b)
New, more robust evidence must inform HIV and AIDS teaching, learning that are offered at our school.	Chi-square	22.550
	df	24
	Sig.	.546(a,b)
Learners, parents and communities need health education aimed at controlling the disease	Chi-square	41.650
	df	24
	Sig.	.014(*,a,b)
Teachers need much more information about the impact of AIDS on the education sector itself	Chi-square	37.598
	df	24
	Sig.	.038(*,a,b)
Teachers need to understand how HIV and AIDS are likely to influence the teaching service	Chi-square	23.713
	df	24
	Sig.	.478(a,b)

Teachers need to understand how HIV and AIDS are likely to influence classrooms	Chi-square	22.346
	df	24
	Sig.	.559(a,b)
Teachers need to understand how HIV and AIDS are likely to influence learners	Chi-square	18.038
	df	24
	Sig.	.801(a,b)
Teachers need to understand how HIV and AIDS are likely to influence the quality of education	Chi-square	27.160
	df	24
	Sig.	.297(a,b)
Teachers need to understand what is happening in other sectors of the economy losing trained and experienced personnel	Chi-square	28.479
	df	24
	Sig.	.240(a,b)
Strategies are needed for reducing the impact of HIV and AIDS on education	Chi-square	30.598
	df	24
	Sig.	.166(a,b)
Creative plans to manage the effects of the pandemic on the education system are important	Chi-square	23.418
	df	24
	Sig.	.495(a,b)
Every learner should understand the causes and consequences of HIV and AIDS	Chi-square	15.552
	df	16
	Sig.	.485(a,b)
All learners should lead healthy lifestyles	Chi-square	13.542
	df	16
	Sig.	.633(a,b)
All learners should take responsible decisions about their sexual behaviour	Chi-square	12.790
	df	16
	Sig.	.688(a,b)

From the above chi-square table, there is no relationship between the age in completed years and some of the statements on the impact of HIV and AIDS on education. However there is a relationship between age in completed years and the highlighted statements since their low significance value (typically below 0.05) indicates that there may be some relationship between some of the variables. For example, the statement purporting that educators need to understand the influence of HIV and AIDS on learners has a chi-square value that is above 0,05. This indicates that there is no significant relationship between the questionnaire item and the age in completed years.

This could imply that age has no influence on the impact of HIV and AIDS on education as perceived by secondary school learners.

Table 4.34: Cross-tabulation in terms of school grade (N=142)

		Present Grade									
		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12	
		Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Learners need to learn about sexual practices	Strongly Disagree	0	.0%	3	13.0%	2	5.3%	0	.0%	0	.0%
	Disagree	2	8.3%	3	13.0%	4	10.5%	1	3.4%	1	3.6%
	Agree	7	29.2%	6	26.1%	9	23.7%	10	34.5%	13	46.4%
	Strongly Agree	15	62.5%	11	47.8%	23	60.5%	18	62.1%	14	50.0%
Learners need to learn about HIV and AIDS-relate behaviours	Strongly Disagree	0	.0%	0	.0%	0	.0%	0	.0%	1	3.6%
	Disagree	1	4.2%	2	8.7%	1	2.6%	1	3.4%	2	7.1%
	Agree	8	33.3%	9	39.1%	15	39.5%	6	20.7%	9	32.1%
	Strongly Agree	15	62.5%	12	52.2%	22	57.9%	22	75.9%	16	57.1%
New, more robust evidence must inform HIV and AIDS teaching, learning that are offered at our school.	Strongly Disagree	2	8.3%	0	.0%	0	.0%	0	.0%	0	.0%
	Disagree	1	4.2%	0	.0%	1	2.6%	2	6.9%	4	14.3%
	Agree	10	41.7%	15	65.2%	18	47.4%	11	37.9%	17	60.7%
	Strongly Agree	11	45.8%	8	34.8%	19	50.0%	16	55.2%	7	25.0%
Learners, parents and communities need health education aimed at controlling the disease	Strongly Disagree	2	8.3%	0	.0%	0	.0%	0	.0%	0	.0%
	Disagree	1	4.2%	2	8.7%	4	10.5%	2	6.9%	2	7.1%
	Agree	8	33.3%	11	47.8%	10	26.3%	9	31.0%	16	57.1%
	Strongly Agree	13	54.2%	10	43.5%	24	63.2%	18	62.1%	10	35.7%
Teachers need much more information about the impact of AIDS on the education sector itself	Strongly Disagree	1	4.2%	0	.0%	0	.0%	0	.0%	1	3.6%
	Disagree	4	16.7%	4	17.4%	2	5.3%	1	3.4%	1	3.6%
	Agree	9	37.5%	9	39.1%	16	42.1%	13	44.8%	15	53.6%
	Strongly Agree	10	41.7%	10	43.5%	20	52.6%	15	51.7%	11	39.3%
Teachers need to understand how HIV and AIDS are likely to influence the teaching service	Strongly Disagree	1	4.2%	1	4.3%	1	2.6%	0	.0%	0	.0%
	Disagree	3	12.5%	0	.0%	2	5.3%	1	3.4%	3	10.7%
	Agree	10	41.7%	12	52.2%	18	47.4%	12	41.4%	12	42.9%
	Strongly Agree	10	41.7%	10	43.5%	17	44.7%	16	55.2%	13	46.4%
Teachers need to understand how HIV and AIDS are likely to influence classrooms	Strongly Disagree	1	4.2%	1	4.3%	0	.0%	0	.0%	0	.0%
	Disagree	2	8.3%	1	4.3%	6	15.8%	2	6.9%	0	.0%
	Agree	12	50.0%	10	43.5%	12	31.6%	11	37.9%	18	64.3%
	Strongly Agree	9	37.5%	11	47.8%	20	52.6%	16	55.2%	10	35.7%
Teachers need to understand how HIV and AIDS are likely to influence learners	Strongly Disagree	0	.0%	1	4.3%	2	5.3%	0	.0%	0	.0%

	Disagree	1	4.2%	0	.0%	0	.0%	0	.0%	1	3.6%
	Agree	9	37.5%	10	43.5%	21	55.3%	10	34.5%	12	42.9%
	Strongly Agree	14	58.3%	12	52.2%	15	39.5%	19	65.5%	15	53.6%
Teachers need to understand how HIV and AIDS are likely to influence the quality of education	Strongly Disagree	0	.0%	0	.0%	1	2.6%	0	.0%	0	.0%
	Disagree	3	12.5%	2	8.7%	3	7.9%	0	.0%	0	.0%
	Agree	6	25.0%	10	43.5%	17	44.7%	13	44.8%	9	32.1%
	Strongly Agree	15	62.5%	11	47.8%	17	44.7%	16	55.2%	19	67.9%
Teachers need to understand what is happening in other sectors of the economy losing trained and experienced personnel	Strongly Disagree	1	4.2%	1	4.3%	0	.0%	1	3.4%	1	3.6%
	Disagree	3	12.5%	5	21.7%	4	10.5%	1	3.4%	2	7.1%
	Agree	12	50.0%	5	21.7%	21	55.3%	19	65.5%	12	42.9%
	Strongly Agree	8	33.3%	12	52.2%	13	34.2%	8	27.6%	13	46.4%
Strategies are needed for reducing the impact of HIV and AIDS on education	Strongly Disagree	3	12.5%	0	.0%	1	2.6%	0	.0%	0	.0%
	Disagree	2	8.3%	2	8.7%	2	5.3%	1	3.4%	1	3.6%
	Agree	11	45.8%	12	52.2%	23	60.5%	14	48.3%	19	67.9%
	Strongly Agree	8	33.3%	9	39.1%	12	31.6%	14	48.3%	8	28.6%
Creative plans to manage the effects of the pandemic on the education system are important	Strongly Disagree	0	.0%	0	.0%	0	.0%	0	.0%	1	3.6%
	Disagree	3	12.5%	3	13.0%	3	7.9%	2	6.9%	4	14.3%
	Agree	12	50.0%	12	52.2%	24	63.2%	18	62.1%	11	39.3%
	Strongly Agree	9	37.5%	8	34.8%	11	28.9%	9	31.0%	12	42.9%
Every learner should understand the causes and consequences of HIV and AIDS	Strongly Disagree	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%
	Disagree	1	4.2%	3	13.0%	2	5.3%	0	.0%	0	.0%
	Agree	8	33.3%	5	21.7%	8	21.1%	8	27.6%	12	42.9%
	Strongly Agree	15	62.5%	15	65.2%	28	73.7%	21	72.4%	16	57.1%
All learners should lead healthy lifestyles	Strongly Disagree	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%
	Disagree	1	4.2%	0	.0%	1	2.6%	2	6.9%	1	3.6%
	Agree	10	41.7%	11	47.8%	18	47.4%	8	27.6%	11	39.3%
	Strongly Agree	13	54.2%	12	52.2%	19	50.0%	19	65.5%	16	57.1%
All learners should take responsible decisions about their sexual behaviour	Strongly Disagree	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%
	Disagree	1	4.2%	2	8.7%	0	.0%	0	.0%	0	.0%
	Agree	8	33.3%	6	26.1%	10	26.3%	9	31.0%	7	25.0%
	Strongly Agree	15	62.5%	15	65.2%	28	73.7%	20	69.0%	21	75.0%

Item 33 of the questionnaire was posed to find out if learners need to learn about sexual practices. The table above illustrates that between 73, 9% and 96, 6% if respondents

either agreed or strongly agreed that learners need to learn about sexual practices.

This could imply that learners need to learn about sexual practices.

Item 34 was drawn up to establish if learners need to learn about HIV and AIDS-related behaviour. The table above shows between 89, 2% and 87, 4% of respondents either agreed or strongly agreed to the statement.

This could also imply that learners need to learn bout HIV and AIDS-related behaviour.
Item 35 was constructed to determine if new, more robust evidence must inform HIV and AIDS teaching, learning and counseling in Life Skills programmes that are offered at our schools. The table indicates that between 85, 7% and 100. 0% of respondents of all school grades either agreed or strongly agreed to the statement.

This also could imply that new, more robust evidence must inform HIV and AIDS teaching, learning and counseling in Life Skills programmes that are offered at our schools.

Table 4.35: Chi-square test in terms of school grade (N=142)

		Present Grade
Learners need to learn about sexual practices	Chi-square	15.603
	df	12
	Sig.	.210(a,b)
Learners need to learn about HIV and AIDS-relate behaviours	Chi-square	9.126
	df	12
	Sig.	.692(a,b)
New, more robust evidence must inform HIV and AIDS teaching, learning that are offered at our school.	Chi-square	22.522
	df	12
	Sig.	.032(*,a,b)
Learners, parents and communities need health education aimed at controlling the disease	Chi-square	19.008
	df	12
	Sig.	.088(a,b)
Teachers need much more information about the impact of AIDS on the education sector itself	Chi-square	11.625
	df	12
	Sig.	.476(a,b)
Teachers need to understand how HIV and AIDS are likely to influence the teaching service	Chi-square	7.611
	df	12
	Sig.	.815(a,b)
Teachers need to understand how HIV and AIDS are likely to influence classrooms	Chi-square	16.024
	df	12
	Sig.	.190(a,b)
Teachers need to understand how HIV and AIDS are likely to influence learners	Chi-square	11.788
	df	12
	Sig.	.463(a,b)

Teachers need to understand how HIV and AIDS are likely to influence the quality of education	Chi-square	12.965
	df	12
	Sig.	.372(a,b)
Teachers need to understand what is happening in other sectors of the economy losing trained and experienced personnel	Chi-square	14.535
	df	12
	Sig.	.268(a,b)
Strategies are needed for reducing the impact of HIV and AIDS on education	Chi-square	15.032
	df	12
	Sig.	.240(a,b)
Creative plans to manage the effects of the pandemic on the education system are important	Chi-square	8.491
	df	12
	Sig.	.746(a,b)
Every learner should understand the causes and consequences of HIV and AIDS	Chi-square	10.898
	df	8
	Sig.	.208(a,b)
All learners should lead healthy lifestyles	Chi-square	4.598
	df	8
	Sig.	.800(a,b)
All learners should take responsible decisions about their sexual behaviour	Chi-square	8.144
	df	8
	Sig.	.420(a,b)

From the above chi-square table, there is no relationship between the age in completed years and some of the statements on the impact of HIV and AIDS on education. However there is a relationship between age in completed years and the highlighted statements since their low significance value (typically below 0.05) indicates that there may be some relationship between the two variables, namely that new, more robust evidence must inform HIV and AIDS teachers and learning and HIV and AIDS. Moreover, there is no significant relationship between school age and other variables.

This could imply that age does not influence learners' perception on the impact of HIV and AIDS on education.

Table 4.36: Cross tabulation in terms of grade (N=142)

	Strongly Disagree		Disagree		Agree		Strongly Agree	
	Count	Row %	Count	Row %	Count	Row %	Count	Row %
Learners need to learn about sexual practices	5	3.5%	11	7.7%	45	31.7%	81	57.0%
Learners need to learn about HIV and AIDS-relate behaviours	1	.7%	7	4.9%	47	33.1%	87	61.3%
New, more robust evidence must inform HIV and AIDS teaching, learning that are offered at our school.	2	1.4%	8	5.6%	71	50.0%	61	43.0%
Learners, parents and communities need health education aimed at	2	1.4%	11	7.7%	54	38.0%	75	52.8%

controlling the disease								
Teachers need much more information about the impact of AIDS on the education sector itself	2	1.4%	12	8.5%	62	43.7%	66	46.5%
Teachers need to understand how HIV and AIDS are likely to influence the teaching service	3	2.1%	9	6.3%	64	45.1%	66	46.5%
Teachers need to understand how HIV and AIDS are likely to influence classrooms	2	1.4%	11	7.7%	63	44.4%	66	46.5%
Teachers need to understand how HIV and AIDS are likely to influence learners	3	2.1%	2	1.4%	62	43.7%	75	52.8%
Teachers need to understand how HIV and AIDS are likely to influence the quality of education	1	.7%	8	5.6%	55	38.7%	78	54.9%
Teachers need to understand what is happening in other sectors of the economy losing trained and experienced personnel	4	2.8%	15	10.6 %	69	48.6%	54	38.0%
Strategies are needed for reducing the impact of HIV and AIDS on education	4	2.8%	8	5.6%	79	55.6%	51	35.9%
Creative plans to manage the effects of the pandemic on the education system are important	1	.7%	15	10.6 %	77	54.2%	49	34.5%
Every learner should understand the causes and consequences of HIV and AIDS	0	.0%	6	4.2%	41	28.9%	95	66.9%
All learners should lead healthy lifestyles	0	.0%	5	3.5%	58	40.8%	79	55.6%
All learners should take responsible decisions about their sexual behaviour	0	.0%	3	2.1%	40	28.2%	99	69.7%

Item 33 was asked to find out if learners needed to learn about sexual practices. The majority of respondents (88, 7%) either agreed or strongly agreed to the statement. This could imply that learners needed to learn about sexual practices.

Item 34 was posed to find out if learners needed to learn about HIV and AIDS-related behaviour. The majority of respondents (94, 4%) either agreed or strongly agreed to the statement.

This could also imply that learners need to learn about HIV and AIDS-related behaviour.

Item 35 was constructed to investigate if new, more robust evidence must inform HIV and AIDS teaching, learning and counseling in Life Skills programmes that are offered at our schools. The majority of respondents (93, 0%) of respondents either

agreed or strongly agreed to the statement.

This could imply that new, more robust evidence must inform HIV and AIDS teaching, learning and counseling in Life Skills programmes that are offered at our schools.

Item 36 was posed to find out if learners, parents and communities needed health education aimed at controlling the disease among young people in and out of school. The majority of respondents (90, 8%) either agreed or strongly agreed to the statement.

This also could imply that learners, parents and communities needed health education aimed at controlling the disease among young people in and out of school.

Item 37 was posed to find out if educators needed much more information about the impact of AIDS on the education sector itself. The majority of respondents (90, 2%) either agreed or strongly agreed to the statement.

This could imply that educators needed much more information about the impact of HIV and AIDS on the education sector itself.

Item 38 was constructed to establish if educators needed to understand how HIV and AIDS were likely to influence the teaching service. The majority of respondents (91, 6%) either agreed or strongly agreed to the statement.

This could imply that educators needed to understand how HIV and AIDS were likely to influence the teaching service.

Item 39 was posed to find out if educators needed to understand how HIV and AIDS were likely to influence classrooms. The majority of respondents (90, 9%) either agreed or strongly agreed to the statement.

This could imply that educators needed to understand how HIV and AIDS were likely to influence classrooms.

Item 40 was posed to find out if educators needed to understand how HIV and AIDS were likely to influence learners. The majority of respondents (96, 5%) either agreed or strongly agreed to the statement.

This also could imply that educators needed to understand how HIV and AIDS were likely to influence learners.

Item 41 was drawn up to investigate if educators needed to understand how HIV and AIDS were likely to influence the quality of education. The majority of respondents (93, 6%) indicated that educators needed to understand how HIV and AIDS were likely to influence the quality of education.

This could imply that educators need to understand how HIV and AIDS were likely to influence the quality of education.

Item 42 was asked to investigate if educators needed to understand what was happening in other sectors of the economy that were losing trained and experienced personnel who would need to be replaced. Eighty six, comma six percent of respondents either agreed or strongly agreed to the statement.

This also could imply that educators needed to understand what was happening in other sectors of the economy that were losing trained and experienced personnel who would need to be replaced.

Item 43 was asked to establish if strategies were needed for reducing the impact of HIV and AIDS on education. Ninety one comma five percent of respondents either agreed or strongly agreed to the statement.

This could imply that strategies were needed for reducing the impact of HIV and AIDS on education.

Item 44 of the questionnaire was posed to determine if creative plans to manage the effects of the pandemic on the education system were important if education and training of reasonable quality were to be provided. Eighty eight comma seven

percent of respondents either agreed or strongly agreed to the statement.

This could also imply that creative plans to manage the effects of the pandemic on the education system were important if education and training of reasonable quality were to be provided.

Item 45 of the questionnaire was constructed to investigate if every learner should understand the causes and consequences of HIV and AIDS. The majority of respondents (95, 8%) either agreed or strongly agreed to the statement.

This could imply that every learner should understand the causes and consequences of the pandemic.

4.3 QUALITATIVE DATA ANALYSIS

4.3.1 Analysing qualitative data

The aim of this section was to analyse, interpret and report the data that were gathered by means of interviews. The interviews were tape-recorded with the permission of the interviewees and a process of transcription of the data was followed. The researcher then proceeded to analyse the data and the following steps were followed.

The researcher first read through the transcription and identified the main themes or tendencies. Themes and tendencies were written down and each was awarded a particular code as indicated below.

A – HIV & AIDS	:	Awareness of HIV and AIDS
IE	:	Impact on educator
IL	:	Impact on learner
IO	:	Impact on orphans
IAR	:	Impact on absenteeism rates
IDR	:	Impact on dropout rates
PS	:	Problem solving

A matrix table was tabulated to facilitate analysis and interpretation of the data and thus the data was reported.

Table 4.58: Matrix table

Theme	Respondent A	Respondent B	Respondent C	Respondent D
Awareness of HIV & AIDS	Yes it impacts on parent/learner. There is stigma.	It leads to dropouts. School life limited. Budget declines.	Education is affected. Performance declines.	Psychological, social impacts, decline in performance.
Impact on educator	Educator performance declines.	Educators lose energy.	Sick educators take time-off.	Educators are stressed. Low performance.
Impact on the learner	There is poverty. Unable to pay fees.	Hard work. Learners accompany parents to clinics.	Stigma results. Learner depressed.	Dropout results. Less time of school work.
Impact on orphans	Dropout of school.	Become victims of abuse.	Lead the household.	Poverty becomes the norm.
Impact on absenteeism rates	It increases. Progress is retarded.	Will rise. Performance declines.	It will increase.	Eventual dropout.
Impact on dropout rates	It increases, hampers school work.	Dropout rate increases.	Increases due to stigma.	Physical/mental abuse. Learners dropout.
Problem solving	Free education.	Provision of Antiretroviral.	HIV & AIDS centres.	Orphans be protected.

Theme	Respondent E	Respondent F	Respondent G	Respondent H
Awareness of HIV & AIDS	Affects education in general. Stress impact.	Expenditure declines. Funds are limited.	Orphans are affected. School performance is affected.	Educators And learners are sick and They die.
Impact on educator	Devotes more time on HIV & AIDS	There is discrimination & isolation.	Educators are stressed.	Educators are transferred.
Impact on the learner	Learner stigmatised & discriminated.	Performance declines. Thinks about death.	Loses concentration. Absenteeism results.	Learners die, never come back to school
Impact on orphans	Physically & mentally abused.	Cannot pay fees. Turn criminals.	Have no food. Leave schools.	Orphans are depressed.
Impact on absenteeism rates	Learners leave school. Take care of sick parent.	It will increase. Affect learner performance.	No learning. Educator & learner feel depressed.	They are high.
Impact on dropout rates	There is no concentration. Dropout rate rise.	Affected learners drop out of system.	Learners just disappear.	Depressed learners Leave the system
Problem solving	Provide psychologists.	Support educators and learners.	Train educators & learners on HIV & AIDS.	Build special schools.

4.3.2.1 Opinions about awareness of the impact of HIV and AIDS on education

Do you think HIV and AIDS have some impact on education? Substantiate your answer and give reasons.

All eight participants indicate that they were aware of the impact of HIV and AIDS on education.

A: Yes, it impacts on either parent or learner. There is stigma and discrimination.
B: Yes, the learner may not be able to continue studies. Education budgets decrease and learners dropout of school.
C: Education process does not function properly. School performance deteriorates.
D: Yes, there are psychological and social impacts. School performance declines.
E: It affects education in general. Educators become harsh. They are stressed. Education suffers.
F: Education expenditure declines. Funds are reduced.
G: Orphans discontinue education. School performance declines.
H: Educators and learners are affected. Some of them die.

The information above is consistent with what literature review and empirical survey indicated. Learners are aware of the impact of HIV and AIDS on education (cf. Table 2.4).

4.3.3 Opinions about the impact of HIV and AIDS on educator

What are the impacts of HIV and AIDS on the educator? Explain briefly how this affects the performance of the educator.

The eight respondents show that the pandemic impacts on the educator.

A: It disturbs educator performance due to stigma and isolation
B: Affected educators lose energy and concentrate on own HIV and AIDS status at the expense of education.
C: Affected learners cannot be taken aboard the learning process. Sick educators take time off and leave learners.
D: Educators are stressed due to declining learner performance.
E: Educator has no means to solve HIV and AIDS problems.
F: Affected educator is discriminated against and isolated by colleagues.

G: Educator will be stressed.

H: Affected educators are transferred because they cannot do well at school.

All interviewees agreed that the pandemic has an impact on educators. (cf.2.3.2.14).

4.3.4 Opinions about the impact of HIV and AIDS on the learner

What are the impacts of the pandemic on the learner? Give reasons for your statement.

A: Learners are beset by poverty, are unable to pay school fees and are forced to leave school. Sometimes they are abused.

B: This means hard work and hard times for the learners. They are forced to accompany sick parents to the clinic or care for them.

C: Other learners make fun of affected learners. The learner is stigmatized, depressed and eventually drops out of the school system.

D: Affected learner allocates less time on school work. Become incomes earner by selling on the street or becomes a prostitute.

E: The affected learner is stigmatized and discriminated by educators and other learners.

F: Such learner's performance declines, thinks about death.

G: Affected learners lose concentration and absenteeism increases.

H: Some learners die while some leave school. They never return. Some lost parents and become street kids.

The information provided by learners indicates that affected learners are unable to pay school fees, accompany parents to clinics, eventually drop out of school and are stigmatized. (cf. Tables 2.2, 2.3 and 4.58).

4.3.5 Opinions about the impact of HIV and AIDS on poverty and orphans

HIV and AIDS affect orphans. How does the pandemic impact on orphans?

All respondents indicated that HIV and AIDS have an impact on orphans.

A: Affected learners are stigmatized. They are expected to leave school to take care of parents or younger sisters and brothers who are sick.

B: They discontinue classes. They become victims of child abuse or turn to crime.

C: Affected learners become heads of their households. They cannot enjoy child life. They are not able to buy school uniform or pay school fees.

D: They (orphans) go to school without food, clothes and other necessities. Poverty becomes the norm. They are also stigmatized.

E: These learners are physically and mentally abused. They are ill-treated by educators, other learners and sometimes by the community.

F: Affected learners become poor and cannot pay school fees. The alternative is to opt for criminal activities such as stealing.

G: Orphaned learners are always depressed and cannot do school work. They also have no food.

H: The have no food and therefore leave school. Sometimes they go begging for food.

The information above show that orphans are stigmatized, become poor and also become heads of their households. They are also sustainable to child abuse. Some of them become criminals (cf. Tables 4.19 & 4.3.4).

4.3.6 Opinions about the impact of HIV and AIDS on absenteeism

What are the effects of the pandemic on the learner and the educator absenteeism rate?

The respondents indicate that HIV and AIDS impact on the rate of absenteeism.

A: Absenteeism increases and hampers both educator and learner performance. As a result, the overall school performance declines.

B: Absenteeism will rise because affected learners leave school to care for parents who are sick.

C: Absenteeism increases because affected learners stay at home. They fear about their HIV and AIDS or those of their family members.

D: There will be high level of absenteeism when both affected educators and learners leave school.

E: It will rise because affected learners may be forced to remain at home especially because they fear stigma at school.

F: It will increase and affect both the learners and school performance.

G: As absenteeism increases due to sick learners missing classes, and educators becoming absent, school performance is negatively affected.

H: There will be a high rate of absenteeism. Sick learners or educators will definitely drop out of school.

Opinions about the impact of HIV and AIDS on drop-out rates

How does the pandemic impact on the drop-out rate?

All eight respondents believe that HIV and AIDS have some impact on dropout rate. This is also confirmed by both the literature review and the empirical survey (cf.2.3.2.4 & Table 4.37).

A: Dropout rate will increase when learners are forced to stay at home in order to take care of their sick parents or relatives.

B: Dropout rate rises because learners become heads of affected household. For example, if they have to cook, wash and iron for the family.

C: It will increase due to stigma. Affected learners fear being laughed at and they just choose to leave school.

D: Physical and mental abuse of affected learners will lead to learners dropping out of the school system.

E: Generally, learners' performance declines followed by gradual absenteeism. Eventually, affected learners just drop out of the school system.

F: Affected learners drop out of school. Therefore, the rate of dropout increases.

G: Dropout rate will increase as both learners and educators are sick of HIV and AIDS.

H: Sick learners and educators disappear from school. This leads to increased dropout rate.

All participants indicate that the rate of dropout will increase due to HIV and AIDS among learners and educators. It also increases because affected learners are forced to become heads of affected households (cf. Table 4.31).

4.4 CONCLUSION

The literature study has shown that HIV and AIDS have negative impact on various levels of education. The empirical study also confirmed that the pandemic affects education

throughout the education system including educators, learners themselves and the environment under which teaching and learning take place. According to learners' perception, there could be youth deaths, and a shift of educational expenditure to health services as a result of the increase in HIV and AIDS status. However, there could be fewer declines in school performance and less vicious cycle on education. According to literature review, the impact can be identified by educator absenteeism, illnesses, and deaths, declining performance, stress and so forth. The impact can be explained in terms of increasing absenteeism and dropout rates as well as impact of a psycho-social nature. (cf. Tables 4.8, 4.11 & 4.14).

The next chapter focuses on research findings, conclusions, and recommendations of the study.

CHAPTER FIVE

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 INTRODUCTION

HIV and AIDS pandemic is currently one of the most disturbing factors in the world especially in Southern Africa. Every learner and educator, whether from lower, middle or higher income earning household is at risk of being negatively affected by HIV and AIDS. This chapter presents the findings, conclusions and recommendations based on the findings and the guidelines for further study. The chapter also presents a brief overview of study and reports on the literature study, and empirical survey that included questionnaires and interviews.

5.2 OVERVIEW OF THE STUDY

The research problem of this study was to investigate the impact of HIV and AIDS on education as perceived by secondary school learners in Masilonyana district (cf.1.4). An investigation was undertaken with the aim of getting the perception of learners on the impact of HIV and AIDS on education. This chapter therefore attempts to summarize and interpret learners' perception of the impact of HIV and AIDS on education.

5.3 THE RESEARCH QUESTIONS OF THE STUDY

This study attempted to examine the learner perception on the impact of HIV and AIDS on education in the Masilonyana district. In order to achieve this purpose, the following questions were investigated: What is the impact of HIV and AIDS on education? What is the impact of HIV and AIDS on education as perceived by secondary school learners in Masilonyana district? And how can the impact of HIV and AIDS on education are alleviated?

5.4 AIM AND OBJECTIVES OF THE STUDY

The aim of the study (cf.1.4) was to investigate the impact of HIV and AIDS on education as perceived by secondary school learners.
The objectives of the study were therefore, to : determine the impact of HIV and AIDS on education; to establish the impact of HIV and AIDS on education as perceived by secondary school learners in Masilonyana district; and to investigate how the impact of HIV and AIDS on education can be alleviated.

5.5 FINDINGS OF THE STUDY

In this study, the findings are based on a review and evaluation of the literature study, the quantitative and qualitative study which are dealt with in subsequent paragraphs of this section.

5.5.1 Findings from the literature study

Literature reviewed in chapter 2 revealed that previous researchers observed that the spread of HIV and AIDS in secondary schools is a world wide problem that needs to be continuously researched. It is also indicated that there could be a huge impact of HIV and AIDS on the education system in South Africa. The impact include declining supply of trained educators, loss of educator productivity, decreasing school enrolments, disorganized learning environment, limited quality of instruction and a continuous absence of both the learners and the educators who may be forced to take sick leaves to recover from illnesses as HIV progresses into full-blown AIDS.

The implications of relevant literature are that the impact of HIV and AIDS on education is less clear. However, it may be possible the school age population in Southern Africa was reduced by HIV and AIDS. Furthermore, the largest group of HIV and AIDS infected people is found in age group 15 to 19 years. This rate of infection in this age group implies that in years to come, education will be severely affected by the pandemic. This may also affect future educator supply as this age group still has to choose the careers which

teaching is one of them.

The summary of literature review can be outlined as follows:

- HIV and AIDS impact on demand and supply of education. Educational staff at all levels will most probably experience increased levels of illness and death amongst themselves, as is happening in the general population (cf.1.2).
- The number of school entrants will be lower than would be the case in the absence of HIV and AIDS pandemic. Children may be kept out of school because their labour is required at home or because there are no resources to send them to school cf.1.9).
- There can possibly be a shift of educational resources from material provision to caring for the sick. This implies that the educational sector may be at risk (cf.2.3.2.12).
- The projected number of children requiring education may decline because birthrate may also decline owing to premature death and the reduced fertility of potential mothers (cf.2.3.2.11).
- Approximately 53 160 educators in South Africa will die by year 2010 thus reducing the teaching workforce drastically (cf.2.3.2.2).
- HIV and AIDS are draining the supply of education, eroding its quality, weakening demand and access and drying up pools of skilled educators as well as increasing the education sector's costs (cf.2.3.2.14).
- Learners may be faced with the illness of their parents. They may have to take time off to look after their siblings at home, care for a sick parent and carry household tasks (cf.2.3.2.14).
- Educators themselves may sometimes be sick, or they are worried about a colleague, a relative or a learner who is sick of an AIDS-related disease. As a result, educators cannot do their job well (cf.2.3.2.14).
- Absenteeism and ultimately dropouts are inevitable as learners are forced to day out of school to care for their sick parents or relatives. In this way, school enrolments decline (cf.2.3.2.12); and
- Morale is likely to fall significantly as educators and learners try to cope

emotionally and financially with sickness and death among relatives, friends and colleagues (cf.2.3.2.14).

The next subsection focuses on findings from the empirical study

5.5.2 Findings from the empirical study

The following section provides findings that were derived through the questionnaire survey, using frequency distribution, cross tabulation and chi-square statistical test. It also focuses on empirical responses of learners who participated in the study and presents the impact of HIV and AIDS on education as perceived by secondary school learners. The majority of learners have the perception that some learners could have lost parents because of HIV and AIDS. This could imply that HIV and AIDS may impact negatively on the minds of learners, which is a psycho-social impact associated with trauma (cf. Table 4.6).

The majority of learners perceive that some learners were unable to pay school fees because their parents might have died of the pandemic. The implication is that some learners who could have lost parents due to the pandemic are dropping out of school because they could not pay school fees. The majority of learners also believe that the number of orphans in their towns is increasing because of HIV and AIDS. This also implies that the number of orphans is increasing and by implication, less numbers of enrolments may be seen at secondary schools in the future (cf. Table 4.12).

Forty seven comma nine percent of learners believe that some learners get sick of HIV and AIDS and never return to school. This could mean that the majority of learners do not perceive HIV and AIDS as a threat to them. Hence they are of the opinion that learners do not drop out of school. This could also mean that according to learners' perception, school enrolments are not declining as a result of learners' infection with the pandemic. However, enrolments could be negatively affected by learners who drop out of the system to take care of sick parents or relatives infected of HIV and AIDS (cf.

Table 4.6).

The majority of learners did not agree that there was a decline in school performance because of HIV and AIDS. This implies that learners perceive that the overall effectiveness of the school is not negatively affected by the pandemic. However, the majority of learners perceive that when educators become ill, their absence affects the quality of learning. This could imply that educators' absence from school negatively affects the quality of the learning experiences provided to learners. Quality education should first meet the needs of the learner. Educators who are always absent from school fail to provide quality learning to their learners (cf. Table 4.13).

The majority of learners also indicated that learners were worried when parents get sick because of HIV and AIDS. This could also impact negatively on the minds of learners which is also an impact that is associated with trauma. The majority of learners again believe that there could be learner deaths because of HIV and AIDS. Furthermore, when a family is affected by HIV and AIDS, the learners often have to take an added responsibility to keep the home running. This leaves them with little time to do their school work. Sometimes they are absent because they are caring for their families at home. Absenteeism, poor academic performance and ultimately dropout are inevitable (cf. Table 4.14).

5.5.3 Findings from the questionnaire

The results revealed by frequency distribution, cross tabulation and chi-square tests indicated that over 75.6% of all learners perceive that education in South Africa will be robbed of thousands of its youth if HIV and AIDS is not checked. However, a smaller percentage (26.4%) did not believe the same way (cf. Table 4.14).

With regard to declining performance at schools because of HIV and AIDS, the majority of learners (68.5%) did not perceive that there was a decline in performance because of HIV and AIDS. However, nearly over 30% of learners

felt that the school performance has declined. This implies that a sizeable number of learners (83, 80%) perceived that there was a declined in school performance because of HIV and AIDS. This could also mean that HIV and AIDS impact negatively on education with the resultant end that there may be high rate of failure and dropout (cf. 4.20).

Although 63% responded in the negative, 36% perceived that there was an increasing learner death, educator deaths and also that teaching and learning quality were caught in a vicious circle (item 30 of the questionnaire). This implies that 36, 36% of respondents were worried about the impact of the epidemic on education. There is a difference in the way gender, age and grade thought about this questionnaire. However, Grades 8 and 9 learners showed that there is a vicious cycle between HIV and AIDS and education, more than Grades 10, 11 and 12 had indicated. The implication could be that learners at higher levels tend to treat HIV and AIDS normally like any other disease while those at the lower levels considered the epidemic to be deadly (cf. Table 4.23).

With regard to educator stress and worry (questionnaire item 34) it was found that HIV and AIDS stress educators to some extent. However, gender, age and grade (68.0%) did not agree that educators were stressed and worried but 31.0% showed they were stressed and worried. This could also hamper teaching and learning and also affect future expectations of both learners and educators (cf. Table 4.26).

It is also concluded that HIV and AIDS does not affect the supply of educational service through increasing death of educators because 64.7% of learners did not show that HIV and AIDS affects the supply of education services while 35. 30% claimed that this is true. However, there was a difference in response rate between lower levels and higher levels. This implies that knowledge depended on grade with regard the above statement as indicated by asymptotic results (0.004 and 0.000) of the chi-square test (cf. Table.4.31).

The study also found out that learners were worried that some education expenditure might be shifted to health care and social grants because of the demand for funds to support victims of HIV and AIDS. Therefore, learners perceived that money that was allocated to education might be decreased (cf. Table 4.17).

Empirical findings are therefore linked to interview findings in order to supplement each other. Interview findings are presented in the next subsection of this study.

5.5.3 Findings from interviews

Interviews conducted in this study revealed that HIV and AIDS impact negatively on learners, educators and the school environment through which learning and teaching take place.

The results of interviews are outlined as indicated below:

- Impact on educator

  All respondents indicated that HIV and AIDS impacted negatively on educators. They perceived that the pandemic disturbs educator performance which declines due to stigmatization, stress and isolation (cf.4.3.3).

- Impact on the learner

  All interviewees showed that affected learners suffer most in terms of food provision, clothing, school uniform and inability to pay school fees. Some affected learners are either absent from school or they just drop out of the education system to become heads of their family households. They were sometimes susceptible to physical and mental abuse. They easily became criminals or prostitutes (cf.4.3.4).

- Impact on orphans

  All respondents perceived that HIV and AIDS impacted on orphans in various ways. For example, orphans were stigmatized, were expected to care for sick relatives, they went to school without food and were always depressed. Sometimes they were ill-treated by educators, other learners and the community (cf.4.3.5).

- Impact on dropout rates

  All respondents indicated that the pandemic had serious impact on dropout rates. This is also confirmed in both the literature review (cf 2.3.2.4) and the empirical survey (cf. Table 4.37). Dropout rates will increase as learners are forced to stay at home to take care of sick parents or relatives. Affected learners drop out of education system because of stigma, physical and mental abuse (cf.4.3.7).

- Impact on absenteeism rates

  The study found out that absenteeism from school by learners affected by HIV and AIDS was rising because affected learners had to stay at home to care for their sick parents or relatives. Others had to absent themselves because they were either care-givers or wage-earners (cf 2.3.2.13).

The summaries of findings from literature, empirical and interview study indicate that there will be a need for further study on the impact of HIV and AIDS on education. Therefore, the next subsection of this study focuses on suggestions for further research.

5.6 SUGGESTIONS FOR FURTHER RESEARCH

The following suggestions are made for further research on aspects of

concern to accommodate the needs of orphans and educators who leave school because of HIV and AIDS:

- Research the actual ways to assist learners and educators who drop out of the system;
- Find out how the stigmatization of learners and educators who are infected of HIV and AIDS could be alleviated.
- Investigate how best learners and educators can sustain a better learning environment under the conditions of HIV and AIDS; and
- Assist to find ways in which educators and learners can sustain and increase school performance despite the impact of HIV and AIDS.

The above mentioned suggestions are aligned to the research recommendations of this study as indicated in the next subsection.

5.7 RECOMMENDATIONS

The findings derived from literature review, questionnaire and interviews provide some implications for planning, teaching and implementation of HIV and AIDS awareness programmes in secondary schools. Therefore, the following recommendations are highlighted because they may help to lessen the impact of HIV and AIDS on education.

5.7.1 Formulation of a concerted effort by stakeholders to prevent HIV and AIDS impact on education

The results highlighted the need to involve key community and stakeholders in a concerted effort, namely parents, School Governing Bodies (SGBs), School Management Teams (SMTs), School Health Nurse, educators, counselors, religious leaders, learner representative bodies, etc.) to put strategies that will eventually succeed in the fight against HIV and AIDS impact on education at secondary school level. The following strategies to combat the effect and impact of HIV and

AIDS on the education system may be useful if considered:

- The education sector needs information about conditions that poor and orphaned learners face due to HIV and AIDS. New, more self-assertive evidence must inform the impact of HIV and AIDS on teaching, learning and counseling particularly in Life skills programmes.
- Learners, parents, educators and communities need health education aimed at controlling the impact of the pandemic on education with the emphasis put on learners who are on the verge of leaving school.
- Educators need much more information about the impact of AIDS on the education sector itself. They need to understand how HIV and AIDS is likely to affect the academic performance of learners who might have been infected or their parents have been infected, the teaching service, classrooms, and so forth.
- HIV and AIDS programmes should be learner-centred and should also include parents, educators, learners themselves, and local leaders in their various statuses.
- Build consultative structures and systems that will be needed to plan the Department of Education's (DoE) response, on the basis of agreed strategies, and principles to support implementation and to monitor achievement and shortfalls on controlling the impact of HIV and AIDS on education.
- Use the schools as the centre for local response, working with grassroots organisations, local community leaders and activists, parents and other stakeholders in education.
- Create systematic information on the demographic implications of the pandemic for education, the number of learners and educators likely to fall ill, the duration of illness, and age distribution of those likely to be infected of HIV.

5.7.2 Controlling the level of stress among educators

HIV and AIDS put stress not only on educators but learners and parents as well. The perception of respondents was that educators were stressed

because of the epidemic. Therefore, it is recommended that authorities should device means that would limit the level of stress amongst learners and educators. Greenhaus, Calanan and Godshalh (2000:279-280) suggested that the Department of Education may implement the following programmes to deal with educator stress:

- Reducing stressors: eliminate racial and gender stereotypes, biases and discrimination;
- Redesign jobs to be more in line with educators' capabilities and interests. This could include training on HIV and AIDS;
- Clarify educator expectations through goal-setting programmes to enhance HIV and AIDS education;
- Provide constructive performance feedback with regard to HIV and AIDS programmes and training;
- Eliminate noxious elements of physical and mental working conditions to lessen stress level;
- Help educators with problem-solving/coping skills to deal with HIV and AIDS; and
- Run social support HIV and AIDS groups for educators;
- Provide relaxation programmes (e.g. meditation) and provide counseling and medical treatment on HIV and AIDS related issues
- Train Heads of Departments (HoDs) in personal and HIV and AIDS education skills (Greenhaus et al., 2000:280).

Stress amongst educators is likely to be aroused when they face an opportunity, a constraint or a demand. Greenhaus et al. (2000:282-283) mention that a situation is likely to be most stressful when the outcome is uncertain but is important to an individual. So, stress can be produced by a number of conditions in the work environment such as organizational characteristics, job demands, working conditions, illnesses etc.

The demarcation of this study and the limitations thereof could be attributed to problems experienced during the empirical process. Some of these problems are briefly discussed in the next subsection of this study.

5.8 PROBLEMS EXPERIENCED DURING EMPIRICAL PROCESS

Two hundred and fifty questionnaires were delivered to schools and hundred and eight of them could not be accounted for.

Some schools could not hand questionnaires evenly amongst grades. This puts some limitations on the scope that was expected by the researcher.

At some stage questionnaires were not returned within a period stipulated by the researcher.

Ten interviewees were selected to be interviewed but two prospective interviewees withdrew.

Although the research project was partly financed by the Innovation Fund of the Institutional Research Institute of the Central University of Technology, Free State, it was conducted under difficult financial conditions because the researcher was an hourly part time lecturer especially during the time of empirical field work when the researcher was completely out of work. The financial costs of conducting the empirical study became a burden to the researcher.

5.9 CONCLUSION

This study established directly through literature review, questionnaire items and interviews that there was a perception that HIV and AIDS have devastating impact on education. Learners' perception on the impact of HIV and AIDS on education were analysed interpreted and conclusions made based on questionnaire and interview responses. The findings arrived at in this study compare well with those cited in literature review, namely the impact of HIV and AIDS on education, on the learner, on educator, on rates of absenteeism and drop-out rates

etc. (cf. 2.3.2.3, 2.3.2.4, 2.3.2.5, 2.3.2.6 . This also concludes that the evidence from literature is supplemented by the evidence derived from questionnaires and interviews. The pandemic affects education, the educator, the learner as well as teaching and learning in general.

The study has also revealed that new global estimates indicate that about 40, 3 million people worldwide are living with HIV and AIDS. 4, 9 million people became newly infected in Africa and that about 25, 8 million people live with HIV in the sub-Saharan Africa (Monteiro, 2005:4).

It is further argued that the majority are infected through heterosexual intercourse. This means that people should be advised to use condoms and to refrain from unprotected sexual relationships. South Africa has the largest number of people living with HIV and AIDS on the globe. 21, 5% of adults are infected. The impact of HIV and AIDS on productivity, increased absenteeism, high labour turn over rates and loss of vital skills will be felt more that ever before. South Africa has more than 5 million people infected because of false claims of cures, stigma and superstition as well as tardiness which all caused much death and much misery in the country (Anon, 2005:1).

It has been revealed also that the epidemic is no more a problem of governments alone but of individual households as well. The most affected are the youth especially learners and their educators. Hence HIV and AIDS pandemic have a severe impact on education. Graham (2005:2) added that education on behaviour is needed.

Concerns about the impact of HIV and AIDS on education require more detailed research. Some difficult matters that have been derived in this study during the course of literature and empirical survey are:

- The degree of orphanage and poverty levels which keep on rising;
- School enrolments which keeps on declining;

- Drop-out rates which keep on rising;
- An increase in the demand for early childhood education and preschool education;
- An increase in demand for second chance education by learners returning to education; and
- A 12% infection rate among education workforce.

The findings, conclusions and recommendations of this study are thus strongly recommended for consideration by all who have a stake in secondary education.

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