POSSIBILITIES FOR INTEGRATING HIV/AIDS AWARENESS INTO THE GRADE EIGHT CURRICULUM: A CASE STUDY.

A mini-thesis submitted in partial fulfilment of the requirements for the degree of Master of Education in the Faculty of Education, Cape Peninsula University of Technology.

Desmond Christopher Smith

Supervisors: Dr Cina Mosito &

Prof Rajendra Chetty

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DECLARATION

I hereby declare that the mini-thesis submitted for the degree MEd, at the Cape Peninsula University of Technology, is my own original work and that it has not been submitted to any other institution. All quotations are indicated and acknowledged by means of a comprehensive list of references.

DESMOND CHRISTOPHER SMITH

SIGNED: …….. DATE: ……

ABSTRACT

Education and knowledge are regarded as imperative tools to changing human attitudes, perceptions and behaviour. The researcher embarked on the study to explore possibilities in the teaching and learning process to substantiate the importance and implications of integrating HIV/AIDS education and awareness into the Grade 8 curriculum.

The ultimate purpose of this study is to see how teaching and learning can take place in a collaborative setting, with the possibilities of exploring how effectively an integrated programme can be implemented into the curriculum. The secondary purpose of this study is to use this information to make a contribution to integrate HIV/AIDS education and awareness into the Grade 8 curriculum. The pivotal question with regard to the integration of life-skills into the school curriculum is: How do educators and learners perceive a teaching-learning scenario that can efficiently promote genuine learning of HIV/AIDS within the Life-skills curriculum?

In this study, semi-structured interviews and a tool for teaching styles was used to assess 16 educators' perceptions towards integration and how it can lend itself to integrate HIV/AIDS education and awareness. Furthermore, a questionnaire and a learning styles inventory were used to assess 70 learners' perceptions of integration.

The study found that learners could be assisted with information and be guided to make their own responsible choices. The ideal could therefore be to provide learners with the skills, knowledge, attitudes and values that might enable them to make informed choices among conflicting and competing moral codes. The study found that learners should be given more ownership and responsibility in the teaching and learning process. In doing so, educators should relinquish more control. Educators should also work in collaboration with their colleagues in order for integration to be successful.

It will be essential to develop curricula that prepare learners for a new reality which might threaten their future with the HIV/AIDS pandemic. Outcomes-based education allows learners to learn at their own pace and the content selected can be age appropriate that suits learners and their community best to prepare them to be responsible citizens in a democratic country.

DEDICATION

I dedicate this work to Rochelle, Chantal and Kim Smith for their support, understanding and inconvenience they suffered during my period of study. Their inspiration is acknowledged and will always be appreciated. May God abundantly bless, guide and keep them.

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I can do all things through Christ who strengthens me (Phil. 4:13).

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ACRONYMS

AIDS - Acquired immune deficiency syndrome

AS – Assessment standard

DoE – Department of Education

CI - Curriculum integration

HIV – Human immune virus

INSET – In-service training

LA - Learning area

LO - Learning outcome

LP – Learning programme

NCS - National curriculum statement

NQF – National Qualifications Framework

OBE – Outcomes- based education

RNCS – Revised national curriculum statement

SA – South Africa

STI – Sexually transmitted infection

WHO – World Health Organisation

WAHPSA – World Association Health Promoting Schools Association

WCED – Western Cape Education Department

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INTRODUCTION

1.1 Statement of the problem

South Africa has the fastest-growing HIV/AIDS pandemic in the world - about 10% of those infected world-wide live in South Africa (Kelly, 2000). Statistics indicate that between 2001 and 2006 more than 5 million South Africans contracted HIV (Centre for Study of AIDS, 2001). Mortality rates have been projected to double by 2010, and the life expectancy will drop from a high of 68 years to fewer than 40 years if the epidemic is not halted (Kelly, 2000).

Even though the HIV/AIDS virus has been in existence in Southern Africa since the late 1970's, responses to the pandemic have been largely bio-medical (Baxen & Breidleid, 2009). While millions of South Africans are infected by the virus, many more are affected by the pandemic as productivity declines, public services cost more, family structures threaten to collapse, child mortality increases and poverty deepens (Kelly, 2002). HIV/AIDS brings reduced opportunities, decreased nurturing support and socialisation and therefore increased petty or violent crime, along with increased morbidity and morality, all of which will mark our society for at least the next century (Coombe & Kelly, 2001).

Education and knowledge are regarded as imperative tools for reducing (i) the rate at which the HIV/AIDS pandemic is spreading and (ii) the stigmatization that accompanies the disease (DoE, 2002; DoE, 2000; Kelly, 2000). Specifically, speaking openly about the disease is regarded paramount if it is to be overcome. HIV/AIDS affects all aspects of life, and has profound influences on everything we do – in our closest relationships, at work, at home, at school. Constant awareness of the pandemic is created in newspapers, television, electronic media and many campaigns have been initiated concerning the disease because of the magnitude of the social and economic implications associated with it.

The South African Department of Education (DoE) suggests integration of HIV/AIDS education and awareness in all learning areas of the curriculum as one of the strategies that could help in the prevention of contracting the virus and the spread of the pandemic among the youth (DoE, 2006). Integration is defined as a curriculum approach that purposefully draws

together knowledge, skills, attitudes, and values from within or across subject areas to develop a more powerful understanding of key ideas (Fogarty & Pete, 2007; DoE, 2006). In the case of the integration of HIV/AIDS into the Life Orientation (LO) curriculum this could mean that the key aspects regarding the disease could be addressed in different subjects. In South Africa for example, the DoE recommends integration across all subjects with a stronger emphasis in Life Orientation (DoE, 2002).

Life Orientation is a new learning area that has been introduced in schools through Curriculum 2005 (DoE, 1997). This learning area was neither offered in schools that were attended by some of the educators nor in teacher education institutions. The first learning outcome for Life Orientation – health promotion - means that educators are faced with the challenge to facilitate teaching and learning of HIV/AIDS and to integrate the programme into all learning areas. How educators teach and learners learn will be important to implement an HIV/AIDS programme into the curriculum. The Department of Education and Training expresses the need for integration as follows:

> Education and training are essential elements of Human Resource Development and as envisaged in the White Paper on Education and Training new, flexible and appropriate curricula that cut across traditional divisions of skills and knowledge are needed. An integrated approach to learning rejects the rigid division between theory and practice and between knowledge and skills (DoE, 1997:12).

In the case of the South African curriculum integration can be seen as a process of using similar learning outcomes and assessment standards in the different learning areas to enhance the process of teaching, learning and assessment. The thinking behind integration is that it promotes holistic learning and demonstrates the cross-cutting nature of one or more learning areas and learning outcomes. Categories of integration are as follows: (i) Integration within the same learning outcome; (ii) integration within the same learning area; and (iii) integration with other learning areas (DoE, 2006).

1.2 HIV/AIDS education and awareness in the South African curriculum

The HIV/AIDS education programme forms an integral part of Life Orientation for learning outcome 1 – health promotion - and should be included in the planning of the curriculum (DoE, 2002). What is of greater importance is that it be implemented and not simply treated as an

add-on to the curriculum. Life Orientation deals with the holistic development of the learner throughout his/her childhood and puberty stages (DoE, 2002). The central focus is on the development of self-in-society. The subject is intended to equip learners with skills, knowledge, and values that are captured in the assessment standards within each learning outcome (DoE, 2006:10). This should enable the learner to:

Make informed decisions regarding personal, community and environmental health;

Demonstrate an understanding of and a commitment to constitutional rights and responsibilities, and show an understanding of diverse cultures and religions;

Use acquired life skills to achieve and extend personal potential to respond effectively to challenges in his/ her world;

Demonstrate an understanding of, and participate in, activities that promote movement and physical development; and

Make informed decisions about further studies and future career choices.

These five learning outcomes of Life Orientation as stipulated by the DoE (2006:12) should equip learners with real-life experiences in managing their own lives in a well-informed and responsible manner. The learning area, Life Orientation is in this sense used as the foundation for an HIV/AIDS education and awareness programme in schools.

The Department of Education's policy for Education on HIV/AIDS is summarized as follows:

> A continuing life-skills and an HIV/AIDS education programme must be implemented at all schools and institutions; age-appropriate education on HIV/AIDS should form part of the curriculum and should be integrated in the life-skills education programme (DoE, 2005:12).

Learners should be informed on HIV/AIDS and develop life-skills that are necessary for the prevention of HIV/AIDS transmission and the precautionary measures that need to be taken; it should be inculcated within the learners from an early age; the importance of drug abuse, sexual abuse and violence should be addressed and learners should be empowered to deal with these situations; learners should be encouraged to make use of health care, counselling and support services (including services related to reproductive health care and the prevention and treatment of sexually transmitted infection) (STI) offered by community service organizations

and other disciplines; and teach learners how to behave towards persons with HIV/AIDS, raising awareness on prejudice and stereotypes around HIV/AIDS.

One of the DoE's policies stipulates that education and information regarding HIV/AIDS must be given in an accurate and scientific manner and in a language and terms that are understandable; parents of learners must be informed about all life-skills and HIV/AIDS education offered at the school, the learning content and methodology to be used, as well as values that will be imparted; they should be invited to participate in parental guidance sessions and should be made aware of their role as sexuality educators and imparters of values at home; and if learners or educators are infected with HIV/AIDS, they should be informed that they can still lead normal, healthy lives for many years by taking care of their health (National Education Policy Act, 1996).

According to the DoE (2006), schools can adapt the HIV/AIDS policy to suit the needs of the community in which the school is situated and to achieve and ensure these improvements. Schools need to develop and improve the curriculum by integrating HIV/AIDS education and awareness within all learning areas so that all learners will be able to acquire the necessary knowledge and values to improve their lives. The SA Constitution expresses the nation's social values and its expectations of the roles, rights and responsibilities of citizens in a democratic South Africa (Department of Education and Training, 1995). The Bill of Rights places pre-eminent value on equality, human dignity, life, freedom and security of persons.

It is up to individual educators to determine the quality and amount of HIV/AIDS messages that they will impart in the teaching of Life Orientation. Baxen's (2006) research makes it clear that there is often a gap between what teachers claim they do and what actually transpires in the LO classroom when teaching about HIV/AIDS. It could therefore be fundamental to highlight teachers' perceptions around the integration of this critical area.

1.3 The research aim

The foregoing statement of the problem has made it clear that education, and schools in particular, are regarded as ideal grounds for the teaching of HIV/AIDS. However, in SA as it

has been highlighted, there is no specific subject that deals solely with HIV/AIDS. The teaching of HIV/AIDS has to be integrated in Life Orientation.

The aim of this study is two-fold: (i) to explore, educators' and learners' perceptions of an ideal teaching-learning process in integrating HIV/AIDS, and (ii) to determine how, in the light of their perceptions, the teaching and learning process can be enhanced to efficiently achieve learning outcomes envisaged in the Life-skills curriculum on topics related to HIV/AIDS awareness and education. In order to achieve this aim, the researcher focused the study with the question posed below.

1.4 Research question

1. How do educators and learners perceive a teaching-learning scenario that can efficiently promote genuine learning of HIV/AIDS within the Life-skills curriculum?

1.5 Significance of the study

In achieving the above aim, this study may assist curriculum planners, policy makers and administrators of learning institutions to consider restructuring learning programmes in a way that may enable educators to integrate an HIV/AIDS education and awareness programme into the curriculum. Consequently, the development of learning programmes to integrate an HIV/AIDS education and awareness within the curriculum could be encouraged and pursued.

1.6 Delimitation of the study

The study will be limited to the classroom experiences and perceptions of Life Orientation educators, learning area co-ordinators and Grade 8 learners of a high school in the Western Cape, South Africa.

1.7 Overview of chapters

This research report is set out in five chapters. Chapter 1 is the introduction that portrays the importance of HIV/AIDS education and awareness from a local perspective. It also highlights pronouncements of support for HIV/AIDS education and awareness in the Constitution of SA as well as other documents that relate to educational transformation. The need for HIV/AIDS

education and awareness in South African schools are stressed since learners are expected to explore and seek solutions to these complex health issues. Emphasis is also placed on the importance of linking HIV/AIDS education and awareness within the eight learning areas with special emphasis on the learning area, Life Orientation, through integration.

Chapter 2 presents a description of the literature that deals with practices in facilitating teaching and learning for possibilities to integrate an HIV/AIDS education and awareness programme into the Grade 8 curriculum. Literature that stresses the importance for the integration of HIV/AIDS education and awareness into the curriculum as required by the National Curriculum Statement (NCS) is also cited. Different approaches to integration with their problems and successes will be documented in this chapter. How educators teach and learners learn will also be an integral part of this chapter.

Chapter 3 presents the methodology and the procedures that are followed in this study. The debates on qualitative and quantitative methodological paradigms are discussed and presented. The researcher's position is viewed and the reasons for using both qualitative and quantitative approaches are explained. This chapter also discusses and reflects on the research design, research instruments, approaches and techniques that were used to collect and produce data. The role of the research participants, analysis and interpretation of data and data verification of the study also form the subject of this chapter.

In Chapter 4 the findings of the study are presented while in Chapter 5 the findings are discussed, conclusion and recommendations are presented.

1.8 Conclusion

HIV/AIDS is changing our perception of reality as we take a long and hard look at the traumas associated with the disease. It is no longer acceptable for educators to be unaware of the conditions in which South Africa's learners live and learn, to fail to identify the deep personal anxieties, fears and shame associated with this pandemic and to respond to the needs of the learners for affirmation, solace and care. We must now learn to live with HIV/AIDS in our

schools and communities and try and bring this generation of children and young people at risk safely through adulthood.

The next chapter will draw on literature that emphasizes the important role educators and learners might play in an implementation plan for an integrated programme for HIV/AIDS education and awareness.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The aim of this study on possibilities of integrating HIV/AIDS into the curriculum is to (i) explore educators and learners perceptions of an ideal teaching-learning process in integrating HIV/AIDS, and (ii) how in the light of their perceptions, the teaching and learning process can be enhanced to efficiently achieve learning outcomes envisaged in the Life-skills curriculum on topics related to HIV/AIDS awareness and education. The study is focused with the question: How do educators and learners perceive a teaching-learning scenario that can efficiently promote genuine learning of HIV/AIDS within the Life-skills curriculum? In this chapter the researcher will review literature on curriculum integration as it relates specifically to the integration of HIV/AIDS.

2.2 Curriculum integration

The concept, curriculum integration is mentioned in curriculum discussions as something that educators do readily (Wallace, Sheffield, Rénnie & Venville, 2007:2; Fogarty & Pete, 2007:12). The question is what is curriculum integration? What is the ideal teaching-learning scenario where curriculum integration is in process?

A closer examination of the literature implies that integration occurs in many forms. According to Jacobs (1997), an integrated curriculum is an approach to teaching, learning and curriculum design, which connects concepts, contents, skills and assessment for more meaningful instruction. The process of integration involves providing learners with opportunities to work on a few cross-disciplinary objectives, to apply knowledge across the subject boundaries and to work on tasks with meaning and relevance. These curriculum goals could be enjoyed by popularity among learners and curriculum integration adherents (Llyod, 2005:2). Curriculum integration has the potential to improve and increase the quality, accessibility and cost-efficiency of the delivery of education, while taking advantage of the benefits of networking learning communities together to equip them to face the challenges of global competition (Wallace *et al*, 2007:29).

Lloyd (2005:6) views curriculum integration as a process whereby learners broadly explore knowledge in different learning areas related to certain aspects of their environment. In this sense there are links among the humanities, communication arts, natural sciences, mathematics, social studies and music. This kind of view is based on the perception of the world as connective whole rather than isolated segments. Therefore, the best that teaching can do is to mirror this through the exploration of similar topics or themes from subject to subject. In the case of this study this could imply that while HIV/AIDS is seen as a health, biological or scientific subject it should still be addressed though subjects such as Life Orientation that equip learners with skills for confronting all manner of life challenges (DoE, 2003).

Adolescents and learners generally are said to benefit from teaching and learning that establish connections of subject matter in meaningful ways (Coombe, 2004). In this manner the alienation learners feel from the curriculum and the more traditional school structures could be diminished and be replaced by an integrated approach to teaching and learning which implies the injection of HIV/AIDS education and awareness into the general curriculum.

In an integrated curriculum skills and knowledge are developed and applied in more than one area of study. In keeping with this thematic definition, Wallace *et al.*, (2007:10) concur that curriculum integration is organized in such a way that it cuts across learning areas to bring more meaning to the content under discussion and bring together various aspects of the curriculum into meaningful association to focus upon broad areas of study. It views learning and teaching in a holistic way and reflects the real world, which is interactive. Within this framework there are varied levels of integration, as illustrated by Palmer (1991:54), who describes integration practices as:

- Developing cross-curriculum sub-objectives within a given curriculum guide;
- Developing model lessons that include cross-curricular activities and assignments;
- Developing enrichment or enhancement activities with cross-curricular focus including suggestions for cross-curricular ‘contacts’ following each objective;
- Developing assessment activities that are cross-curricular in nature; and
- Including sample-planning wheels in all curriculum guides.

Educators are motivated to foster curriculum integration for both academic and ideological advancement. Curriculum integration offers several potential academic benefits such as ongoing reinforcement of skills and information learned when utilized in another area, provides learners with a richer academic experience by broadening content, applicability of information and skills that are learned and maximizes the utilization of learning by 'borrowing' from one learning area or subject to another (Fogarty & Pete, 2007:15).

In South Africa curriculum integration has been implemented at two levels. On the one hand several subjects which seem driven by similar themes have been combined. Examples are social sciences which consist of History and Geography and Natural Sciences which comprise chemistry and biology (DoE, 2003). On the other hand integration is recommended as a teaching strategy that involves addressing certain topics across all learning areas as in the case of addressing HIV/AIDS related issues in Life Orientation. In the section that follows I will describe the factors that have influenced integration debates.

2.3 Factors that have influenced curriculum integration

Several factors influence curriculum integration in different context. The factors are discussed below.

2.3.1 Historical perspective

One feature of the current reform initiatives in the South African education system is the introduction of the Revised National Curriculum Statement (RNCS) in 2003, further streamlined as the National Curriculum Statement (NCS) that outlines the learning outcomes (LOs) for different learning areas in schools. Life Orientation is a new learning area (LA) with five LOs that are designed to equip learners to live productive and meaningful lives in a transforming society. The focus is based on the development of self-in-society.

According to Brady & Scully (2005:2) school teaching is no longer exclusively about 'traditional' or 'chalk-and-talk' lessons. While some educator direction and explanation remain staple ingredients, teaching has assumed a variety of guises. However, the enduring public image of teaching is one involving the educator 'telling' the learners what they need to

know, and the popular image of the effective educator is a person who can simplify and explain.

Curriculum change influences the way educators mediate learning, how principals manage schools, how learners learn. It also changes the focus of the work of officials in the departments of education at national, provincial and district levels. It is therefore a systemic change (affecting all elements of the system). It changes more than the work of those who work in and with schools. It also changes the work of people who write learning and teaching support materials. It reaches into all aspects of the education system and the society. Curriculum change affects parents and communities, as they have a strong interest in ensuring that their children obtain a good quality education that is competitive, comprehensive and up to date as stipulated by the Western Cape Education Department (WCED, 2000).

In the Overview Statement of the NCS, Asmal (2002), former Minister of Education, states that "The development of a national curriculum is a major challenge for any nation." He goes further to say,

> At its broadest level, our education and its curriculum express our idea of ourselves as a society, and our vision as how we see the new form of society being realised through our children and learners. Through its selection of what is to be in the curriculum, it represents our priorities and assumptions of what constitutes a 'good education' at its deepest level (DoE, 2006:14).

The Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996) provides the basis for curriculum transformation and development in contemporary South Africa. The vision for a 'good education' for all South African learners is underpinned by Constitutional values and is captured as follows:

> The kind of learner envisaged is one who will be imbued with the values and act in the interests of society based on respect for democracy, equality, human dignity, life and social justice… The curriculum aims to develop the full potential of each learner as a citizen of a democratic South Africa. It seeks to create a life-long learner who is confident and independent, literate, numerate and multi-skilled, compassionate, with respect for the environment and the ability to participate in society as a critical and active citizen (DoE, 2006:14).

Curriculum integration is seen as an integral element of transforming education in South Africa so that all learners can have equal opportunities of access to almost uniform content. Within

integration needs, problems and concerns of a particular group of learners are identified and skills and subject matter from any pertinent learning area are brought in to help learners deal with those matters. Educators may identify a cluster of learner concerns or needs that are typical of the age group and design units of study that promise to be relevant to them. The only restrictions are that the units of study must be worthwhile, doable and appropriate for the learners' level of maturity (Donald, Lazarus & Lolwana, 2006).

2.3.2 Education and investment choices for vulnerable children

The features of contemporary South Africa, and the nature of the personal challenges, including HIV/AIDS, learners encounter in this society, guide the choice of the content of Life Orientation. Through Life Orientation learners are envisaged to develop a sense of confidence and competence in order to live well and be able to contribute productively to the shaping of a new society (Department of Health, 2008). In addition, education is a fundamental right under Article 28 of the Convention on the Rights of the Child, and the primary education for all is one of the eight Millennium Development Goals. Improving access to children is widely regarded as a critical intervention and asset for children and youth in communities affected by HIV/AIDS (UNICEF, 2004).

All children are regarded as vulnerable to conducting HIV/AIDS infections (UNESCO, 2005; DoE, 2003; Kelly, 2002). According to Baxen and Mosito (2005:6) "vulnerability begins and is embedded within a notion of risk, which is characterized by a known or unknown series of events which are *situated* and rooted in a particular context, within a particular time, space and place". Further on, they explain that those at risk are assumed unable to manage the risk for one reason or another. In the case of this study it could imply that the advocacy for the integration of HIV/AIDS is based on the assumption that boys and girls in South African classrooms are developmentally immature to recognise the dangers implied by living in the era and context of HIV/AIDS. Kalichman and Evian (2006:33) concur that vulnerability in children is intrinsic to their identities and personhoods, and is recognisable through their beliefs and actions, or through their appearances. Therefore, as it is supported in the national curriculum for the South African public school, it is the schools' responsibility through the injection and emphasis of HIV/AIDS messages in other learning and in particular Life- skills to protect children from the dangers of HIV/AIDS.

Education provides important protective influences for children not only through knowledge transmission and skill building, but also by contributing positively to children's socialisation. It is also a critical component of HIV prevention, both in the narrow sense of providing individuals with information about transmission and protection, and in the broad sense of empowering people to take steps to avert infection and to enhance their health and the health of their children (Brookes, Shisana & Richter, 2004). This assertion has worrisome implications for school going children who might for many reasons not be attending school (Birdthistle, 2004; Richter, 2004).

Within the context of truncated school attendance, enhancing the enrolment and retention of vulnerable children in school is a critical strategy for the social protection and monitoring of children affected by HIV/AIDS (IATT, 2006). In fact, keeping children in school and providing them with education is regarded as the most cost-effective method of intervention for children whose prospects are being severely limited by the impact of HIV/AIDS on their families and communities (Richter, 2004:28). Related to the idea of vulnerability around children is the concept of health promoting schools.

2.3.3 Health-promoting schools

In terms of protecting children from among other things vulnerability that is implicit in living in the era of HIV/AIDS, the World Health Organization (WHO) recommends that schools should adopt a health promotion approach with the aim of becoming health promoting schools. According to WHO health is viewed as a state of complete physical, mental and social well-being, and not merely the absence of disease (Ottawa Charter, 1986). World Association on Health Promoting Schools Associations (WAHPSA) defines a health promoting school as one that 'constantly strengthens its capacity as a healthy setting for living, learning and working' (WAHPSA, 2004). In particular, such a school:

- Fosters health and learning with all the measures at its disposal;
- Engages health and education officials, teachers, teachers' unions, students, parents, health providers and community leaders in efforts to make the school a healthy place;
- Strives to provide a healthy environment, school health education, and school health services along with school/community projects and outreach, health promotion programmes for staff, nutrition and food safety programmes, opportunities for physical

education and recreation, and programmes for counselling, social support and mental health promotion;

- Implements policies and practices that respect an individual's well being and dignity, provide multiple opportunities for success, and acknowledges good efforts and intentions as well as personal achievements; and
- Strives to improve the health of school personnel, families and community members as well as pupils; and works with community leaders to help them understand how the community contributes to, or undermines, health and education (WAHPSA**,** 2004:4).

This emphasis of health promotion, therefore, is on the development of well-being and quality of life for all learners, not only those who are ill or have problems. In the case of this study the concept of health promoting schools has several implications:

- Learners are enabled to increase control over and improve their health;
- Learners' complete physical, mental, and social well-being, are met through subjects that focus on the holistic person like Life-skills, they are able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment; and
- Health therefore, is seen as a source for everyday life, not the objective of living as espoused in Ottawa Charter on health promoting schools (Ottawa Charter, 1986: iii).

Health-promotion strategies provide a combination of educational and environmental support for actions and conditions of living that are conducive to health (Department of Health, 2008). Thus, the development of individual competence (for example through life-skills education), and the development of environments that are conducive to the development of healthy people (for example through whole-school development) are both important. From an eco-systemic perspective, this emphasizes the relationship between the individuals and their social context or total environment. The health-promoting school aims at achieving healthy lifestyles for the total school population by developing supportive environments conducive to the promotion of health. It offers opportunities for, and requires commitments to the provision of a safe and

health-enhancing social and physical environment (Donald *et al.*, 2006). Integrating HIV/AIDS education could therefore be seen as one of the strategies schools could employ in promoting healthy choices among learners.

2.3.4 A health promoting environment and HIV/AIDS

The awareness of HIV/AIDS transmission and prevention could be aimed to develop skills involving decision-making and negotiating sexual activity to improve knowledge and attitude of sexual behaviour. At high school level there is a strong possibility that learners could be actively involved in sexual activities that might lead to the spread of the HIV/AIDS pandemic. Therefore, the establishment of a health promoting environment could be inculcated in a school setup to decrease high sexual behaviour that could be prevalent in young people (Conlon, Clarke, Deane & Attwell, 2004; Campbell & Lubben, 2003).

According to Barnes and Evian (2006) there are a few misconceptions among learners concerning the HIV/AIDS disease, viz.:

- Some people are immune to HIV/AIDS;
- Infected people look unhealthy;
- Learners are scared of peer rejection; and
- The use of condoms leads to mistrust of a partner (Barnes & Evian, 2006:23).

In order to clear the misconceptions and facilitate behavioural change through school-based HIV/AIDS education and awareness, Barnett, De Koning and Francis (1995) recommend a strong health promoting school environment as a pre-condition. They acknowledge two key dimensions to such a school environment. The first is organizational and the second professional. When considering these dimensions the age and experience of the learners need to be kept in mind.

With regard to the organizational dimension four contributing elements were identified. These are:

- The existence and implementation of a school health policy document;
- The provision by the school of opportunities for extra-mural curricular health related activities;

- The provision of school-based sexual health care; and
- School-community links (Campbell & Lubben, 2003:531).

2.3.5 The implementation of a school health policy document

School-based HIV/AIDS education and awareness is strengthened through the existence and implementation of a whole-school health policy document. This document needs to set out clearly the objectives and commitment of the school to HIV/AIDS education and awareness, how this will be met and by whom. A clause needs to be included on how the school will respond to educators and learners with HIV/AIDS and to those members of the school community who have family members living with HIV/AIDS. There should be no restrictions regarding the people concerned with the school but ways of relating to and supporting those with HIV/AIDS should be included as well (Campbell & Lubben, 2003).

It will be essential to include statements relating to dealing with allegations of rape, sexual assault and sexual harassment by fellow learners and educators (Human Rights Watch, 2001). These documents should make clear the aims and objectives, roles and responsibilities for HIV/AIDS education and awareness and how these could be met. According to Campbell and Lubben (2003), these policy documents form a solid foundation for successful HIV/AIDS education and awareness.

2.3.6 The provision of opportunities for extra-curricular health related activities

A series of weekly extra-curricular activities pertaining HIV/AIDS education and awareness could be arranged with volunteer educators and public health practitioners by using films, role-plays, debates and story telling. Campbell and Lubben (2003) claim that these types of extra-curricular activities improve the knowledge and attitude of learners on HIV/AIDS as these activities have the potential to change their sexual behaviour.

The establishment of extra-curricular school HIV/AIDS awareness clubs could be organized by concerned students and sympathetic educators to achieve the changes in sexual behaviour in terms of condom use and sexual partners. According to Kalichman and Evian (2006) extra-curricular interactive drama performances of peers have shown to be particularly effective in

changing learners' attitudes to people with HIV/AIDS. School-organized extra-curricular activities are an important force in HIV/AIDS education and awareness.

2.3.7 School-based sexual health care

The provision of school-based sexual health care, particularly through the provision of advice on contraception and STI's and access to condoms is a more controversial element of a school's health promoting environment. HIV/AIDS education and awareness tend to stress abstinence from sexual intercourse (safe sex) and if this advice cannot or will not be followed then they advocate the use of condoms (safer sex) (Catholic AIDS Action, 2000).

2.3.8 School-community links

According to Campbell and Lubben, (2003) the link between a school and the community it serves, including learners' parents and family members, on HIV/AIDS education and awareness is a powerful component of a school's health promoting environment. Educating the community could help to support and consolidate knowledge and understanding and extend the spread of information. The aspect of HIV/AIDS education and awareness could possibly be underdeveloped in some of our schools as parents show little or no interest in the children, as observed, by the researcher at parent meetings.

2.3.9 The professional dimension

Barnett *et al*. (1995) identified the nature of in-service training (INSET) programmes for providers of HIV/AIDS education and awareness as a major factor influencing behavioural change among young people. There are three elements of HIV/AIDS teacher education programmes that are required to help educators to contribute to a strong health promoting school environment.

These are:

(i) The teaching and learning of the HIV/AIDS content knowledge required by educators;

(ii) The provision of appropriate learning and teaching methods for the use by educators and their learners; and

(iii) The cultivation of educators' willingness and ability to take responsibility for HIV/AIDS education and awareness (Campbell & Lubben, 2003:532).

Educators decisions about contributing to HIV/AIDS education and awareness depend on the range of different factors apart from subject knowledge, such as the demands of a new role for

the educator as a counsellor, the increased awareness of disrupted family relationships due to HIV/AIDS, and the culturally or religiously motivated reservations of learners, their parents, colleagues and perhaps themselves. In service teacher training (INSET) needs to deal with such factors and support educators to make a positive contribution to HIV/AIDS education and awareness (Campbell & Lubben, 2003).

2.3.10 Importance of curriculum integration for HIV/AIDS awareness

There is a notion that supports a view that curriculum integration is a way of making education more meaningful. Concerns about national achievement levels and high dropout rates have put the spotlight on any educational change that can lead to increase learners' success. In addition to the realization that curriculum integration may be an effective element in making education both manageable and relevant, there is a body of research related to **how children learn** that supports curriculum integration. Cromwell (1989:54) looks at how the brain processes and organizes information. For example, the brain organizes new knowledge on the basis of previous experiences and meaning that has developed from those experiences; and it processes many things at the same time and holistic experiences are recalled quickly and easily. Shoemaker (1989:2-6) writes that the human brain actively seeks patterns and searches for meaning through patterns.

Caine and Caine (1991) support this study when they connected neuro-psychology and educational methodologies and stated that the search for meaning and patterns is a basic process in the human brain. The brain may resist learning fragmented facts that are presented in isolation. Learning is believed to occur faster and more thoroughly when it is presented in meaningful contexts, with an experiential component because every brain and every learner is unique. While the search for patterns and context may be universal, every learner will have their own **learning style preference** (Fleming, 2009; Coffield, Moseley, Hall & Ecclestone, 2004). To meet these diverse needs means providing choices for learners such as different

styles of learning implicit in the Western Cape Education Department's (WCED) tool for teaching styles and learning styles inventory recommended for determining the level of match or mismatch between teaching and learning (WCED, 2000).

Drake (1998) emphasizes that integrating the curriculum is one of the most popular explorations that is ongoing at all levels of educational reform. Although it is clear from the above discussion that there is no common definition for curriculum integration, many versions of integration are being adopted for classroom use. As a result of this exploration there is a lack of common language to discuss these different approaches to curriculum integration and therefore, there is much confusion around potentially fruitful discussions.

As the integration of the curriculum becomes more and more a part of what educators are expected to accomplish in the classroom, they become more creative in ways that they include curriculum integration into their daily routine. The more comfortable educators are with their own level of ability and knowledge base; they will be more likely to impart that knowledge and skills onto their learners. Curriculum integration is a tool that could be used to merely enhance and extend the curriculum that is already in place.

2.3.11 Knowledge of curriculum integration

The paradigm shift to life-long learning through the National Qualifications Framework (NQF) has resulted in all learning areas being viewed as part of a larger whole. The interaction between and among the learning areas is viewed as greater than the sum of the different parts (DoE, 2002). The new curriculum and its policies have been a real challenge to many educators in terms of integrating learning areas and complying with the standards set out for the implementation of outcomes- based education (OBE).

While it is unreasonable that they expect that educators should know everything about the learning content, it is very important to have a good knowledge of the curriculum prescribed in relevant syllabus documents (Bradly & Scully, 2005:47). Highlighting the need for educator knowledge of the curriculum, Biggs and Moore (1993) differentiate between 'lateral' and 'vertical' curriculum knowledge. The former involves educator understanding of how a topic

may relate to other key learning areas; the latter with knowing what relating to the topic has gone before and is planned to follow. Drawing on a wide knowledge base of curriculum materials will help the educator to adapt mandated curriculum content to specific contexts and needs, thus maximizing the likelihood of that planned content and activity, consistent with learner needs and interest, accords with systemic requirements. The educator's confidence in

knowing and understanding the curriculum will also serve as a solid basis on which to modify and adapt such content, in response to learner choice or interest. Working *with* learners as opposed to *on* or *against* them requires the educator to cede some degree of control of the learning content (Bradly & Scully, 2005:47).

2.3.12 Problems related to curriculum integration

Jacobs (1997) postulates that schools have created structures that make integration in the curriculum very difficult even though it can be beneficial to both the learning organization and the learners. Two important barriers that cause problems in the structure of the learning organization are time barriers and personal barriers. One reason for the time barrier is that the school day stays the same but knowledge has grown. The traditional confines (e.g. timetable, content, etc.) for the school day are literally bulging, and much of the newest, most valuable knowledge falls between the cracks of the conventional subject areas. It seems to Jacobs (1997) that the personal barriers (e.g. time, space, development etc.) of educators may be construed as a problem when implementing an integrated programme into the curriculum.

There are problems related to the planning and implementation of integrated programmes that revolve around time needed for proper co-ordination of activities. Jacobs (1997) points out that organizing and implementing an integrated programme is much more time-consuming and labour-intensive than originally anticipated. Burns (1995) concurs when he stated that students reported that integrated programmes require a much greater commitment of time than they had originally planned. Although the students were initially cautioned about the significant amount of time to successfully complete the programme, many became overwhelmed by time commitments and consequently, requested more administrative co-ordination on the part of the educators, such as assistance with setting up interviews and transportation. Other problems can include funding, lack of efficient administration and communication on issues to curriculum

planning and assessment (Perusek, 1995). The biggest obstacle to an integrated curriculum is that people try to do too much at once (Jacobs, 1997).

Educators need to be empowered with skills and the time to examine **what** they are going to teach and **how**. Time is a crucial element. Schools that have a flexible timetable, where time can be used to maximize teaching are in a better position to overcome this barrier. Common

planning time is the necessary communication vehicle for teams to succeed in integrating a curriculum (Jacobs, 1997). Curriculum integration can be a pragmatic use of disciplines and its planning requires interpersonal skills. Consequently, if curriculum integration is planned effectively, it should be successful because the conditions are right and the choice is deliberate.

2.3.13 Curriculum integration as an educational approach in a holistic way

The RNCS has tried to ensure that all LA statements reflect the principles and practices of social justice, respect for the environment and human rights as defined in the Constitution. The curriculum attempts to be sensitive to issues of poverty, inequality, race, gender, age, and such challenges as HIV/AIDS. A holistic approach to learning outcomes rather than a fragmented, 'atomistic' approach should be encouraged. In the latter approach, learning is broken down in chunks, each of which can be ticked off as learners master a list of objectives. In this behaviourist approach there is an insistence on assessing only performances that can be seen and measured. In the South African education and training context, based on the seven critical outcomes and the five developmental outcomes (appendix 8), curriculum integration may help us to form a common and integrating link that makes it possible for this holistic approach (DoE, 2002).

An integrated curriculum is an educational approach that prepares learners for life-long learning. Curriculum integration at schools must look at education as a process for developing abilities required by life in the twenty-first century, rather than discrete, departmentalized subject matter. A rationale offered for curriculum integration is only a small part of the large shifts occurring in educational thinking today. The world we are living in is constantly changing and education must change with it. Education should be the foundation on which we build our future. If we live in an interconnected and interdependent world, it only makes sense that knowledge is presented as interconnected and interdependent (Jacobs, 1997).

2.3.14 The relationship between curriculum integration and co-operative learning

Johnson, Johnson and Holubec (1993) state that co-operative learning produces greater learner achievement than traditional methodologies. Learners who work individually compete against their peers to gain praise or other forms of rewards and reinforcements. In this type of competition many individuals attempt to accomplish a goal with only a few winners. The

success of these individuals can mean the failure of others. There are more winners in a co-operative team because all members benefit from the success of an achievement. Smith (1992) and Adams, Carlson and Hamm (1990) share the notion that co-operative learning has social benefits as well as academic benefits. Therefore, it is imperative to involve all learners in the teaching and learning process to gain knowledge, skills and values and attitudes about HIV/AIDS awareness in different settings instead of competing against each other for praise.

One of the essential elements of co-operative learning is the development of social skills. Children learn to take risks and are praised for their contribution. They are able to see points of view other than their own. Such benefits contribute to the overall satisfaction of learning and schooling. Learners work with classmates who have different learning skills, cultural backgrounds, attitudes and personalities. These differences force learners to deal with conflict and interact with others. Consequently, the integration of HIV/AIDS education and awareness can be seen as a challenge to learners to minimize the spread of the disease. Learners can also be made aware to tolerate each other and deal with the status and stigmatization related to the dreadful disease (Coombe, 2004; Johnson *et al.*, 1993).

According to Walsh (2007:20-25) co-operative teaching and learning is a strategy that is organized and structured where learners work together on a carefully defined task in which they have a particular role to fulfil. In this study the focus is based on how learners can work in collaboration with peers to achieve that common goal to fight against the HIV/AIDS pandemic. The purpose is for learners to practise a range of skills while tackling a problem or issue together – viz., HIV/AIDS education and awareness. For successful co-operative learning experiences to take place, the educator should observe closely as a means of understanding- group dynamics, roles assumed by learners, usefulness of discussions and

decisions. Therefore, learners should be given the opportunity to rotate roles within the group to enrich themselves in all aspects of different role players.

Co-operative learning could be used as a strategy to promote and implement HIV/AIDS education and awareness because learners have the opportunity to form various groups for discussions on this theme. Brady and Scully (2005) concur that discussion could be a highly

engaging strategy. It provides learners with autonomy in structuring the direction of their HIV/AIDS education and awareness.

2.3.15 Effects on learner attitude in curriculum integration

In the formal educational setting, educators deal with a diversity of learner cultures and **different learning styles (**Fleming 2007; Coffield *et al.*, 2004). They therefore, need to make the content and methods of presentation on HIV/AIDS education and awareness interesting to ensure creative learner participation at all times. This might allow learners to engage personally in the material presented, thereby internalizing it in a way that might hopefully, affect their subsequent behaviour towards the HIV/AIDS pandemic and to create an awareness of its consequences (Kelly, 2000).

MacIver (1990) found that learners involved in an integrated programme developed team spirit and improved their attitudes and work habits. This was attributed, in part, to the fact that educators met in teams and were able to quickly recognize and deal with a learner's problem.

Vars (1993) reported that motivation for learning increases when learners' work on "real" problems – a common element in integrated themes. Therefore, the focus is based on ways to integrate HIV/AIDS education and awareness to motivate learners to be active participants in the solution to the real problems.

Jacobs (1997) reported that an integrated curriculum is associated with better learner self-direction, higher attendance, higher levels of homework completion, and better attitudes toward school. Learners are engaged in their learning as they make connections across

disciplines and with the world outside the classroom. Therefore, learners who are actively involved in the planning of HIV/AIDS education and awareness into all learning areas might be assisted in their learning and making of choices beneficial to them (Brady & Scully, 2005).

2.4 HIV/AIDS pandemic as an opportunity for change

Although there are many challenges facing education, the HIV/AIDS pandemic presents educators with an opportunity to make radical changes that will help to develop an education system that is able to meet the demands of the current world. This can be seen as an

opportunity to integrate sexuality and life-skills education into teaching, to address safety and gender issues, to encourage a greater level of caring and empathy among learners and educators, to teach in ways that reflect the best way that learning takes place, and to bring back the nurturing element of education (Wood, 2008).

In responding to the crisis, educators can therefore re-think and re-design many existing approaches in education. This rethinking of strategies could involve educators challenging their educational goals and redesigning curricula, building on what is good and relevant and discarding that which no longer serves a purpose. Donald *et al*. (2006) suggest that educators need to reconsider their personal and educational values, striving to live them out more fully so as to make a positive difference in the life of their learners (Donald *et al.*, 2006).

2.4.1 Teaching for transformation

No matter what is taught educators face the challenge of bringing learners from point A –what they currently know- to point B – the learning goals of a course. In many courses, the distance between A and B is huge, and the path is not obvious. Learners should not only acquire new information, knowledge and skills, but also radically transform their approach to thinking and learning (Wood, 2008).

Even though learners may have no experience in class or field, they enter classrooms with a long history of academic training and life experience. For this reason, presenting new information is not enough to guarantee optimal learning. Learners ought to recognize the limitations of their current knowledge and perspectives. This means that educators cannot

simply unload their knowledge on learners (Coombe, 2004). What is required is a true transformation of learners' existing knowledge such as in the form of curriculum integration.

2.4.2 The meeting point: Life-skills education and HIV/AIDS

The process of teaching and learning life-skills has to be seen as a meeting point between the educator as a developing person and the learners as developing persons. For this reason, the development of the educator's life-skills is as important as developing those of the learners being taught. If educators are not comfortable with their own sexuality, for example, it might be difficult to help learners in this area. Other areas of life-skill development should be

actively pursued as part of an educator's personal and professional development (Fogarty & Pete, 2007; Conlon *et al*., 2004).

Life-skills education should be integrated into all learning areas by exploring ways in which various life-skill areas could be incorporated in the curriculum. For example, issues around sexuality and relationships can be brought into most learning areas in one way or another. Equally, study skills need to be developed in general, but also in relation to specific learning areas for example on how to go about constructing an essay on the prevention of HIV/AIDS (Van Heerden, 2007).

2.4.3 Life Orientation as a starting point for an integrated programme

The approach to the teaching of Life Orientation, with its demands, can pose challenges or problems to those who did not receive adequate training in this regard. To integrate HIV/AIDS education and awareness into **all** learning areas could even pose greater opportunities for educators as this approach to teaching and learning is relatively new in South Africa (Van Heerden, 2007).

The first of the five focus areas that shape the learning area, Life Orientation, and that addresses the developmental needs of the learner in society, is health promotion. Many social and personal problems are associated with lifestyle choices and high-risk behaviours. Sound health practices and an understanding of the relationship between health and environment can improve the quality of life and well-being of learners. The Life Orientation LA statement addresses issues relating to nutrition, diseases including HIV/AIDS and STI's, safety, violence, abuse and environmental health (DoE, 2003). The more obvious societal needs in South Africa

include creating sustainable development, improving the educational system, the alleviation of poverty and addressing environmental problems as well as the awareness of the impact HIV/AIDS has on society. Page, Louw and Pakkiri, (2006) agree that activities addressing HIV/AIDS issues could be planned and prepared in the LA, Life Orientation, to provide opportunities to integrate the content into all learning areas and to enhance a holistic approach to teaching and learning process.

2.4.5 Education sector's plan of action for HIV/AIDS

The Department of Education (2003) has highlighted three objectives related to HIV/AIDS viz.: Raising awareness about HIV/AIDS among educators and learners; integrating HIV/AIDS into the curriculum; and developing models for analyzing the impact of HIV/AIDS on the system. The Department of Education's National Policy (1999) on HIV/AIDS for learners and educators acknowledges the government's responsibilities for children's rights specified by international agreement and the law.

According to the DoE (2002) learners should be prepared to live in a world with HIV/AIDS. Therefore, they should acquire the behaviours, attitudes and skills that are necessary to deal with the HIV/AIDS pandemic as active and responsible citizens (Page *et al*., 2006). They need to know themselves, how to deal with their emotions and to communicate and behave respectfully with others. Through the learning of life-skills, learners should be able to use their knowledge in everyday life situations, to adjust their attitudes, to adopt values and to translate all those into respectful and protective behaviours. Learners should also be made aware that they can and must ask for help if they live in difficult situations. They should acquire the basic skills to listen and support others in these situations (UNESCO, 2003). Law and legal protections are essential components of the societal response to stigma and discrimination (Klein, Karchner & O'Connell, 2002:10-15).

2.5 Characteristics of the teaching and learning responses to HIV/AIDS

In the past the cardinal error was made of treating HIV/AIDS as being primarily a health problem. To treat it as being a primarily problem for education would be a repeat and

compound error. HIV/AIDS is wider than any sector, but touches the entire range of development and human welfare interests. Responding to the epidemic demands the widespread participation and interaction of players from various areas of the public sector, as well as the involvement of the numerous organs of civil society (Kalichman & Evian, 2006; Kelly, 2002).

It is paramount that in the struggle with HIV/AIDS, the education sector should manifest the fullest co-operation, sharing of resources and facilities, and collaboration in programme design, implementation and evaluation with all potential partners. The problem of HIV/AIDS is too

large for any stand alone sector or any of its partners to deal with on their own. But by working together it can be successful in bringing the pandemic to heel (Wood, 2008).

In the context of HIV/AIDS an education system has to have two major tasks:

- It must maintain itself in a functioning condition that will enable it to provide the services expected of it, in relation to the pandemic and all other areas; and
- It must equip those for whom it has responsibility, above all learners, with the knowledge, skills, attitudes and values that will reduce the likelihood of their acquiring or transmitting HIV infection (Coombe, 2004:45).

2.5.1 The objective of preventive education programmes

Almost invariably the literature on HIV/AIDS pre-empts discussion of preventive education by the way it repeatedly speaks about *changing* behaviour, but rarely about *maintaining* behaviour. UNESCO's strategy for HIV/AIDS preventive education speaks of prevention as "the most patent and potent response, i.e., *changing* behaviour by providing knowledge, fostering attitudes and conferring skills" (UNESCO, 2001:10).

The presumption appears to be that sexual behaviour, especially among adults and young people, is almost bound to be risky and hence needs to be changed into something safer. In addition, such an approach does not express much confidence in the ability and commitment of the majority of adults and young people to behave in a sexually responsible way.

Coombe (2004) concurs that a more comprehensive approach is to see the ultimate objective of education's concern in the area as being to promote behaviour that will not put an individual or any partner at risk of HIV infection. For many young people, this will involve helping them to maintain existing behaviour patterns that are safe and do not put them at risk of HIV infection. For others it will involve helping them to replace behaviour patterns and activities that put them at risk of HIV infection, with those who are safe.

The thrust of educational efforts to stem HIV transmission should be to empower those who participate in programmes to live sexually responsible, healthy lives. This implies understanding, leading to practice, in two areas, sexuality and healthy lives. These are two

principal areas around which programmes should be developed. They are central to everything else, and from them must flow the values and attitudes that will manifest themselves in information, practices, skills and techniques (Coombe, 2004).

This means that in the context of the sexual transmission of HIV, a good preventive programme will begin at the proper beginning, that is, in promoting an understanding of sexuality and relationships. Educators should not hesitate to affirm that both of these are very good and beautiful. Educators should be enabled to lead learners to appreciate that sexuality is a wonderful, extremely powerful energy, experienced in every cell of one's being as a mighty urge to overcome incompleteness and to find fulfilment in a strong and abiding relationship with another. Recognizing the special potency of relationships for adolescents and young adults, educators should be equally forceful in affirming the value and wonder of a relationship, something that is so valuable that it needs safeguards, whether these be of no sex, deferred sex or protected sex (Kalichman & Evian, 2006; Coombe, 2004).

2.5.2 The context for preventive education programmes

Kelly (2002) concurs that an effective preventive education programme must be rooted in the context of the lives and circumstances of the target audience. Certain aspects of that context are vitally important, since by establishing conditions that facilitate the transmission of HIV they actually run counter to what the programmes are trying to communicate. Areas that merit special attention include the school situation, the culture of the home and community, poverty and gender.

In principle the school should provide a healthy-affirming and safe environment within which learners and educators can develop and fulfil themselves in performing their teaching-learning tasks. HIV/AIDS prevention awareness and programmes that take place in a school setting should try to ensure that their message takes account of the real conditions that learners' experience (Coombe, 2004).

Educators may usually be aware that a knowledge and information gap exists between the home and the school. However, they do not always make allowance for an equally wide but frequently much deeper gap between values, attitudes and behaviours promoted in the school

and those enshrined in the totality of life in the community and the home. Underlying this gap there may even be a radical difference in philosophical outlook (Coombe, 2004). Bridging this gap can be crucial for the effectiveness of HIV/AIDS preventive education and awareness.

The school can possibly treat HIV/AIDS as being caused by an identifiable virus. However, the community and home may see the cause lying elsewhere, with spirits, or with powers and forces that are under the control of certain individuals (UNECA, 2000: 36 -40). The traditional approach, which interprets diseases and their causes in terms of the cultural world of taboos, obligations, and sorcery, may be much more influential in shaping behaviour than the rational explanations of modern science. But this cultural perspective is rarely taken into account. This is not a plea to abandon the scientific approach, but a call to root HIV/AIDS preventive education more firmly that has pre-eminent value in motivating the personal behaviour of learners (Kelly, 2002)

2.5.3 The content of a comprehensive preventive education programme

Ideally, the content of a comprehensive HIV/AIDS preventive programme, whether delivered through schools or otherwise, should extend to the following areas:

- Sexuality and relationships, leading to a good understanding of what sexuality means, its role in relationships, and the norms for healthy sexuality;
- Respect and regard for others in a spirit of equality and power-sharing between males and females that extends to all areas of life;

- Knowledge and understanding of HIV/AIDS, the modes of transmission, what infection does within the human body, how it progresses, and how it can be treated;
- Popular misconceptions, errors and myths relating to HIV/AIDS;
- A core set of psycho-social life-skills for the promotion of the health and well-being of learners. These could include decision-making, interpersonal relationships, self-awareness, stress and anxiety management, coping with pressures, the negotiation of contentious situations, assertiveness, and attitudes of self-esteem and self-confidence;
- Knowledge and understanding of how to manage and protect one's reproductive health;
- The role and value of abstinence, the development of positive attitudes towards this, and the skills that enable one to abstain from sexual activity.

- The meaning of protected sex, the role it plays in preventing HIV infection, the skills that are implied, and how to access and use condoms and other supplies;
- Other HIV risk-reducing factors, such as delayed sexual debut, reducing the frequency of partner exchange, avoidance of casual sex or the management of such encounters to protect against HIV transmission;
- Fidelity in marriage and management of the marriage relationship if HIV is present;
- The desirability of voluntary counselling and testing, and the importance of early presentation of potential sexually transmitted diseases (STDs) to the appropriate health services; and
- The meaning of a healthy lifestyle, its role in making an individual less susceptible to HIV infection, and its role in promoting the quality of life and extending the survival years of an individual who is HIV infected (Kelly, 2002: 51-52).

Some observations are in order about this comprehensive programme. Learners should be introduced to it while they are still young, some would say from the day they commence school. While it may be necessary to begin at a later age for those who are already in the school system, HIV/AIDS related forms of education should start as early as possible with younger children, and certainly well before they enter the period of puberty (Coombe, 2004).

This means that learners should be introduced to HIV/AIDS preventive education no later than middle-primary school. Even earlier would be better. Later would be too late. But whatever

is presented to learners must be appropriate to their age and grade. It would be foolhardy and counterproductive to expose young children to matters that are beyond their comprehension and experience.

2.6 An ideal teaching-learning process in the context of HIV/AIDS

Given the fact that sexual contact is one of the ways in which people contract HIV/AIDS, any discussion on HIV/AIDS implies talking about sex and sexuality (Makhate, 2002). One would ask, what could be an ideal teaching-learning scenario when integrating HIV/AIDS topics in Life-skills curriculum? What follows is an explication of what are regarded as ideal strategies for teaching and learning generally with emphasis on dealing with HIV/AIDS topics.

While much can be done in the classroom, the development of life-skills needs to become a whole-school commitment and effort. If this is not already addressed, educators should see this as an opportunity to develop this important area in their school (Fogarty & Pete, 2007). When it comes to classroom practices, Donald *et al*. (2006) concur that many life-skills are learned best through discussion, interpersonal exploration and reflection. Direct instruction (educator talk) is often not the best way of going about this. Direct instruction implies that the teacher plays the authority figure which might influence learners to shy away from discussing serious topics of sexuality that form the core of the HIV/AIDS curriculum. Equally, many life-skills are learned through modelling. Learners learn from the way educators and other learners behave. How the educator behaves and manages his/her class and relates to the learners is therefore critical (Van Heerden, 2007).

Aiello and Bisgard (2003) and Page *et al.* (2006) are of the opinion that there is widespread ignorance regarding HIV/AIDS and related matters (such as factors influencing the immune system, lifestyles and ways of transmitting the virus). Therefore, it will be advisable for educators to take responsibility to identify appropriate content regarding the topic (learning objectives) and include it in the existing curricula and/or other education/ training programmes. In addition, appropriate methods for teaching have to accompany each topic.

To integrate HIV/AIDS education and awareness into the curriculum, it might be important to know the sensitivity of the issue and the impact it has on society. Page *et al.* (2006)

recommend that we get an understanding of what HIV/AIDS entails and how this might enable educational institutions, businesses and government to make plans about what to do about the pandemic. It might be necessary to obtain accurate figures, for example, the number of people infected, where they live and their age to be able to integrate an appropriate programme for those communities involved. Aiello and Bisgard (2003) concur that all circumstances might not be the same therefore; the approach should be adapted appropriately.

According to Aiello and Bisgard (2003) all learners and students must receive education about HIV/AIDS such as abstinence of sexual activities in the context of life-skills education on an ongoing basis. Appropriate course content should be available for the pre-service and in-service training of educators to cope with HIV/AIDS in schools. Enough educators to educate

learners about the pandemic should also be provided. The purpose for the education about HIV/AIDS is to prevent the spread of the infection, to allay excessive fears of the pandemic, to reduce the stigma attached to it and to instil non-discriminatory attitudes towards persons with HIV/AIDS. Education should ensure that learners and students acquire age- and context-appropriate knowledge and skills in order that they may adopt and maintain behaviour that will protect them from HIV/AIDS infection.

Well designed teaching methods and strategies facilitate the communication of information between the educator and the learners by identifying the main points of the presentation, clarifying the message, addressing different learning styles and communicating professionalism. A combination of different teaching tools can supplement the educator's instruction and make the lesson more meaningful for the learners (Fleming, 2009; Coffield *et al.*, 2004; WCED, 2000).

Everybody has a preferred learning style. Knowing and understanding the learning style of learners could help educators to teach more effectively. Through identifying the preferred learning style, an educator should be able to capitalize on learners' strengths and improve their self-advocacy skills (Fleming, 2009; Coffield *et al.*, 2004; WCED, 2000).

There are many theories that explain **how people learn**. What follows are a variety of theories which might be useful to consider, the application of **how** your learners learn and how to teach

in **preventive** educational programmes. It could be very interesting to recognize that everyone **does not learn** the same way. Learning could be conceived as a relatively permanent change of behaviour including both observable activity and internal processes such as thinking, attitudes and emotions. Behaviour of learning might not manifest itself in observable behaviour until some time after the preventive educational programme has taken place (Fleming, 2009; Coffield *et al*., 2004).

2.6.1 Transformative learning theory

Transformative learning theory addresses the common teaching challenge by describing the conditions and processes necessary for learners to make the most significant kind of knowledge

transformation by a paradigm shift, also known as perspective transformation.

Mezirow (1991:167) describes perspective transformation as:

> …the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrating perspective; and finally, making choices or otherwise acting upon these new understandings.

McGonigal (2005:1-12) concurs that transformative learning is a clear contrast to the more common process of assimilative learning, the type of learning that takes place when learners simply acquire new information that can easily fit into their pre-existing knowledge structures.

Transformative learning theory recognizes that changing one's perspective is not simply a rational process. Learners are being forced to consider, evaluate, and revise underlying assumptions that can be an emotionally charged experience. Learners can successfully use their current paradigm to excel in school and understand the world in which HIV/AIDS are prevalent. They may be reluctant to abandon what they believe is the right way to think, create, and solve problems. Resistance to perspective transformation is common, even among learners who are motivated to learn (Illeris, 2003:396-406). For this reason, educators who want to facilitate transformative learning should create a learning environment that encourages and rewards intellectual openness. A learning environment that privileges for example role playing, drama, and debates is considered as one of the ways in which educators could

encourage dialogue that leads to transformative learning (Fleming, 2009; Kamo, Brennan & Earls, 2008)

2.6.2 Sensory theory

Traditional sensory stimulation theory has as its basic premise that **effective learning** occurs when the senses are stimulated (Laird, 1985). Laird quotes research that found that the vast majority of knowledge held by adults (75%) is learned through seeing. Hearing is the next most effective (about 13 %) and the other senses – touch, smell and taste account for 12% of what we know.

The theory implies that if multi-senses are stimulated, greater learning takes place. Stimulation through the senses can be achieved through a greater variety of colours, volume levels, strong statements, facts presented visually, use of a variety of techniques and media. In line with this theory of sensory stimulation there are four sensory modalities considered key for consideration of teaching that mirrors unique ways of learning (Western Cape Education Department, 2000).

(i) Visual-Verbal modality learners: Learners whose learning prefers this modality learn best when they use written texts, documents, written instructions and are allowed to take notes.

(ii) Visual non-verbal modality learners: This group of learners learn best when there are visual aids such as blackboard, illustrations, charts, graphs, concept maps, outlines, graphic organizers, video recordings and concrete examples that are used to help them visualize new concepts.

(iii) Auditory modality. Learners with a dominant auditory modality learn best when oral explanations are used. Learning could be reinforced by asking them to repeat or paraphrase audio recordings, oral instructions and encouraging them to explore and develop information through class discussions.

(iv) Kinesthetic modality dominant learners: This group learns best if they are given opportunities to emphasize and clarify ideas through gesture, facial expression, dramatization, role playing, and engagement in active learning and direct experience and experimentation (Anderson, 2007; WCED, 2000).

2.6.3 Differences in learning styles

Closely linked to sensory learning theory is the idea that people **learn in different ways** which has been explored over the last few decades by educational researchers. In fact, research has shown that when it comes to encouraging certain behaviour changes among young people in the era of HIV/AIDS, educators' knowledge of learning styles is crucial (Remberk and Gunnarsson, in press). It has been established that individuals prefer a particular learning style.

In McGill and Beaty (1995:177) four learning styles have been identified:

- Activist (enjoys the experience itself);
- Reflector (spends a great deal of time and effort reflecting);

- Theorist (good at making connections and abstracting ideas from experience); and
- Pragmatist (enjoys the planning stage).

There are strengths and weaknesses in each of these styles. In addition, the preferred learning styles could fluctuate from lesson to lesson, one to another and even among subjects (Gilbert, and Swanier, 2008:30-35). Therefore, learning can be enhanced when educators use a wide repertoire of teaching styles that could match a wide range of **learning styles** in their classrooms. In this way, educators can build on strengths and work towards minimizing weaknesses to improve the quality of learning (Pickett, 2010). Consideration of learning styles is particularly beneficial when dealing with subject matter that is meant to change consciousness but may not immediately be experienced as fun or safe by educators (Penumal, 2008:381-398; Anderson, 2007:12). Given the fact that many educators do not necessarily feel comfortable teaching HIV/AIDS related topics because more often than not they are forced to bring what is regarded as private into public (sex and the private body) (Braxen & Breidlid, 2009); knowledge of and appealing to different learning styles while teaching is important.

To be able to integrate HIV/AIDS education and awareness into the curriculum the different teaching and learning styles could be combined to convey the importance of the effects and consequences of HIV/AIDS. Teaching and learning activities can be designed and implemented with the aim that learners learn differently and this important message needs to be conveyed to all learners. Fleming (2009) and Coffield *et al*., (2004) are of the opinion that

it could be beneficial to think about individual differences among learners and to work towards including activities that have variety and interest of all the learners in educational programmes.

In addition to activist, pragmatist, theorist and reflector learning styles, learners also prefer the kinesthetic, tactile, visual and auditory learning styles. A kinesthetic learner is described as one who prefers frequent mobility while learning a tactile (or tactual) one needs "hands-on learning and manipulatives" (Hardee, Gay & Dunn, 2009:21). Ideal teaching and learning strategies for these two groups of learners should involve their hands and bodies and allow them to learn while on their feet. Role playing and drama during teaching-learning around HIV/AIDS could suit kinesthetic and tactile learners as confirmed in a study by Kamo *et al*., (2008).

Davis (2007:12) defines visual learners as those who prefer seeing and making sense of visual depictions such as pictures and graphs. Learning for these kinds of learners' best takes place if they see and watch demonstrations. In the context of HIV/AIDS in Life-skills curriculum these learners would benefit tremendously from for example, watching video clips, interpreting statistics and reading case studies. Auditory learners are good listeners who prefer lectures, talking things through and listening to what others have to say (Anderson, 2007).

2.6.4 Action learning

Action learning is the approach that links the world of learning with the world of action through a reflective process within small co-operative groups known as 'action learning sets' (McGill & Beaty, 1995). These 'sets' can meet regularly to work on individual members' real-life issues (HIV/AIDS awareness) with the aim of learning with and from each other. Action learning is ideal for finding solutions to problems that do not have a 'right' answer because the necessary questioning insight can be facilitated by people learning with and from each other in action learning 'sets'. Learning through one to one debates or role playing are ideal strategies that could enhance learning as implied by this theory.

2.7 Conclusion

This chapter has explored some of the existing literature in an attempt to clarify what integration is and what it entails. What is apparent from the literature is that there are definite rewards for educators and learners. However, the benefits can be experienced if among others

educators understand how learning best takes place in teaching about sensitive topics invoked by HIV/AIDS. In most cases, integration leads to a positive change in the school culture.

Chapter three deals with the research methodology selected and the research instruments used to collect data for possibilities to integrate HIV/AIDS education and awareness into the Grade 8 curriculum.

CHAPTER 3
RESEARCH METHODS AND METHODOLOGY

3.1 Introduction

In the previous chapter review of relevant literature on the topic of integrating HIV/AIDS education and awareness into the curriculum was examined. This chapter describes the research design and methodology implemented in this study on the possibilities of integrating HIV/AIDS into the curriculum.

3.2 Research design and methodology

This study is a case study. Case study research design involves an in-depth exploration of a person, institution, or a situation, in which context is also considered. Multiple research methods may be employed, multiple cases may be studied, and the research is generally conducted over time. Case studies are sometimes used to study a rare phenomenon, to comprehensively understand a phenomenon, or to provide direction for further research on a topic in question (Struwig & Stead, 2007:236). By using both research approaches, this study explores possibilities of integrating HIV/AIDS through perceptions of educators' and learners' of an ideal teaching and learning process into the Grade 8 curriculum at a particular school.

3.3 Ethical considerations

Permission was obtained from the Western Cape Education Department (WCED) to complete this study and to use the data collected for research purposes. A letter was drafted, taking into consideration the suggestions of Cohen, Lawrence and Morrison (2000), which include the aim of the research, to convey the importance of the study to its respondents, to assure them of confidentiality and to request their participation. Informed consent was obtained from the educators and learners who agreed to participate in the research and to allow the data collected to be used for research purposes.

The following documents are included as appendices:

Letter to WCED requesting permission to conduct the research –Appendix 1

Permission was granted from WCED subject to conditions as specified in Appendix 2

Covering letter to educators requesting participation – Appendix 3

3.4 Research procedure

The nature of the research inquiry and the type of information required influences the approach the researcher adopts in the method of data collection (Creswell, 2008; Bell, 1993). Data was collected by qualitative and quantitative research approaches. Marshall and Rossman (1995) state that the fundamental methods relied on by qualitative researchers for the gathering of information is participating in the setting, direct observation, in-depth interviewing and document review.

Strauss and Corbin (1998:10) state that the term 'qualitative research' means any type of research that produces findings arrived at not by statistical procedures or means of quantification. This study focused on participants' experiences, feelings, attitudes and views as well as their perceptions of the ideal teaching and learning process integrating HIV/AIDS into the curriculum.

Struwig and Stead (2007: 243) state that the term 'quantitative research' means any type of research that produces findings that refer to numerical data. Thus, for the purpose of this study a questionnaire was formulated specifically for the study, a learning styles inventory and a tool

for teaching styles[1] were used to explore learners' and educators' perceptions of the ideal learning process in the integration of HIV/AIDS into the curriculum.

3.4.1 Sampling

An ex-model-C[2] high school in the Cape Town area was selected as the research site. For the purpose of this study, the researcher wanted a neutral venue, to avoid bias, to conduct this study where educators and learners are well represented in number and diversity. Therefore, the school of choice was where the researcher just began a new teaching career. Neutrality was considered as a key factor as educators and learners would be assured of confidentiality if the researcher was not in the position to know who they are.

The selected school represents different socio-economic settings, namely urban and semi-urban areas. Vermeulen and Shaw (1996) concur that sampling involves taking any portion of a population or universe, therefore, the one school selected will serve the purpose to collect data that can be reliable and valid, to explore perceptions of educators and learners on integration.

The sample consisted of ten female and six male learning area educators who teach Grade 8 learners and have reported to plan their activities in accordance with the National Curriculum Statement document in the school. These educators were randomly selected from the eight learning areas. Each learning area has a coordinator that takes charge of the planning and activities for that specific learning area. These learning area coordinators were approached to be respondents in the study. Permission was obtained from them to participate in the study. A letter of consent was given to them to complete to ensure that their participation was voluntary. Semi-structured interviews were conducted with these educators and a tool for teaching styles was presented to them to get their general depiction of the teaching and learning process. The aim of involving educators was to gain evidence on educators' perspectives on the ideal approaches in teaching about HIV/AIDS.

[1] The two tools, a learning styles inventory and a tool for teaching styles were sourced from the Western Cape Education Department curriculum development department.

[2] Model C school was one of the terms used in describing certain types of schools before the 1994 democratic elections in South Africa. Model C schools then were designated for White learners only.

Seventy learners in a population of two hundred and seventy Grade 8 learners were randomly selected to participate in the study. The sample consisted of thirty five male and thirty five female learners. These learners were approached to participate after they were randomly sampled from the school list. Permission was obtained from them to voluntarily complete the questionnaire that explored their perceptions of an integrated curriculum and how it may assist them in the learning process. This sample size was appropriate for the purpose of the study as the aim was not to generalize the findings and the limited sample was used for the exploratory purpose of the study. Mouton (1996) states that the sample should represent the population from which it is drawn, therefore, we have reason to believe that the population has the same properties as those of the sample.

3.4.2 Data collection method

Four tools for data collection were used in this study, Semi-structured interviews for educators, a tool for teaching styles for educators, a learning styles inventory for learners and questionnaires for learners.

3.4.3 Rationale for using the instruments

Interviews were deemed necessary as they afforded the researcher access into educators' perception. The learner questionnaire was meant to reveal learners' perceptions and knowledge about integration. Babbie and Mouton (2001) support this by stating that questionnaires are excellent vehicles for identifying attitudes and orientations. The tool for teaching styles was chosen as it contains elements of an ideal teaching situation that caters for different learning styles. Last, the learning style inventory was meant to capture dominant ways in which learners learn.

3.4.4 Using interviews

According to Keeves (1997), the interview is a controlled conversation in which the interviewer obtains information from the respondent. Therefore, the objective of constructing

interview questions is to create a collective understanding between the educators and the researcher in order to enable respondents to give accurate, uninhibited information in the interview time. Educators were given the opportunity to express their opinions and feelings.

Face-to-face semi-structured interviews were conducted with the sixteen educators in their natural setting. Semi-structured interviews allowed respondents to clarify certain points and at the same time control the tendency of deviation from the content of the question. According to Cohen and Manion (1980), the purpose of an interview is to provide access to what the participants are thinking, as well as their past experiences. It builds confidence and mutual trust between the interviewer and respondent.

3.4.5 Purpose for semi-structured interviews

Coleman and Briggs (2002) are of the opinion that semi-structured interviews are an important tool for investigation if the area under investigation requires more profound deliberation. It is a convenient tool with which to probe. The researcher concurs that the semi-structured

interviews helped respondents to express themselves clearly and provided whole school insights. It helped respondents to synthesize their views, feelings, opinions, attitudes and experiences and enabled the researcher to gain information of the perception of the teaching and learning process. All sixteen educators were asked the same questions.

Blaxter, Hughes and Tight (1997) suggest that if one decides to carry out a number of interviews for the study, one of the decisions is whether to tape the interview or to take notes. All the interviews were noted and summarized with the permission of the respondents to ensure that my study will capture the essence of the interview and to use it as reference during the data processing. Some of the educators were not too comfortable with video recordings of the interviews, therefore notes were taken. Copies of all summarized interviews were made and numbered sequentially.

3.4.6 The purpose of using of questionnaires

All educators come in contact with questionnaires whether it is the standard end of year course questionnaire or one that is used in research. These questionnaires come in many different forms from: factual to opinion based, from tick boxes to free response. Whatever their form,

questionnaires are often viewed as quick and easy to do. To get useful responses, in a cost-effective way, it is important to be clear about the aim of the questionnaire and how the responses will help improve the learning technology or its implementation. It is important to think about the analysis of the results as it can be sobering to consider the amount of data that will be generated (Milne, 1999; Munn & Denver, 1999; Kirakowski, 1997).

When using questionnaires, learners should be told why the information is being collected and how the results will be beneficial. As questionnaires are anonymous, participants should be asked to reply honestly and told even if their response is negative it is just as useful as a more positive opinion.

3.4.7 Advantages of questionnaires

When using questionnaires the advantages are:

- The responses are gathered in a standardized way, so questionnaires are more objective, certainly more objective than interviews;

- Generally it is relatively quick to collect information using a questionnaire. However, in some situations they can take a long time not only to design but also to apply and analyze; and
- Potentially information can be collected from a large portion of a group. This potential is not always realized, as returns from questionnaires are usually low. However return rates can be drastically improved if the questionnaire is delivered and completed in class time (Milne, 1999:1).

3.4.8 Disadvantages of questionnaires

The disadvantages of questionnaires:

- Questionnaires, like many evaluation methods occur after the event, so participants may forget important issues;
- Questionnaires are standardized so it is not possible to explain any points in the questions that participants might misinterpret. This could be partially solved by piloting the questions on a small group of learners and colleagues as it is advisable to do it this way;

- Open-ended questions can generate large amounts of data that can take long to process and analyze. One way of limiting this would be to limit the space available to learners so their responses are concise or to sample the learners and survey only a portion of them. Respondents may answer superficially especially if the questionnaire takes to long to complete; and
- The common mistake of asking too many questions should be avoided as learners may not be willing to answer the questions. They might not wish to reveal the information or they might think that they will not benefit from responding perhaps even be penalized by giving their real opinion (Milne, 1999: 2).

3.4.9 Purpose for using a tool for teaching styles and learning styles inventory

The 'tool for teaching styles' and 'learning styles inventory' were considered in this study as there are not many instruments developed to measure peoples' attitudes and perceptions of teaching and learning in general. The 'tool for teaching styles' and 'learning styles inventory'

presents each word in a complete sentence which exposes participants to fully specified stimulus, placing limits on the range of possible meanings that they could assign to each word.

The purpose for using a tool for teaching styles, in this study, was to explore what teaching styles educators utilize in their teaching to reach their objective. The intention for using this instrument was to explore (i) how educators teach to involve all learners in the teaching and learning process, and (ii) the level of match or mismatch between educators' and learners' teaching and learning styles.

A learning styles inventory is an educational instrument that was cited in a WCED circular (2000) and was used in this study to determine what learning style a learner prefers in the learning process. This instrument is an excellent tool to gauge the use of different learning styles of learners to reach their full potential in the teaching and learning process with the aim of knowing how to stimulate learners' interest to participate in HIV/AIDS education and awareness in the curriculum.

3.4.10 Layout of a tool for teaching styles

The tool for teaching styles (appendix 5) is divided into four categories namely: Sensory modalities which include visual verbal; visual non verbal, auditory and kinesthetic; global vs. analytical orientation; reflective vs. impulsive –degree of structure; and group vs. individual orientation. Therefore, the use of this questionnaire may assist the educator to think about the teaching style in the areas of sensory modalities, global vs. analytical orientation, reflective vs. impulsive degree of structure and individual vs. group orientation.

3.4.11 Layout of the learning styles inventory

The learning styles inventory is divided into six categories (appendix 7), viz.: Visual; auditory; tactile; group; kinesthetic; individual; and group.

Each of the above categories comprises of five dimensions that determine what learning style the learner favours. Each dimension has a numerical value as follows: Strongly agree = 5; agree = 4; unsure = 3; disagree = 2; and strongly disagree = 1. To determine what learning style preference a learner favoured was determined as follows:

The learner had to fill in the blank spaces on the inventory and the total score for each category was added and the answer was multiplied by 2 for a possible mark out of 50. The total out of a possible 50 determines which group the learner prefers. The groups are as follows:

Major Learning Style Preference	38 - 50
Minor Learning Style Preference	25 - 37
Negligible	0 - 24

The rationale for the learning styles inventory is to explore learners' dominant and preferred learning style preference of the learners. Knowing the learning style preference within this study will shed light on learners' perceptions of an ideal teaching-learning process in the context of HIV/AIDS.

3.4.12 Data collection procedures

A letter was written to WCED to obtain permission to conduct research at the school. Once WCED had granted permission, meetings were arranged with educators and learners to discuss the nature of the research and to obtain their permission and cooperation. Both parties were

presented with the letter from WCED and the time frames for scheduling the interviews were discussed.

Interviews with educators followed a week after initial contact. After the interview, educators were given the teaching strategies tool. Arrangements were made to administer learning styles inventory on learners and questionnaires on the same day.

3.4.13 Triangulation

Gilham (2000) states, that a triangulation approach has the potential of enriching, as well as, cross-validating research findings. Using more than one type of method enables the researcher to study the same subject from more than one point of view to give greater confidence in findings. Kane and O'Reilly (2001) states that triangulation means comparing many sources of evidence to verify the accuracy of information. In this study both questionnaires and interviews were used to gain insight on how educators and learners perceived an integrated approach to the teaching and learning process holistically making use of the triangulation

approach. Denzin (1989:236) clarifies the meaning and purpose of triangulation further when he adds:

> The use of multiple methods is a plan of action that will raise sociologists (and other social science researchers) above the personal biases that stem from single methodologies. By combining methods and investigators in the same study, observers can partially overcome the deficiencies that flow from one investigator or method. We can triangulate according to paradigms, methodologies and researchers.

Triangulation is generally considered to be one of the best ways to enhance validity and reliability in research, therefore, this method was used to ensure validity and reliability of this study by using a qualitative and quantitative research method.

3.5 Understanding reliability and validity in research

According to Golafshani (2003:597-607), the use of reliability and validity are common in quantitative research and now it is reconsidered in the qualitative research paradigm. Like reliability and validity are used in quantitative research to provide a springboard to examine what these two terms mean, triangulation is used in qualitative research to test the reliability

and validity and can also be used to illuminate some ways to test or maximize the trustworthiness of a qualitative study.

3.5.1 Reliability

Reliability is the consistency of your measurement or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. Therefore, it is the repeatability of your measurement. It is important to remember that reliability is not measured, it is estimated. Joppe (1998:1) defines reliability as:

> The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable.

There are four common types of reliability coefficients: test-retest, alternate-form, split-half and coefficient alpha (Foxcroft & Roodt, 2005). In test-retest reliability the same measure is administered twice to the same group of people over time. Alternate-form reliability involves administering two equivalent forms of the same measure to the same group on two different occasions. In split-half reliability the coefficient is obtained by splitting the measure into two

equivalent halves and then commuting the correlation coefficient between the sets of scores. Coefficient Alpha reliability is known as the coefficient of internal consistency which is based on the consistency of responses to all items in the measure using the Kuder-Richardson formula (Foxcroft & Roodt, 2005). In this study, coefficient alpha was used to determine the reliability of the instruments utilized.

3.5.2 Coefficient Alpha

According to Foxcroft and Roodt (2005), a reliability analysis should be performed to determine whether the items on the developed questionnaire, 'tool for teaching styles' and 'learning styles inventory' measures the purported dimensions consistently. The calculation of the reliability of the instruments used in this study lie in the relationship between the number of items in the tools/questionnaires and the strength of the correlation between them (Riley, Wood, Clark, Wilkie & Szivas, 2000). The reliability was established using the Statistical Package for Social Sciences (SPSS) programme to determine the Cronbach-Alpha coefficient.

According to Murphy and Davidshofer (2005), reliability estimates of 0,80 or more are typically regarded as high levels of reliability; 0,70 - 0,60 are considered moderate and reliability coefficients less than 0,6 are often regarded as low levels of reliability. The calculated coefficient should therefore be more than 0,70 to indicate a strong item-homogeneity in the measuring instruments and test reliability.

Table 3.1: Reliability of learning styles inventory

Scale Dimension	**Number of items**	**Cronbach's Alpha**
Visual	5	0,31
Tactile	5	0,73
Auditory	5	0,60
Group	5	0,82
Kinesthetic	5	0,60
Individual	5	0,80

As indicated above, the tactile, group and individual scale dimensions of the learning styles inventory had reliability coefficients above 0,70 and can be considered reliable and consistent items. Furthermore, the auditory and kinesthetic scales had moderate coefficients and the

visual scale showed low levels of reliability. The moderate to low reliability coefficients could be an indication that the scores in those scales were not consistent.

Table 3.2: Reliability of the questionnaire

Number of items	Cronbach's Alpha
10	0,62

As indicated above, the developed questionnaire showed a reliability coefficient of 0,62 which is a moderate but acceptable level of reliability. The items in the questionnaire could therefore be considered to have had fairly consistent scores, making the instrument relatively reliable.

Table 3.3: Reliability of the teaching styles tool

Scale Dimension	**Number of items**	**Cronbach's Alpha**
Visual Verbal	4	0,61
Visual Non-Verbal	4	0,40
Auditory	4	0,60

Kinesthetic	4	0,60
Global Orientation	4	0,74
Analytic Orientation	5	0,53
Reflective	7	0,70
Impulsive	7	0,72
Group	3	0,40
Individual	3	0,80

As indicated in Table 3.3, the individual, global orientation, impulsive and reflective scales all had coefficients above 0,70 which is indicative of consistent and reliable items. The visual verbal, auditory and kinaesthetic had moderate levels of reliability and the analytic orientation, visual non-verbal and group scales had low levels of reliability. This could be as a result of inconsistent scores in the scale dimension because of differences in ability levels of participants and inherent instrument errors could also be considered.

3.5.3 Validity

Validity is the strength of our conclusions, inferences or propositions and an instrument has both internal and external validity (Foxcroft & Roodt, 2005). It is the best available approximation of the truth or falsity of a given inference, proposition or conclusion. Joppe (1998:1) provides the following explanation of what validity is:

> Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. In other words, does the research instrument allow you to hit the "bull's eye" of your research object? Researchers generally determine validity by asking a series of questions, and will often look for the answers by the research of others.

The three most common types of internal validity include: content validity, criterion-related validity and construct validity. The content validity of an instrument refers to the extent to which the instrument provides a reasonably representative sample of the behaviours or responses considered to comprise the domain the instrument is supposed to cover (McCormick

& Ilgen, 1980). It is a non-statistical type of validity. One type of content validity is face validity, which refers to the subjective assessment of the extent to which an instrument appears reasonable to the person completing the instrument (Murphy & Davidshofer, 2005). Criterion-related validity is determined by comparing test scores with one or more independent criteria (Foxcroft & Roodt, 2005). Construct validity of an instrument is the extent to which it measures the theoretical construct or trait it is supposed to measure. Factor analysis can be used to compute construct validity.

3.5.4 Internal validity

The 'tool for teaching styles' and 'learning styles inventory' has been found to have a good face validity which refers to how well an instrument appears to measure what it is supposed to measure (Foxcroft & Roodt, 2005). According to Foxcroft and Roodt (2005:33), face validity is "a desirable characteristic for a measure".

Furthermore, the questionnaire administered to the learners had only 10 items and it was advised not to conduct factor analysis as there were too few items in the instrument. Also, the sample sizes (70 and 16) were not big enough to do factor analysis and it was therefore not advisable to conduct further validity tests.

3.5.5 External Validity

External validity refers to our ability to generalize the results of our study to other settings. We could generalize our results of educators' and learners' perception of integration to be able to explore possibilities to integrate HIV/AIDS education and awareness into the curriculum.

3.6 Data analysis method and data presentation

Goulding, Bell, Bush, Fox and Goodey (1994) state that data collected by questionnaires, interviews, journals or any other method mean very little until the data has been analysed and assessed. All the data collected, whether by interviews or questionnaires, were analysed in descriptive format identifying specific themes that could assist in the formulation of an integrated HIV/AIDS education and awareness into the curriculum.

3.6.1 Data preparation

Munn and Drever (1990) postulates that the aim of data preparation is to make the mass of information in the questionnaire more manageable. This is a process where 'raw' data is translated onto a grid so that one can see what people's answers are to a particular question without paging through a huge pile of questionnaires. Two main stages in data preparation can be identified, namely preparing the grid, and coding the questions. Once the data was collected, it was analysed by coding and scoring (Cohen, Lawrence & Morrison, 2000). Kerlinger (1970) defined coding as the "translation of question responses and respondent information to specific categories for the purpose of analyses." The questionnaires were pre-coded so that each response could immediately and directly be converted into a score in an objective way.

A summary sheet was created onto which all questionnaire responses were transferred. The first column of the summary sheet was the respondent's number. The horizontal numbered lines or columns were used for recording answers to the questions. Each horizontal line represented the answer of one respondent to the questions on the questionnaire. In using this method it was possible to ascertain where there were similarities and differences in the responses. Before the grid was filled in, all data was coded in preparation for the analysis.

According to Munn and Drever (1990), closed questions are the easiest and the quickest to code; hence the closed questions were the first to be coded. The categories of responses are pre-set and all that is needed is to give each category a letter or a number. A yes/no response could be coded as a 1 or 2. The Likert scale was used to ask respondents to indicate levels of agreement or disagreement with the given statement. Answers were scored from 1 (strongly agree) to 5 (strongly disagree) and thus a measure of respondents' feelings could be produced. Once the information from the questionnaires had been recorded on the summary sheet in a systematic way, it was unnecessary to consult the questionnaire again.

The research findings from the interviews with the educators were divided into themes to construct theories in order to understand phenomena (Babbie & Mouton, 2001). The responses was put into different categories and summarized, and emerging themes (Strauss & Corbin, 1990) was identified by means of thematic analyses.

3.6.2 Describing the data

Goulding, Bell, Bush, Fox and Goodey (1994) suggest that the frequencies in the different categories be counted and calculated proportionately by using the Excel programme. Mostly, it is a matter of counting the number of times each code appears in a column and checking that all respondents are accounted for.

3.6.3 Interpreting the data

When interpreting quantitative data it is important to ensure that the findings are related to the aims of the study and to focus on all the data and not only on those aspects that appear interesting or statistically significant. Therefore, it is necessary to examine how various findings in a study are related.

Data interpretation in qualitative research differs from quantitative research in that it does not focus on prediction, generalisation, and casual determination. In addition, data interpretation in qualitative research seeks to avoid linear interpretations in which certain variables are mechanistically related to each other. Data interpretation focuses on holistic 'illumination, understanding, and extrapolation' (Patton, 1990). In other words, it gives meaning to the raw data.

After recording the data, the column totals were interpreted, e.g. on the summary sheet the responses were counted. Tables and graphs were used to present the data in a clear and simple manner. Data collected through the use of questionnaires was analysed quantitatively. The responses from the questionnaires were coded and presented.

Data from the interviews was qualitatively analysed (Babbie & Mouton, 2001). The responses were be put into different categories and summarized, and emerging themes (Strauss & Corbin, 1990) were identified by means of thematic analyses. The thematic analyses of data enabled the researcher to identify patterns and similar ideas that emerged from the educator's point of view of HIV/AIDS education and awareness in an integrated approach for the teaching and learning process.

3.7 Conclusion

This chapter focused on the methodical issues that have an impact on the research. The research approach (qualitative), design (case study) and instruments used (questionnaires and interviews) in this study were described and justified. In the following chapter the results/findings will be presented.

CHAPTER 4
PRESENTATION OF RESULTS

4.1 Introduction

The focus of this study is on the possibilities of integrating HIV/AIDS into the curriculum with aim of making sense of educators' and learners' perceptions of an ideal teaching-learning process. In this chapter the salient findings regarding educators' and learners' perceptions of the ideal teaching-learning process in integrating HIV/AIDS into the Life Skills curriculum is presented. The presentation consists of (i) quantitative instances of educators' perceptions; and (ii) the researcher's first level interpretation of such accounts of educators' and learners' perceptions.

Four instruments were used to collate data for this study: Semi-structured interviews for educators, a tool for teaching styles for educators, a learning styles inventory for learners and questionnaires for learners.

4.2 Responses from educator interviews

Interview questions were built around educators' perceptions on (i) the importance of an integrated curriculum; (ii) their comfort or discomfort levels on preparing and presenting lessons integrating HIV/AIDS messages; (iii) factors that facilitate or constrain an integrated HIV/AIDS theme; (iv) collaboration with colleagues teaching about HIV/AIDS; and (v) teaching styles educators use in an integrated curriculum. Sixteen educators were interviewed in order to gain answers to the interview questions.

4.2.1 The importance of curriculum integration

In line with the research aims and question it was deemed necessary to explore the educators' knowledge of integration and their perceptions on the importance of curriculum integration. Of the sixteen educators interviewed to voice their opinion of their understanding of an integrated curriculum, thirteen educators had an idea of the importance of an integrated curriculum while three were not too familiar with it.

Table 4.1: Summary of educators' knowledge and perception of integration

Importance of an integrated curriculum	Not familiar with an integrated curriculum
13	3

It can be surmised from Table 4.1 that educators (*n*=13) are familiar with integration and educators (*n*=3) are not too familiar with integration.

According to the educators (*n*=13), who had a positive response, were exposed to integrated programmes in their teaching career and are prepared to participate in HIV/AIDS education and awareness themes. The other educators (*n*=3) are relatively new to the teaching profession and did not get adequate exposure of an integrated HIV/AIDS programme. One educator commented:

> I only have two years of teaching experience and am still trying to find my feet. I've not been exposed to integration as such but am prepared to support such an initiative with the necessary support and encouragement.

According to these educators they are willing and prepared to equip themselves and accept the challenge to be part of the educators who will support such a venture as it affects them too.

Using a constant comparison of educator responses to this question, four broad themes that captured what could be described as positive and negative comments from educators emerged.

The following four extracts in Table 4.2 capture and summarise responses from all the interviewees:

Table 4.2: Educators' knowledge and perceptions about integration

1. *An integrated curriculum, to my mind, can be seen as 'cross-subject' learning. Learning areas work together in order to holistically educate the learner regarding overlapping subject matter".*
2. *It is the interdependence of the learning areas/subjects and subject matter, in order to tackle all subject matters on all levels in the school".*
3. *Real life situations are included in teaching and it prepares learners for similar situations and for their future.*
4. *Makes learning easier and teaching as well, but on the other hand boring as well, because of a repetition of information in different learning areas.*

4.2.2 Comfort levels to present an HIV/AIDS topic

In Table 4.3 a number of educators who were either comfortable or not comfortable in presenting HIV/AIDS education and awareness are indicated. It can be surmised from Table 4.3 that educators (n=10) are comfortable to teach an HIV/AIDS topic or present a programme even though educators (n=6) are not too comfortable to present an HIV/AIDS topic.

Table 4.3: Specific responses on teachers about presenting HIV/AIDS topics

Comfortable to present HIV/AIDS topic	Uncomfortable to present HIV/AIDS topic
10	6

The 16 educators were interviewed to give their opinion on how comfortable they feel to present an integrated HIV/AIDS programme in the curriculum. Comments are captured in Table 4.4.

Table 4.4: Comfort levels in presenting HIV/AIDS topics

1. *Yes, as a guidance counsellor and presently Life Orientation teacher it forms part of my curriculum.*
2. *Yes, I never shy away from reality and if boundaries are given, pupils will know how far and how sensitive they should be.*
3. *Yes, it is part of our lives and I think it is important for learners to be well informed and prepared for life.*
4. *Yes, HIV/AIDS is a global problem and we have to educate the youth so that they can make informed decisions in order to be safe/ healthy.*
5. *Not completely comfortable- but not in such a way that it bothers me.*
6. *No, I regard discussing sex (and teaching 'sex education') as too personal. I have received no training in this regard either.*

4.2.3 Factors that facilitate or constrain HIV/AIDS education and awareness

There are factors that could facilitate or constrain the integration of HIV/AIDS education and awareness into all learning areas. The 16 educators interviewed had some similarities with factors that could facilitate HIV/AIDS education and awareness. In Table 4.5 and 4.6 below are few factors, from educators, that can facilitate and constrain the teaching of HIV/AIDS.

Table 4.5: Factors that facilitate HIV/AIDS education and awareness

1. *Teachers first need to be educated about the importance of the issue and understand that we all can contribute to lower the infection rate of HIV/AIDS.*
2. *A positive attitude, resources and equipping educators to integrate HIV/AIDS into their lesson planning might make the topic easier to present.*
3. *The willingness of colleagues to participate in a programme that makes provision for HIV/AIDS education and awareness in the curriculum.*
4. *Educators must be willing and motivated for the task. Suitable and interesting learning material should be made available. Training to be able to teach and facilitate.*
5. *Cooperation between subject heads. Communication between these people is also important. Willingness on the part of educators is essential.*

6. *Provide the necessary training for an HIV/AIDS programme to develop personal skills to accommodate all learners. Give the necessary support to educators in an integrated HIV/AIDS programme.*
7. *Encourage educators to accept responsibility to facilitate an HIV/AIDS programme. Set a specific time frame that could be agreed on for the duration of the integrated HIV/AIDS education and awareness programme.*

Table 4.6: Factors that constrain the integration of HIV/AIDS

1. *Some educators not willing to be trained for an integrated HIV/AIDS programme, unskilled, the lack of dedication and commitment*
2. *Educators not willing to discuss HIV/AIDS and sexual related issues openly and honestly with learners due to personal preferences, culture or religion*
3. *Peoples' attitude towards HIV/AIDS education, prejudice, discrimination and fear. A lack of cooperation between subject heads and management. Logistical problems of co-ordinating timetables and learning areas.*
4. *Educators who do not know how to integrate HIV/AIDS in their learning area. A full curriculum may cause educators not to have time for this programme.*
5. *Educators who are not comfortable introducing /teaching HIV/ AIDS topics, management support not available and unrealistic demands from the department of education*

4.2.4 Working in collaboration with colleagues in an integrated curriculum

Responses of educators interviewed, relating to working in collaboration with colleagues, to integrate HIV/AIDS education and awareness into the curriculum follows below.

Table 4.7: Working in collaboration in an integrated curriculum

1.	*By covering different aspects of HIV/AIDS so that learning areas do not repeat information over and over again. Learners could make posters and display them in the classroom to use as visual aids for class discussions and promotion.*
2.	*All educators need to come together and work out a plan of action. They need to come up with an HIV/AIDS education and awareness programme and how to implement it into the school body.*
3.	*Educators should get together and compare their subject material to see where integration can take place. Time their work together, so that similar work is dealt with in all learning areas at the same time.*
4	*In mathematics the facts can be represented graphically and other learning areas can use the graph and apply it. The same problem could be done by*

	different learning areas, each applying it to their area.
5.	*Have a specific time per year dedicated to that awareness alone. Should not interfere with an already busy teaching programme.*
6.	*Have scheduled meetings to discuss this topic to ensure that information is not repeated. Draw up work that will tackle this issue – do various projects in different learning areas to address the issues at stake and run awareness campaigns at the school.*

Opinions expressed in Table 4.7 are held by the educators (*n*=16) interviewed. They all agree that it is best to work in collaboration with colleagues by participating in the designing of learning activities for HIV/AIDS education and awareness in the curriculum.

4.3 Teaching styles used in an integrated curriculum

The study investigated teaching styles that the participants consider that might enhance learning when teaching about HIV/AIDS education and awareness. Educators were given a checklist[3] on four teaching styles namely (i) sensory modalities, (ii) global versus analytical, (iii) reflective versus impulsive and (iv) individual versus group work. The checklist required of teachers to indicate (i) their preferences and (ii) the degree at which they use a particular style by ticking one of the following: always or nearly always, often, sometimes, and rarely or never. Following are results on sensory modalities.

4.3.1 General findings on preferred modalities

In Table 4.8 below is the presentation of how educators prefer each of the four modalities.

Table 4.8: Number of teachers per modality

Sensory modalities	Global vs. analytical	Reflective vs. impulsive	Individual vs. group
16	12	10	16

Table 4.8 above shows that all educators (*n*=16) use the sensory modalities and the individual vs. group orientation teaching style. Educators (*n*=12) use the global vs. analytical orientation while educators (n=10) use the reflective- vs. impulsive degree of structure to reach their learners' full potential in an integrated curriculum. Following are particular findings on the different modalities. I start with sensory modalities.

[3] The tool for teaching styles was sourced from Western Cape Education Department notes on curriculum development.

4.3.2 Findings based on the tool for teaching styles

The first category in the tool for teaching styles is sensory modalities. The **sensory learning modalities** consist of the following elements:

(i) Visual Verbal

a. I use written texts and documents;
b. I give written instructions;
c. I allow learners to take notes or summarise information in writing; and
d. I ask learners to make or complete cards, tables, etc.

(ii) Visual non verbal

a. I use visual aids e.g. blackboard, illustrations, charts, graphs, concept maps, outlines, graphic organizers;
b. I use video recordings;
c. I give concrete examples to help learners visualize new concepts; and
d. I ask learners to make posters, cartoons, etc.

(iii) Auditory

a. I use oral explanations and ask learners to repeat or paraphrase;
b. I use audio recordings;
c. I give oral instructions; and
d. I help learners explore and develop information through class discussions.

(iv) Kinesthetic

a. I emphasize and clarify ideas through gesture, facial expression and dramatization;
b. I engage learners in active learning and direct experience and experimentation;
c. I use tasks that imply physical movement; and
d. I use project work.

4.3.3 Sensory Modalities

Table 4.9: Extent at which sensory modalities are used

	Always or nearly always	Often	Sometimes	Rarely or never	Total
Visual Verbal	8	7	1	0	16
Visual Non Verbal	2	12	2	0	16
Auditory	4	9	3	0	16
Kinesthetic	4	6	5	1	16

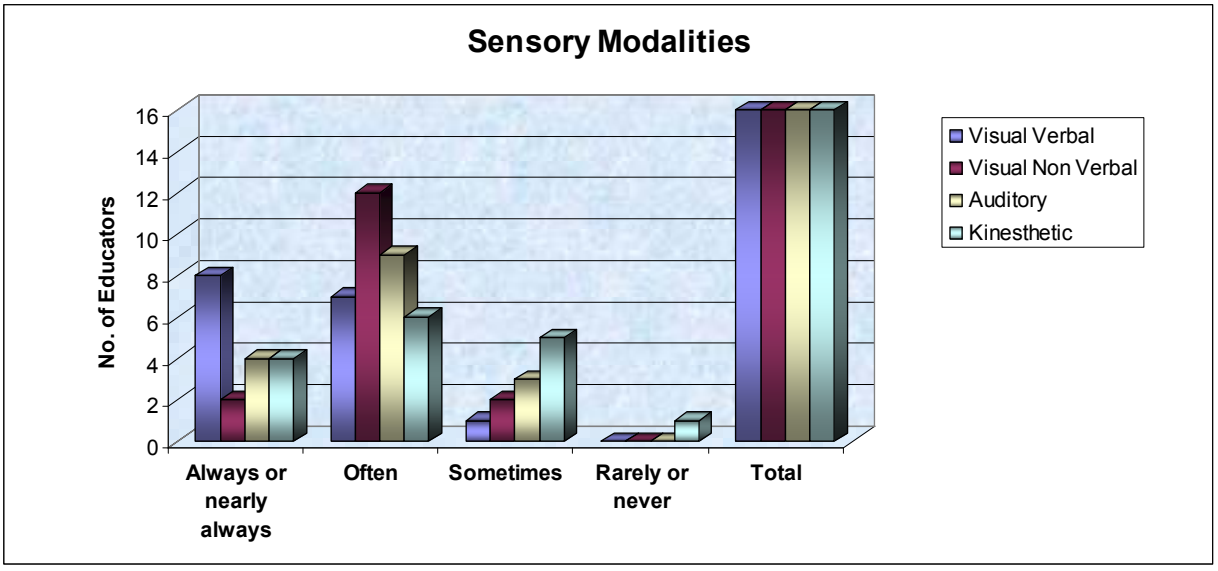

Figure 4.1: Educators preferred modalities

The prominent feature of Table 4.9 and Figure 4.1 is that more **often** than **never** all the educators (*n=16*) always use each of the preferred modalities. The visual presentation in Figure 4.1 makes it clear that of all the four degrees, often is the most prevalent choice. Also noticeable is the fact that a teacher indicated she or he rarely or never uses the kinesthetic modality.

4.3.4 Global versus analytical orientation

The second category in the teaching styles tool is **global versus analytical orientation**. This is operationalised as follows.

(i) Global orientation

a. I activate learners' background knowledge and build in context before presenting new concepts;
b. I set the context for a new topic with "open", rather general questions;
c. I ask learners to focus on similarities and analogies; and

d. I try to make learners recall personal experiences and stimulate their reactions.

(ii) Analytical orientation

a. I approach a topic in a careful, graded, "step by step" manner;
b. I ask learners to make an in-depth study of an item that reflects a more general problem;
c. I ask learners to focus on contrasts and differences;
d. I encourage learners to consider facts and give objective judgments; and
e. I ask learners to examine logical cause/effects of relationships.

Table 4.10: Global versus analytical orientation

	Always or nearly always	Often	Sometimes	Rarely or never	Total
Global	2	10	4	0	16
Analytical	2	13	1	0	16

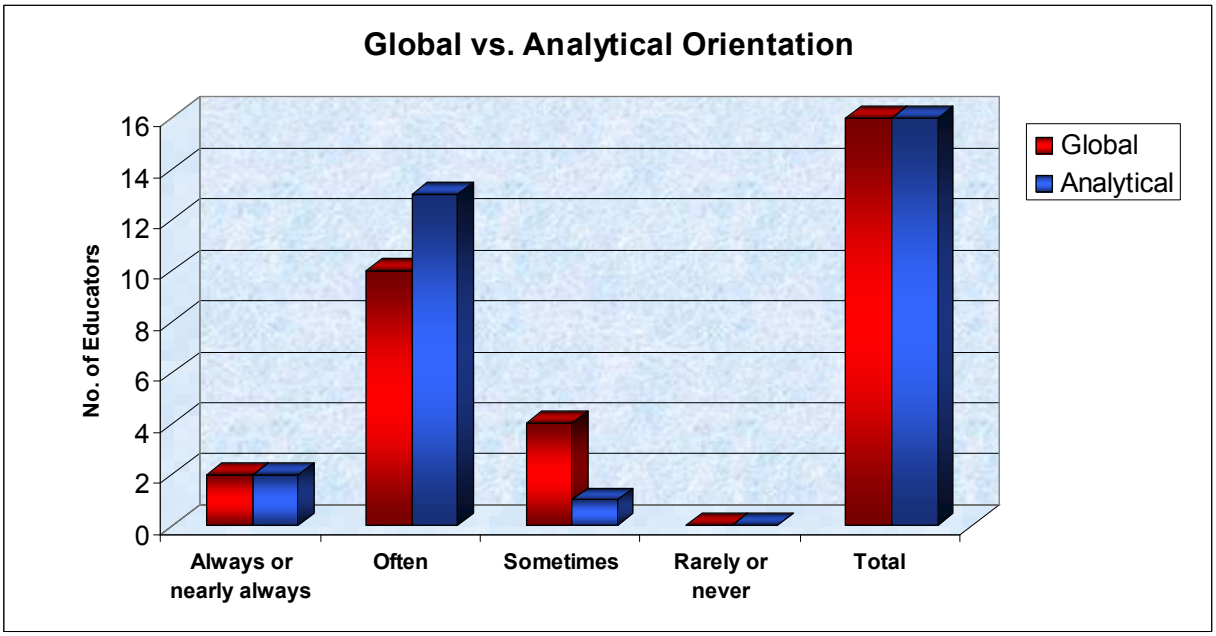

Figure 4.2: Educators preferred teaching orientation

What is clear from Table 4.10 and Figure 4.2 is that educators more **often** than not apply any of the two orientations (global or analytical) when they teach about HIV/AIDS.

4.3.5 Reflective versus impulsive degree of structure

The third category in the inventory, **reflective versus impulsive degree of structure** consists of the following aspects.

(i) Reflective degree of structure

a. I propose a structured project or study plan;
b. I make explicit the goal of each step of an activity;
c. I use textbooks in a systematic way, following them as closely as possible;
d. I test learners regularly on small portions of subject matter;
e. I delay learners' response so that they can elaborate the new information in personal ways;
f. I ask learners to collect all necessary information before starting work on a task; and

g. I ask learners to work for a considerable period of time on the same objective and with the same materials or method.

(ii) Impulsive degree of structure

a. I propose a global project or study plan and let learners free to organize the steps or details;
b. I let learners discover and discuss the goals of an activity after they have finished it;
c. I let learners use a variety of resources in addition to textbooks;
d. I use tests that focus on global results;
e. I ask learners to do an exercise just after an explanation in order to help them structure the basic elements of the information;
f. I get learners to start working right away and look for any necessary information while they are doing the task; and
g. I get learners to work in short sessions with a variety of methods, materials or objectives.

Table 4.11: Educators' selection of either reflective or impulsive degree of structure

	Always or nearly always	Often	Sometimes	Rarely or never	Total
Reflective	2	12	2	0	16
Impulsive	4	8	4	0	16

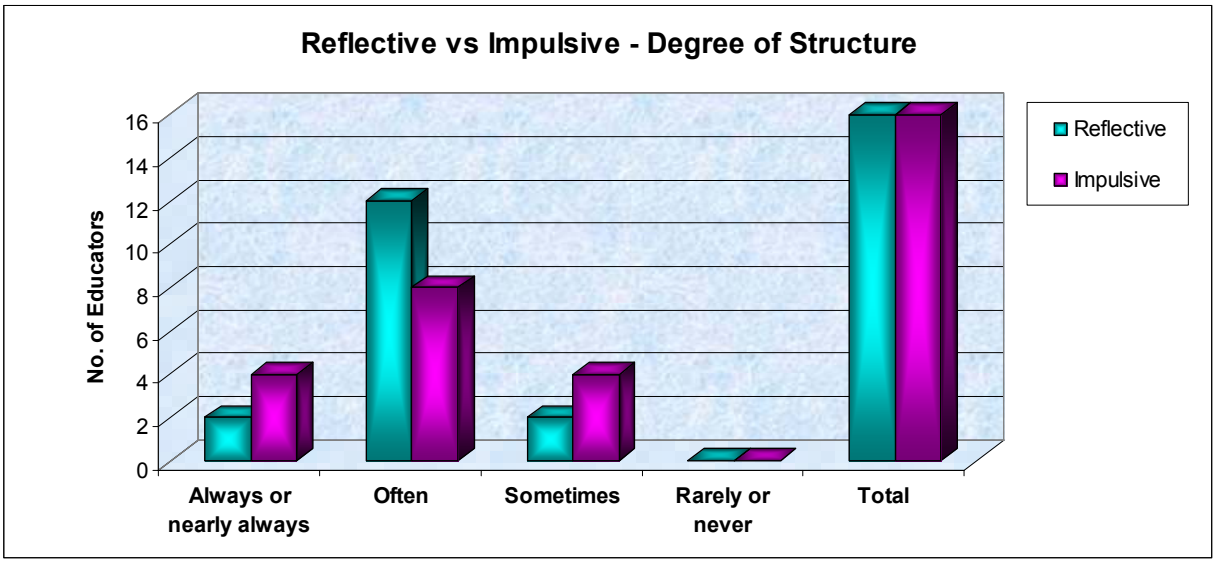

Figure 4.3: Educators preferred degree of structure

A trend observed in the other two modalities repeats itself in Table 4.11 and Figure 4.3. **Often** has been selected as the degree at which educators are reflective or impulsive in their teaching.

4.3.6 Individual versus group orientation

The last category in the learning styles inventory, **individual versus group orientation**, is operationalised as follows:

(i) Individual orientation

a. I provide individualized assistance when appropriate;
b. I allow learners time for personal reflection and elaboration; and
c. I let learners use individual worksheets, handouts, etc.

(ii) Group orientation

a. I use pair- and small group work;
b. I involve learners in class discussions to elicit different viewpoints; and
c. I encourage learners to negotiate and cooperate with me and their classmates.

Table 4.12: Individual versus group orientation

	Always or nearly always	Often	Sometimes	Rarely or never	Total
Individual	8	7	1	0	16
Group	6	5	5	0	16

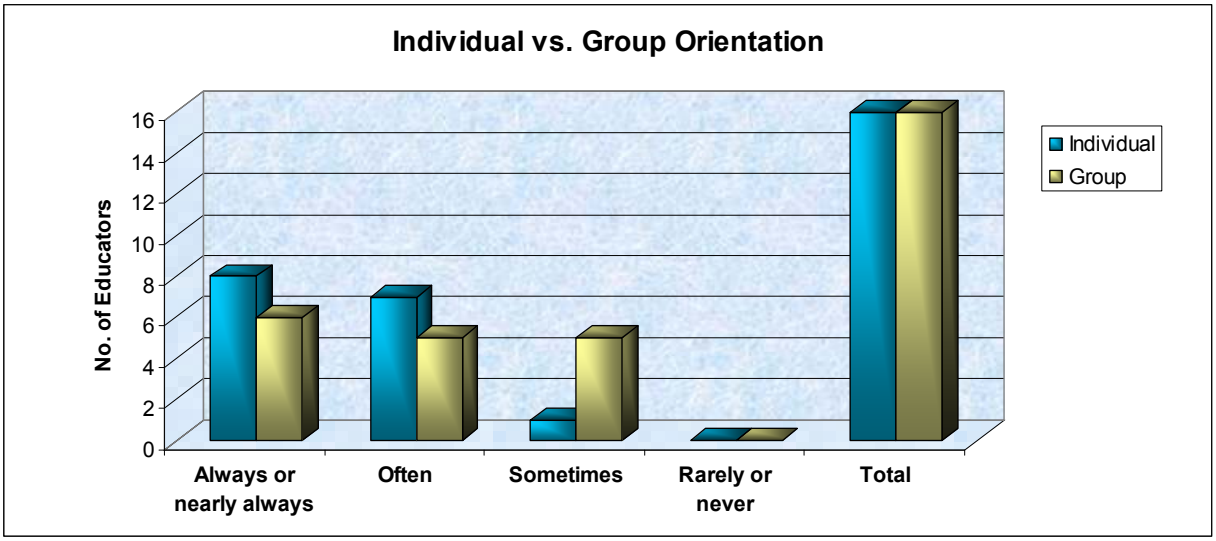

Figure 4.4: Educators preferred teaching orientation

Table 4.12 and Figure 4.4 demonstrate that to a large extent educators always prefer either individual or group work. However, individual work (*n=8*) is utilised at a higher degree than

group work (*n=6*). A similar trend is observed among those educators who selected **often** as a higher number (*n=7*) prefer individual over group work (*n=5*).

Table 4.13: Summary of preferred teaching styles

Teaching style	**Frequency**	**% of educators**
Analytical	13	81
Reflective	12	75

Global	10	63
Impulsive	8	50
Individual	8	50
Visual	8	50
Group	6	38

From Table 4.13 above, teachers in this study have indicated that they are predominantly **analytical**, **reflective** and **global** in their teaching. This means (i) they are very methodical and systematic in their teaching as they pay attention to existing facts and formulas, (ii) they privilege teacher centred activities, and (iii) they build on learners' context, experience and previous knowledge in introducing new subject matter.

4.4 Learning styles inventory[4]

In line with the research question on learners' perceptions on the ideal learning process in the integration of HIV/AIDS, their views on **how they learn** were investigated by using the learning styles inventory. The instrument on learning styles consists of thirty items. Learners are required to respond to each item by indicating whether they (i) strongly agree, (ii) agree, (iii) undecided, (iv) disagree, and (v) strongly disagree. The responses that learners give are categorised according to whether learners have preferences for (i) visual learning style; (ii) tactile learning style; (iii) auditory learning style; (iv) kinesthetic learning style; (v) individual learning style; and (vi) group learning style.

A total score that is between 38 – 50 is considered as a major learning style preference while a total score that is between 25 – 37 is referred to as the minor learning style preference. A score between 0 -24 is referred to negligible and therefore does not clearly indicate a learner's preferred learning style. Seventy learners responded to the learning styles inventory. What follows is the basic raw data per learning style by each learner.

4.4.1 Learners' preference of the visual learning style

(i) A **visual learner** is one who has the following preferences: She or he

a. learns better by reading what the educator writes on the board;
b. reads instructions in order to remember better;
c. learns better by reading and writing notes than by listening; and

[4] The learning styles inventory was sourced from Western Cape Education Department notes on curriculum development.

d. learns more by reading textbooks than by listening to a lecture

Table 4.14 and Figure 4.5 below show the extent to which learners in this study prefer a visual learning style.

Table 4.14: Learners' scores of the visual learning style

Major Learning Style Preference (38 –50)	Minor Learning Style Preference (25 – 37)	Negligible (0 –24)
25	41	4

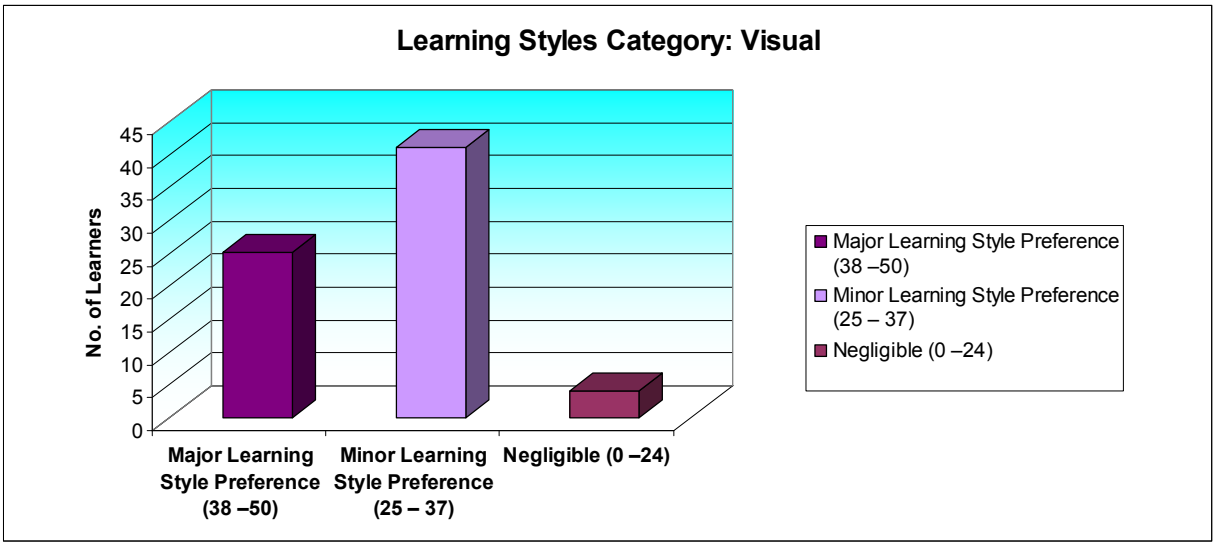

Figure 4.5: Learners preferring the visual learning style

Table 4.14 and Figure 4.5 show that learners (*n*=25) prefer the visual style as their major learning style. To learner (*n*=41) respondents, learning visually is their minor learning style while to learners (*n*=4) visual learning is negligible.

4.4.2 Learners' preference of the tactile learning style

(ii) A **tactile learner** is one who has the following preferences: She or he

a. learns more by making a model;
b. learns more when they make something for a project;
c. learns better if they make a drawing while they study;
d. learns better when building something as they remember better what they have learned; and
e. enjoys making something for a project.

Table 4.15 and Figure 4.6 below show the extent to which learners in this study prefer a tactile learning style.

Table 4.15: Learners' scores of the tactile learning style

Major Learning Style Preference (38 –50)	Minor Learning Style Preference (25 – 37)	Negligible (0 –24)
27	40	3

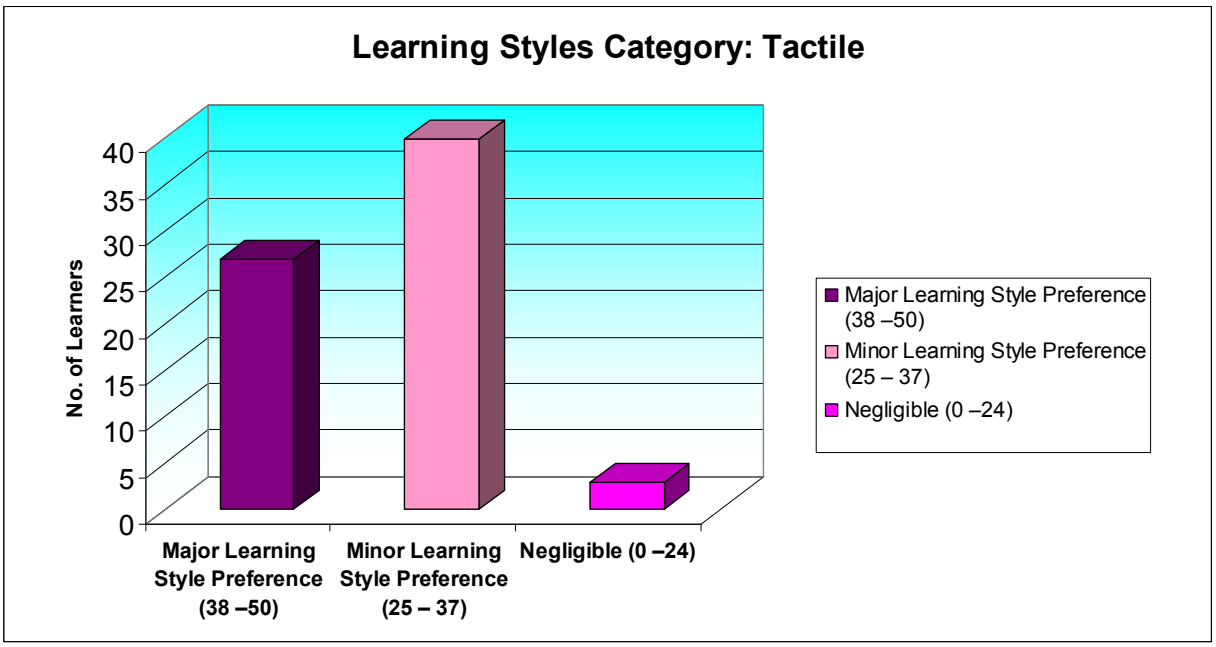

Figure 4.6: Learners preferring the tactile learning style

Table 4.15 and Figure 4.6 exemplify that learners (*n*=27) prefer the tactile style as their major learning style. To learner (*n*=40) respondents, tactile learning is their minor learning style while to learners (*n*=3) tactile learning is negligible.

4.4.3 Learners' preference of the auditory learning style

(iii) An **auditory lear**ner is one who has the following preferences: She or he

a. learns better when the educator tells them the instructions;
b. learns better when someone tells them how to do something as they understand quicker;
c. remember things they have heard in class better than things they read;
d. learns better when they listen to a lecture; and
e. learns better in class if they listen to someone.

Table 4.16 and Figure 4.7 below show the extent to which learners in this study prefer an auditory learning style.

Table 4.16: Learners' scores of the auditory learning style

Major Learning Style Preference (38 –50)	Minor Learning Style Preference (25 – 37)	Negligible (0 –24)
34	35	1

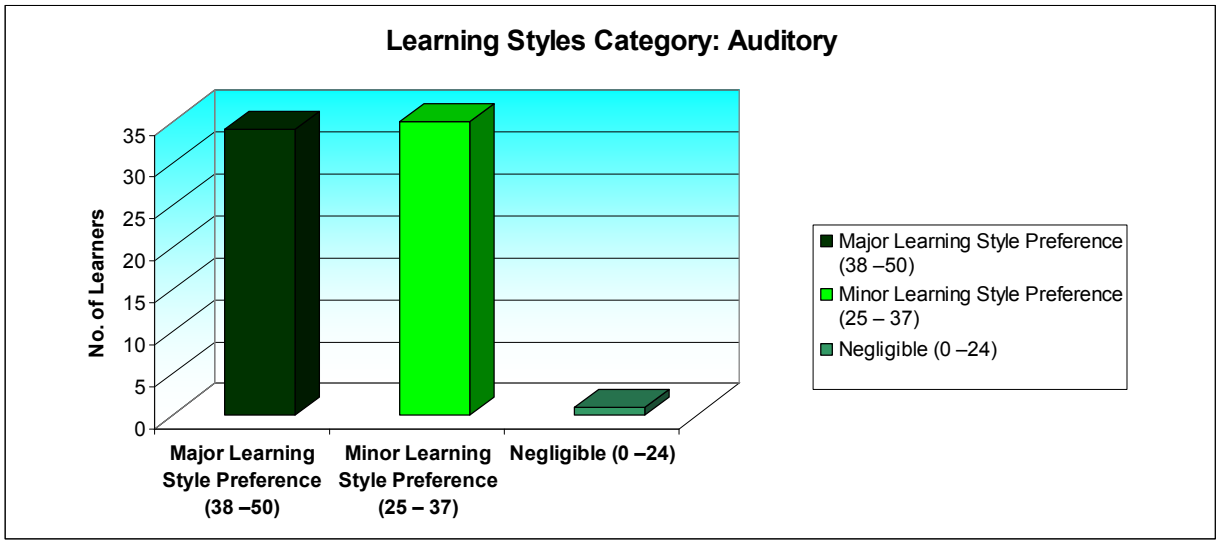

Figure 4.7: Learners preferring the auditory learning style

Table 4.16 and Figure 4.7 confirm that learners (*n*=34) prefer the auditory style as their major learning style. To learner (n=35) respondents, auditory learning is their minor learning style while to a learner (*n*=1) auditory learning is negligible.

4.4.4 Learners' preference of the kinesthetic learning style

(iv) A **kinesthetic learne**r is one who has the following preferences: She or he

a. learns better by doing things in the class;
b. enjoys learning by doing experiments;

c. understands better if they participate in role-playing; and
d. learns best when they can actively participate in related activities.

Table 4.17 and Figure 4.8 below show the extent to which learners in this study prefer a kinesthetic learning style

Table 4.17: Learners' scores of the kinesthetic learning style

Major Learning Style Preference (38 –50)	Minor Learning Style Preference (25 – 37)	Negligible (0 –24)
45	23	2

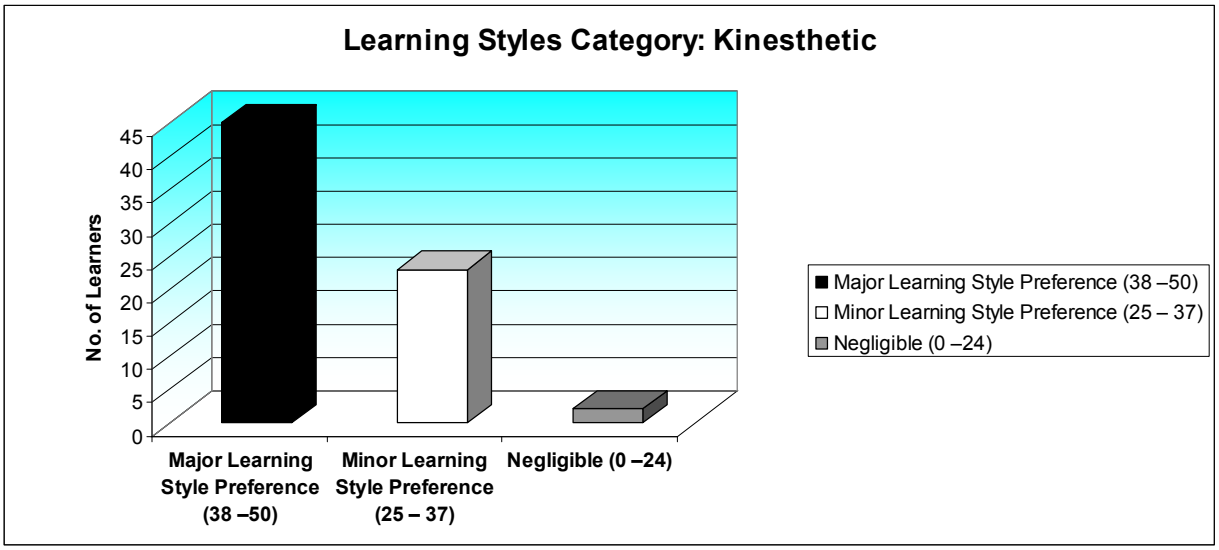

Figure 4.8: Learners preferring the kinesthetic learning style

Table 4.17 and Figure 4.8 show that learners (*n*=45) prefer the kinesthetic style as their major learning style. To learner (*n*=23) respondents, kinesthetic learning is their minor learning style while to learners (*n*=2) kinesthetic learning is negligible.

4.4.5 Learners' preference of the individual learning style

(v) An **individual learner** is one who has the following preferences: She or he

a. learns better to work on projects themselves;
b. learns better when they study alone;
c. learns better when they work alone;
d. when in class they work better on their own; and
e. prefers to work by themselves.

Table 4.18 and Figure 4.9 below show the extent to which learners in this study prefer a visual learning style.

Table 4.18: Learners score of the individual learning style

Major Learning Style Preference (38 –50)	Minor Learning Style Preference (25 – 37)	Negligible (0 –24)
33	32	5

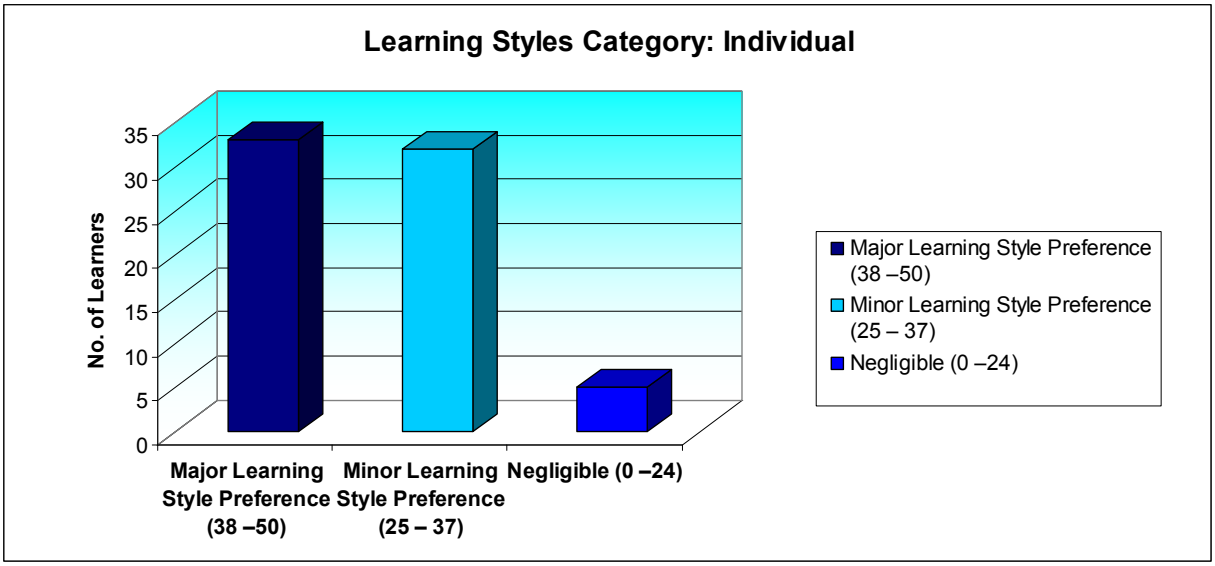

Figure 4.9: Learners preferring the individual learning style

Table 4.18 and Figure 4.9 indicate that learners (*n*=33) prefer the individual style as their major learning style. To learner (*n*=32) respondents, learning individually is their minor learning style while to learners (*n*=5) visual learning is negligible.

4.4.6 Learners' preference of the group learning style

(vi) A **group learner** is one who has the following preferences: She or he

a. gets more work done when they work with others;
b. learns best in class when working with others;
c. enjoys working on assignments with their friends and prefers to study with others; and
d. prefers to study in a group.

Table 4.19 and Figure 4.10 below show the extent to which learners in this study prefer a visual learning style.

Table 4.19: Learners' score of the group learning style

Major Learning Style Preference (38 –50)	Minor Learning Style Preference (25 – 37)	Negligible (0 –24)
21	33	16

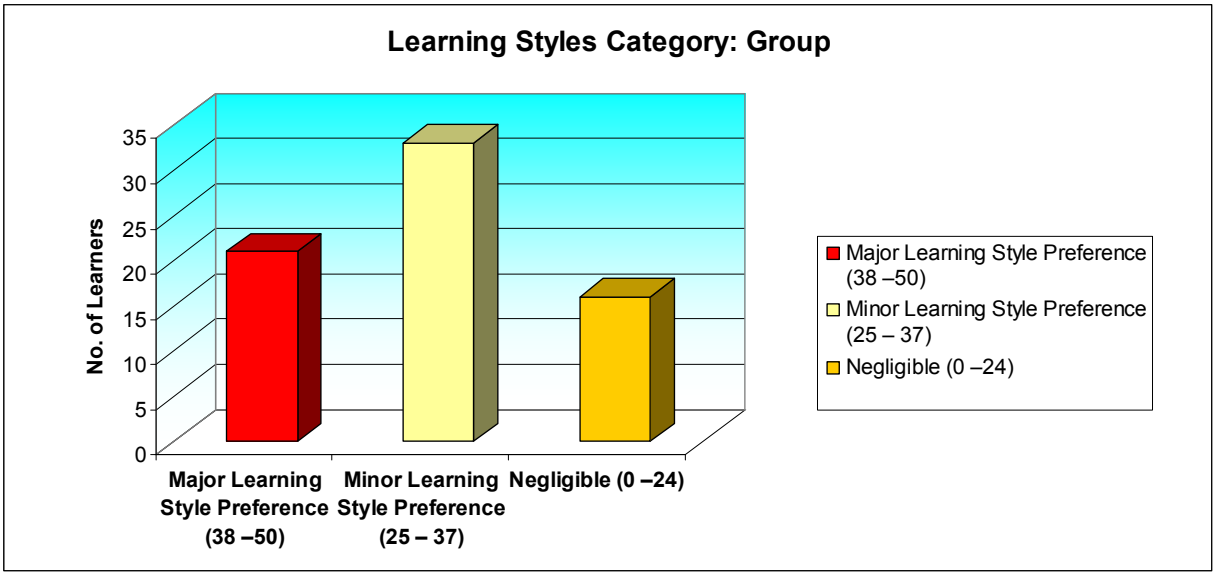

Figure 4.10: Learners preferring the group learning style

Table 4.19 and Figure 4.10 show that learners (*n*=21) prefer the group style as their major learning style. Group learning is regarded as a minor learning style to learner (*n*=33) respondents, while to learners (*n*=16) group learning is negligible.

4.4.7 Refinement of findings of learners' preferred learning styles

Major findings on learners' preferred learning styles are summarised in frequency table below. The learning styles are arranged from the most preferred to the least preferred style.

Table 4.20: Learning styles preferences in descending order

Learning style	Frequency
Kinesthetic	45
Auditory	34
Tactile	27
Visual	25
Individual	23
Group	21

It is clear from Table 4.20 above that **most respondents** regard themselves as **kinesthetic** and **auditory** learners. That means to this group of learning best takes place if (i) they are given opportunities to do things in class, (ii) they carry out experiments, (iii) they participate in role playing, (iv) actively participate in activities, (v) they listen and follow the educator's instructions, (vi) receiving guidance and facilitation on what to do.

4.5 Learners' perceptions on curriculum integration

A questionnaire was formulated to capture learners' perception of what influences an integrated curriculum may effect and how it might be beneficial for the teaching and learning process. Following are the statements learners responded to on their perception of an integrated curriculum and the findings on the learners' responses to the statements. For each statement, the learners were required to decide whether they (i) strongly agree, (ii) agree, (iii) are unsure, (iv) disagree, and (v) strongly disagree.

4.5.1 The first statement: Curriculum integration helps to apply knowledge, skills and values.

Table 4.21: Curriculum integration helps to apply knowledge, skills and values.

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
10	54	**64**	**6**	0	0	**0**
14.3%	77.1%	**91.4**	**8.6%**	0%	0%	**0%**

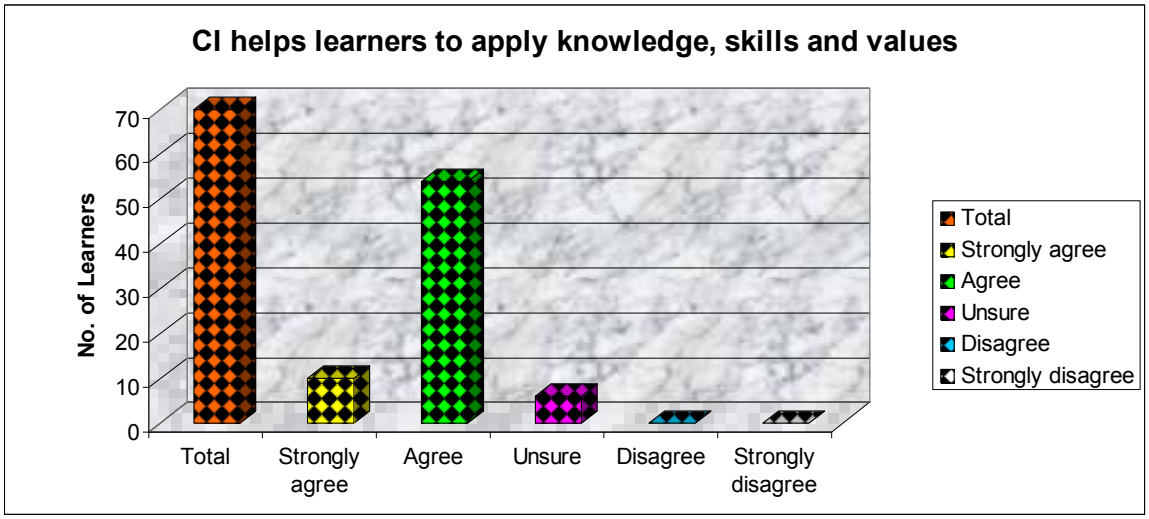

Figure 4.11: Curriculum integration helps to apply knowledge, skills and values

Table 4.21 and Figure 4.11 illustrate that (*n*=64) strongly agree and agree with the statement that curriculum integration helps apply knowledge, skills and values. This is 91.4% of the learner respondents. In comparison, only 8.6% of the population expressed unsure feelings on the statement while none disagreed or strongly disagreed.

4.5.2 The second statement: Integration of learning areas encourages depth and breadth in learning.

Table 4.22: Integration of learning areas encourages depth and breadth in learning

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
5	36	**41**	**25**	4	0	**4**
7.2%	51.4%	**58.6**	**35.7%**	5.7%	0%	**5.7%**

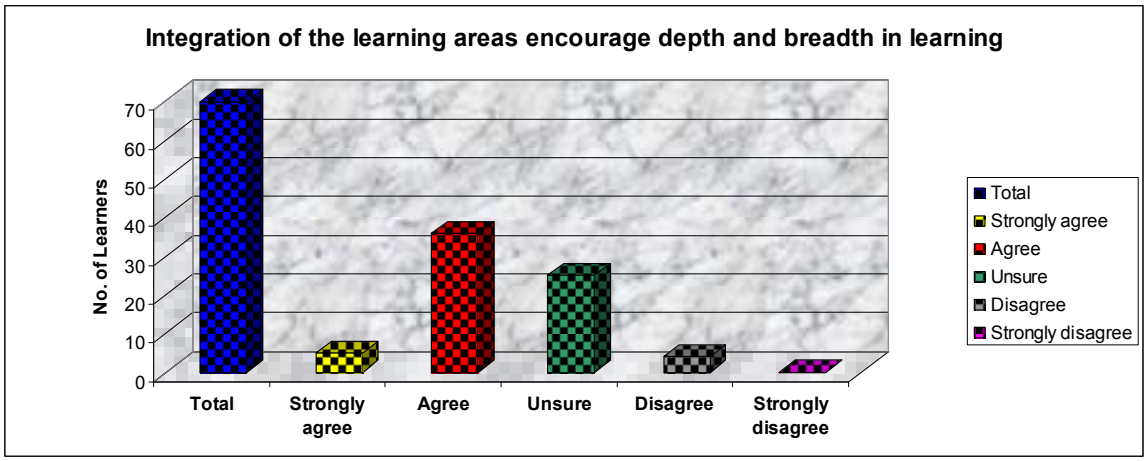

Figure 4.12: Integration of the learning areas encourages depth and breadth in learning

Table 4.22 and Figure 4.12 show that a notable percentage of 58.6% learners strongly agree and agree with the above statement while 35.7% are unsure whether integration encourages depth and breadth. Only 5.7% of the learners disagree or strongly disagree with this statement.

4.5.3 The third statement: Curriculum integration promotes positive attitudes in learners.

Table 4.23: Curriculum integration promotes positive attitudes in learners

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
5	39	**44**	**21**	5	0	**5**
7.2%	55.7%	**62.9%**	**30%**	7.1%	0%	**7.1%**

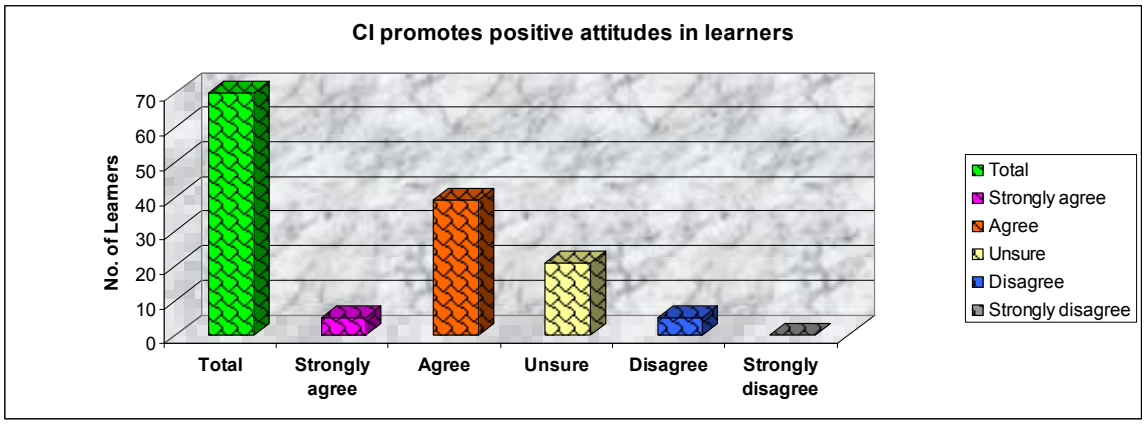

Figure 4.13: Curriculum integration promotes positive attitudes in learners

Table 4.23 and Figure 4.13 exemplify that a remarkable number of learners 62.9% strongly agree or agree while 30% are unsure that curriculum integration promotes positive attitudes in them. There are only 7.1% learners that disagree with the above statement.

4.5.4 The fourth statement: Curriculum integration uses sources beyond textbooks and encourages flexible learner groupings

Table 4.24: Curriculum integration uses sources beyond textbooks and encourages flexible learner groupings

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
15	33	**48**	**18**	3	1	**4**
21.4%	47.2%	**68.6%**	**25.7%**	4.3%	1.4%	**5.7%**

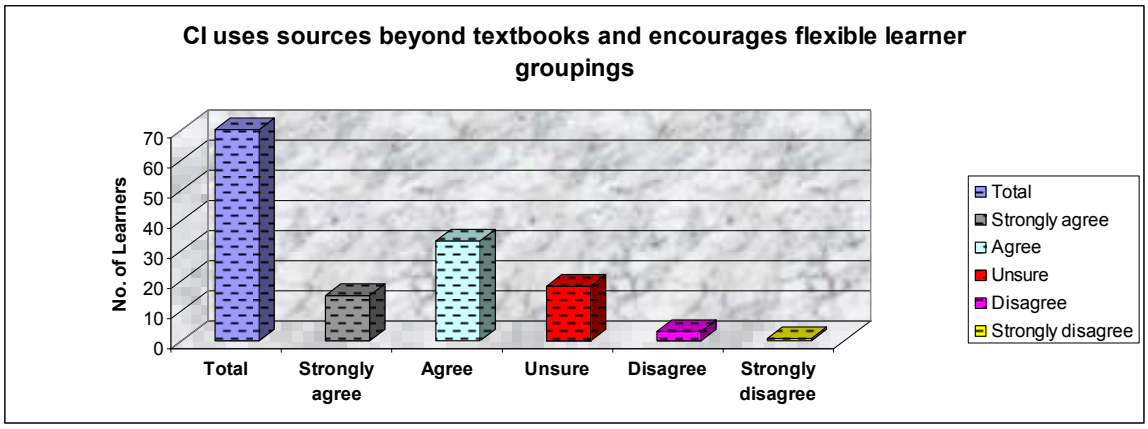

Figure 4.14: Curriculum integration uses sources beyond textbooks and encourages flexible learner groupings

Table 4.24 and Figure 4.14 illustrate that (*n*=48) strongly agree and agree with the statement that curriculum integration uses sources beyond textbooks and encourages flexible learner groupings. This is 68.6% of the learner respondents. In comparison, only 25.7% that is unsure while 5.7% of the population expressed disagree and strongly disagree feelings on the statement.

4.5.5 The fifth statement: Curriculum integration provides themes that promote the transfer of learning and connections.

Table 4.25: Curriculum integration provides themes that promote the transfer of learning and connections

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
3	34	**37**	**31**	2	0	**2**
4.3%	48.6%	**52.9%**	**44.3%**	2.8%	0%	**2.8%**

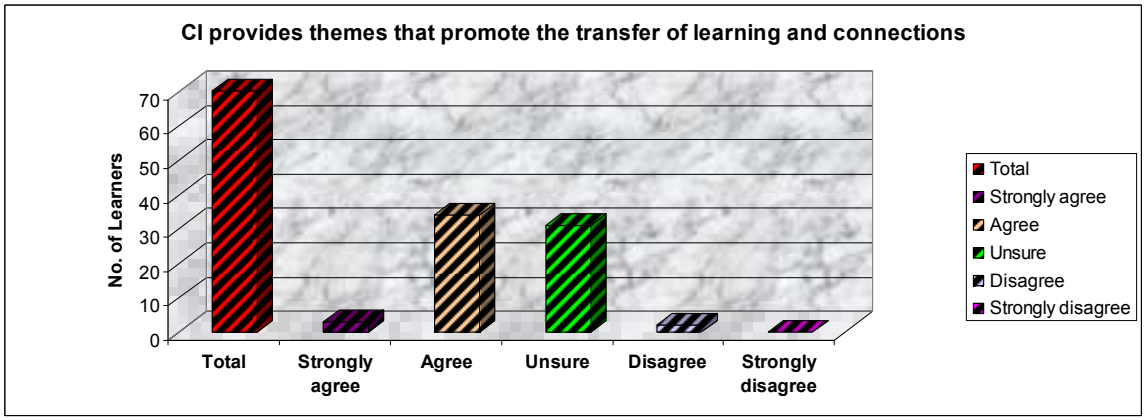

Figure 4.15: Curriculum integration provides themes that promote the transfer of learning and connections

Table 4.25 and Figure 4.15 show that a reasonable percentage (52.9%) of learners strongly agrees and agree with the statement above, while 44.3% are unsure whether curriculum integration provides themes that promote the transfer of learning and connections. Only 2.8% of the learners disagree or strongly disagree with this statement.

4.5.6 The sixth statement: Curriculum integration provides more quality time for curriculum exploration.

Table 4.26: Curriculum integration provides more quality time for curriculum exploration.

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
6	24	**30**	**30**	10	0	**10**
8.6%	34.3%	**42.9%**	**42.9%**	14.2%	0%	**14.2%**

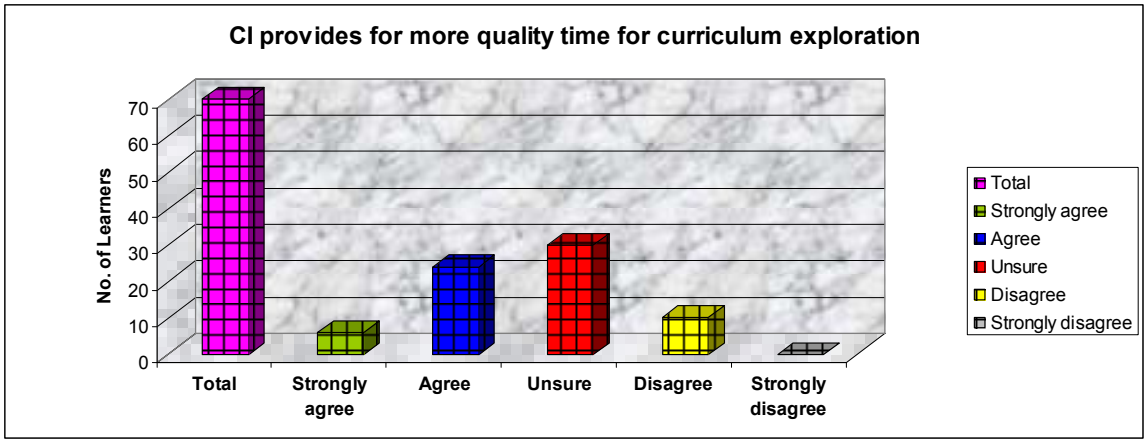

Figure 4.16: Curriculum integration provides more quality time for curriculum exploration.

Table 4.26 and Figure 4.16 display an even number of respondents 42.9% that strongly agree and agree, to 42.9% that are unsure that curriculum integration provides more quality time for curriculum exploration. This is a balanced opinion with regards to the statement, while 14.2% of respondents disagree with the above statement.

4.5.7 The seventh statement: Arranging learning areas in the sequence of favourite preference of learners.

Table 4.27: Arranging learning areas in the sequence of favourite preference

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
14	34	**48**	**9**	12	1	**13**
20%	48.6%	**68.6%**	**12.9%**	17.1%	1.4%	**18.5%**

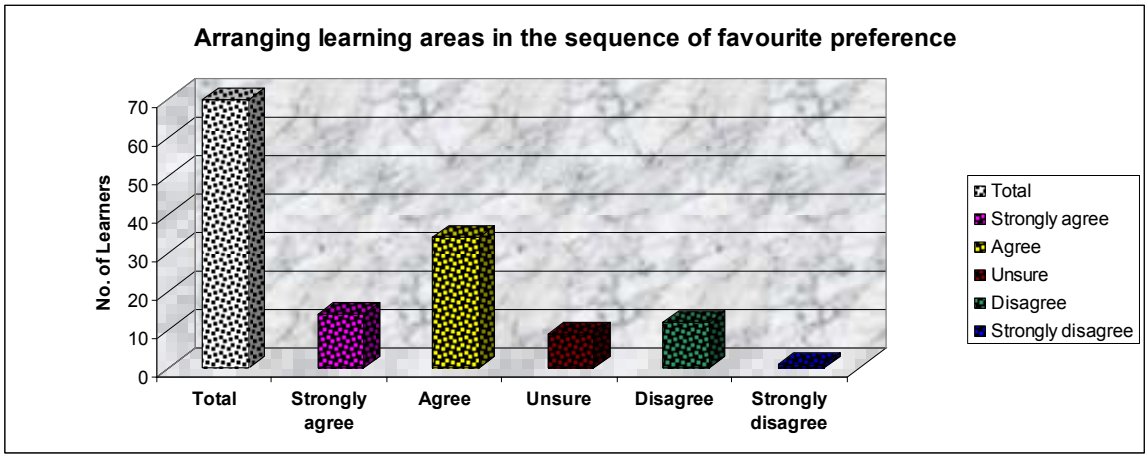

Figure 4.17: Arranging learning areas in the sequence of favourite preference

Table 4.27 and Figure 4.17 display a significant amount of learners 68.6% strongly agree and agree, while 12.%9 are unsure that they are arranging learning areas in sequence of their favourite preference. There are 18.5% of learners that expressed disagree and strongly disagree feelings with the above statement.

4.5.8 The eighth statement: An integrated knowledge base leads to faster retrieval of information.

Table 4.28: An integrated knowledge base leads to faster retrieval of information

	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
13	35	**48**	**20**	2	0	**2**
18.6%	50%	**68.6%**	**28.6%**	2.8%	0%	**2.8%**

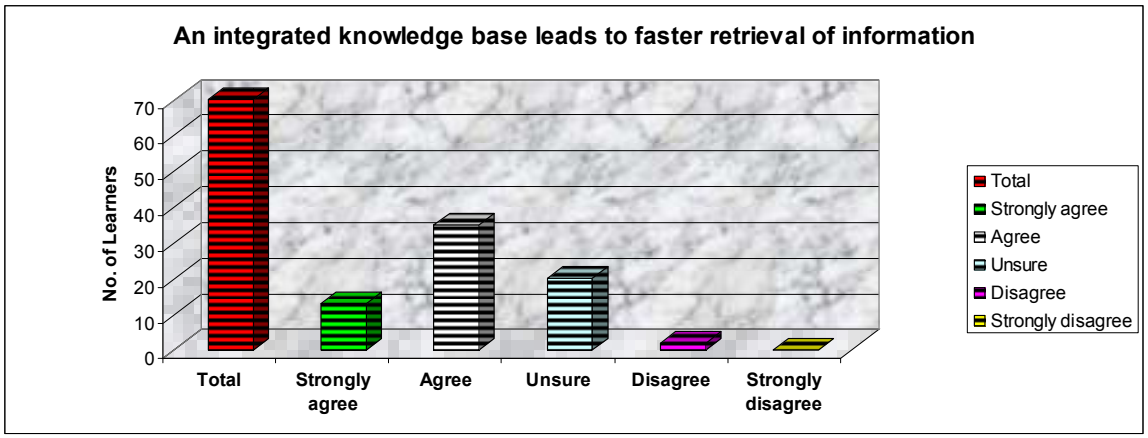

Figure 4.18: An integrated knowledge base leads to faster retrieval of information

Table 4.28 and Figure 4.18 show a noteworthy percentage 68.6% of learners strongly agree and agree with the statement above, while 28.6% are unsure whether an integrated knowledge base leads to faster retrieval of information. Only 2.8% of the learners disagree with this statement.

4.5.9 The ninth statement: Curriculum integration is an educational approach that prepares learners for life-long learning.

Table 4.29: Curriculum integration is an educational approach that prepares learners for life-long learning

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
28	25	**53**	**15**	2	0	**2**
40%	35.7%	**75.8%**	**21.4%**	2.9%	0	**2.8%**

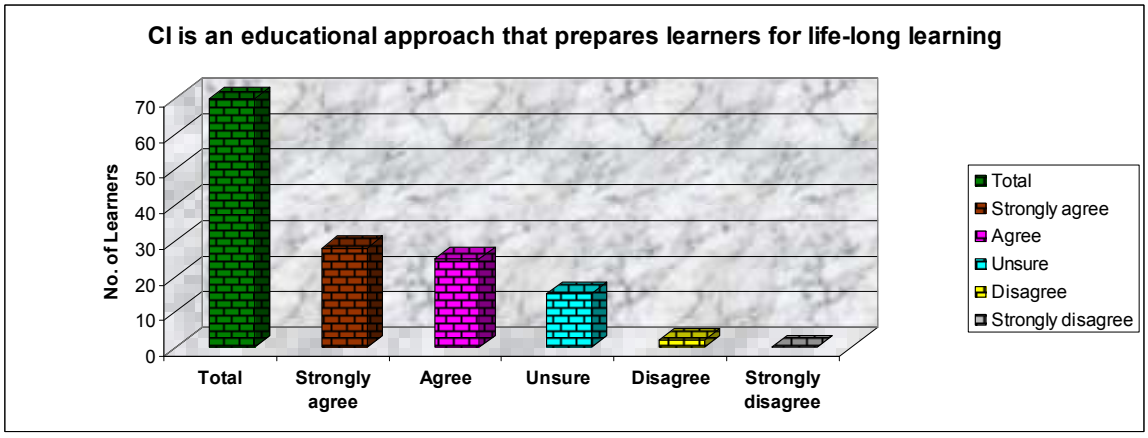

Figure 4.19: Curriculum integration is an educational approach that prepares learners for life-long learning

Table 4.29 and Figure 4.19 disclose a significant number of learners 75.8% who strongly agree and agree, while 21.4% are unsure that curriculum integration is an educational approach that prepares learners for life-long learning. Only 2.8% of learners disagree with the above statement.

4.5.10 The tenth statement: Curriculum integration is a combination of the learning areas.

Table 4.30: Curriculum integration is a combination of the learning areas

Strongly agree (SA)	Agree (A)	**Total of SA and A**	**Total Unsure (U)**	Disagree (D)	Strongly disagree (SD)	**Total of D and SD**
24	32	**56**	**13**	1	0	**1**
34.3%	45.7%	**80%**	**18.6%**	1.4%	0%	**1.4%**

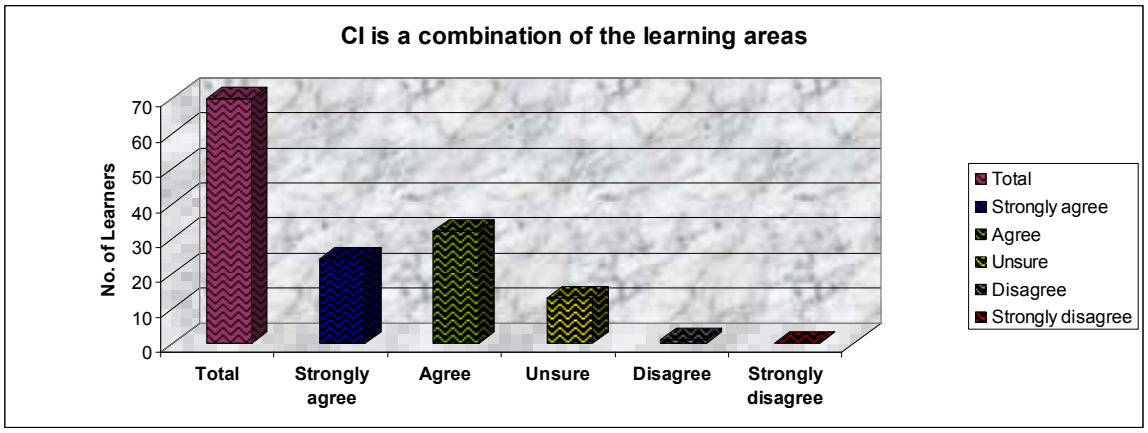

Figure 4.20: Curriculum integration is a combination of the learning areas

Table 4.30 and Figure 4.20 display a remarkable number of respondents 80% that strongly agree and agree with the above statement, while 18.6% are unsure that curriculum integration is a combination of the learning areas. Only 1.4% of is in disagreement with the statement.

4.6 Refinement of learner perceptions

Table 4.31: Responses to the ten statements

	Responses to statements									
	S 1	**S 2**	**S 3**	**S 4**	**S5**	**S6**	**S7**	**S8**	**S 9**	**S 10**
SA & A	64 **91.4%**	41 **58.6%**	44 **62.9%**	48 **68.6%**	37 **52.9%**	30 **42.9%**	48 **68.6%**	48 **68.6%**	53 **75.8%**	56 **80%**
U	6 **8.6%**	25 **35.7%**	21 **30%**	18 **25.7%**	31 **44.3%**	30 **42.9%**	9 **12.9%**	20 **28.6%**	15 **21.4%**	13 **18.6%**
D & SD	0 **0%**	4 **5.7%**	5 **7.1%**	4 **5.7%**	2 **2.8%**	10 **14.2%**	13 **18.5%**	2 **2.8%**	2 **2.8%**	1 **1.4%**

Learners' responses to the ten statements have shown that with the exception of the sixth statement, more than 50% of the learners have a positive perception of integration as captured in Table 4.31 above in numbers and percentages. Also noteworthy is the fact that with exception of statement one, more than 10% of the learner respondents are unsure of how they feel about curriculum integration.

4.7 Conclusion

This chapter has presented and isolated the findings of this study on the educators' and learners' perceptions of an integrated approach to the teaching and learning process. The research findings from the interviews with the educators were analysed to understand their perception of an ideal integrated HIV/AIDS education and awareness programme into the curriculum. Major findings are highlighted below.

4.7.1 Educators

From interviews with educators it has become clear:

- The majority of educators have knowledge of integration and those not familiar with it are willing to equip themselves with this knowledge.
- Even though the majority of educators are comfortable to present HIV/AIDS related topics, there are those who are not too comfortable to present it.

- There are factors that could facilitate or constrain an integrated topic.
- That educators regard teaching in collaboration with colleagues as advantageous.

The teaching styles inventory has revealed that:

- All the educators in the study more often than not use all the four teaching modalities, (i) sensory, (ii) global versus analytical, (iii) reflective versus impulsive and (iv) individual versus group work. Of the four ideal modalities, educators in this study have indicated a high preference for sensory and group versus individual work.
- When preference for each of the four sensory modalities was broken down, a large number of educators favour a visual non-verbal teaching style followed closely by an auditory teaching style the above the other sensory teaching styles.
- In the second category, global versus analytical, educators more often used the analytical orientation than the global orientation to their teaching style.
- In the third category, reflective versus impulsive, educators more often used the reflective degree of structure than the impulsive degree of structure.
- In the last category, individual versus group work, the majority of educators always used the individual than the group to present their lessons.

4.7.2 Learners

Learning styles inventory indicates that the learners prefer all learning styles albeit at different levels. The final analysis has shown learners' preference is in the following descending order: Kinesthetic; auditory; tactile; visual; individual; and group learning.

Learner questionnaires have made it clear that there is a close to half-half split on learners' responses to whether they disagree/agree or are unsure of the statements they were required to respond to on the integration of HIV/AIDS. The main difference is on statement 6 whereby equal number learners either strongly agree/agree or are unsure if curriculum integration provides more quality time for curriculum exploration.

Findings highlighted above are carried over to Chapter 5 as new data for analysis and discussion.

CHAPTER 5
DISCUSSION AND CONCLUSION

5.1 Introduction

In this final chapter the findings isolated in the concluding section of Chapter 4 are discussed. The discussed involves an interrogation of these findings in the light of the literature reviewed in Chapter 2. The chapter examines closely ways in which the question "How do educators and learners perceive a teaching-learning scenario that can efficiently promote genuine learning of HIV/AIDS within the Life-skills curriculum?' has been answered. In addition, the study is concluded by highlighting the main limitations and making recommendations for further research. The findings from chapter 4 are discussed as follows.

5.2 Educators' responses to the interviews

This section discusses educators' perception of HIV/AIDS education and awareness into the Grade 8 curriculum. A majority of educators in this study responded positively to questions on how they view an integration of HIV/AIDS into the curriculum.

5.2.1 Educators' perception of integrating HIV/AIDS education and awareness

According to the educators who were interviewed, integration can be seen as cross-subject learning where the different learning areas work together in order to holistically educate the learner regarding overlapping of subject matter. It could be regarded as the interdependence of the learning areas and subject matter, in order to tackle all subject matters on all levels in the school. Real life situations could be included in teaching as it prepares learners for similar situations and for their future. An integrated approach to teaching and learning could make the process easier, but on the other hand boring as well, because of a repetition of information in different learning areas if it is not properly administered.

The educators' perceptions about curriculum integration are to a large extent similar to explanations offered in the literature. Fostering curriculum integration (Wallace *et al.*, 2007; Coombe, 2004; Palmer, 1991) for academic development within the learners could be beneficial in an integrated HIV/AIDS education and awareness. Such integration offers several potential academic benefits such as ongoing reinforcement of skills and information learned

when utilized in another learning area, provides learners with a richer academic experience by broadening content, applicability of information and skills that are learned and maximizes the utilization of learning by 'borrowing' from one learning area to another (Fogarty & Pete, 2007).

Wallace *et al*. (2007) advise that within curriculum integration educators should implement a number of strategies. Examples are (i) to develop cross-curriculum sub-objectives within a given curriculum guide, (ii) model lessons that include cross-curricular activities and assignments, (iii) to use enrichment or enhancement activities with cross-curricular focus including suggestions for cross-curricular 'contacts' following each objective and assessment activities that are cross-curricular in nature using the teaching styles accordingly to ensure that all learners are reached in the teaching and learning process (Wallace *et al.*, 2007; Kirakowski, 1997).

It will depend upon the educator to enthuse an atmosphere that is conducive to the teaching and learning process of integrating HIV/AIDS education and awareness into the curriculum. Therefore, how the educator manages the class, prepares and presents the learning material could depend on the ability and understanding of curriculum integration (Donald *et al*., 2006).

5.2.2 Educators' level of comfort

Even though there were educators who felt uncomfortable with the presentation of HIV/AIDS education and awareness, the majority of the interviewees were positive to present topics relating to HIV/AIDS education and awareness. Guidance counsellors and Life Orientation educators had no problem in presenting HIV/AIDS topics as it forms part of their curriculum. In these educators' opinions which seem to mirror ideas expressed in the literature, HIV/AIDS is part of our lives and it is important for learners to be well informed and prepared for life. It is a global problem and we have to educate the youth so that they can make informed decisions in order to be safe/ healthy (Wood, 2008; Fogarty & Pete, 2007; Donald *et al.,* 2006).

Although there are many challenges facing education, the HIV/AIDS pandemic presents educators with opportunities to make radical changes that will help to develop an education system able to meet the demands of the current world. Despite the need for unbiased

educators, there are still some educators that are negative about the topic. Some negative feedback was received such as, (i) *I'm not completely comfortable in presenting HIV/AIDS- but not in such a way that it bothers me*. (ii) *No, I regard discussing sex (and teaching 'sex education') as too personal and have received no training in this regard either*. Educators should be willing to change their perception of presenting HIV/AIDS education and awareness even though it does not infect everybody but does affect everybody (Page *et al.*, 2006; Fogarty & Pete, 2007).

5.2.3 Factors that facilitate or constrain HIV/AIDS awareness

The educators interviewed are of the opinion that a positive attitude, resources and equipping educators to integrate HIV/AIDS into their lesson planning might make the topic easier to present. Colleagues should be willing to participate in themes that make provision for HIV/AIDS education and awareness in the curriculum and should be willing and motivated for the task. A similar idea is echoed in the literature through an indication that the provision of the necessary in-service training (INSET) for HIV/AIDS education and awareness could help to develop personal skills and the necessary support for the educator (Aiello & Bisgard, 2003; Monk, 1999; Barnett *et al*., 1995).

Educators should be encouraged to accept responsibility to facilitate HIV/AIDS education and awareness. There are some educators who are not willing to discuss HIV/AIDS and sexual related issues openly and honestly with learners due to personal preferences, culture or religion. Peoples' attitude towards HIV/AIDS education and awareness, prejudice, discrimination and fear need to change. A lack of co-operation between subject co-ordinators and management is seen as a constraint that could cause logistical problems to co-ordinating timetables and learning areas (Page *et al*., 2006).

5.2.4 Working in collaboration in an integrated curriculum

It is unreasonable to expect that all educators should know everything about the learning content but, it will be advisable to have a good knowledge of the curriculum prescribed in the relevant syllabus documents. Drawing on a wide knowledge base of curriculum materials could help the educator to adapt mandated curriculum content to specific contexts and needs,

thus maximizing the likelihood of that planned content and activity, consistent with the learners' needs and interest (Kalichman & Evian, 2006; Bradly & Scully, 2005).

It could be advisable to work in collaboration with colleagues so that different aspects of HIV/AIDS education and awareness are covered in different learning areas so that repetition of information is avoided. Educators could come together to compare their subject material to see where and how integration of HIV/AIDS education and awareness could be incorporated, time their work together, so that similar work could be dealt with in all learning areas at the same time. It could be worthwhile to work out a plan of action so the same theme could be addressed by the different learning areas, each applying their subject knowledge to create the holistic picture at stake. The school can decide if the awareness theme will be done on a regular basis or have a specific time per year dedicated to that awareness alone. It should not interfere with an already busy teaching schedule (Fogarty & Pete, 2007; Van Heerden, 2007).

5.3 Teaching styles used in an integrated curriculum

The purpose of teaching is to reach learners of all spheres of life in the classroom. Educators are encouraged to ensure that they pursue a course that will encourage learners to follow this route to reach their destination (Fleming, 2009; Coffield *et al.*, 2004).

The findings from the teaching styles inventory reflect the following in descending sequence of educator teaching style preference: Analytical-, reflective-, global-, impulsive-, individual-, visual- and group teaching. However, there was very little difference between a number of times educators opted for analytical, reflective and global teaching styles. Analytical educators are very methodical and systematic in their teaching as they pay attention to existing facts and formulas (Anderson, 2007). Reflective teachers on the other hand often involve learners in interrogating existing beliefs and practice in light of the grounds that support them and consequences that could follow behaviour (Pickett, 2010). Global teachers similarly to analytical tend to be methodical in their teaching. However, they also have reflective tendencies as they allow the sharing of personal experiences as a way of making connections between school content and real life experiences (Anderson, 2007).

Educators could adapt their teaching style to the learners' learning style preference or compromise equilibrium between the teaching- and learning styles mostly preferred by both parties (WCED, 2000). The link between teaching and learning styles is discussed in section 5.5 below. It is important for educators to understand they are not dispensers of knowledge but facilitators that facilitate the teaching and learning process. It might be important to know that it is not **what** learners learn but, **how** they learn **what** (the content), to make sense thereof or apply the knowledge intelligently (Jacobs, 1997; Caine & Caine1991; Cromwell, 1989).

5.4 Learning styles inventory

The findings of the learning styles inventory have indicated that learners are adaptable to the different styles of learning but preference for styles of learning was expressed in the following descending order: kinesthetic, auditory, tactile, visual, individual and group learning. The kinesthetic and auditory learning styles were the most dominant. According to Hardee *et al*. (2009) a kinesthetic learner needs frequent mobility. Auditory learners are good listeners who prefer lectures, talking things through and listening to what others have to say (Anderson, 2007).

Kinesthetic learning is learning through doing, action, activity, participation preferred by learners as this is last strategy on the educators list of preference to teach. Even though learners prefer the kinesthetic- and auditory learning style, educators prefer the visual non verbal and verbal style of teaching. Through verbal guidance and questioning, the provision of audio props and demonstration of higher levels of attainment, the educator supports the learner to attain the desired outcome of HIV/AIDS education and awareness. A consequence of such support is sustained learner interest (Kamo *et al*., 2008).

Since classrooms are made of many individual learners, at any given time, learners with all the learning styles are in classrooms. Therefore, while some are dominant, it does not mean a teacher should ignore the less common styles of learning. In that way all learners would be able to participate in the integrated HIV/AIDS education and awareness instead of isolating the teaching and learning styles (WCED, 2000). If teaching is appropriately targeted to address all learning styles and are properly combined and administered the desired outcomes might easily be achieved in an integrated approach to HIV/AIDS education and awareness.

5.5 The relationship between the teaching styles and learning styles

The study has made clear that whereas a majority of educators idealise an analytical, reflective and global teaching-learning process, learners prefer a kinethestic and auditory teaching-learning process. As it was explained earlier, an analytical-reflective-global educator is often methodical, systematic involving and supporting learners to make connections between content and real life situations. Kinesthetic-auditory learners on the other hand prefer more learner centred activities which give them the opportunity to make sense of learning topics and the learning process entirely through movement and hearing. Examples of such activities according to Hardee *et al*. (2009) could be drama, role playing debating and so forth.

What could be the implication of the vast differences in educators and learners idealisation of teaching-learning on how the teaching and learning process can be enhanced to efficiently achieve learning outcomes envisaged in the Life-skills curriculum on topics related to HIV/AIDS awareness and education? Baxen (2006) speaks to the same point that has been highlighted by this study. She argues that in the development and delivery of messages around HIV/AIDS simplistic associations continue to be made about the relationship between the mediators (educators), the nature of HIV/AIDS knowledge messages and those the messages are meant to target. Furthermore, Baxen and Breidlid (2009) points out those learner-driven lessons do not always work as well as those that are teacher-driven. If learners in this study prefer kinesthetic modes of acquiring knowledge, educators probable need to reconsider the extent to which they could balance their methodical, systematic strategies in delivering HIV/AIDS messages with learner driven input and interrogation of messages. Therefore, educators could relinquish the authoritative approach and allow learners to structure their learning in such a way that it will be beneficial for them to have social interaction and learn responsibly (Donald *et al.*, 2006). Working *with* learners as opposed to *on* or *against* them requires the educator to cede some degree of control of the learning content (Bradly & Scully, 2005:47).

5.6 Learners' perception of an integrated curriculum

The study has revealed two major trends on learners' perceptions of an integrated curriculum. First, a majority of learners strongly agree or agree on the positives of an integrated curriculum. Second, following the large number of those who strongly agree or disagree are those learners who are unsure of the benefits on the positives of an integrated curriculum. Many respondents that were unsure, disagreed or strongly disagreed with some statements that were posed to them is a matter of contention. Therefore, research on these items could be beneficial to the researcher.

Learners perceive that an integrated curriculum has the potential to:

- Assist them to acquire and develop the necessary knowledge, skills and values and attitudes which facilitate effective engagement with life and its challenges.
- Provide more quality time for exploration and encourage depth and breadth in learning.
- Promote positive attitudes in learners to go beyond textbooks for information.
- Arrange learning areas in favourite sequence to assist in the faster retrieval of information.
- Provide themes for life-skills that transfer learning and make connections with realities of life.

Learners could be made aware of the importance of life-skills and a possible way to acquire this valuable information can be through an integrated approach to the teaching and learning process. Life-skills are needed to develop people and their way of thinking. Life-skills education in relation to both educators and learners are an essential part of development of people (Donald *et al.*, 2006).

Learners need life-skills that comprise of particular attitudes, knowledge, and skills which will enable them to deal effectively with the demands and challenges of everyday life. Life-skills are indispensable in the process of empowering individuals to engage and cope successfully with life and its challenges. The development of life-skills promotes psychosocial competence.

This has a pivotal role to play in the promotion of health in its broadest sense- in terms of physical, mental, and social well-being (Department of Health, 2008).

Life-skills education enhances a person's coping resources through promoting personal and social competence and confidence. For this reason we have a significant role to play in ensuring that life-skills are integrated into our work wherever possible. In this way you will be contributing to the development of a health-promoting school and to a healthy development of our learners (Coombe, 2004; Campbell & Lubben, 2003).

Curriculum integration is perceived by learners as a process of using different learning areas and learning outcomes to enhance the teaching and learning process. It promotes holistic learning and demonstrates the crosscutting nature of one or more learning areas and learning outcomes (Palmer, 1991).

5.7 Concluding comments

This exploration has revealed interesting trends regarding the possibilities of integrating HIV/AIDS education and awareness into the curriculum from both educators' and learners' perspectives. I pinpoint more specifically, what the study has revealed about how educators and learners perceive a teaching-learning scenario that can efficiently promote genuine learning of HIV/AIDS within the Life-skills curriculum? In answer to this question the foregoing discussion has made clear the following:

1. Even though learners do not seem to know what curriculum integration means, both teachers and learners view integration of the curriculum positively.
2. Individual learners prefer many styles of learning. Therefore,
3. Educators need to use a wide repertoire of strategies and methods that appeal to a possibility of many learning styles in classrooms.

The supportive role of the educator in an integrated HIV/AIDS education and awareness theme is more than just the transmission of information but the interest of the learner in totality. Teaching and learning may take many forms such as teaching **how to learn**, understanding the cognitive development of the learner to which that which is being learned/taught is based as well as the **theories** on which learning and the subject are grounded. Therefore, it is not only

what we teach that is of substance, more importantly it is **how** we teach so that effective learning can take place (Mosito, 1999). Thus, it can be concluded that learners learn best when they are supported; are involved in what they do; and do learning activities that are real and relevant in their lives (McGonigal, 2005; Mezirow, 1991).

Integrated teaching and learning could be shifted from knowledge acquisition to learning **how** to learn; from traditional passive learning to active learning; from educator-centred to learner-centred, from subject based to integration, from rigid prescribed curriculum to flexible and varied learning experiences, from whole-class teaching to small groups or individual learning; to include more emphasis on experiential learning, more emphasis on collaborating with others, more emphasis on learning from the environment, more emphasis on classroom atmosphere and interaction and more emphasis on partnership with parents (Donald *et al.,* 2006).

Since educators are regarded as agents of change, it may be crucial for them to equip themselves to develop themes to integrate HIV/AIDS education and awareness into the curriculum. The endeavour of this project is to encourage educators not to treat HIV/AIDS education and awareness in isolation but as a learning process in totality and working in collaboration with colleagues to make a difference to the perception of the disease. The integration of HIV/AIDS education and awareness within the learning process may enable the learners to make informed decisions and take action towards the resolution for a healthy, responsible lifestyle.

5.8 Limitations

1. The study explored classrooms experiences and perceptions of Life Orientation educators, learning area co-ordinators and Grade 8 learners of the selected high school in the Western Cape. Therefore, while the findings might be interesting, they cannot be generalised to the national population of Grade 8 classrooms.
2. The questionnaire that required learners to voice their opinions on the benefits of an integrated curriculum revealed that many learners opted for the unsure response. According to DeMars and Erwin (2004:83-95), unsure responses could be indicative of respondents' unfamiliarity with the topic of tiredness in completing a questionnaire. As

the responses apply to this study it is possible that they mean many learners had no knowledge of the subject the questionnaire was asking them about. In that case to some extent the validity of findings of this study might have been negatively affected.

5.9 Recommendations

The following recommendations can be made for integrating HIV/AIDS education and awareness into the curriculum**.**

- **A** series of workshops can be organized by the learning area co-ordinators of the school that aim to assist educators to integrate HIV/AIDS themes as well as specialists in HIV/AIDS education and awareness discipline.
- Curriculum planners at educational institutions should take a leading role in ensuring that educators receive the necessary support to equip themselves with the necessary knowledge with regard to the HIV/AIDS pandemic. Educators can also work with neighbouring schools and share similar problems and experiences regarding different ways of designing learning activities for integration.
- Learning area co-ordinators should promote integrated HIV/AIDS education and awareness and support their colleagues who are interested in health issues and integration holistically. In this way the interest may filter down to their peers and then to the learners.
- Educational institutions could establish partnerships with health and environmental organizations; work closely with them in developing their learning programmes and also encourage educators to do in-service training.
- Since integration is relatively new in the curriculum it needs a lot of attention in order to understand its dynamic nature and demands. Therefore, educators could be encouraged to enrich and empower themselves by further studies formally and informally in both curriculum studies and integration.
- HIV/AIDS education and awareness should not be practised at school level only, but should also be filtered down to the community. The school could work in conjunction with Soul City, Khomanani and other Non-Government organizations (NGO's).

- The management of schools needs to play a vital role in ensuring that educators comply with the needs and demands of the NCS in order to ensure that HIV/AIDS education and awareness is integrated into all learning areas.
- Involve learners in the planning and implementation of an HIV/AIDS education and awareness theme and give them ownership of their learning.

We are the generation that can make a difference. Consequently, the manner in which educators teach and learners learn might influence the choice people make to live in a desired HIV/AIDS free society.

5.10 Further research

For further research, a small convenience sample from one school, might not be the best option as this type of sampling might not lend itself to being a true representation of the population. A sampling method that makes provision for a more representative sample could have enhanced representivity and might have yielded different findings. This would also enhance the probability of generalizing the findings of the study to the population and also other schools in the Western Cape.

The method used in this case study afforded the researcher the opportunity to explore an in-depth integrated programme in the teaching and learning process. Case study research provides direction for further research on the topic in question. The tool for teaching styles, semi-structured interviews, a learning styles inventory and questionnaires have placed us at an informed position to pose certain questions, on the basis of the results obtained. However, the one school selected could pose a problem for not having enough variety of population to draw definitive conclusions on the aspect of an integrated HIV/AIDS education and awareness theme. Therefore, further research could be carried out, with more schools involved in the study, in order to scrutinize the questions revealed here. In particular, the following need to be studied further: In view of the sensitivity of the HIV/AIDS pandemic, teaching and learning materials could be designed to cater for both educators and learners.

The study has also offered further emphasis to the claim that educators need more training about teaching and learning in an integrated environment for the necessary life-skills needed to

live healthier lives in a democratic country as a responsible citizen. Therefore, we need to unpack this issue further. One possible constraint could be the lack of knowledge and skills hindering effective teaching and learning - this too could be examined.

A wide range of teaching and learning styles that have been encountered could be explored by educators and learners. There is no evidence to link any of these teaching and learning styles for effective teaching that brings about learning. Therefore, the question of the educators' choice of teaching style and their impact on the learners' learning style is an issue that is worthy of further investigation.

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Appendix 1

8 Concorde Street
Sidneyvale
Bishop Lavis
7490
17.05.2007

Director: Research Unit
Western Cape Education Department
For attention: Dr. R. Cornelissen
Private Bag X 9114
Cape Town
8000
Dear Sir
RE: PERMISSION TO CONDUCT RESEARCH

I am a registered M Ed student (stud no. 197024629) at the Cape Peninsula University of Technology, Mowbrary Campus, who intend to do my research project at …. High School.

The title for my research topic is: Exploring integration possibilities of HIV/AIDS education and awareness into the Grade Eight Curriculum.

I hereby request permission from the WCED to conduct my research at this school where interviews will be conducted with learning area coordinators, questionnaires to be completed by the learners and observations of the learning process to be done by the researcher at school.

My study focuses on the integration possibilities of the curriculum in grade 8 & 9 for the purpose of improving its effectiveness, using a formative evaluation approach. I would like to investigate the implementation and design of an integrated approach to teaching and learning. I would like to evaluate the support educators get through collaboration and collegiality.

I intend to conduct my interviews as an inquiry so that I can explore the respondence's views and opinions on various aspects of the integrated curriculum approach. The proposed time for this research project will be between June and August 2007.

Please find the following appendices attached:
Critical questions for the research proposal, questions for interviews and questionnaires for the learners and ethical principles.

All participants will be debriefed as it involves explaining to the research participants, at the conclusion of the study, the nature and the purposes of the study. Full disclosure of any deception that may have been part of the study will be included.

It will be of great value if I may have your consent to conduct my research and make use of any material that is the intellectual property of the WCED, which may assist me with my research.

Thanking you in anticipation.
D.C. Smith (Persal. 50385071)

Appendix 2

Letter of approval from WCED.

Appendix 3

8 Concorde Street
Sidneyvale
Bishop Lavis
7490
17.08.2008

Dear educator

The education system is constantly undergoing changes and it is the researcher's objective to explore possibilities to integrate HIV/AIDS education and awareness into the Grade Eight Curriculum in all Learning Areas.

This research may affect you as an educator and your colleagues therefore your input will be of exceptional value to the researcher and the teaching profession.

Your co-operation and contribution to this research is voluntarily and highly valued.

This information gathered will be treated as highly confidential and in no way will you be identified as person or school through the final report.

Your unselfish participation and valued contributions will be highly appreciated.

Yours in advancement for education.

D.C. Smith.

CONSENT FOR FINDINGS TO BE USED IN THIS RESEARCH REPORT

I, ……. hereby give my consent, without reservation, to participate in this research project.

I have no objection to the information that may be published.

Signature …….. Date: ……

Witness ……. Date: ……

Appendix 4

Express sincere thanks and appreciation for the participation and time set aside for this interview. All information is strictly confidential and anonymity will be adhered too. Interview questions.

Question 1

What is your understanding of an integrated curriculum and why do you think it can be important for teaching and learning?

Question 2

Do you feel comfortable to prepare, present and teach HIV/AIDS education and awareness for the learners in your school? Please motivate your answer.

Question 3

What factors do you think will facilitate the integration of HIV/AIDS education and awareness in all learning areas for your school?

Question 4

What factors do you think will constrain the integration of HIV/AIDS education and awareness in all learning areas for your school?

Question 5

How do you think different learning area educators can work in collaboration with colleagues to integrate HIV/AIDS education and awareness into your school curriculum?

Question 6

How do you educators can design learning activities that will encourage the integration of HIV/AIDS education and awareness into the curriculum for all learning areas?

Question 7

How can educators facilitate the process of teaching and learning in their classrooms to promote and enhance HIV/AIDS education and awareness through integration into the curriculum?

Question 8

What teaching style/strategy do you use for effective teaching? Please motivate your answer.

Question 9

Are you familiar with using a learning styles inventory to prepare your lessons so that all learners are able to participate in class activities? Please motivate your answer.

Question 10

How do you think learners will learn best?

Appendix 5
TOOL FOR TEACHING STYLES:

DIRECTIONS: Put a tick (√) in the columns that correspond to your answers.

	Always or nearly always	Often	Sometimes	Rarely or Never
SENSORY MODALITIES				
VISUAL VERBAL				
I use written texts and documents				
I give written instructions				
I allow learners time to take notes or summarize information in writing				
I ask learners to make or complete cards, tables, etc.				
VISUAL NON VERBAL				
I use visual aids e.g. blackboard, illustrations, charts, graphs, concept maps, outlines, graphic organizers.				
I use video recordings.				
I give concrete examples to help learners visualize new concepts				
I ask learners to make posters, cartoons, etc.				
AUDITORY				
I use oral explanations and ask learners to repeat or paraphrase.				
I use audio recordings.				
I give oral instructions.				
I help learners explore and develop information through class discussions				
KINESTHETIC				
I emphasize and clarify ideas through gesture, facial expression and dramatization.				
I engage learners in active learning and direct experience and experimentation.				
I use tasks that imply physical movement.				
I use project work.				
GLOBAL VS ANALYTIC ORIENTATION				
GLOBAL				
I activate learners' background knowledge and build in context before presenting new concepts.				
I set the context for a new topic with "open", rather general questions.				
I ask learners to focus on similarities and analogies				
I try to make learners recall personal experiences and stimulate their reactions.				
ANALYTIC				
I approach a topic in a careful, graded, "step by step" manner.				
I ask learners to make an in-depth study of an item that reflects a more general problem.				
I ask learners to focus on contrasts and differences.				
I encourage learners to consider facts and give objective judgments.				
I ask learners to examine logical cause/effects of relationships.				

REFLECTIVE VS IMPULSIVE – DEGREE OF STRUCTURE				
REFLECTIVE				
I propose a structured project or study plan.				
I make explicit the goal of each step of an activity.				
I use textbooks in a systematic way, following them as closely as possible				
I test learners regularly on small portions of subject matter.				
I delay learners' response so that they can elaborate the new information in personal ways.				
I ask learners to collect all necessary information before starting work on a task.				
I ask learners to work for a considerable period of time on the same objective and with the same materials or method.				
IMPULSIVE				
I propose a global project or study plan and let learners free to organize the steps or details.				
I let learners discover and discuss the goals of an activity after they have finished it.				
I let learners use a variety of resources in addition to textbooks.				
I use tests that focus on global results.				
I ask learners to do an exercise just after an explanation in order to help them structure the basic elements of the information.				
I get learners to start working right away and look for any necessary information while they are doing the task.				
I get learners to work in short sessions with a variety of methods, materials or objectives.				
INDIVIDUAL VS GROUP ORIENTATION				
INDIVIDUAL				
I provide individualized assistance when appropriate.				
I allow learners time for personal reflection and elaboration.				
I let learners use individual worksheets, handouts, etc.				
GROUP				
I use pair- and small group work.				
I involve learners in class discussions to elicit different viewpoints.				
I encourage learners to negotiate and cooperate with me and their classmates.				

Source (WCED, 2000)

Appendix 6

INTEGRATION POSSIBILITIES IN OUR SCHOOL CURRICULUM FOR THE EIGHT LEARNING AREAS IN GRADE 8.

QUESTIONNAIRE:

Please tick off answers that are relevant or appropriate to you in the spaces provided below:

1. Integrated curriculum helps learners to apply knowledge, skills and values.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

2. Integration of the learning areas encourage depth and breadth in learning

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

3. Integrated curriculum promotes positive attitudes in learners.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

4. Integrated curriculum uses sources that go beyond textbooks and encourages flexible learner groupings.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

5. Integrated curriculum provides themes that promote the transfer of learning and connections.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

6. Integrated curriculum provides for more quality time for curriculum exploration.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

7. I do arrange my learning areas in the sequence of my favourite preference.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

8. An integrated knowledge base leads to faster retrieval of information.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

9. Integrated curriculum is an educational approach that prepares learners for lifelong learning.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

10. Integrated curriculum is a combination of the learning areas.

Strongly agree	Agree	Unsure	Disagree	Strongly disagree

COMMENTS:

……
……
……
……

Thank you, for your time and effort in completing this questionnaire.
D. C. Smith.

Appendix 7

A LEARNING STYLES INVENTORY
People learn in different ways.
Read each statement and decide if you agree or disagree.

	5- Strongly agree	4- Agree	3- Undecided	2- Disagree	1- Strongly disagree
1. When the educator tells me the instructions, I learn better					
2. I prefer to learn by doing something in the class.					
3. I get more work done when I work with others					
4. I prefer to work on projects myself					
5. In class, I learn best when working with others.					
6. I learn better by reading what the educator writes on the board					
7. When someone tells me how to do something, I catch on quicker.					
8. When I do things in class I learn better					
9. I remember things I have heard in class better than things I have read.					
10. When I read instruction I remember them better.					
11. I learn more by making a model.					
12. I understand better if I read instruction.					
13. When I study alone I remember better.					
14. I learn more when I make something for a project.					
15. I enjoy learning by doing experiments.					
16. I learn better if I make a drawing while I study.					
17. I learn better when I listen to a lecture.					
18. When I work alone I learn better.					
19. I understand better if I participate in role-playing.					
20. I learn better in class if I listen to someone.					
21. I enjoy working on assignments with my friends.					
22. When I build something, I remember better what I have learned.					
23. I prefer to study with others.					
24. I learn better by reading and writing notes than by listening.					
25. I enjoy making something for a project.					
26. I learn best when I can actively participate in related activities.					
27. In class, I work better on my own.					
28. Studying in a group is better for me.					
29. I learn more by reading textbooks than by listening to a lecture.					
30. I prefer to work by myself.					

Source (WCED, 2000)

There are 5 questions for each learning styles category. The questions are grouped below according to each style. Each answer has a numerical value.

S A - 5
A - 4
U - 3
D - 2
S D - 1

Fill in the blank spaces and total your score for each category.
Multiply your answer by 2.
Put the total in the appropriate space.

VISUAL	TACTILE
6 - ……..	11 - ……..
10- ……..	14 - ……..
12 - …….	16 - ……..
24 - …….	22 - ……..
29 - …….	25 - ……..

AUDITORY	GROUP
1 - …….	3 - ……..
7 - …….	5 - ……..
9 - …….	21 - …….
17 - ……	23 - …….
20 - ……	28 - …….

KINESTHETIC	INDIVIDUAL
2 - …….	4 - ……
8 - …….	13 - ……...
15 - ……	18 - ……...
19 - ……	27 - ……...
26 - ……	30 - ……...

Major Learning Style Preference	38 - 50
Minor Learning Style Preference	25 - 37
Negligible	0 - 24

A learning and teaching style often prevent educators from teaching ALL the learners in a class as they find it hard to accommodate all the learning styles. Think on this in your lesson planning – have you allowed for each learner to be able to have some exposure to conditions in which learners would prefer to learn?

Appendix 8

Critical outcomes

The following seven critical outcomes envisage learners who are able to:

1. Identify and solve problems and make decisions using critical and creative thinking;
2. Work effectively with others as members of a team, group, organization and community;
3. Organize and manage themselves and their activities responsibly and effectively;
4. Collect, analyze, organize and critically evaluate information;
5. Communicate effectively using visual, symbolic and/ or language skills in various modes;
6. Use science and technology effectively and critically, showing responsibility towards the environment and the health of others; and
7. Demonstrate an understanding of the world, as a set of related systems by recognizing that problem solving contexts does not exist in isolation.

Developmental outcomes

The following five developmental outcomes envisage learners who are able to:

1. Reflect on and explore a variety of strategies to learn more effectively;
2. Participate as responsible citizens in the life of local, national and global communities;
3. Be culturally and aesthetically sensitive across a range of social context;
4. Explore education and career opportunities; and
5. Develop entrepreneurial opportunities (DoE, 2002:13-15).