

**PRE-SERVICE PRIMARY TEACHERS' PREPARATION
TO TEACH INTEGRATED HIV/AIDS AWARENESS
CURRICULUM IN KENYAN PRIMARY SCHOOLS**

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This project is my original work and has not been presented to any other university for the award of any degree.

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DEDICATION

This project is firstly dedicated to the Almighty God who is the giver of life and divine wisdom and inspiration which enabled me to write this work.

Secondly, it is dedicated to my darling husband Mweu, who has been by my side every step of the way, encouraging and supporting me both emotionally and financially.

Thirdly, I wish to dedicate this work to my daughters Murugi and Maria who have inspired me to set the pace and standards, which I hope they will emulate and supersede.

The fourth dedication is to my loving friend Patricia Njuki who has always been my academic pace setter.

Last but not least, I wish to recognize my late parents, Cecilia and David M'turi who gave me a strong educational background to enable me come this far.

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My lovely family is a source of constant inspiration and encouragement.

May God bless you all abundantly.

ABSTRACT

Globally, the impact of Human Immuno-deficiency Virus (HIV) and Acquired Immune deficiency Syndrome (AIDS) is one of the major challenges to all sectors of the society. In Kenya, HIV and AIDS was declared a national disaster in 1999. By 2004, the pandemic was given special attention by the Ministry of Education and the school curriculum was reviewed to integrate AIDS education. This study intended to find out what preparation pre-service teachers are given to teach integrated HIV and AIDS awareness education through seeking to find out the integrated HIV and AIDS awareness education related content in the Primary Teacher Education (PTE) curriculum. The second objective of the study was to establish the pedagogical approaches for teaching integrated HIV and AIDS used by tutors to teach integrated HIV and AIDS awareness curriculum in Primary Teacher Training Colleges (PTTCs). Thirdly, the methods pre-service student teachers are taught to use in teaching HIV and AIDS related content were determined. The study also sought to find out the challenges faced by teacher educators in the implementation of integrated HIV and AIDS awareness curriculum in Primary Teacher Training Colleges. The last objective of the study was to find out the perceptions of the pre-service teachers about their preparedness to teach integrated HIV and AIDS awareness curriculum in primary schools. Descriptive survey research design was used in this study. The study locale was Kiambu County. The study targeted a population of 1620 student-teachers and 158 tutors. Random sampling was used to select 100 second year student- teachers representing 12.3% of the population. Purposive sampling helped to select 16 tutors from two colleges who represented 12.7 % of the tutors' population. Data was collected through analysis of the Primary Teacher Education (PTE) syllabus, interview schedules and questionnaires. Quantitative data was analyzed using descriptive statistics. Data from interviews and open ended questions was transcribed and organized into themes and sub-themes, categories and sub-categories in order to answer the research questions. The study found that most of the integrated HIV and AIDS awareness education content is found in Primary Teacher Education (PTE) Integrated Science syllabus. It was also established that learner centred methods are used by tutors to teach integrated HIV and AIDS awareness education and that the pre-service teachers are taught to use learner centred methods to teach integrated HIV and AIDS awareness education. One of the challenges tutors face is lack of specialized pre- and / or in-service training in the teaching of integrated HIV and AIDS awareness curriculum. The study however found that pre-service teachers perceive that they had been adequately prepared to teach integrated HIV and AIDS awareness curriculum in primary schools. The study concluded that pre-service teachers are adequately prepared to implement the HIV and AIDS awareness curriculum. The study recommended that knowledge and skills in the practice of integration of HIV/AIDS awareness curriculum should be included in the pre-service education for PTE tutors.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune- Deficiency Syndrome
ACU	AIDS Coordinating Unit
EFA	Education for All
HIV	Human Immune- Deficiency Virus
KIE	Kenya Institute of Education
HOD	Head of Department
ITE	Initial Teacher Education
MoE	Ministry of Education
KESSP	Kenya Education Sector Support Programme
PTE	Primary Teacher Education
PTTC	Primary Teacher Training College
TP	Teaching Practice
UNAIDS	United Nations Joint Program on HIV/AIDS
UNAIDS-IATT	UNAIDS Inter-Agency Task Team on Education
UNESCO	United Nations Education & Science Organisation
USAID	United States Agency for International Development

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter discusses the background to the study, statement of the problem, theoretical framework, conceptual framework, purpose of the study, research questions, assumptions, and significance of the study, scope, limitations and organization of the study.

1.2 Background to the study

Maticka-Tyndale, Wildish & Gichuru (2004) estimate that approximately 33 million individuals were infected with HIV and AIDS worldwide by 2007. The human immunodeficiency virus (HIV) is the virus that causes the Acquired Immune Deficiency Syndrome (AIDS), a pandemic that has spread around the world.

The Joint United Nations Programme on HIV and AIDS (UNAIDS, 2010) reports that the HIV and AIDS pandemic presents a major challenge for the social and economic development of nations located in Sub-Saharan Africa and estimates that in Sub-Saharan Africa, there are more than 20 million people living with HIV, and that around 10 percent of these people are below the age of 15 years.

UNAIDS (2010) points out that the first case of HIV infection in Kenya was diagnosed in 1984 and according to Maticka-Tyndale, Wildish & Gichuru (2006), the government of Kenya declared HIV/AIDS as a national disaster in 1999. UNAIDS (2010) estimates that by 2009, around 1.5 million Kenyans were living with HIV, and around 200,000 of them were children under the age of 15 years. UNAIDS (2010), adds that the HIV prevalence rate in Kenya for adults aged 15-49 years in 2009 was 6.3%.

AIDS is widely accepted as being one of the main causes of a dramatic increase in the number of orphans. In Kenya, for example, it is estimated that the number of orphans aged 0-17 years due to AIDS in Kenya rose from 820,000 in 2001 to 1.2 million in 2009. Ogle & Wambua (2011) in a report written for the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) of the United Nations recognizes that the education sector has a critical role to play in terms of the delivery of effective HIV and AIDS prevention education especially given that, at this point of time, there is no known cure for AIDS although a vaccine for HIV appears to be in a development phase.

Ndambuki, McCretton, Rider, Gichuru, and Wildish (2006) report that the Kenyan Ministry of Education has responded to this call by developing and implementing HIV and AIDS awareness and prevention education programmes that aim at ensuring that all young people possess the basic knowledge required to make informed decisions about HIV and AIDS, that will protect and promote their health. Ndambuki et al (2006) identify the primary school level as a crucial access point for HIV and AIDS prevention education programmes. This is because most children attend these schools, and it is also important to improve the knowledge of children about HIV and AIDS before they become sexually active and/or are involved in high-risk behaviors.

According to Ndambuki et al (2006), Kenya launched an HIV/AIDS curriculum at school level in 2000. After 2000, all the primary and secondary schools were expected to implement the curriculum through infusion method. Infusion refers to the introduction of selected concepts across a traditional curriculum such as introducing topics in reproductive health within the science subject. Teachers were expected to infuse HIV/AIDS messages orally as they teach their regular subjects.

In 2004 the Kenya Institute of Education revised the national primary school curriculum where the HIV and AIDS education was integrated. Integration is a philosophy of teaching in which content is

drawn from several subject areas to focus on a particular topic or theme such as; using population data on deaths experienced in a region due to HIV and AIDS leading to decrease in people, in the course of in the course of teaching a subject such as Mathematics in the revised curriculum for both primary and secondary schools. All the teachers are now expected to teach the revised curriculum. It is expected that as they teach the integrated curriculum they are going to pass the HIV and AIDS awareness messages.

However, since teachers are the key curriculum implementers, it is reasonable to argue that how effectively integrated curriculum is implemented depends on teachers. Mulama (2006) asserts that adequate teacher professional preparation for any subject is necessary. This preparation should develop the teachers' understanding of the content, and nurture positive attitudes towards the subject matter.

According to UNESCO (2011), pre-service teacher training has a key role in preparing future teachers to deliver effective sexuality education and HIV prevention education to children and young people in education institutions.

In Kenya, primary teacher training colleges offer a two-year certificate course for pre-service trainee teachers who must have completed four years of secondary education and attained a minimum of grade C in the Kenya Certificate of Secondary Education (Government of Kenya, 2004 b). Admission is centrally administered by the Ministry of Education, and then the trainees are posted to the public primary teacher training colleges. Student-teachers are supposed to be prepared to teach content on HIV and AIDS awareness that is integrated within the current primary teacher education (PTE) syllabus. The PTE expects that the trainees will be prepared to teach HIV and AIDS awareness messages as part of most of the subjects in the primary school curriculum namely English, Mathematics, Science, Social Studies and Religious Studies. HIV and AIDS awareness is also briefly covered as part of a guidance and counseling course offered

in the second year of study of Primary Teacher Education curriculum (Government of Kenya, 2004 b).

1.2 Problem statement

The United States Agency for International Development (USAID, 2010) puts the number of children who were orphaned in Kenya as result of the HIV and AIDS scourge by the year 2010 at 1.2 million. UNICEF (2010) estimates that the number of children (aged between 0-14 years) living with HIV and AIDS in Kenya to be 180,000 while that of HIV and AIDS prevalence among 15-24 year olds is at 4.1% and in adults (15-49 years) at 6.3%. These figures have led to the USAID (2010) conclusion that Kenyan youth are at a great risk of contracting the HIV virus, because the majority of them become sexually active between 15-19 years of age and only one quarter of them use a condom during their first encounter.

UNESCO (2008) recommends that HIV and AIDS education be offered to young people from 9-14 years of age, in an effort to forestall or reduce the risk of infection which becomes increasingly higher as they progress into late adolescence (15-19 years). In agreement with this opinion, Kelly (2000) points out the need to harness education as an effective method of preventing further infections, empowering learners to offer care and support to those already infected, as well as protecting the education sector from the negative impact of the disease. In his opinion, education is a good way to pass on information about HIV and AIDS because its beneficiaries range from infancy to early adulthood and are developing values, attitudes, knowledge and skills that serve them in subsequent adult life. Success in carrying out these functions depends upon teaching children in time to reinforce positive health behavior and attitudes that place young people young at risk.

Schenker and Nyirenda (2002) & Kisirikoi, Wachira & Malusu (2008) identify teachers as the most important resource in curriculum implementation as they deliver the curriculum to learners. Visser (2002) prescribes that given enough time, training and curricula space, teachers are the right vehicles to deliver HIV and AIDS messages to pupils but this applies only if teachers who are well prepared can implement a curriculum effectively. In Kenya, HIV and AIDS awareness curriculum is integrated in the teacher training curriculum however, there is little research on the preparation of pre-service teachers to teach integrated HIV and AIDS awareness curriculum in Kenyan Primary schools. The proposed study was designed to fill this gap. Therefore the study aimed to find out the extent to which the pre-service primary teachers are prepared to teach integrated HIV and AIDS curriculum.

1.4 Objectives of the Study

The study sought to achieve the following objectives:-

1. To find out the HIV and AIDS awareness related content in the Primary Teacher Education (PTE) curriculum.
2. To establish the pedagogical approaches for teaching the integrated HIV and AIDS curriculum used by tutors in Primary Teacher Training Colleges in Kenya.
3. To find out the methods pre-service teachers are taught to use in teaching HIV and AIDS related content.
4. To find out the challenges faced by tutors in implementation of HIV and AIDS curriculum in Primary Teacher Colleges.
5. To find out whether pre-service primary teachers in Kenya perceive themselves as well prepared with appropriate pedagogy to implement the integrated HIV and AIDS curriculum in Kenyan primary schools.

1.5 Research Questions

1. What is the HIV and AIDS related content in the Primary Teacher Training curriculum?
2. What pedagogical approaches do teacher educators use in teaching integrated HIV and AIDS awareness curriculum in PTTCs?
3. Which methods are pre-service teachers taught to use in teaching HIV/AIDS related content?
4. What challenges do tutors encounter in the implementation of integrated HIV and AIDS awareness education curriculum in PTTCs?
5. What are the perceptions of student-teachers about their preparedness to teach integrated HIV and AIDS awareness curriculum in primary school?

1.6 Assumptions

The assumptions underlying this study are that implementation of integrated HIV and AIDS awareness curriculum in Kenyan primary schools is compulsory, the respondents and PTT college administrators will be co-operative and that teaching methods (pedagogy) are taught as part of the curriculum in PTT colleges in Kenya.

1.7 Limitations

Limitations is an aspect of a study that the researcher knows may adversely affect the results or generalizability of the results of the study but over which she/he has no direct control (Orodho 2004).

The study covered only selected Primary Teacher Colleges (PTTCs) in the outskirts of Nairobi due to financial constraints of the researcher which restricted wide travel as well as time constraints on the part of the researcher who was on study leave for a limited period. These limitations did not allow for a very large sample.

1.8 Delimitations

Although there are many factors influencing implementation of the HIV/AIDS awareness curriculum, the study limited itself to pre-service students and tutors in selected public PTTCs since they will interact with most of the youth in the sexually active age. The study sought to find out the;

- i. Perceptions of the pre-service teachers with reference to their preparedness to implement the HIV and AIDS awareness curriculum.
- ii. Methods used by tutors in teaching the HIV and AIDS awareness curriculum.
- iii. Methods taught to the pre-service teachers for implementation in primary schools and
- iv. Challenges being faced by tutors in the teaching of the HIV and AIDS awareness curriculum in PTTCs

1.9 Theoretical Framework

According to Orodho (2004) theoretical framework is an important component of a research proposal. A theoretical framework is a theory or proposition that has been made about concepts surrounding a phenomenon and relationships then formulated between the concepts in an attempt to explain the said phenomenon.

This study was based on Bandura's concept of self-efficacy. According to Bandura (1994), self-efficacy is the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations.

Pajares (1997) adds that self-efficacy belief provides the foundation for human motivation leading to well-being, and personal accomplishment. This is because unless people believe that their actions can produce the outcomes they desire, they have little incentive to act or to persevere in the face of difficulties. Much empirical evidence supports Bandura's contention that self-efficacy beliefs touch virtually every aspect of people's lives—whether they think productively, self-debilitating, pessimistically or optimistically; how well they motivate themselves and persevere in the face of adversities; their vulnerability to stress and depression, and the life choices they make. Self-efficacy is also a critical determinant of self-regulation. Therefore, the self-efficacy beliefs of student teachers will affect their ability to teach HIV/AIDS curriculum effectively as well as face any challenges along the way.

Human functioning is influenced by many factors. The success or failure that people experience as they engage in a myriad of tasks that comprise their life naturally influence the many decisions they must make. Also, the knowledge and skills they possess will certainly play critical

roles in what they choose to do and not do. However, individuals interpret the results of their attainments, as they make judgments about the quality of the knowledge and skills they possess.

Bandura's (1997) key contention as regards the role of self-efficacy beliefs in human functioning is that "people's level of motivation, affective states, and actions are based more on what they believe than on what is objectively true". For this reason, how people behave can often be better predicted by the beliefs they hold about their capabilities than by what they are actually capable of accomplishing, for these self-efficacy perceptions help determine what individuals do with the knowledge and skills they have.

Pajares (1997) notes that this helps explain why people's behaviors are sometimes disjoined from their actual capabilities and why their behavior may differ widely even when they have similar knowledge and skills. Belief and reality are seldom perfectly matched, and individuals are typically guided by their beliefs when they engage the world. As a consequence, people's accomplishments are generally better predicted by their self-efficacy beliefs than by their previous attainments, knowledge, or skills. For instance both teacher educators and their students will choose to use the methods they believe work best despite having a wide array of methods they are aware of. Of course, no amount of confidence or self-appreciation can produce success when requisite skills and knowledge are absent. Pajares (1997) however, asserts that self-efficacy beliefs are themselves critical determinants of how well knowledge and skill are acquired in the first place.

Because individuals operate collectively as well as individually, self-efficacy is both a personal and a social construct. Collective systems develop a sense of collective efficacy—a group's shared belief in its capability to attain goals and accomplish desired tasks. For example, schools

develop collective beliefs about the capability of their students to learn, of their teachers to teach and otherwise enhance the lives of their students, and of their administrators and policymakers to create environments conducive to these tasks. Organizations with a strong sense of collective efficacy exercise empowering and vitalizing influences on their constituents, and these effects are palpable and evident.

Individuals form their self-efficacy beliefs by interpreting information primarily from four sources; namely mastery experience, vicarious experience and social persuasions. The most influential source is the interpreted result of one's previous performance, or *mastery experience*.

Individuals engage in tasks and activities, interpret the results of their actions, use the interpretations to develop beliefs about their capability to engage in subsequent tasks or activities, and act in concert with the beliefs created. Typically, outcomes interpreted as successful raise self-efficacy; those interpreted as failures lower it. Pre-service teachers who have had a chance to practice their skills during practicum may therefore form perceptions about their self-efficacy as regards implementation of any curriculum based on whether they “succeeded” or “failed” in the area during the exercise.

In addition to interpreting the results of their actions, people form their self-efficacy beliefs through the *vicarious experience* of observing others perform tasks. This source of information is weaker than mastery experience in helping create self-efficacy beliefs, but when people are uncertain about their own abilities or when they have limited prior experience, they become more sensitive to it. The effects of modeling are particularly relevant in this context especially when the individual has little prior experience with the task. Even experienced and self-efficacious individuals, however, will raise their self-efficacy even higher if models teach them

better ways of doing things. This can be used to explain the fact that student teachers rely heavily on their tutors to model best practices to them.

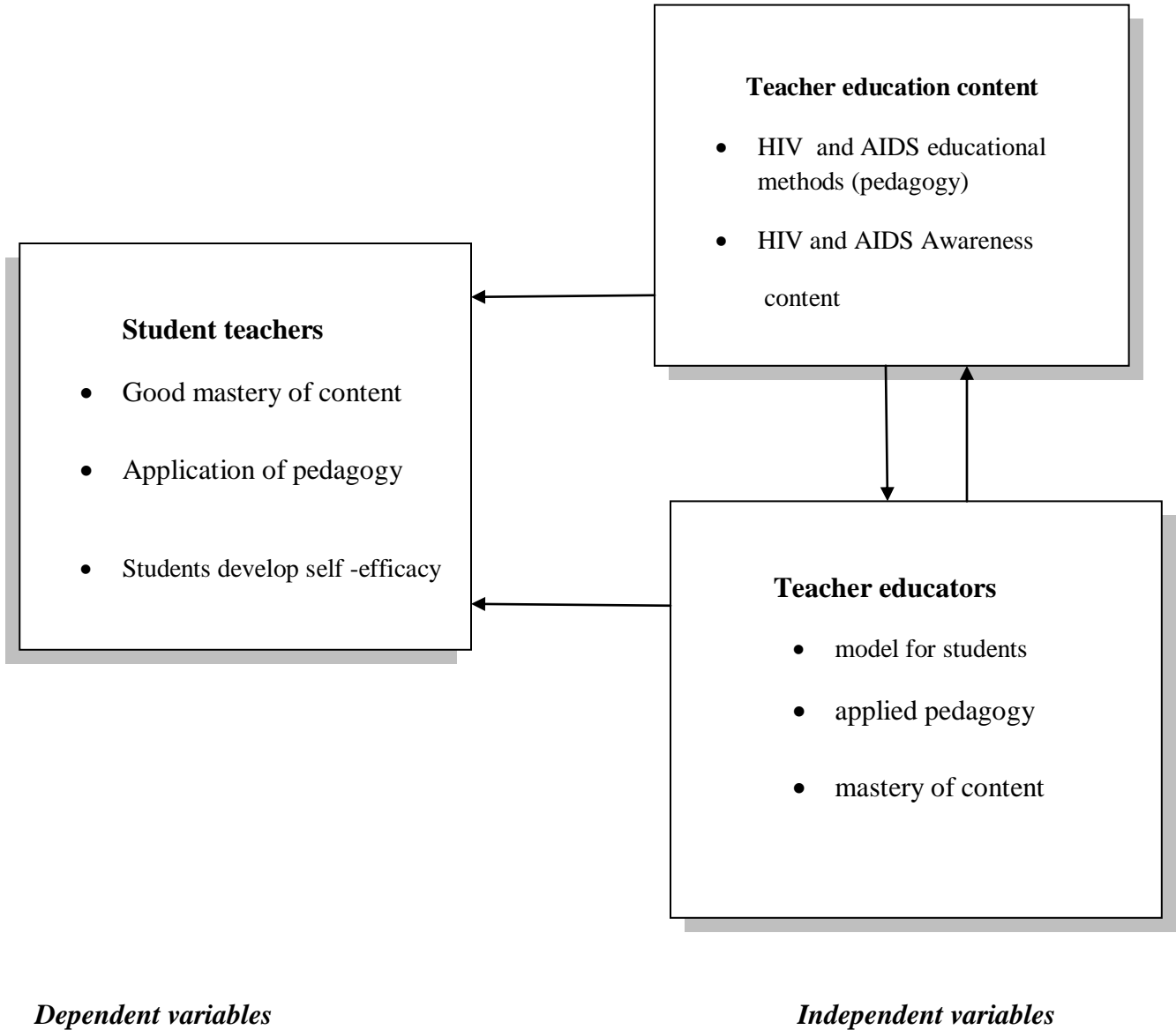
Individuals also create and develop self-efficacy beliefs as a result of the *social persuasions* they receive from others. These persuasions can involve exposure to the verbal judgments that others provide. Persuaders play an important part in the development of an individual's self-beliefs. But social persuasions should not be confused with knee-jerk praise or empty inspirational homilies. Effective persuaders must cultivate people's beliefs in their capabilities while at the same time ensuring that the envisioned success is attainable. And, just as positive persuasions may work to encourage and empower, negative persuasions can work to defeat and weaken self-efficacy beliefs. In fact, it is usually easier to weaken self-efficacy beliefs through negative appraisals than to strengthen such beliefs through positive encouragement.

Self-efficacy has been especially prominent in studies of educational constructs such as academic achievement, attributions of success and failure, as well as teaching and teacher education. In general, researchers have established that self-efficacy beliefs and behavior changes and outcomes are highly correlated and that self-efficacy is an excellent predictor of behavior.

The depth of this support prompted Graham and Weiner (1996) to conclude that, particularly in psychology and education, self-efficacy has proven to be a more consistent predictor of behavioral outcomes than have any other motivational constructs. Clearly, it is not simply a matter of how capable one is, but of how capable one believes oneself to be. This assertion can be applied to student teachers as well as their tutors who are being prepared to take on the implementation of an HIV and AIDS awareness curriculum in Kenyan primary schools and PTEs, who are the subjects of the proposed study.

1.10 Conceptual Framework

Fig 1: Appropriate Initial Teacher Education (ITE) and student teachers self-efficacy beliefs



Source: Researcher's perspective from objectives

The conceptual basis of the proposed study is that HIV and AIDS content and pedagogy are demonstrated to student teachers by teacher educators in the process of teaching as they are supposed to be their models.

The content and the pedagogical approaches taught by the teacher educator will more often than not influence the self efficacy of the student teacher. A student teacher who views themselves as well prepared to teach a subject will as a result appear to be a confident, motivated and effective implementer of a curriculum in the field. It cannot however be overemphasized that no amount of confidence or self-appreciation can produce success when requisite skills and knowledge are absent thus the need to equip them with the skills and knowledge specific to HIV and AIDS education as well as its integration. It bears noting that self-efficacy beliefs are themselves critical determinants of how well knowledge and skill are acquired in the first place.

Teacher educators guided by the PTE syllabus chose the content and pedagogy to be passed to the student teachers as they interact. Teacher educators' mastery of content or lack of thereof influences similar characteristics in their students.

The content knowledge and skills they possess will certainly play critical roles in what they choose to teach or not. Their self-efficacy should also give them intrinsic motivation and a very confident approach to their teaching of the subject. The inverse can also be true.

CHAPTER TWO

ΛΙΤΕΡΑΤΥΡΕ ΠΕΡΙΕΧΩ

2.1 Introduction

In this chapter a comprehensive literature review was conducted addressing the effects of HIV and AIDS on supply and demand of education, HIV/AIDS awareness education, teachers' confidence in teaching HIV/AIDS related content as well as teacher educators' preparation to teach in PTTCS.

2.2.1 Εμφεχτις οφ ΗΙς/ΑΙΔΣ ον συππλψ οφ ανδ δεμανδ φορ εδυχατιον

Αχχορδινγ το Νδαμβυκι, ΜχΧρεττον, Ριδερ, Γιχηρυ ανδ Ωιλδιση (2006), εδυχατιον ηα σα μαφορ ρολε το πλαιν ιν πρεπεντινγ ΗΙς ανδ ΑΙΔΣ ασ ωελλ ασ μιτιγατινγ ιτισ ιμπαχτιον τηοσε αφφεχτεδ. Ιτ ισ παρτιχυλαρλψ ιμπορταντ σινχε τηε πεακ οφ ινφεχτιον ισ ιν τηε 15 το 24 αγε γρουπ ωηο αρε μαινλψ ιν τηε σχηοολ ανδ χολλεγε σψστεμ, ανδ ωηο νεεδ τ ο δεπελοπ τηε νεχεσσαρψ λιφε σκιλλσ τηατ συππορτ τηε ρεδυχτιον οφ τηε ρισκ ανδ ψυλνεραβιλιτη το ΗΙς ινφεχτιον. Δυρινγ τηε ωορλδ εδυχατιον φορυμ ηελδ ιν Δακαρ-Σενεγα αλ ιν Απριλ 2000, τηε ιντερνατιοναλ εδυχατιον χομμυνιτη αδοπτεδ τηε Δακαρ φραμεωορκ φορ αχτιον φορ Εδυχατιον φορ Αλλ (ΕΦΑ) ωηιχη δρεω αττεντιον το τηε υργεντ νεεδ τ ο χομβατ ΗΙς ανδ ΑΙΔΣ ιφ τηε ΕΦΑ γοαλσ ωερε το βε αχηιεπτεδ.

Νδαμβυκι ετ αλ (2006) φυρτηερ νοτε τηατ ΗΙς ανδ ΑΙΔΣ ηαπε βεεν ανδ χοντινυε το χαυσε μαφορ χονχερνεσ δυε το τηε φαχτι τηατ ατ πρεσεντ τηερε ισ νο κνοων χυρε ορ παχχινη ε φορ ΗΙς ανδ ΑΙΔΣ. Τηε ονλψ ωαψ το στοπ ιτισ σπρεαδ ισ τηρουγη βεηαπιουραλ ανδ ατ τιτυδιναλ χηανγε.

Της ΗΙς πανδεμικ ησ ιμπαχτεδ περψ αδπερσελψ ον εδυχατιον σεχτορ ασ α ωηολε. Φο
ρ εξαμπλε
εδυχατιον ησ αν ιμπαχτ ον δεμανδ ανδ συμπλψ οφ εδυχατιον. ΥΝΑΙΔΣ/ΑΤΤ ον Εδυχα
τιον
(2010) λοοκ ατ δεμανδ φορ εδυχατιον ιν τωο περσπεχτιπες, ναμελψ βψ τηε νυμβερ οφ π
εοπλε
ωισηινγ το αχχεσσ ιτ ι.ε. ενρολμεντ, αττενδανχε ανδ συχχεσσ ρατεσ ανδ αλσο βψ τηε ρ
ολε ιτ ισ βεινγ
ρεθυρεδ το πλαψ. ΥΝΑΙΔΣ (2008) εστιματεσ τηε νυμβερ οφ ορπηανσ αττριβυτεδ το ΑΙΔ
Σ ιν
συβ-Σαηαραν Αφριχα ιν 2007 ατ 12.1 μιλλιον. ΥΣΑΙΔ (2010) πυτσ ατ 1.2 μιλλιον τηε νυ
μβερ οφ
χηιλδρεν ωηο ωερε ορπηανεδ ιν Κενψα ασ ρεσυлт οφ τηε ΗΙς ανδ ΑΙΔΣ σχουργε βψ τηε
ψεαρ 2010.

Case , Parson and Ableidinger (2004); Case and Ardington (2006) and Evans and Miguel (2007)
have carried out studies in Africa that have demonstrated that children who are orphaned are
significantly less likely to be enrolled in school than non-orphans, and they tend to progress more
slowly when they are enrolled.

Landis (2002) in a report for the World Food Programme, identifies several challenges faced by
Orphans and Vulnerable Children (OVC) as being detrimental to their ability to access or sustain
education: They often suffer denied access to food, adequate shelter, health care and education;
forced to work harder or longer hours; subject to physical or emotional abuse as a result of
stigma and discrimination. OVC also face increased workload as a result of caring for sick

household members, or having to make up lost income by undertaking productive work (a factor that impacts disproportionately on girls). OVC often have to move away from home to live with relatives temporarily or for longer periods thus reducing the likelihood of enrolling in or maintaining attendance at school. Some children who have lost both parents and have no relatives to support them take on head of household responsibilities, which means a heavy responsibility for providing for younger siblings and very little money for education. Children who live on the street are particularly vulnerable to abuse; lack of security and other basic necessities of life make formal education impossible to attend.

HIV/AIDS has also affected quality, access and equity as well as demand and the supply of educational services. According to Kisirikoi, Wachira and Malusu (2008), teachers are the most important resource in curriculum implementation because they deliver the curriculum to the learners. UNAIDS (2008) identifies the impact of HIV and AIDS on teachers' as a key area of concern, as the disease has the potential to reduce the supply of education significantly, especially in countries where availability of qualified teachers is already a problem. Kenya is one of these countries. The research by Badcock-Walters, Desmond, Wilson and Heard (2003) into teacher mortality in KwaZulu Natal in South Africa, however, reveals that teachers' deaths peak at an age below anticipated life expectancy and that teachers are dying at three times the rate of their peers in the general population without AIDS. From this, he argues that there is 'substantial and measurable impact' on the education systems.

As well as mortality, absenteeism is also a factor in reducing the supply of quality education by increasing student-teacher ratios for covering teachers. In Zambia, Robson and Kanyanta (2007) found that this may mean anything from one teacher to every 50 and 120 pupils. Risley (2009) reports on Rwanda and Kenya also predicts a widening gap between the Education for All (EFA)

goal of a 1:40 teacher-student ratio and the reality if current levels of ARV therapy and VCT are maintained.

2.3 HIV and AIDS awareness

2.3.1 Education and HIV prevention

According to the United Nations Joint Programme on HIV and AIDS (UNAIDS/ATT on Education, 2010) teachers and schools are still seen as the main source of information regarding HIV and AIDS for young people.

According to Ndambuki et al, (2006) the United Nations General Assembly Special Session on HIV/AIDS (UNGASS) called upon governments to develop and implement national strategies to reduce HIV infection among the 15 to 24 years old. It called for the vast expansion of access to information and education especially to youth. A similar call for the intensification of educational interventions for youth was made by the Education International First World Congress which asked countries worldwide to be active in promoting a comprehensive school health policy.

2.3.2 Τηε Κενψαν ΗΙς ανδ ΑΙΔΣ εδυχατιον σεχτορ πολιχψ

In response to the UNGASS recommendations Ndambuki et al (2006) pointed out that the government of Kenya came up with an HIV and AIDS education sector policy. The policy stipulates that it is the responsibility of all learning institutions to address HIV and AIDS through education, developing skills and values and changing attitudes to promote positive behaviour that fights the scourge. The policy anticipates that each institution will be able to mobilize different stakeholders such as local communities, religious groups, leaders, parents, caregivers and guardians to support and ensure success of the HIV and AIDS prevention and control programmes within the learning institutions. It endorses a curriculum with content guidelines

that address HIV and AIDS but is sensitive to cultural and religious beliefs and appropriate to age, gender and special groups. It requires Higher Education institutions to develop a common framework for teaching HIV and AIDS. The policy encourages all learning institutions to use co-curricular activities such as clubs, drama groups and sports events to inform and educate on HIV and AIDS. All heads of education institutions are to ensure that appropriate supervisory systems and measures are in place to ensure a safe teaching and learning environment with particular reference to hostel accommodation.

Τη πολυχω στατες τηατ ρελεπαντ ανδ συιταβλε τεαχηινγ ανδ λεαρνινγ ματεριαλσ φορ ΗΙς πρε πεντιον ωιλλ βε δεπελοπεδ φορ υσε βψ αλλ ινστιτυτιονσ ανδ ωορκπλαχεσ. Ιτ ρεθυιρεσ πρε-σερ πιχε ανδ ιν-σερπιχε προγραμμεσ φορ τεαχηερσ το πρεπαρε τεαχηερσ/τραιινερσ το ρεσπονδ το ΗΙς ανδ ΑΙΔΣ ωιτηιν τηειρ ωων λιπεσ, ανδ ασ προφεσσιοναλσ το βυιλδ ποσιτιβε αττιτυδεσ ανδ σκιλλσ φορ ΗΙς ανδ ΑΙΔΣ πρεπεντιον ανδ χοντρολ αμονγ λεαρνερσ. . Τηε πολυχω στατεμεντσ ιν τηισ αρεα αρε βροαδ ανδ αλλ-ενχομπασσινγ ανδ ρελατε το αλλ λεαρνινγ ινστιτυτιονσ. Ηωωεπ ερ, τηε στατεμεντσ αρε οφτεν νον-χομμιταλ ρατηερ τηαν αυτηοριτατιπε, φορ εξαμπλε ιτ αππε αρσ το συγγεστ τηατ ινστιτυτιονσ οφ ηιγηερ λεαρνινγ σηουλδ ιμπλεμεντ ΗΙς ανδ ΑΙΔΣ ιντερπεντιον, ρατηερ τηαν ρεθυιρινγ τηεμ το. Τηε πολυχω αλσο δοεσ νοτ χομμεντ υπον τηε απαιλαβιλιτυ οφ ρεσουρχεσ.

2.3.3 Μαιιστρεαμινγ ΗΙς ανδ ΑΙΔΣ εδυχατιον ιντο τηε ρεγυλαρ χυρριχυλυμ ιν Κενψα Νδαμβυκι ετ αλ (2006), ρεχομμενδ τηατ ανψ ΗΙς ανδ ΑΙΔΣ εδυχατιον ιντερπεντιον φορ ψουτη μυστ αδδρεσσ τηε ισσυεσ τηατ διρεχτλψ ρεδυχε τηειρ ψυλνεραβιλιτυ το ΗΙς ανδ ΑΙΔΣ ινφεχτιον ναμελψ δελαψινγ τηειρ δεβυτ/ινιτιατιον ιντο σεξυαλ αχτιπιτυ; προπι διγγ λιφε σκιλλσ τηατ βυιλδ ανδ ενηανχε σελφ-εστεεμ, σελφ-ωορτη ανδ σελφ-χονφιδεν

χε ανδ ιμπαρτινγ σκιλλσ φορ σελφ–προτεχτιον φρομ πυλνεραβιλιτψ το σεξ ανδ ΗΙς ανδ ΑΙΔΣ ινφεχτιον.

Αχχορδινγ το Νδαμβυκι (2006), Κενψα ηασ αδοπτεδ τηε υσε οφ εδυχατιον ανδ τραινινγ ασ μαφορ τοολσ ιν τηε πρεπεντιον οφ αν ΗΙς ανδ ΑΙΔΣ πανδεμιχ σινχε τηε ψεαρ 2000 ω ηεν τηε φιρστ ΗΙς ανδ ΑΙΔΣ νατιοναλ σχηοολ χυρριχυλυμ ωασ λαυνχηεδ. Σχηοολ–βασ εδ ΗΙς ανδ ΑΙΔΣ εδυχατιον προγραμμεσ ανδ χομμυνιτψ–βασεδ ανδ ωορκπλαχε εδυχατι ον ανδ τραινινγ προγραμμεσ ηαπε βεεν ιμπλεμεντεδ. Σινχε 2000, Κενψα ηασ βεεν ιμπλε μεντινγ α πριμαρψ σχηοολ ανδ σεχονδαρψ νατιοναλ σχηοολ ΗΙς ανδ ΑΙΔΣ αωαρενεσσ χυρριχυλυμ τηορουγη τηε Μινιστρψ οφ Εδυχατιον. Δυρινγ τηε φιρστ φιβε ψεαρσ αν ινφ υσιον στρατεγψ ωασ αδοπτεδ φορ τηε ιμπλεμεντατιον οφ τηε χυρριχυλυμ, ωιτη ΗΙς ανδ ΑΙΔΣ εδυχατιον χοντεντ ινφυσεδ ιν χαρριερ συβφεχτσ. Τεαχηερσ ωερε εξπεχτεδ το πασ σ ΗΙς ανδ ΑΙΔΣ μεσσαγεσ τηρουγη τηειρ ρεγυλαρ συβφεχτσ υσινγ τηε ιμπλεμεντατιον γ υιδελινεσ φορ τηε ΗΙς ανδ ΑΙΔΣ σψλλαβυσ τηατ ωερε προπιδεδ βψ τηε Μινιστρψ οφ Εδ υχατιον (ΜοΕ). Τηε μαφοριτψ οφ τεαχηερσ ωερε νοτ αδεθυατελψ τραινεδ ον τηε ινφυσι ον στρατεγψ, ανδ τηισ λαχκ οφ κνοωλεδγε, σκιλλσ, αττιτυδε ανδ χονφιδενχε νεγατιπελ ψ αφφεχτεδ τηε θυαντιτψ ανδ θυαλιτψ οφ τηε ιμπλεμεντατιον οφ τηε νατιοναλ ΗΙς ανδ ΑΙΔΣ χυρριχυλυμ. Τηε φαχτ τηατ ατ τηε τιμε τηε νατιοναλ ΗΙς ανδ ΑΙΔΣ χυρριχυλυμ ω ασ λαυνχηεδ ιτ ωασ α νον–εξαμιναβλε συβφεχτ μεαντ τηατ ιτ ωασ νοτ γιπεν προμινεν χε ανδ ιμπορτανχε ιν τεαχηινγ. Σομε τεαχηερσ διδ νοτ τεαχη ιτ βυτ ινστεαδ υσεδ τηε τι με αλλοχατεδ το τεαχη οτηερ συβφεχτσ τηατ τηεψ χονσιδερεδ ιμπορταντ φορ αχηιεπιν γ συχχεσσ ιν νατιοναλ εξαμσ.

Νδαμβυκι (2006) στατες τηατ τηε ΜοΕ ρεχογνιζεδ τηατ ΗΙς ανδ ΑΙΔΣ ωασ νοτ γετινιγ τ ηε αττεντιον ιτ δεσερπεδ ον τηε τιμεταβλε σινχε ιτ ωασ νοτ αν εξαμιναβλε συβφεχτ. Ιν ρεσπονσε τηε Μινιστρψ χηανγεδ τηε ιμπλεμεντατιον στρατεγψ φολλοωινγ τηε 2003 χυρ ριχυλυμ ρεπιεω ανδ ιντροδυχεδ α δυαλ στρατεγψ. Τηε ρεπισεδ σψλλαβι οφ 2004 ιντεγρ ατεδ ΗΙς ανδ ΑΙΔΣ ρελατεδ χοντεντ, ινφορματιον ανδ μεσσαγεσ ιν τηε μαφοριτυ οφ συ βφεχτσ, ωηιχη ενσυρεσ τηατ ΗΙς ανδ ΑΙΔΣ ρελατεδ χοντεντ ωιλλ βε ταυγητ ανδ εξαμινε δ ωιτηιν τηε χαρριερ συβφεχτσ φυστ λικε ανψ οτηερ συβφεχτ.

Τηε ΜοΕ πρεπαρεδ ανδ διστριβυτεδ μαρυαλσ φορ γυιδινγ τηε ιν-σερπιχε τραινινγ οφ τε αχηερσ φορ τηε ιμπλεμεντατιον οφ τηε ρεπισεδ ΗΙς ανδ ΑΙΔΣ ιντεγρατεδ χυρριχυλυμ. Τ ηε ΘΑΣΟ Διρεχτορατε υσεδ ΚΙΕ τραινερσ το τραιν τεαχηερσ ατ ζοναλ ανδ σχηοολ λεω ελσ, βυτ ονλψ α σμαλλ προπορτιον ηαδ βεεν τραινεδ ον τηε νεω χυρριχυλυμ ατ τηε τιμ ε οφ ιτσ λαυνχη. Σινχε τηεν ΚΙΕ, ΑΧΥ ιν χονφυνχτιον ωιτη ΥΝΙΧΕΦ ηαπε προπιδεδ ιν-σερπιχε τραινινγ φορ τεαχηερσ ιν τηε ΥΝΙΧΕΦ Διστριχτσ.

Γιωεν τηε εξιστινγ στρυχτυρε οφ τραινινγ τεαχηερσ ιν Κενψα, Ονψανγο (2009) ρεχομμε νδσ α μορε συσταιναβλε ωαψ το πρεπαρε τεαχηερσ το τεαχη αβουτ ΗΙς ανδ ΑΙΔΣ ασ τη ε υσε οφ τηε πρε-σερπιχε τεαχηερ πρεπαρατιον προγραμμε. Ιτ ισ αλσο μορε χοστ εφφεχ τιπε ασ ιτ ρεαχηεσ α λαργερ νυμβερ οφ τεαχηερσ τηαν ανψ ιν-σερπιχε χουρσε.

2.4 TEACHER EDUCATION

2.4.1 The role of teacher education in preparing teachers to teach sex education

UNESCO (2011) states that, pre-service teacher training has a key role in preparing future teachers to deliver effective sexuality education and HIV prevention education to children and young people in education institutions. At the same time, it has the power to protect student teachers from HIV infection by changing their own knowledge levels, attitudes and behaviour, and to mitigate the impact of HIV and AIDS on people who are directly or indirectly affected by the epidemic.

Whilst comprehensive responses to HIV and AIDS in the education sector are growing in coverage and strength, the most visible efforts to improve the quality of HIV education have focused mainly on improving school-based learning materials and training teachers already in schools, UNESCO (2011) however recommends a sharper focus on pre-service teacher training on HIV and AIDS as opposed to in-servicing of teachers.

2.4.2 Rationale for pre-service education of HIV/AIDS education teachers

Why focus on pre-service teacher training? As UNESCO (2011) spells out, pre-service teacher training on HIV and AIDS is a complex issue. At the same time, it is key to accessing and strengthening the education sector response at a number of levels. These could be summarized as follows:

Pre-service teacher training on HIV and AIDS should form part of a comprehensive education sector response to HIV and AIDS because teachers skilled in HIV and AIDS education strengthen the education sector response to the epidemic as well as the national multi-sectoral response.

Pre-service training is a golden opportunity to address both the *personal* and *professional* needs of trainee teachers. Many of them are young people who need better HIV prevention education as well as being important social role models for the learners and communities they serve.

Ensuring that HIV and AIDS are part of the formal pre-service training of teachers brings with it the potential benefits of evaluation, resources and accreditation.

Teacher training institutions – and teacher trainers in particular need to improve their skills base in HIV and AIDS and develop new professional career paths for specialist teachers.

Investing in pre-service teacher training is a strategic *institutional need* for a skilled cadre of professionals at training institutions, capable of supporting the education sector response.

2.4.3 Primary teacher education (PTE) curriculum in Kenya

Curriculum specifies what is to be taught and learnt in any learning institution.

It also specifies how the learning should be managed. Primary Teacher Education (PTE) curriculum was first introduced in 1986 and later revised in 1994. It was revised in 2004 after the revision of primary school curriculum, so as to harmonize it with the revised primary school curriculum

The Primary Teacher Education course takes two years, and students study **ten** subjects in the first year and in the second year **nine** subjects.

The revised curriculum addresses new areas that were not addressed in the 1994 curriculum.

These areas are referred to as emerging issues in the society and include: □ HIV and AIDS pandemic, drug and substance abuse, environmental education, human rights (including children's rights, gender issues, technology in curriculum delivery and alternative models of curriculum delivery. The revised PTE curriculum has also incorporated Information and

Communication Technology (ICT), special education, guidance and counseling in a bid to improve the quality of training.

The Primary Teacher Education Syllabus states that the HIV/AIDS curriculum is supposed to be diffused and integrated in the syllabus. It is supposed to be taught as part of Mathematics, English, Science and Social Studies as well as, as part of Guidance and counseling curriculum in a unit called educational psychology (Government of Kenya, 2004c).

2.4.4 Content knowledge for Initial Teacher Education (ITE)

Aubrey (1997) put forward the notion that, if teaching involves helping others to learn, then understanding the subject content to be taught is a fundamental requirement of teaching.

Shulman (1986) suggests three categories of content knowledge namely subject matter content knowledge that refers to the amount and organization of knowledge per se in the mind of the teacher”, pedagogical content knowledge that “goes beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching”and curriculum knowledge which is represented by “the full range of programs (and materials) designed for the teaching of particular subjects and topics at a given level”. Kisirikoi et al (2008) confirm that most initial teacher education (ITE) curriculae include at least three subject areas, namely subject content, subject methods and educational theory.

Grossman, Wilson and Shulman (1989), however recognize that both teachers and teacher educators may be unaware of the powerful influence knowledge, or lack of knowledge of a subject exerts on teaching”. Fennema and Franke (1992) state that no one questions the idea that what a teacher knows is one of the most important influences on what is done in classrooms and ultimately on what students learn”. Aubrey (1997) also considered it to be one of the most important influences on classroom practice.

2.4.4.1 Pedagogy for teacher education

According to Stuart, Akyeampong and Croft (2009), there are two main reasons for paying close attention to pedagogy namely to help teacher-students learn effectively as well as serving as models of good practice to them. Pedagogy is a term to describe teaching and learning methods together with the rationale behind them.

Kisirikoi, Wachira and Malusu classify methods of teaching as either teacher –centered or learner-centered approaches/teaching.

Stuart et al (2009) refer to teacher –centered teaching as ‘transmission or didactic teaching’ and define it as a situation where the tutor transmits knowledge from themselves to the students or where the tutor dominates and controls the teaching/learning process. The lecture method is a good example of didactic teaching.

On the other hand, learner-centered teaching /approaches refer to situations where learners actively participate in processing new knowledge and make their own meanings from it.

Kisirikoi et al (2008), further group Learner-centered approaches into four different approaches; the interaction approach, collaborative approach, experiential approach and facilitation approach.

Interaction approach describes a situation where there is an exchange of ideas between the teacher and the learner for example during open class discussion, role-playing (in ITE –micro-teaching is a form of this) and pair-work or among learners in group work or projects. The collaborative approach refers to learning experiences in which learners share ideas in groups or/and projects. The experiential approach points at where learner’s life experiences in the community are explored and used as a basis for development of new knowledge and passing judgment. Methods of teaching in this approach include story-telling, dramatization and

dramatization. The facilitation approach is where the teacher provides the stimulus for the learner's interaction with new knowledge by providing opportunities for them to learn and the teacher guides and directs learning. Methods for teaching in this approach are assignments, question and answer as well as debates.

Stuart and Tatto (2000) recommend learner –centered approaches for teacher-education and insist that student-teachers who have been exposed to a wide repertoire of methods will be in a better position to adapt them for use with their own pupils.

2.4.4.2 Appropriate pedagogy for sex education

Even though teachers who are teaching sex education may have a reasonable level of knowledge of HIV/AIDS (Peltzer & Promtussananon,2003), sex education does not only include cognitive aspects but also affective and behavioural aspects as pointed out by Buston et al. (Buston, Wight, Hart& Scott; 2002).

According to Schenker and Nyirenda (2002) education for HIV awareness and prevention cannot be taught effectively if it is surrounded by fear and uncertainty. These fears, attitudes, feelings and anxieties may inhibit students' learning. To curb this problem, interactive strategies can be used to promote active participation. These strategies have proved effective in facilitating learning in all domains, as well as in encouraging changes toward desirable behaviour.

They also help students to explore their feelings and gain insight into their own attitudes, values and perceptions. Classes on HIV and AIDS should be recognized as different. Applying a multimedia approach including stories, role plays, lectures from outside providers such as public health nurses and HIV support networks, providing an opportunity for actively engaging students in the learning process.

Other useful media that may contribute to innovative teaching on this subject include video presentations, research on the Internet, visits to hospitals and health care facilities, and classroom discussions and debates.

Schenker et al (2002) also recommends practical and innovative methods of teaching HIV and AIDS education such as; use of a range of materials and resources that are appropriate and relevant to the ages and abilities of the students in the classroom; avoiding lecturing your students; having them play an active role in class, involving students in a range of activities including individual, paired, small group, or whole class activities. Schenker et al (2002) also proposes; helping your students become your partners in seeking information, analyzing and discussing the epidemic and ways to prevent infection and reduce stigma; encouraging questions, discussion and the fostering of new ideas as well as promoting attitudes of respect for each other – modeled by teachers and evident amongst the students together with the application of a multimedia approach, including stories and role plays. Interactive teaching and learning methods that are skill-based have been shown to be more successful in helping students develop the abilities for adaptive and positive behaviour that enables them to deal effectively with the demands and challenges of HIV awareness and prevention.

2.5 TEACHERS' CONFIDENCE IN TEACHING HIV/AIDS

Firstly, teachers' confidence in teaching sex and HIV/AIDS depends on how they perceive their own ability to teach these topics (**self efficacy**). This will only relate to whether they think they will be able to conduct various activities and exercises that they are supposed to.

Secondly, teachers' confidence could depend on whether they perceive that they will be able to influence the behaviour of the young people (**positive outcome expectancy**). When teachers

report having considerable enthusiasm for a programme (Kinsman, Harrison and Kengeya-Kayondo, 1999). One might assume that this implies that they also believe that the programme has the potential of being effective.

Finally, teachers' confidence could depend on their **negative outcome expectancies**. Sex education in general is not value-free, but loaded with meaning (Halstead & Reiss, 2003) and a teacher might consider that parts or the whole content of a programme contradicts her/his own values and norms, those of the students or the parents, or values and norms in the community in general (Mbananga, 2004).

Some have suggested that perceived opinions from the closest social setting, e.g. students, colleagues and school principals, are the most influential (Paulussen, 1997).

Most of the challenges facing novice teachers is associated with initial teacher training (ITE) in the area of health education with teachers being found to lack confidence when the foundation training is poor (Heathcote, 1989 & Hamblett, 1994). Once implementation of the curriculum begins, many struggle to move beyond didactic methods to implement a facilitative and participative approach.

2.6 TEACHER EDUCATORS PREPARATION TO TEACH IN PTTCs

2.6.1 Teacher Educators; what should they learn?

A few authors have made suggestions about how to go about mandating what teacher educators should learn. For example, Beaty (1998) calls for teacher educators "to acquire professional knowledge not only of subject matter, but also of pedagogy; they must develop skills and techniques for teaching; and they must develop attitudes and understanding of ethical principles that underlie teaching (in Villegas-Reimers, 2003).

Hernandez (1998) asserts that teacher-educators need to; be educated in pedagogy as their work has a strong influence on the work of teachers and therefore they should model and illustrate a variety of teaching methods, techniques, and processes; prepared on practical issues related to the day-to-day work in the classroom; be prepared to conduct research in their area of expertise; know and understand the institutions where they work and where their students will work as well as the national education system in depth. Teacher-educators must also know how to work in teams and collaborate in their work. Teacher-educators must also enjoy teaching as this disposition will generate a positive attitude towards teaching in their students.

Hargreaves and Fullan (1992) put forward the theory that teachers teach in the way they do not just because of the skills they have or have not learned. The way they teach are also grounded in their backgrounds, their biographies, in the kind of teachers they have become.

2.6.2 Training and support for teacher trainers

UNESCO (1983) puts forward the theory that the training received by the teachers who teach in teacher training colleges or equivalent institutions differs even more in its nature and its level than do those institutions themselves. This is due to the fact that in few countries where specialized training for teacher educators exists, there are wide variations of the same.

To reach teacher trainees successfully, any intervention needs well-trained and supported teacher trainers, able to tailor the curriculum to the needs of the students and to the social and epidemiological context in which the learning takes place. Teacher trainers need to demonstrate how to adapt a curriculum in this way, as this skill will enable students to engage learners in their turn, ensuring that they take away real life lessons that are genuinely protective and long-lasting. To respond to this expanded role, teacher trainers require specialized training, mentoring and support in order to conduct their training in a way that strengthens the linkage with continuous

professional development throughout their students' careers. A well-functioning professional development system depends on mechanisms, capacity, resources and above all a commitment to continuous learning both within and outside the classroom.

UNESCO (2011), points out that those who teach teachers (a critical, often neglected group) should receive adequate training to prepare them for their roles. Their comfort and abilities will certainly influence new and impressionable teachers. Training primary school teachers offers an opportunity to reach young people before these youth become sexually active and to help those who are already active to protect themselves from pregnancy and diseases (the primary school pupils).

According to Tijuana, Finger, Ruland and Savaraud (2004), two exhaustive reviews of studies by the World Health Organization (WHO) and the U.S. National Campaign to Prevent Teen Pregnancy reveal that teacher training, including the kind of preparation, training, and support a teacher receives, is a key component of a successful school-based HIV/AIDS program.

2.6.3 Teacher educators teach as they were taught

Akyeampong, 2006; Akyeampong, et al., 2000; Kanu, 2007; Stuart & Tatto, 2000), observe that despite years of policy and programs designed to promote active, participatory and learner-centered education in primary school classrooms, the focus on whole class activities of choral response, memorizing and recalling information, and a focus on lower level cognitive skills remains the norm. Teachers' college classrooms tend to be characterized by an emphasis on recall and memorization similar to the one that characterizes the schools in general. While admitting that the effects of reform are not completely unnoticed, Akyeampong et al (2006) assert that most researchers on African education have found a narrow range of teaching strategies in use in college classrooms. For the most part, teacher educators teach how they were

taught in African primary classrooms. As a result, the student teachers reproduce the traditional norms of behavior in their own classrooms.

According to Stuart (2002), teacher education, thus, exhibits a self-perpetuating nature that works against change and improvement. From an early encounter with teaching as young students in their own schools to becoming teacher educators, most tutors are exposed to both informal and formal experiences that continue to influence their perspectives on teaching and learning. Evidently, the reform efforts clearly conflicts with and attempt to displace what is traditionally regarded as good teaching. It is largely due to this conflict that most teacher educators may find it difficult to align their practice with the reformist ideas.

According to Campbell & MacPhail (2002) teachers are challenged with embracing a method of engaging students and adopting a more facilitative approach to learning.

2.6.4 Sustained Institutionalized Professional Development for Teacher Educators

According to Stuart & Tatto (2000), teacher educators in African colleges of education and in-service teacher educators are rarely professionally educated as teacher educators. Rather, most teacher educators are subject specialists formerly teaching in high schools who have been recruited to teach at the teachers' college. Sometimes the primary school teachers are also promoted to teacher education posts. In college education departments, specialists with degrees in education are appointed to teach education subjects, often with little experience in the primary school classroom. Degree holders in mathematics, science, literature, history and geography, with little or no studies in education, are often hired to teach those subjects at the teachers' college and often find it difficult to make connections between teaching their subject and preparing teachers to teach those subjects. In many colleges this results in separation of academic

subjects from the educational subjects. Little relevant and practical material has been developed for college tutors to help them make progress on their understanding of theoretical perspectives on participatory or reform-minded teacher education, and even fewer relevant materials exist to assist teacher educators to develop their practice. College tutors wanting to develop their understanding of reform-based teacher education and improve their practice may not always have easy access to relevant resources due to poor college libraries, lack of or slow internet connections and long distances to those places where resources could be found.

In some countries, professional development of college teachers has often been conducted through donor-supported programs aimed at a particular subset of college teachers (e.g. literacy, science and mathematics). Although implemented in conjunction with Ministries of Education, the effects of these programs on tutor performance are seldom sustained. Several reasons have been suggested to explain this, such as a narrow programmatic focus on specific interventions (e.g. teaching reading), lack of institutional ownership of programs, an absence of career incentives associated with such programs, and in some places, high teacher educator turnover resulting in an ever present need to orient new staff with their new roles as college-based teacher educators.

Few countries in Africa have professional associations or journals on teacher education, and institutional climates may not generally be conducive to professional growth and development. The meager resources earmarked for reform activities are usually allocated to increasing the capacities of teachers at primary levels in teaching specific school subjects such as reading and mathematics. As a result, few resources are left for the professional development of in-service faculty at teachers' colleges. Thus, pre-service institutions are often left out of reforms in primary education.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents research design, study locale, target population, sample and sampling procedure, research instruments, piloting and data collection techniques.

3.2 Research design

The aim of this study was to explore the preparation of pre-service teachers to teach integrated HIV/AIDS awareness curriculum. The research adopted a descriptive survey design since it was going to describe the current situations in the colleges. Borg and Gall (1989) note that descriptive survey research is intended to produce statistical information about aspects of education that interest policy makers and educators. The descriptive survey design was therefore found useful in investigating the preparation of pre-service teachers to teach integrated HIV and AIDS awareness education.

3.3 Study Locale

The study was carried out in two primary teacher training institutions. Both the colleges are located in Kiambu County. One of the Primary Teachers' Training Colleges (PTTC) is located near Makuyu town, about 56 km from Nairobi City center along the Thika-Wamumu-Embu highway. The second PTTC is found in Thika District and is located some 40 km from Nairobi. The researcher chose the colleges due to proximity of the colleges to the researcher's residential area because the researcher had limited time and financial resources. The two colleges were also very accessible in terms of transport.

3.4 Target population

All the items or people under consideration in any field of inquiry constitute a target population (Orodho, 2004).

The study was carried out in Kiambu County where there are 3 public primary teacher training colleges and these constituted the target population.

Two of the colleges constituted the population of the study, the third college was used for piloting the research instruments. The two colleges had a total of 1620 students (with approximately equal gender representation), all residing in the college boarding facilities. There were a total of 20 classes at each of the colleges - ten for first years and ten for second years. Classes at the colleges had about 40 trainees with equal proportions of males and females. The age range among the trainees was from 20 to 26 years. There were 158 tutors at the colleges.

3.5 Sampling procedures

The students were selected using the raffle method of simple random sampling from the second year students in the two colleges. Forty small pieces of paper were numbered one to eight and put in a plastic container. The first 40 students were allowed to pick the numbered papers. Those who picked number 1 constituted the sample population. 50 students were selected from each of the two colleges. Second year students were selected due to the fact that they had participated in at least one teaching practice session. These students offered the researcher a personal insight into the HIV/AIDS curriculum offered in the college and their perceptions of how well the course is preparing them to teach. 50 students were selected from each of the colleges using the raffle method constituting about 12.3% of the student population.

Purposive sampling was used to select 20 tutors, 10 from each college who teach subjects that are examined in the Kenyan PTE exam. One tutor was selected who taught Mathematics,

Kiswahili, English, Social Studies, Religious Education and Educational Psychology. Two tutors were selected from Science and Home Science respectively. These tutors represented 12.7% of the tutors in both colleges.

3.6 Research instruments

The research used the following research instruments

- 1) Tutor's interview schedule
- 2) Student teachers' questionnaire
- 3) Document analysis

1) Tutor's semi-structured interview schedule

Orodho (2005), points out that semi- structured interviews are interviews based on an interview guide but at the same time giving the interviewer freedom to vary the wording .The exact order of the questions may vary from respondent to respondent in order to follow leads and new topics that arise in the course of the interview.

The interview guide was based on topics guided by the research questions.

2) Student teachers' Questionnaire

According to Orodho (2004) questionnaires reach a large number of subjects who can read and write independently. It was therefore deemed suitable for the large number of respondents who were required to give feedback within a limited period of time. The third instrument was a structured questionnaire. The questionnaire consisted of demographic questions, close-ended questions, contingency questions and matrix questions. Likert scales were also used to measure the strength of the respondents' opinions.

3) Document analysis

According to Orodho (2008) information obtained through this method is current and not influenced by past or future behaviour of the respondents.

The study involved analysis of the PTE syllabus objectives and content to find out the recommended HIV and AIDS related topics.

3.7 Piloting the Research Instrument

According to Orodho (2005), piloting is a necessary process as it ensures that the instruments have acceptable reliability and validity. Piloting of the research instruments was carried out at the Teachers' Training College (T.T.C.) which was not used for the actual study. Purposive sampling was used to select this college.

This research used similar selection criteria for each of the groups from which data was collected and a sample of each of the instruments administered.

3.8.1 Reliability

Reliability of the instrument was measured using the split-halves method. Orodho (2009) points out that reliability of an instrument is the constancy in producing a reliable result and focuses on the degree to which empirical indicators are consistent across two or more attempts to measure the theoretical concept. In computing split-halves reliability, the test items are divided into two halves, each half scored independently of the other with the items of the two halves matched on content and difficulty. A computation of each subject total score from the two groups was done. Eventually, a correlation of the group was done using the Spearman Brown Prophecy Formula. The test was found to be reliable, as the scores were found to have a positive association between 0.4 – 1.00.

3.8.2 Validity

Validity is the degree to which a test measures what it purports to be measuring (Orodho, 2009). To ascertain the validity of the instruments, a panel of experts conversant with various aspects of the study was requested to assess the relevance of the content used in the questionnaires developed. The judges examined each instrument carefully and provided appropriate feedback and recommendations were incorporated in the final instruments.

3.8 Data collection procedures

The researcher proceeded to the field after obtaining permission from the university, Permanent Secretary and Ministry of education in form of a research permit. The researcher then visited the purposively sampled colleges to make appointments and establish rapport after obtaining a letter of introduction from the DEO's office. The respondents were visited on the agreed dates and arrangements to select and assemble the respondents were made. The researcher then administered the questionnaires personally to student-teachers, clarifying items where the need arose. The researcher personally held the interviews with the subject tutors participating in the study. The researcher was also granted access to the syllabus in use from the two colleges to obtain more information.

3.9 Data Analysis

Data analysis is the process of systematically searching and arranging interview transcript, field notes, data and other materials obtained from the field with the aim of increasing ones own understanding of them and enabling one present them to others (Orodho, 2009). Data analysis in descriptive survey studies involves a variety of descriptive and inferential statistics.

The data analysis process involved using the SPSS (Statistical Package for Social Sciences) programme for MS Windows in developing code books, tabulations and drawing statistical inferences. The data from close ended questions was analyzed using descriptive statistics such as means and percentages and data from interviews and open ended questions was transcribed and organized into themes and sub-themes, categories and sub-categories as they emerged. The findings were organized thematically and presented using tables, figures, graphs and charts.

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

In this chapter the researcher presents the research findings and discussions. The presentation was organized around the research questions which were:

1. What is the HIV/AIDS related content in the Primary Teacher Training curriculum?
2. What pedagogical approaches do teacher educators use in teaching integrated HIV/AIDS awareness curriculum in PTTCs?
3. Which methods are pre-service teachers taught to use in teaching HIV/AIDS related content?
4. What challenges do tutors encounter in the implementation of infused HIV/AIDS education curriculum in PTTCs?
5. What are the perceptions student-teachers' about their preparedness to teach integrated HIV and AIDS awareness curriculum in primary schools?

4.2 Respondent's demographic information

This study was conducted in two Primary Teacher Training Colleges (PTTCs) and the following table represents the number of respondents in the study.

Table 4.1 Number of respondents

College	1	2
Number of student teachers	50	50
Number of tutors	8	8

A sample of 8 tutors was chosen from each college. Pre-service teachers who were respondents in this study from each college added up to 50.

It was noted that 2 of the tutors had not received any awareness education after appointment as a tutor and 2 of the tutors had received training directly facilitated by the MoE through the United States Agency for International Development (USAID) trainings and workshops. The other 12 tutors said they had received the awareness education they had through in-house workshops facilitated by the USAID trained tutors.

4.3 HIV and AIDS related content in the PTE curriculum

Documentary analysis of the PTE syllabus was carried out in a bid to establish the recommended HIV/AIDS related content in the PTE curriculum.

PTE Syllabus

a) Introduction

According to the PTE syllabus, the course lasts for two years. During the first year of study, the pre-service teachers study the ten subjects offered i.e. Mathematics, English, Kiswahili, Education, Physical Health and Education (PHE), Information Communication and Technology (ICT), Integrated Science, Religious Education (RE), Social Studies and Creative Arts. In the second year of study the learners are expected to specialize in either Science subjects that is Option A or Art subjects otherwise referred to as option B subjects. They are however expected to take classes in all the core subjects. All the subjects offered in the second year of study are listed in Table 4.2 below;

Table 4.2 Subjects offered in the second year of PTE

Core Subjects	Option A Subjects	Option B Subjects
1) English 5) PHE	1) Science	1) Social Studies
2) Kiswahili 6) ICT	2) Home Science	2) RE
3) Mathematics	3) Agriculture	3) Music
4) Education	4) Mathematics	4) Art and Craft

b) The general objectives of PTE

The general objectives of PTE do not specifically mention HIV and AIDS awareness education. However, HIV and AIDS is mentioned in specific objectives of various subjects as presented in Table 4.3 below.

Table 4.3 HIV and AIDS in PTE subject objectives

Subject	Objective on HIV and AIDS awareness education
Mathematics	HIV and AIDS awareness education to be addressed in problem solving
Education	No mention of HIV and AIDS awareness education
Integrated Science	HIV and AIDS awareness education to be addressed as an emerging issue
C.R.E	HIV and AIDS awareness education to be addressed as an emerging issue

d) Content in PTE syllabus

The syllabus content of selected subjects was analyzed to determine whether it addresses HIV and AIDS awareness education directly. The findings are shown in Table 4.4 below;

Table 4.4 HIV and AIDS in PTE subject content

Subject	Syllabus content related to HIV and AIDS awareness education
Mathematics	No HIV and AIDS awareness education specific content is listed
Education	HIV and AIDS awareness education is a part of content on counseling issues in primary schools and referrals.
Integrated Science	HIV and AIDS awareness education is meant to be covered under a complete topic called health education in first year Integrated Science PTE syllabus.
C.R.E	HIV and AIDS covered in a sub-topic called effects of irresponsible sexual behavior which falls under human sexuality.

Although the Ministry of Education recommends integration across the entire PTE curriculum, most of the HIV and AIDS awareness education content in PTE curriculum is taught as part of Integrated Science. It is not evenly distributed and most of its coverage is left to the science tutors.

e) Recommended pedagogy

Recommended pedagogy was listed after the content for each subject had been outlined; refer to education Table 4.5 below.

Table 4.5 Recommended activities in PTE syllabus

1. Question & Answer sessions	7. Stories
2. Videos	8. Role plays
3. Lectures from resource persons	9. Hospital visits
4. Group work	10. Open class discussions
5. Debates	11. Research on internet
6. Clubs	12. Music

The pedagogy was however not specific to HIV and AIDS awareness but rather general recommendations to be used across the whole PTE content. Most of the methods are however applicable to the various PTE subjects and are learner friendly.

4.4 Tutors identification of pedagogy they use during the teaching of HIV/AIDS awareness education

An open ended question was addressed to the tutors in an attempt to find out which methods they liked to use when teaching student teachers HIV/AIDS awareness education. Table 4.6 presents the findings.

Table 4.6 Subject methods used by tutors to teach HIV/AIDS awareness education

Subject methods	(f)	%
Discussions	16	100
Stories	8	50
Role play	6	38
Lectures	4	25
Poems	4	25
Posters	2	12.5

All the lecturers (100%) favoured open class discussion as a method of teaching. Half (50%) of the tutors also used stories as a means of teaching HIV/AIDS awareness education. Quite a few (38%) of the tutors encourage the students to play act in order to help the learn HIV/AIDS awareness education. A smaller number of tutors (25%) use lectures and poems to teach HIV/AIDS awareness education. A few (12.5%) of the respondents identified posters as a means to effectively teach HIV/AIDS awareness education. The findings in this section concur with Akyeampong et al (2006) findings that most researchers on African education have found a narrow range of teaching strategies in use in college classrooms.

4.5 Pre-service teachers' identification of methods used by tutors to teach them HIV/AIDS awareness education

A Likert scale table was used to find out the frequency of use of the identified methods of teaching used by tutors. The findings were as shown in Figure 4.1 below.

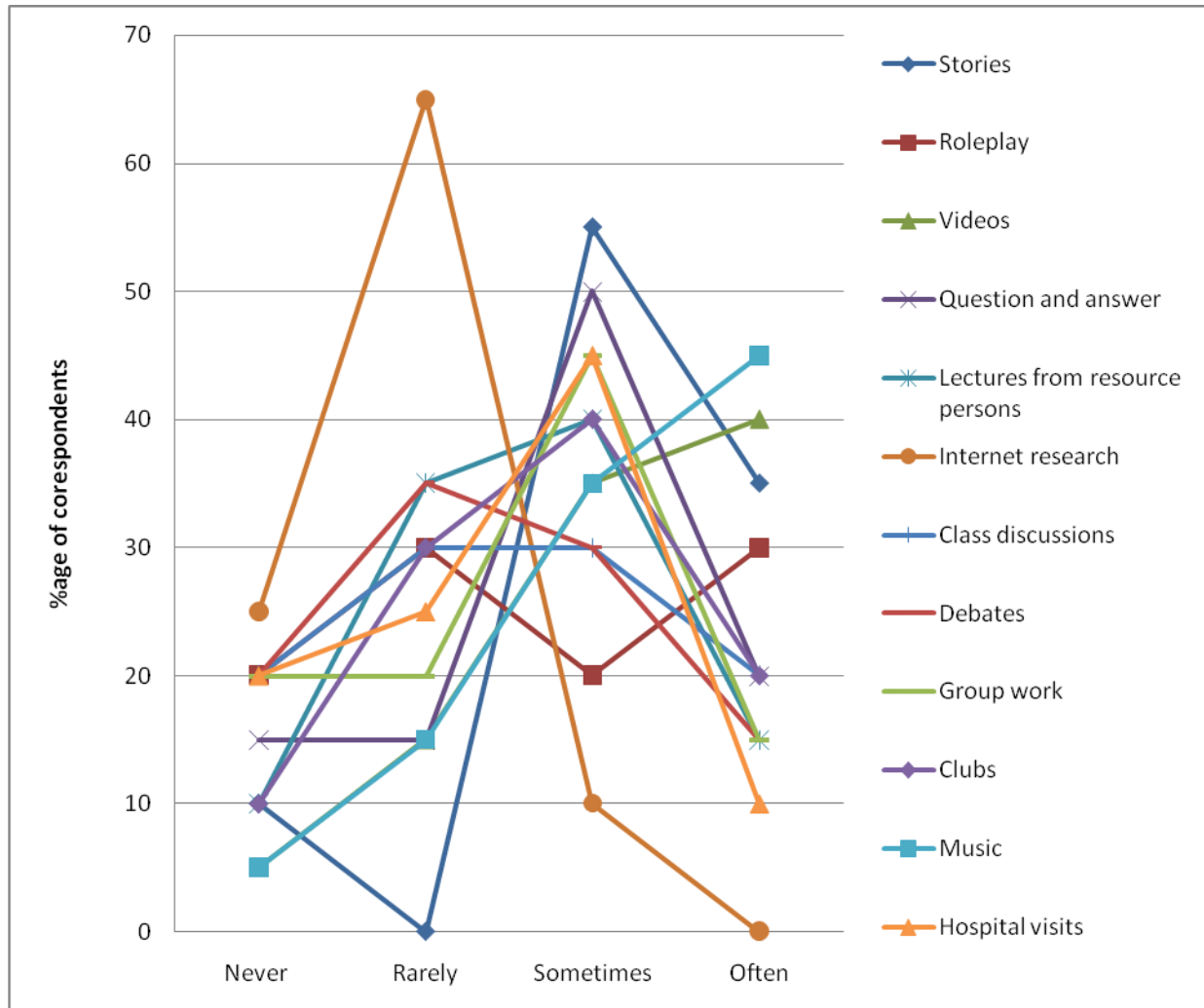


Figure 4.1 Pre-service teachers' identification of methods used by tutors

Most of the respondents (55%) stated that stories were sometimes used to teach HIV/AIDS awareness education. Many of the respondents (35%) of the respondents said that stories were often used to teach HIV/AIDS awareness education. Few (10%) of the respondents pointed out that stories were never used to teach HIV/AIDS awareness education.

A good number (30%) of the respondents identified role play as being used often despite the fact that an equal number of respondents stated that role play was rarely used by the tutors to teach HIV/AIDS awareness education. Some of the respondents (20%) stated that tutors in their institutions sometimes use role play to teach HIV/AIDS awareness education while an equal number of respondents (20%) of the responded disagreed with the rest of the respondents and stated that their tutors never use role play to teach HIV/AIDS awareness education.

Videos were often used to teach HIV/AIDS awareness education according to 40% of the respondents whereas 35% of the respondents stated that HIV/AIDS awareness education was sometimes taught using videos. Only 15% of the respondents stated that videos were rarely used to teach HIV/AIDS awareness education and even fewer; (5%) stated that videos were used to teach HIV/AIDS awareness education.

Question and answer method seems to be quite popular among tutors as (50%) and (20%) of the respondents assert that use of question and answer occurs sometimes and often; respectively. A few (15%) of the respondents stated that question and answer method was rarely used to teach them HIV/AIDS awareness education. Another 15% of the respondents stated that question and answer method was never used to teach them HIV/AIDS awareness education.

Only 15% of the respondents cited lectures from resource persons as a method used often by tutors to teach them HIV/AIDS awareness education. Most of the respondents representing 40%

cited lectures from resource persons as a method sometimes used by tutors to teach them HIV/AIDS awareness education. Rare use of lectures from resource persons was noted by 35% of the respondents in this research whereas a paltry 10% of the respondents stated that their tutors never used resource persons to teach pre-service teachers.

Most of the respondents, represented by 65% said that internet research was rarely used in the teaching of HIV/AIDS awareness education. Fewer respondents (25%) noted that internet research was never used to teach them HIV/AIDS awareness education. Few of the respondents, (10%) claimed that internet research is used sometimes in the teaching of HIV/AIDS awareness education.

Mixed and even contradictory responses were generated towards the question about use of class discussions. The responses were as follows; often-20%, sometimes-30%, rarely-30% and never-20%.

More of the respondents (35%), asserted that debates were rarely used to teach HIV/AIDS awareness education while 30% of the respondents said that debates were sometimes used to teach HIV/AIDS awareness education. Quite a number of pre-service teachers (15%) said that they are often taught HIV/AIDS awareness education whereas 20% were never taught HIV/AIDS awareness education through debates.

Most of the pre-service teachers (45%) said that sometimes tutors use group work to teach HIV/AIDS awareness education. Few of respondents (20%) said that their tutors rarely and never used this method of teaching when putting across the HIV/AIDS awareness curriculum. Only 10% of the respondents were able to say decisively that group work was used often to teach them HIV/AIDS awareness education.

When the pre-service teachers were asked whether they have been taught HIV/AIDS awareness education through the use of clubs the response was as follows; Sometimes-40%, rarely-30%, often-20% and never-10%.

Music was often used by tutors to teach HIV and AIDS awareness education according to 45% of the respondents. Some (35%) of the respondents asserted that music was sometimes used to teach them HIV and AIDS awareness education. A few of the pre-service teachers (15%) stated that music was rarely used to teach them HIV and AIDS awareness education. Only 5% of the pre-service teachers said that music was never used to teach them HIV/AIDS awareness education.

According to 45% and 10% of the respondents hospital visits were sometimes and often used respectively to teach HIV and AIDS awareness education respectively. A few (20%) pre-service teachers involved in the study stated that hospital visits were never used and 25% stated that hospital visits were rarely used to teach them HIV and AIDS awareness education.

These findings indicate that the tutors in the study used a lot of learner-centred methods to teach them HIV and AIDS awareness education. Hoaoes-Gorase & Grobler, 2006 and Katjavfin & Otaala, 2003 point out that in the University of Namibia, the lecturers from the Department of Health Science act as resource persons to teach HIV and AIDS with the lecturers from the Department of Social Work and Community Development to the first year students who include student teachers. The Higher Education HIV and AIDS Programme-HEIDS (2010) explains that several programmes within South African Universities are using on-line approaches to teach HIV and AIDS within teacher education programmes. Stuart (2007) also confirms that there are

programmes that train beginning teachers to engage in a production of photographs, videos and stories of HIV and AIDS to help them teach HIV and AIDS awareness education.

4.6 Challenges faced by tutors in the implementation of HIV/AIDS awareness curriculum in PTTCs

a) Questions were used during the interview to help find out the challenges faced by tutors during the implementation of HIV/AIDS awareness curriculum. Table 4.7 presents the findings.

Table 4.7 Challenges faced by tutors teaching of HIV/AIDS awareness curriculum in PTTCs

N=16

Challenge identified	(f)	%
Inadequate training in teaching HIV/AIDS curriculum	12	75
Inadequate resources	10	63
Syllabus too wide for short period allocated	9	56
Danger of stigmatization of affected students	8	50
Contradictory medical information	4	25
Difficulty in integration of subject	4	25
Students' cultural backgrounds	3	19
Lack of medical background	2	13

The majority of the tutors interviewed (75%) for purposes of this research, identified inadequate training in teaching HIV/AIDS awareness curriculum as a leading challenge in the teaching of PTTE HIV/AIDS awareness curriculum. Lack of learning and teaching resources ranks as the

second highest in the list of challenges identified by the tutors representing 63% of the respondent tutors. More than a half of the tutors (56%) cited a wide syllabus which was difficult to cover in the limited time period as a serious challenge facing them. Half (50%) of the tutors said that coverage of this curriculum was challenged by the danger of stigmatization of student teachers who were infected by HIV/AIDS. A few (25%) of the respondent tutors cited difficulty in integration of subject and contradictory medical information as two reasons that made the implementation of HIV/AIDS awareness curriculum difficult. A small number of tutors (19%) identified student's cultural background as a challenge whereas (13%) of the tutors also saw lack of medical background as an impediment to their effective implementation of the PTTE HIV/AIDS awareness curriculum.

The findings in this section affirm Tijuana, Finger, Ruland & Savariaud (2004) research which indicates that the kind of preparation, training and success a teacher receives is a key component of a successful school-based HIV/AIDS program. Although college tutors may want to improve their practice of teacher education, it may not be easy due to poor college libraries, lack of or slow internet connections and even long distances to those places where resources could be found.

UNAIDS (1996) further confirms that teachers often lack adequate curricular time to adequately address HIV and AIDS in schools.

b) Data was also collected on training received in HIV and AIDS awareness education before and after becoming a tutor.

i) Tutor's training on HIV and AIDS awareness education

Open-ended questions were used to establish whether the tutors in the study had received any training in teaching HIV and AIDS awareness education before and/or after becoming a tutor at a PTE college. The findings were presented in Figure 4.2

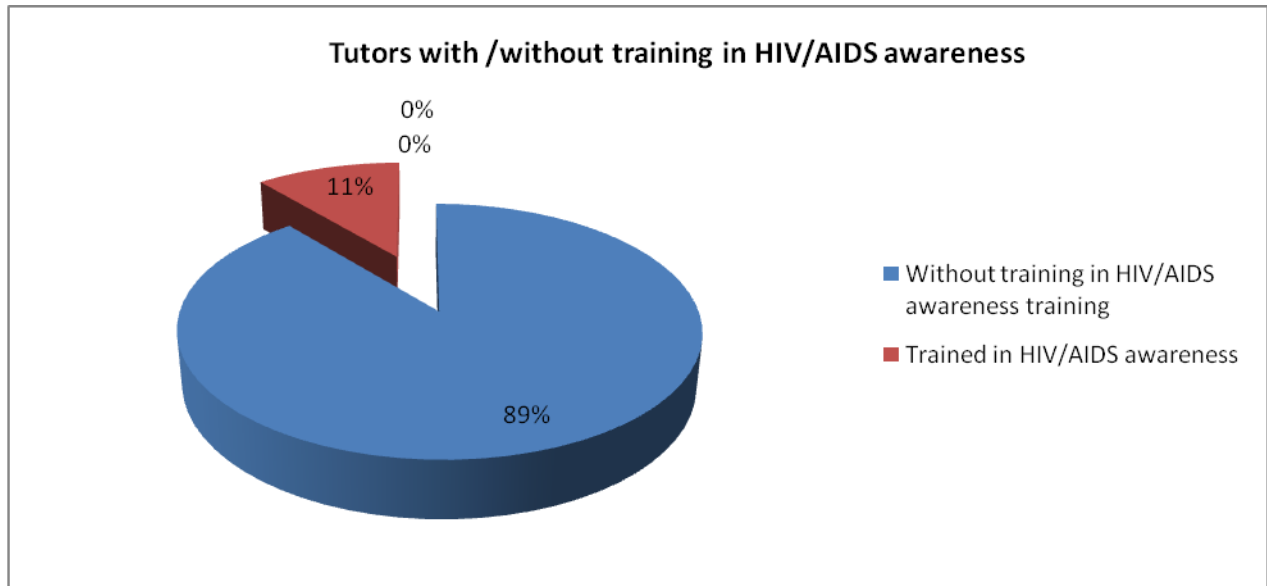


Fig. 4.2 Tutors training in teaching HIV/AIDS awareness education

The research found out that only 11% of the tutors had received any form of training to teach HIV/AIDS awareness education to pre-service teachers.

This finding agrees with Kelly (2000), who quotes various studies as having shown that most teachers do not get the information, training or support that they need in order to effectively teach HIV and AIDS education.

ii) Training received in HIV/AIDS awareness education after becoming a tutor

In order to determine what kind of training was received by tutors after they assumed their duties, analysis of an open-ended question addressed to the respondent tutors was carried out.

The results were the following;

Table 4.8 Training received after appointment as college tutors

Training received	No. of tutors	%
College based seminars	12	75.0
No training received	2	12.5
M.O.E. organized seminars and workshops	2	12.5
Total	16	100

The number of tutors who had attended training facilitated by the MOE was a paltry 12.5%. An equal number of tutors claimed not to have participated in any form of HIV/AIDS awareness education after becoming a tutor. Most of the tutors (75%) of the respondent tutors confirmed that they had received HIV/AIDS awareness education by way of in-house college seminars facilitated by colleague tutors who had received training from external forums.

This finding proves UNESCO (1993) right in its observation that training received by tutors in TTCs differs even more in its nature and level than even the institutions themselves.

The finding that most of the tutors received training through either in-house or MOE sponsored seminars concurs with that of Maticka-Tyndale, Wildish & Gichuru (2004) that after completing

initial teacher training in Kenya, teachers keep abreast of changes in education through in-service programmes, which aim to provide continuous professional development. However, most of the in-service programmes are one-off seminars intended to instruct teachers in the changes in the curriculum.

4.7 Methods pre-service teachers are taught to use to teach HIV/AIDS awareness curriculum in primary schools.

An open ended question was used to probe the tutors about the methods they had taught pre-service teachers to use to teach HIV/AIDS awareness curriculum in primary schools. Their responses were recorded in Table 4.7 below.

Table 4.7 Methods pre-service teachers were taught to use in teaching HIV/AIDS awareness curriculum in primary schools

Method	f	%
Discussion	16	100
Question and answer	13	81
Storytelling	10	63
Role play	7	44
Recitation (Poetry)	4	25
Hospital visits	3	19

According to the responses given by tutors, discussion method was the method recommended by all of them (100%) to be used by the pre-service teachers during the teaching of HIV/AIDS

awareness curriculum in primary schools. Question and answer method was the second most popular method recommended by 81% of the tutors followed by storytelling (63%), role play (44%), Poetry (25%) and hospital visits (19%).

Stuart and Tatto (2000) recommend learner –centered approaches for teacher-education and insist that student-teachers who have been exposed to a wide repertoire of methods will be in a better position to adapt them for use with their own pupils. The findings in this study regarding the emphasis of tutors, indicate that the pre-service teachers are taught to dwell more on interactive and experiential approaches, while neglecting to emphasise the collaborative approach (e.g. group and project work) as well as facilitative approach (e.g. assignments and debates) thus probably putting the pre-service teachers at a distinct disadvantage.

This findings have to be taken with some caution as they were based on self-reports by the tutors.

4.8 Perceptions of pre-service teachers on their readiness to teach HIV/AIDS awareness curriculum in primary schools.

A number of close-ended questions were used in an attempt to gauge whether pre-service teachers felt prepared to teach HIV/AIDS awareness curriculum in primary schools.

4.8.1 Level of pre-service teachers comfort with the content of HIV/AIDS awareness curriculum in primary schools

The respondents were second year pre-service teachers who had already been out on teaching practice (T.P.) and were able to give an informed view on whether or not they were comfortable implementing HIV/AIDS awareness curriculum in primary schools as they had been exposed to it. Figure 4.2 represents the findings.

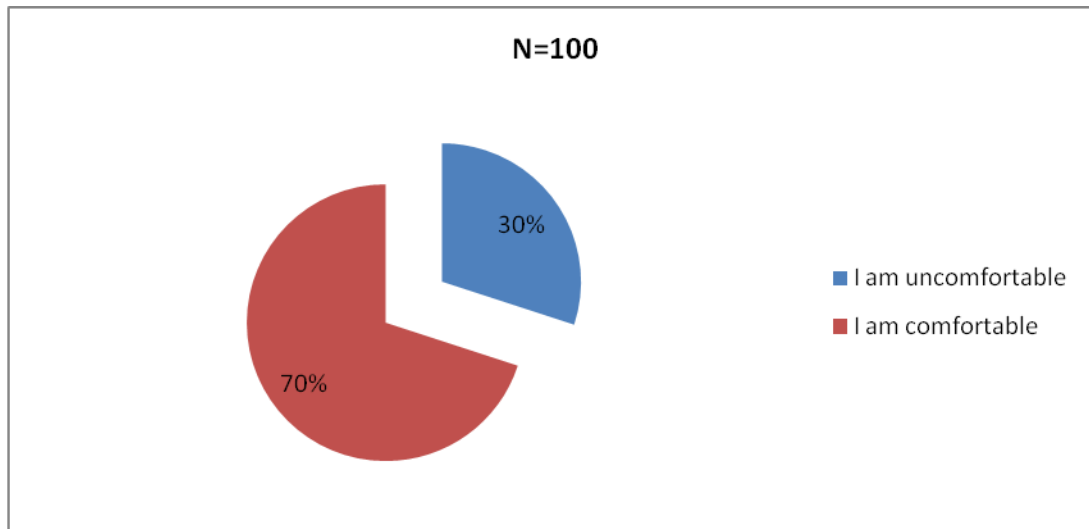


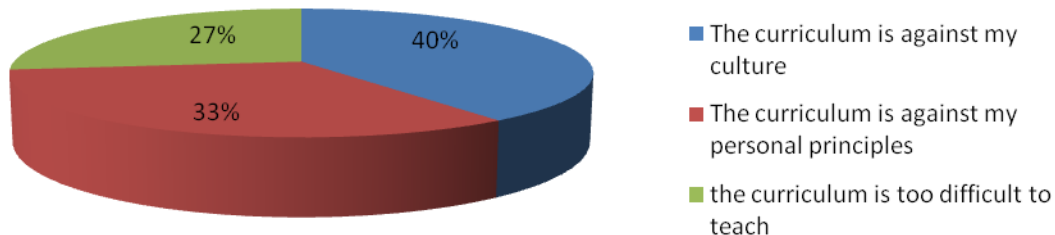
Figure 4.3 Pre-service teacher's comfort in teaching HIV and AIDS awareness education

Most of the respondents (70%) indicated that they were comfortable with teaching HIV/AIDS awareness curriculum in primary schools. Respondents representing 30% of the sample indicated that they were uncomfortable with teaching the HIV/AIDS awareness curriculum in primary schools.

4.8.2 Reasons why some pre-service teachers are uncomfortable teaching the HIV/AIDS awareness curriculum in primary schools

Given a selection of possible reasons a pre-service teacher would be uncomfortable implementing the HIV/AIDS awareness curriculum in primary schools, the respondents were grouped according to their responses as shown in Figure 4.3.

Figure 4.4 Reasons for discomfort in implementing the HIV/AIDS awareness curriculum in primary schools



The majority (40%) of the respondents felt uncomfortable with it because it went against their culture to speak about content related to sexuality. Pre-service teachers who expressed discomfort with the curriculum constituted 33% and felt that it went against their personal principles. The last eight in this group representing 27% felt that the curriculum was too difficult to teach.

The finding that up to 30% of the student teachers are uncomfortable teaching HIV and AIDS curriculum for various reasons, agrees with Mbananga (2004) who proposes that teacher's confidence is negatively influenced when the content of the programme contradicts her/his own values and norms or those of his/her community. Boler et al, 2003 and Farah, Kavuma, Mwingi & Onyango, 2009, further confirm that the sensitivity surrounding sexuality education is a barrier to teaching it.

It also agrees with Nazeema, Flisher, Mathews, Jansen, Mukoma and Schaalma (2006) findings that despite the fact that teachers reported feeling considerably more comfortable and confident teaching HIV and AIDS education to their students following a training session than prior to the

training; the conflicting norms and values which some teachers experienced with the curriculum continued to impact on their comfort teaching.

4.8.2 Methods which are easy to use to teach HIV/AIDS awareness education

Statements were presented to the pre-service teachers to verify which methods they perceive as easy to use. Refer to Table 4.9 below.

Table 4.9 Methods that are easy to use

Methods	True	False
Passive methods of teaching e.g. lecture method are easiest to use in teaching HIV/AIDS awareness education	35%	65%
Skill-oriented forms of teaching e.g. discussion, group work, debates are easiest to use in teaching HIV/AIDS awareness education	85%	15%

In answer to the statement, skill-oriented forms of teaching e.g. discussion, group work and debates were declared the easiest to use when teaching HIV/AIDS awareness education.

The findings in this section tally with Stuart & Tatto (2000) findings that student teachers tend to adapt a wide a repertoire of methods as they are exposed to during training. In a study conducted by Unver & Demirel (2004), it was also pointed out that when teacher candidates were provided with pre-service education on learner-centered education, they were able to prepare and implement learner-centered education.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study aimed to find out the extent to which pre-service primary teachers are prepared to teach integrated HIV/AIDS awareness curriculum in Kenyan primary schools. This last chapter of the project contains the summary of the findings, conclusions and recommendations.

5.2 Summary of findings

This study was intended to find out what preparation pre-service teachers are given to teach integrated HIV and AIDS awareness curriculum in primary schools.

The study investigated the HIV and AIDS related content in the Primary Teacher Training curriculum as well as the pedagogical approaches used by teacher educators to teach it. The methods pre-service teachers are taught to use in teaching HIV and AIDS related content as well as what perceptions student-teachers have about their preparedness to teach integrated HIV and AIDS awareness curriculum in primary schools? Finally, the study sought to find out the challenges tutors encounter in the implementation of infused HIV and AIDS education curriculum in PTTCS. The study targeted a population of 1620 student-teachers and 158 tutors. The study sample constituted 100 second year student- teachers representing 12.3% of the population and 16 tutors from two colleges who represented 12.7 % of the tutors' population.

5.2.1 HIV/AIDS awareness related content in PTE

Although there is a recommendation for HIV/AIDS awareness education to be integrated across the whole PTTE curriculum, related content is only found in the syllabi for Educational Psychology, Home Science, CRE and Science. This amounts to about half of the subjects taught in the Kenya Primary Teacher Education curriculum.

5.2.2 What pedagogical approaches do teacher educators use in teaching integrated HIV/AIDS awareness curriculum in PTTCs?

From the findings; stories and question & answer session were ranked as the most popular methods used by tutors to implement HIV/AIDS awareness curriculum. Use of videos, class discussions, lectures from resource persons, role plays were also identified as well used methods. Debates were identified as a method that was not widely used. Internet research is ranked as the lowest on the scale of methods used by tutors to teach pre-service teachers HIV/AIDS awareness curriculum. In general therefore the findings indicate that learner-centred methods are used to teach HIV/AIDS awareness curriculum in TTCs.

5.2.3. Which methods are pre-service teachers taught to use in teaching integrated HIV/AIDS awareness curriculum in PTTCs.

The methods pre-service teachers were taught to use in teaching integrated HIV/AIDS awareness curriculum in PTTCs were found to be discussion, question and answer sessions, story telling, role play, poetry and hospital visits. They expressed ease with skill-oriented methods.

5.2.4 Have the tutors encountered any challenges in implementation of infused HIV/AIDS education curriculum?

The tutors named a number of challenges they encountered while teaching HIV/AIDS awareness curriculum in PTTCs the most identified being lack of specialized training in teaching the curriculum. Lack of teaching/learning resources, a syllabus too wide for short period allocated, danger of stigmatization of affected students, difficulty in integration of the content, contradictory medical information, students' cultural backgrounds and lack of medical background were also cited as challenges facing the tutors in charge of teaching the integrated HIV/AIDS awareness curriculum.

5.2.5 Are the student-teachers confident of their preparedness to teach integrated HIV/AIDS awareness curriculum in primary school?

Most of the student teachers expressed confidence in their preparation to teach integrated HIV/AIDS awareness curriculum in PTTCs. A few of them however expressed discomfort with the activity with most of them saying that they were uncomfortable teaching the curriculum due to the fact that they felt it was either against their culture or personal beliefs. There was however overwhelmingly positive that they were prepared to teach integrated HIV/AIDS awareness curriculum in primary schools and feel that the curriculum is essential for pupil wellness.

5.3 Conclusion

In Kenya, HIV/AIDS awareness curriculum is integrated in the teacher training curriculum. This research sought to find out whether the preparation of pre-service teachers to teach integrated HIV/AIDS awareness curriculum in Kenyan Primary schools was adequate.

Findings in chapter four indicate that in their own opinion as well as in my assessment as the researcher pre-service teachers are adequately prepared to handle the integrated HIV/AIDS curriculum.

The researcher came to the conclusions that HIV and AIDS awareness content is clearly outlined in the PTE syllabus with most of it being found in the Science curriculum and that tutors in PTTCs use learner-centred pedagogy in teaching HIV and AIDS awareness curriculum. Other conclusions were that pre-service teachers are taught to use learner-centred methods to teach HIV and AIDS awareness content in primary schools and that they think that they have been prepared adequately to implement the HIV and AIDS awareness curriculum in primary schools. It was also concluded that the main challenge tutors encounter in the teaching of HIV and AIDS awareness curriculum in PTTCs is inadequate training.

Recommendations

As a result of the study it became apparent that the tutors did not receive pre-service training on how to teach Primary Teacher Education, the integrated HIV/AIDS curriculum and indeed do not receive adequate in service training to prepare them to teach the integrated HIV/AIDS awareness curriculum to pre-service teachers. It is therefore recommended that;

1. Universities offering the Bachelor of education should consider offering an option of specialization in Teacher education in order to give teacher educators specialized education.
2. Knowledge and skills in the practice of integration of HIV/AIDS awareness curriculum should be included in the pre-service education for both PTE tutors and pre-service teachers.

3. In order to overcome the challenges facing some of the pre-service teachers in implementing the HIV/AIDS curriculum, the guidance and counseling department and the religious organizations at college level need to come together and organize workshops which will aim at finding ways to make all the students comfortable with implementation of the integrated HIV/AIDS curriculum.
4. In- service training of tutors for the implementation of the integrated HIV/AIDS curriculum should be more regular and more participatory.

5.4 Recommendations for further research

The following gaps have been identified in this study for further research

1. Attitudes of tutors in PTTCs towards the content of the integrated HIV/AIDS curriculum.
2. The role of teaching practice in helping to prepare pre-service teachers adequately to teach the integrated HIV/AIDS curriculum in primary schools
3. Pedagogical approaches that are more effective in teaching pre-service teachers the integrated HIV/AIDS curriculum.
4. This study could also be replicated with observation and focused group discussions being added to the data collection methods.

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APPENDIX 1

Questionnaire for student teachers

The purpose of this questionnaire will be to collect information about the preparation of pre-service teachers to teach HIV/AIDS education in primary schools in Kenya.

Dear student,

This is not to test you but to help us understand the methodologies used to teach you HIV/AIDS education and how you relate the same to your preparedness to teach the subject in the field. The answers will be treated with utmost confidentiality. For this reason do not write your name on the questionnaire.

Fill in the space provided.

Tick the appropriate box.

1a) What subject(s) are you preparing to teach?

English Kiswahili Social Studies
Science Mathematics Christian Religious Education

b) In what form has HIV/AIDS awareness been taught to you?

As part of guidance and counseling by tutors By peer educators
While integrated into a subject. As a separate subject by tutors

c) Have you taught HIV/AIDS awareness during Teaching Practice? Yes No

If yes, answer 1d), If no, answer 1e)

d) Are you comfortable with teaching HIV/AIDS education? Yes No

e) Why are you uncomfortable teaching HIV/AIDS education? (Tick the appropriate boxes)

The curriculum is against my religion
The curriculum is against my community's culture
The curriculum is against my personal principles
The curriculum is too difficult to teach.

2. Please state how often you have been taught HIV/AIDS education using the following methods. (*Tick in correct column for each method.*)

	Never	Rarely	Sometimes	Often
a) Stories				
b) Role plays				
c) Videos				
d) Question and answer				
e) Lectures from resource persons				
f) Research on internet				
g) Class discussions				
h) Debates				
i) Group work				
j) Clubs				
k) Music				
l) Hospital visits				

3. Respond to the following statements expressing your attitudes towards your preparedness to teach HIV/AIDS education. (*Tick in correct column.*)

	True	False
a) HIV/AIDS education is important for pupil's wellness.		
b) Passive methods of teaching e.g. lecture method are easiest to use in teaching HIV/AIDS education.		
c) Skill oriented forms of teaching e.g. discussion, group work, debates are easiest to use in teaching HIV/AIDS education.		
d) In my opinion, students respond better to skill-oriented forms of teaching than passive ones.		
e) I was taught HIV/AIDS education using skill-oriented methods only.		
f) In my opinion, pupils respond better to passive forms of learning than skill-oriented forms.		
g) I was taught HIV/AIDS education through passive methods only		
h) I was taught HIV/AIDS education using both passive and skill-oriented methods.		
i) I am adequately prepared to teach HIV/AIDS education.		

4. In your opinion: - HIV/AIDS education

	Strongly disagree	Disagree	Agree	Strongly Agree
a) should be a separate subject.				
b) should be an examinable subject				
c) should only be taught as part of C.R.E.				
d) should be taught by the guidance and				
e) counseling teachers only				
f) should only be taught as part of Science				

Instructions: (Tick in correct column.)

END

Thank you for your co-operation.

APPENDIX 2

Tutor's Interview Schedule

Ψου ηαπε βεεν ιδεντιφιεδ ασ α κευ στακεηολδερ ιν τηε πριμαρψ σχηοολ τεαχηερ ΗΙς/Α ΙΔΣ εδυχατιον ιμπλεμεντατιον προχεσσ.

Πλεασε ρεσπονδ το τηε θυεστιονσ ιν τηισ ιντερπειω σχηεδυλε ηονεστλψ ανδ το βε βεστ οφ ψουρ κνοωλεδγε. Τηε ανσωερσ ωιλλ βε τρεατεδ ωιτη υτμοστ χονφιδεντιαλιτη.

1. Demographic information

a) Indicate your age..... b) What is your level of education?

2. Teaching Background

a) How long have you been a tutor in this college?

b) Since you joined this college, what subjects have you been teaching?

c) What subjects do you teach at present?

d) How often do you teach the HIV/AIDS topics in your subject?

e) Identify any three challenges you face when implementing the HIV/AIDS curriculum in PTC.

.....

.....

.....

2. Professional development

a) What teacher education have you received?

b) What training have you received in HIV/AIDS education?

i) Before you became a teacher educator?

ii) After you started teaching PTE?

4. Pedagogical approaches

a) Give examples of the subject methods you use to teach HIV/AIDS (L/T-centered).

.....
.....

b) Which methods do you teach pre-service teachers to use when teaching HIV/AIDS topics?

(Passive/ Active methods).

.....

c) In your opinion do your methods of teaching effectively prepare the students for service?

.....

END

Thank you for your co-operation.

APPENDIX 3

Time Schedule

MONTH	ACTIVITY
November – December 2009	Collecting information and typing of proposal
March 2010	Drafting the proposal
July 2010	Presenting for 1 st assessment by supervisor
August 2010	Presentation for 2 nd assessment by supervisor
September 2010	Presentation for 3 rd assessment by supervisor
November 2010	Final proposal writing
Mid- May 2010	Data collection
December – January 2011	Data analysis
March 2011	Writing draft report
April 2011	Presentation of report for assessment
Early September 2011	Submission of bound copies
December	Graduation

APPENDIX 4

Budget for proposal development

Activity	Quantity	Particulars	Unit cost	Total cost
Data collection				
Transport	10	Days	200.00	2000.00
Literature review (internet browsing)	20	Hours	60.00	1200.00
Typing proposal	80	Pages	25.00	2040.00
photocopy	4	80	2.00	644.00
Piloting				
Transport	2	Days	200.00	400.00
Lunch	2	Days	100	200.00
Data collection				
Meals	30	Days	300	9000.00
Transport	2	Days	100	200.00
Data analysis				5000.00
Final preparation				
First draft copy (typing / photocopy)	50	Pages		1000.00
Second draft copy (typing and photocopy)	50	Pages		1000.00
Third copy (typing and photocopy)	50	Pages		1000.00
Final copy (typing and photocopy)	4 copies	Pages	2.00	1100.00
Binding	4	Copies	30.00	120.00
Miscellaneous		`		5,000.00
TOTALS				29,904.00

