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Outcomes of AIDS policy-based interventions in the Further Education and Training Sector

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WITS Graduate School of Governance

Thesis presented in partial fulfilment for the degree of Master of Management (in the field of Public Sector Monitoring and Evaluation) to the Faculty of Commerce, Law, and Management, University of the Witwatersrand

March 2016

DECLARATION

I declare that this thesis/dissertation titled 'Outcomes of AIDS policy-based interventions in the Further Education and Training Sector' is my own, unaided work. I have acknowledged and referenced all sources that I have used and quoted. I hereby submit it in partial fulfilment of the requirements of the degree of Master of Management (Public sector monitoring and evaluation) in the University of the Witwatersrand, Johannesburg. I have not submitted this report before for any other degree or examination to any other institution.

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ABSTRACT

A number of AIDS prevention interventions have been developed and implemented nationwide to counter the nerve-racking onslaught of HIV/AIDS, which continues to pose a grave danger to economic and social development. However, worsening conditions of the epidemic suggest that the political and social contexts within which proposed campaigns have been launched, are not fertile enough for the AIDS policy-based interventions to yield the outcomes sought and consequently the desired impacts (Schneider and Stein, 2001). The escalating behaviour associated with the risk of acquiring HIV does not only undermine prevention measures in place, but also the ability of those implementing strategies to effectively influence behaviour change among the youth (Moodley and Philips, 2011).

The study sought to evaluate the outcomes of AIDS policy-based interventions, focusing its attention on a specific sector consisting of individuals at the peak of sexual activity. Data were collected through an anonymous self-administered questionnaire which elicited information on the outcome measures: AIDS-related knowledge, risk perceptions and behaviour associated with the risk of infection. 518 levels 3 and 4 students registered with South West Gauteng College and Western College and fulfilling inclusion criteria of 18 and above years participated in the study.

The results proved the intervention successful in one outcome measure—knowledge of AIDS—in which the FET students' levels were sub optimal (less than 95%). On two other measures, the results were not consistent with the theory of change for the intervention, suggesting availability of missing elements in the logical sequence of the results chain and its accompanying results framework, and therefore producing unintended outcomes. Relatively low risk perceptions and high levels of unhealthy life-styles as well as risky sexual habits were discovered from the FET students' responses. The inability of the AIDS policy-based interventions at outcome level reflected almost no possibilities of it arriving at the stated results (impact level).

Mohlalefi Edwin Moiloa

Johannesburg, March 2016

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1 INTRODUCTION TO THE RESEARCH

1.1 Background

This chapter sets out to achieve four major objectives. First, we generally and more broadly introduce the research context (Section 1.1) in which we describe HIV/AIDS as a global concern for which management interventions came into existence, and bring into light a specific sector consisting of individuals at the peak of sexual activity. Second, we get into the research problem statement (Section 1.2.1) in which the role of the intervention comes briefly into scrutiny as the point of focus in this research. Third, having revealed our problem that presents HIV/AIDS issue, intervention and individuals as the centre of attention, we detail the purpose of the research (Section 1.2.2). In this part, we provide a picture of the route that the research intends to embark on, using the three mentioned. Fourth, we state out problem in question form (Section 1.2.3) and formulate hypotheses (Section 1.2.4) in harmony with the research purpose. That is, the questions and hypotheses assist in the fulfilment of the purpose as they serve as a guide towards achieving objectives of the research. Lastly, we delimit (Section 1.3) and justify our research (Section 1.4).

1.1.1 The HIV/AIDS epidemic as a priority of the global health agenda

Since its origin in the early 1980s (Jeckoniah, 2013; Chicoine, 2012), the rapid spread of human immunodeficiency virus (HIV) which causes acquired immune deficiency syndrome (AIDS) and its concomitant devastating impact across the world have prompted massive attention, both at national and international levels (Stadler, Delany, and Mntambo, 2008; Mitton, 2000; Gallant and Maticka-Tyndale, 2004). Petros (2014) regards HIV/AIDS as one of the worst crises in recorded history of humankind worldwide. Evidence suggests that, even though HIV/AIDS is actually a global issue, it is Sub-Saharan Africa that withstands the worst of the epidemic (Whiteside, 2008; Djellouli and Quevedo-Gomez, 2015; Eaton, Flisher, and Aaro, 2003). Evidently, effective management of the HIV/AIDS pandemic and interventions to curb it, have since become the universal points of focus and essential policy issues (Wouters, Masquillier, Ponnet, and Booysen, 2014).

Heterosexual intercourse remains the predominant mode of transmission in Southern Africa; particularly South Africa (Jeckoniah, 2013) followed by mother-to-child transmission (MTCT) and high rates of sexual violence (Stadler and others, 2008). The factors driving the spread of HIV include migration, concurrent multiple partnerships, low risk perceptions, low condom use (Magnani, Maclntyre, Karim, Brown and Hutchinson, 2005; Ojikutu, Adeleke, Yusuf and Ajijolo, 2010; Shisana, Rehle, Simbayi, Zuma, Jooste, Zungu, Labadarios, Onoya, 2014), excessive use of alcohol, and low rates of male circumcision (South African National AIDS Council, 2011). Research on the burden of HIV among men who have sex with men (MSM) is being conducted in South Africa and is not a major source of HIV infection at present (Shisana and others, 2009).

The status of HIV/AIDS in Africa, especially in South Africa poses a threat to economic security. Although the recent research suggests that the epidemic has stabilized in the last ten years (Wouters, van Rensburg, and Meulemans, 2009), new HIV infections which are predominantly among the young and productive citizens (Stadler and others, 2008; Petros, 2014) outstrip the number of AIDS-caused deaths every year in South Africa (South African National AIDS Council, 2011). This marks a serious danger to economic growth and social development (Mateus, Allen-Ile and Iwu, 2014). Further, HIV/AIDS has made its mark in the education sector. A vast number of dropouts from education during the course of the year (Roux, Ebersohn, Smit, and Eloff, 2005), a few who make it to the final and a small percentage of those who pass examinations, are indirect indicators that the pandemic shakes the very foundation of the national economic development (Mateus and others, 2014).

The low rate of human capital accumulation as a consequence of the pandemic cutting short the lives of educated youth, when HIV orphans are less likely to be absorbed in education, presents immense challenges to skills development—which is a national long term investment and response to skills crisis (Marock, 2010; Chicoine, 2012; Mateus and others, 2014). Evidently, the precarious state in which the country found itself in recent years because of AIDS pandemic, coerced the government to take decisive measures to counter the onslaught of the epidemic (Schneider and Stein, 2001). Section 1.1.2 below deals with measures the country has taken to combat the threat of AIDS.

1.1.2 An introduction to policy-based HIV/AIDS management interventions

South Africa has shown a high level of commitment in the fight against HIV/AIDS epidemic. Between 1991 and 1994, the South African task team (NACOSA) was established (Schneider, 1998; Wouters, Rensburg and Meulemans, 2009) to draft the national strategy and coordinate a response to the HIV threat (Schneider and Stein, 2001). The strategy was well formulated, comprehensive and it covered the human rights aspect to protect the rights of vulnerable citizens (Jones, 2005; Schneider and Stein, 2001). The plan was rolled down to each ministry to develop their own interventions that would speak to and address specific issues in their contexts (Schneider, 1998).

However, from 1994 to 2008, years since South Africa attained democracy (Chibango, 2013), implementation of the policy reflected inability on the part of the state to effectively respond to the AIDS crisis (Mottiar, 2004; Wouters and others, 2009). Consequently, the strategy could not accrue positive results. Implementation process was marred by lack of commitment from influential politicians and civil society (Schneider and Stein, 2001; Morrissey, 1995; McCourt, 2003; Mottiar, 2004), power struggle within the government departments at different levels (Schneider and Stein, 2001; Wouters and others, 2009) and a tendency to regard HIV/AIDS as a health sector problem (Wouters and others, 2009). This hampered a multi-sectoral response to the AIDS epidemic (Stover, 2000; McCourt, 2003).

South Africa witnessed effectiveness and success of AIDS policy with the implementation of 'The HIV & AIDS and STI National Strategic Plan on AIDS 2007–2011' (Mayosi, Lawn, van Niekerk, Bradshaw, Karim, and Coovadia, 2012). The partnership between government, civil society and other relevant stakeholders (Wouters and others, 2009) was able to steer the rapid and successful implementation process (Motsoaledi, 2012; Mayosi and others, 2012).

Ideally, this effective implementation was able to bear fruits. Presently, South Africa has the largest Anti-Retroviral Treatment programme roll-out in the world (Mayosi and others, 2012), there is a significant increase in preventative measures such as condom distribution and male circumcision (South African National AIDS Council, 2012; Shisana and others, 2014). The AIDS education and Life Skills programmes are part of

the curricula in schools and FET colleges to expand knowledge and raise awareness (Government Gazette, 1999; Education Labour Relations Council, 2003; Roux and others, 2005). Other youth targeted campaigns and programmes, intended to increase HIV knowledge have taken place in communities across the country (Gallant and Maticka-Tyndale, 2004).

1.1.3 Introducing Further Education and Training (FET) Sector, and its response mechanism to AIDS

Historically, the current South African FET institutions have emerged from former racialized technical colleges (McGrath and Akoojee, 2009; Allais, 2012). Apart from neutralising racial segregation and providing disadvantaged black communities with equal opportunities to quality education (Powell, 2012), the existence of the FET Sector is also understood in conjunction with the social national imperatives such as lifting the skills base, increasing youth employability, and alleviating poverty (Akoojee, 2008; Vogtenhuber, 2014; Loveder, 2010). However, the onslaught of HIV/AIDS on the youth (Petros, 2014; Andersen, 2012) has become a grave danger to the prospect of a skilled nation, and of course the ability of the country to compete in global economic contexts (Ren, 2009; Powell, 2012). In response to this, life skills and education interventions seeking to improve sexual health knowledge (Andersen, 2012; Moodley and Phillips, 2011) have been implemented in South African FET institutions (Education Labour Relations Council, 2003) with a view that knowledge will lead to reductions in risky sexual behaviours and susceptibility to HIV infection (Harrison, Newell, Imrie, and Hoddinott, 2010; Beyers, 2012).

1.2 Towards evaluating the outcomes of AIDS policy-based interventions in Further Education and Training Sector

In section 1.2, the paper will chronologically focus its attention on the research problem statement (1.2.1), research purpose statement (1.2.2), questions that the study seeks to answer (1.2.3), and finally the research hypotheses (1.2.4).

1.2.1 The research problem statement

In the South African context, a high level of commitment has been shown in the fight against HIV/AIDS. The government has enacted a multi-sectoral response mechanism to combat the threat of the AIDS epidemic. All the ministries have since developed and

implemented a range of measures at all the levels of organisations (Schneider and Stein, 2001). With a view to halting further transmission of HIV, the FET Sector has implemented the interventions informed by the national AIDS policy for over eight years (Marock, 2010; UNESCO, 2008). However, risky behaviroural practices of FET students—evidenced by high rates of pregnancy (James and Abieyuwa, 2013; Government Gazette, 2015)—puts the interventions under the spotlight in terms of their role in reducing risky behaviours (Clark, Van Eck, King, Glusman, McCain-Williams, Van Eck, and Beech, 2000), expanding HIV knowledge and changing the attitudes of the beneficiaries (Zungu and Manyisa, 2009).

The escalating incidence of risky behaviours by learners in FET colleges in the face of HIV/AIDS prevention interventions is perturbing. At the heart of worries pertaining to this problem lies lack of knowledge concerning how knowledgeable the learners are with regard to HIV/AIDS, and whether they perceive themselves as being highly at risk of HIV infection. Further, it is not known how far their sexual life agrees with Khoiron (2015)'s held view that knowledge plays a major role in the formation of behaviour. At stake are efforts to address the skills paradox and a prospect of making the country competitive in the global economic contexts (Powel, 2012; Ren, 2009), given the purpose for Vocational Education and Training (VET).

According to Zungu and Manyisa (2009)'s viewpoint, unwanted pregnancy in learning institutions is not only a public health problem, but also a socioeconomic challenge in the country. To this end, the findings of this study may assist vocational education and training providers and other relevant stakeholders in the FET Sector to devise others or improve the implementation of the existing strategies that are intended to halt the HIV infection rate.

1.2.2 The research purpose statement

The purpose of this research is to conduct the outcome evaluation of AIDS policy-based interventions in the South African FET Sector. First, we review the literature to have a thorough understanding of the policy that informs the interventions in order to establish the interventions' outcomes and uncover its theory of change. Second, we construct and present a results chain and its accompanying results framework

underlying the uncovered theory of change to determine the anticipated causal linkages from inputs way up to the desired goals (Corlazzoli and White, 2013). The first and second steps provide a vivid picture of how and why this intervention is supposed to work (Vogel, 2012) and help determine the criteria against which success is measured. Third, we propose appropriate research strategy, design and methodology suitable for the outcome evaluation of the intervention under study. Fourth, we use the proposed research procedure to solicit primary data from the research respondents to measure precisely the outcomes our literature identifies; and fifth, we analyse primary data in order to compare the actual outcomes of the intervention to the desired ones. Ultimately, this helps determine how far the intervention is from the anticipated outcomes. Based on this, we determine the possibility of the intervention arriving at the stated results.

1.2.3 Research questions

To what extent have the AIDS policy-based interventions expanded HIV/AIDS knowledge, increased risk perceptions and reduced behaviours associated with the risk of acquiring HIV?

i. What are FET students' levels of knowledge regarding HIV/AIDS?
ii. What are students' perceived risks concerning HIV infection?
iii. What are the FET students behaviours associated with the risk of acquiring HIV?

1.2.4 The research hypotheses

i. The HIV/AIDS knowledge among FET students is high because of AIDS policy-based interventions
ii. The HIV/AIDS risk-perceptions of FET students are high because of AIDS policy-based interventions.
iii. The responsible health behaviours of FET students are low despite AIDS policy based-interventions.

1.3 Delimitations of the research

Management of the HIV/AIDS epidemic covers a wide spectrum of interventions ranging from policies, projects to programmes (Education Labour Relations Council,

2003; Francis, 2010). All the above-mentioned interventions are broadly categorised as interventions for HIV/AIDS prevention, treatment and care (World Health Organisation, 2009). In each category, there are sub-interventions aimed at addressing specific AIDS-related issues within a certain context (World Health Organisation, 2009). For instance, medication adherence intervention falls in the category of interventions for treatment and care intended at assisting people living with HIV/AIDS (PLWH), who are enrolled on the antiretroviral programme to take their medication as prescribed (Malangu, 2008).

To this end, the study will focus its attention on the evaluation of HIV/AIDS prevention intervention at the FET Sector that is informed by the AIDS policy—namely, Life-Skills and HIV/AIDS education (Education Labour Relations Council, 2003; Andersen, 2012). Evaluation comprises formative, process and summative evaluation (Gorgens and Kusek, 2010). Consequently, the study will focus on summative—limiting itself to evaluating the outcomes, instead of the impacts, of Life-Skills and HIV/AIDS education programme incorporated in the FET curriculum (Education Labour Relations Council, 2003) as its AIDS policy-based interventions. According to Education Labour Relations Council (2003) and Roux and others (2005), the purpose of this intervention is to expand AIDS knowledge, raise awareness with a view to influence behaviour change, and reduce the risk of infection among the students. These serve as the outcome measures by which success of the intervention will be determined in this study (Ibrahim, Rampal, Jamil, and Zain, 2012; Liao, Jiang, Zeng, and Liao, 2010).

1.4 Justification of the research

Since the South African government began developing and implementing a number of strategies and programmes in an effort to counter the threat of HIV/AIDS from the early 1990s (Schneider, 1998; Wouters and other, 2009; Schneider and Stein, 2001), publications have been released every year. Researchers have been constantly at work assessing the effectiveness of the South African AIDS strategy in achieving its intended goals in relation to different populations that mostly involve the youth and vulnerable (Swart-Kruger and Richter, 1997; Tenkorang, Maticka-Tyndale, and Rajulton, 2011). However, only a limited number of researchers such as Moodley and Phillips (2011) have given adequate attention to the evaluation of HIV/AIDS prevention interventions in the FET institutions.

Despite concerted efforts to intervene, empirical evidence suggests that the prevalence of pregnancy among South African teenage girls as well as among post high school students is on the increase (Zungu and Lanyisa 2009; James and Abieyuwa 2013; Government Gazette 2015). This is a direct indication of risky sexual behaviour and definitely contributing to the high prevalence rates of HIV in the country (Mathews 2008). The fact that the rise in the prevalence of pregnancy among students (Government Gazette, 2015; James and Abieyuwa, 2013) is almost contemporaneous with integration of AIDS education in the FET curricula (Government Gazette, 1999; Roux and others, 2005), there is a need for more evaluation studies of this nature to be conducted.

The rise in behaviours that increase students' susceptibility to HIV infection (Government Gazette, 2015; Zungu and Lanyisa, 2009), coupled with paucity of research in the area of FET Sector regarding the success of HIV/AIDS prevention measures, necessitates more studies of this nature to be carried out. The studies might reveal the magnitude of and the factors fuelling the problem. Ultimately, this might influence change of strategy in the implementation of the programme interventions designed to expand knowledge with a view to influencing behaviour change and ultimately reduce the infection rate (Education Labour Relations Council, 2003; Roux and others, 2005).

1.5 Preface to the research report

To this end, the report has six chapters. Following this introductory chapter, Chapter 2 provides a literature review covering the intervention, the past and current studies, the explanatory framework and the conceptual framework. Chapter 3 discusses the research strategy, design, procedures, reliability and validity measures as well as limitations. Chapter 4 and Chapter 5 present and discuss the findings, respectively, to interrogating our research questions while Chapter 6 summarises and concludes the research.

2 LITERATURE REVIEW

Generally, this chapter sets out to achieve three objectives. First, we detail the evaluation intervention (AIDS policy-based intervention). Second, we develop a theoretical framework for interpreting the findings of the research. Lastly, we propose a conceptual framework to describe how the outcome evaluation of the AIDS policy-based interventions will be carried out. Specifically, in Sections 2.1, the study briefly provides a historical description of the FET Sector in preparation for Section 2.2 in which we broadly detail the intervention under study. In Section 2.3, we identify the knowledge gap through reviewing literature on international and local studies that have attempted to evaluate HIV/AIDS prevention interventions in institutions of learning. Technically, interrogating key literature on the research of interest helps us identify, understand, and develop frameworks, theories, models, and perspectives that we can use to interpret the findings (Kumar, 2014). With this knowledge, we situate our research within monitoring and evaluation studies and its key components and attributes in Sections 2.4 and 2.5. Having identified the theory of change as the most relevant explanatory framework to apply when interpreting the empirical findings of this research, we discuss this theory, the results chain and its accompanying results framework in Section 2.6. The last Section (2.7) provides a road map of how this research intends to evaluate the outcomes of HIV/AIDS policy-based interventions in the South African FET Sector.

2.1 Description of the Further Education and Training Sector and its need for HIV/AIDS interventions

This section sets out to present a historical picture of the South African FET Sector, paying particular attention to the emergence and transition of the colleges from colonial to post-colonial governments. The paper further discusses briefly the expected contribution of the Sector to national economic development and most importantly, shortcomings associated with the Sector. Lastly, the section zooms into the effects of the AIDS epidemic on the education sector which necessitated AIDS management interventions in the institutions of learning.

2.1.1 The history of Further Education and Training Sector

The FET (also known as Technical and Vocational Education and Training [TVET]) Sector has gone through a challenging course of massive transformation and

restructuring since the post-apartheid South Africa. McGrath and Akoojee (2009) argue that before 1994, TVET system was the epi-centre of racial segregation in which well-resourced institutions located close to the centres of economic activity were White dominated while institutions for Black African learners were poorly resourced and distant from the areas associated with economic activity. The new democratic government through the Department of Education had to dissolve segregation and transform the FET sites to provide disadvantaged communities with equal opportunities to quality education (Powell, 2012). This was viewed as a way of concomitantly responding to social disparities created by the former regime, such as inequality and unemployment (Powell, 2012); and skills crisis threatening the national economy (Akoojee, 2008; McGrath and Akoojee, 2009; Powell, 2012). The high rate of unemployment, exacerbated by scarcity of skills in the country, has become a painful social phenomenon the government could only curb through bringing the citizens into the social and economic mainstream by improving their skills and employability (McGrath and Akoojee, 2009).

As part of the National Skills Development Strategy, the 152 racialized technical colleges, the South African government had inherited from the previous regime, were merged into 50 new multi-racial sites currently known as Further Education and Training (FET) Colleges (McGrath and Akoojee, 2009; Allais, 2012). Since its inception, FET had only Nated or N-programmes known as Report 191(Taylor, 2011). In 2007, the National Certificate (Vocational) [NCV] was launched as the Department of Education's initiative to address intermediate skills shortages (Marock, 2010). The initiative was ministerially approved as a specialized course of study intended to prepare individuals for occupational-specific training; and it was introduced as the core offering at the FET institutions (Taylor, 2011; Marock, 2010).

The introduction of the NCV came as a replacement for the technical qualification known as Nated (N1 – N3), which had been in use for decades and had enabled learners to obtain national training certificates as well as the theoretical basis that were aligned to the requirements of apprenticeship (Marock, 2010; Makole, 2010). As Treu, Olivier, Bean and Van de Walt (2010) point out, the new curriculum for FET was developed through participation and consultation; and the draft curriculum was made available for public scrutiny and comments in 2002. Despite all these efforts to make the FET Sector

different from the colonial one and of course, fit for its purpose, Akoojee (2009, p. 152) criticises the South African FET college model for its lack of diversity and points out that "the department of education appears to have resuscitated the old technical high school model of the apartheid era".

2.1.2 Rationale behind the Further Education and Training Sector

The FET Sector in a contemporary South Africa is conventionally viewed in conjunction with the themes of skills development, decreased unemployment and poverty reduction as some of the national imperatives (McGrath and Akoojee, 2009; Loveder, 2010; Powell, 2012). Recently, skills shortages have been at the heart of many government development strategies (Marock, 2010) and the FET institutions came in to subsequently represent a fundamental element of the South African skills development system in the country (Akoojee, 2012). Through this, an escalating problem of youth unemployment and a national paradox of poverty would be reversed (McGrath and Akoojee, 2009; Powell, 2012).

Conventionally regarded as a response mechanism to social and economic problems (McGrath and Akoojee, 2009), education offered in FET institutions at both Nated and NCV levels is meant to empower the society in tough economic situations (Ren, 2009). According to McGrath and Akoojee (2009), FET institutions attract young people from as young as 15 years with moderate intellectual as well as weak literacy and numeracy. Most of the students attending these institutions are young Black females. For example, the Department of Higher Education and Training (2014) reports that of the 115,586 students that enrolled with the private FET institutions in 2012, 60 per cent of them were female. Similarly, the Department of Higher Education and Training (2015) reports that of the 639,618 students that enrolled with the public FET/TVET institutions in 2013, the majority (90 per cent) are Black with slightly more (52 per cent) females in the age groups 20-24 (52 per cent) and 15-19 (25 per cent).

To this end, upskilling these young people and preparing them for occupation (Grubb, 2006; Marock, 2010) through a variety of learning experiences relevant to the work environment (Oketch, 2007) has always marked the central focus of the FET Sector. Vocational education consists of both theory and practical components to enable the beneficiaries to apply theory to practice in preparation for the labour market (Marock,

2010; Taylor, 2011). However, research-based evidence suggests that the Sector has not been fully successful in its course.

2.1.3 Shortcomings associated with the South African Vocational Education and Training (VET)

There is neither sufficient evidence indicating a significant contribution that vocational education has had in lifting the skills base and alleviating poverty (Marock, 20110), nor an impact that a shift to NCV has made in its nine years of skills development in the country (Akoojee, 2009). This validates a view that vocational education and training is not "a viable policy option for social and economic development" in South Africa (Psacharopoulos, 1991 in Powell, 2012, p. 643).

The challenge faced by vocational education and training providers in FET colleges is to establish working connections between their programmes and labour market in terms of how to incorporate rapidly changing skills in their curriculum (Grubb, 2006). Supposedly, vocational education and training is determined by the needs of the employer (Allais, 2012). However, its providers apparently fail to be flexibly and relatively quick enough to keep up with the demands of the strategic changes of the economic restructuring (Ren, 2009). Seemingly, FET colleges operate in isolation from the market and economy (Ren, 2009), resulting in a mismatch between skills the FET colleges are producing and those demanded by the complex labour market (Kraak, 2008 in McGrath and Akoojee, 2009).

The delivery of the vocational education and training in South Africa is fragmented and plagued by lack of adequate equipment for practical part of the course and this bears very little resemblance to the advancing technologies utilized by the current industrial environment (ETDP SETA, 2012). Lecturers with content knowledge but not industrial experience that is required to equip students with necessary skills (ETDP SETA, 2012) exacerbate the situation. Grubb (2006) postulates concerns about the degrading status of vocational education and training. The fact that vocational education programmes are perceived as a pathway for less academically oriented learners with relatively low cognitive levels, weak literacy and numeracy skills (Polidano and Tabasso, 2014; Akoojee, Gewer, and McGrath, 2005) confirms Akoojee (2008)'s perception of FET as the Sector in decline and explains why the author believes it to be of lower status.

2.1.4 Impact of HIV/AIDS on education—requiring well-informed interventions

The spread of HIV/AIDS and its impact on education pose a serious threat to national development, thereby necessitating an educator and learner-targeted intervention (UNESCO, 2008). The education system is in a precarious state as the epidemic continues to take its toll on learners and educators alike (Lyby, 2010; Stadler et al, 2008), resulting in massive dropouts of learners, absenteeism of educators and death as one of the sad eventualities of the pandemic (Peltzer, 2008). From an economic and developmental perspective, the spread of HIV would compromise the prospect of an upskilled nation that would be economically competitive both in global and national contexts (Powel, 2012; Ren, 2009). This gave birth to the existing HIV/AIDS policy-based interventions, whose effectiveness in combating the spread of HIV/AIDS through raising AIDS awareness and influencing behaviour change in FET institutions (Gallant and Maticka-Tyndale, 2004; UNESCO, 2010) is in question.

With reference to the subsequent section, this paper brings into perspective that a thorough understanding of Life Skills and AIDS education intervention depends on understanding the policy from which it originates. Section 2.2 below details how the policy came about.

2.2 Formulation, implementation, and outcomes of the HIV/AIDS policies

In the previous section, this paper provided a broad overview of the FET Sector and highlighted skills development and increased employability of the South African youth as the rationale behind it. The paper went further to depict the HIV/AIDS threat as one of the major impediments to significantly respond to skills crisis in the country, thereby necessitating policy-informed interventions to successfully manage HIV/AIDS in the institutions. In this section, we zoom into the AIDS situation that prompted attention of the pre- and post-apartheid South African governments, galvanising them into the formulation and implementation of AIDS policies to counter the alarming spread of HIV/AIDS in the country (Schneider and Stein, 2001; Simelela and Venter, 2014). Relatedly, the initial implementation of policy for effective HIV/AIDS management and its concomitant failures (Schneider and Stein, 2001) are dealt with at length in this

section, including late changes that marked enormous transformation in the history of AIDS in South Africa (Mayosi and others, 2012).

2.2.1 Epidemiological conditions and AIDS policy in South Africa

The development of AIDS policy was part of the national response mechanism necessitated by severe impact of the pandemic on economic and social development (Jones, 2005; Gallant and Maticka-Tyndale, 2004). In the first years of its existence as part of human experience, the pandemic took its toll on people, especially the young, educated and productive (Andersen, 2012; Lyby, 2010; Stadler and others, 2008). High infection, prevalence and mortality rates were a painful manifestation of AIDS capitalizing on people's low levels of knowledge regarding transmission dynamics (Simelela and Venter, 2014; Parkhurst and Lush, 2004).

The first South Africa's AIDS-related case was officially reported in 1982 (Chicoine, 2012), after which AIDS remained a male homosexual dominated problem for some time (Rispel, and Metcalf, 2009; Jeckoniah, 2013). The pandemic suddenly spread outside of the gay population and in 1990s, the prevalence trends tremendously increased with heterosexual intercourse as a predominant mode of transmission, exacerbated by high levels of promiscuous sexual behaviour (Pettifor, Levandowski, Macphail, Miller, Tabor, Ford, Stein, Rees, and Cohen, 2011; Magnani and others, 2005).

By the end of 1998, an estimated 23 per cent of women attending antenatal clinics were living with HIV (Schneider and Stein, 2001). Alarmingly, AIDS-caused deaths were estimated at 100,000 in 1999 alone (Soobaroyen and Ntim, 2013). Furthermore, South Africa came to be regarded as the state that experienced the most AIDS-related deaths worldwide in 2001 (Chicoine, 2012).

Contributory to the crisis was that, South African political figureheads did not immediately perceive HIV/AIDS as an issue of serious concern, as such, paid little attention to it (Simelela and Venter, 2014; Schneider and Stein, 2001). Fuelling the spread of AIDS were cultural norms, practices and values that increased vulnerability of many to HIV infection (Jackson, 2002; Mathews, 2008). Promiscuity and concurrent

multiple partnership caused by low risk perception and patchy awareness of AIDS (Mathews, 2008; Parkhurst and Lush, 2004) have led South Africa to what Simelela and Venter (2014, p. 249) refer to today as "…home to the largest concentration of people living with HIV anywhere in the world".

2.2.2 The formulation of AIDS policy in South Africa

The level of devastation wreaked by the epidemic across the country coerced the apartheid South African government into formulation of strategies to respond to the threat (Schneider and Stein, 2001). In 1992, the National AIDS Committee of South Africa (NACOSA) was established and launched, following the national conference that was held in 1991 (Schneider, 1998; Wouters and others, 2009). NACOSA was a task team comprising of competent individuals from Africa and beyond, with wide knowledge and vast experiences regarding HIV/AIDS prevention, care and support (Schneider, 1998). The purpose behind NACOSA's establishment was primarily to draft a policy for HIV/AIDS management and coordinate response to the pandemic in the country (Schneider and Stein, 2001).

The drawing up of the plan (policy) was contemporaneous with the formulation of the National Bill of rights in order to embrace the sexual rights of vulnerable people (Schneider and Stein, 2001). Relatedly, this would initiate the rights-based approach in the management of HIV/AIDS throughout the country (Jones, 2005). As Schneider and Stein (2001, p. 725) elucidate, "The plan proposed a multi-sectoral structure with implementing units in key ministries (Health, education, Welfare, Defence)". To this end, it was mandatory for every ministry to have HIV/AIDS programmes in place addressing the crisis in their own specific contexts, but still with the government as the key player in spearheading and funding the implementation of interventions (Schneider, 1998).

To effectively and successfully curb the epidemic, the National AIDS Plan proposed a holistic approach, in which all ministries, collectively and individually put an effort to respond to the threat posed by HIV/AIDS (Schneider and Stein, 2001). For the purpose of this paper, the focus will be on the ministry of education. Owing to the fact that the ministry has sub-divisions in it, particular attention is paid to the FET Sector.

2.2.2.1 Developing policies for effective HIV/AIDS management in learning institutions

Obliged by a binding multi-sectoral response assignment (Schneider and Stein, 2001) and the dreadful effects of HIV/AIDS on education (UNESCO, 2008), all sectors in the ministry of education had a duty to develop and implement a policy on HIV/AIDS in close synergy with the National AIDS strategy (van Wyk and Pieterse, 2006; Roux and others, 2005). Consequently, AIDS policies for all institutions would be formulated, each relevant to its context in terms of the levels and circumstances of population it is meant to serve (van Wyk and Pieterse, 2006). However, they would still be in harmony with the common essential policy actions expected of institutions of learning (van Wyk and Pieterse, 2006; Education Labour Relations Council, 2003; Schenker and Nyirenda, 2002).

The common essential policy actions include among others, to impart and expand AIDS-related knowledge and understanding of the transmission dynamics with a view to increasing risk perceptions and influence behavioural change (Education Labour Relations Council, 2003). In addition, the policy is intended to endorse fairness and equity where HIV/AIDS management-related activities are concerned, with no one being coerced to partake in any activity without his or her consent (van Wyk and Pieterse, 2006; Education Labour Relations Council, 2003; Schenker and Nyirenda, 2002). In essence, this encourages AIDS education in which people are not only equipped with skills to prevent the spread of HIV infection, but also empowered to help the infected and affected (van Dyk: 2005).

With respect to the tertiary institutions, van Wyk and Pieterse (2006) accentuate using 'institutionalized response' in the fight against HIV/AIDS pandemic, which in their language describes the intellectual angle from which the institutions should respond to the threat. The idea of 'institutionalized HIV/AIDS response' involves taking a lead in curbing the threat, influencing policy and educating the wider community about the epidemic (van Wyk and Pieterse, 2006). Ideally, policies on HIV/AIDS take into account the logical levels of the school and FET students in terms of policy actions required on their part, which are predominantly to learn and adjust their behaviours accordingly (Education Labour Relations Council, 2003).

2.2.3 Implementation of HIV/AIDS policy in South Africa

From 1994 when South Africa gained democracy to 2008, the government implemented AIDS strategy, which would be reviewed every five years to evaluate the progress of implementation (Wouters and others, 2009; Mottiar, 2004). However, the rapid spread of the epidemic in the presence of a well-formulated national policy undermined the ability of the state to comprehensively respond to the crisis (Mottiar, 2004; Schneider and Stein, 2001). During this period, the South African government seemed very slow and inconsistent (Magnani and others, 2005), and the intervention appeared not to accrue positive results. Although the country had financial resources to fund its health services including AIDS strategies (Schneider and Stein, 2001), effective implementation proved to be an uphill climb for the state (Mottiar, 2004) due to a number of reasons discussed in the subsequent paragraphs.

2.2.3.1 Contextualising the implementation debacle within the 1994 – 2008 South Africa's political sphere

The post 1994 South Africa was the state in transition, socially and politically (Schneider, 1998; Wouters and others, 2009), with either formulation or implementation of policies in every ministry at all levels and sectors of the government (Barchiesi, 2008). The South African government had just inherited administration from the apartheid regime in which social welfare of the black majority was not that much of a concern (Schneider and Stein, 2001). These conditions galvanized the new democratic government into massive restructuring and gruelling transformation to meet the requirements of a democratic state (Schneider and Stein, 2001).

A comprehensive response to HIV/AIDS was supposedly part of that social transformation. On the contrary, a well-known view of AIDS as a "presidential lead project" which had curbing of the pandemic elevated to the top of government priority list (Schneider and Stein, 2001, p. 725) vanished with time. A policy context created by the government was not fertile for effective implementation of AIDS strategies (Wouters and others, 2009). As to why consecutive South African governments from 1994 to 2008 failed so dismally to reduce the magnitude of the problem, the response is ingrained in factors hampering successful implementation of AIDS policy discussed in the paragraphs that follow.

2.2.3.2 Inadequacy of political commitment

Political commitment is understood as the support and involvement of leaders, civil servants and influential citizens both at national and local levels of the society (Stover, 2000). Political commitment is central to the effective implementation of the interventions (Morrissey, 1995), as it is the driving force behind the mobilization and allocation of the resources to establish and implement HIV/AIDS prevention programmes (Schneider and Stein, 2001). In early post-apartheid South Africa, lack of political commitment created a major stumbling block as it came to be a principal reason for ineffective or fragmented implementation of the national policy on AIDS (McCourt, 2003; Mottiar, 2004).

The first democratic government started on a promising footing when it quickly adopted the National AIDS plan and mobilized resources for implementation (Schneider, 1998). However, the ability of the government to successfully mobilize and coordinate a multi-sectoral response became fragile when lack of trust and power struggle within and between the levels of government suddenly came into existence (Schneider and Stein, 2001; Marais 2000 in Wouters and others, 2009). Subsequently, this hampered the implementation process—thereby blurring a prospect of an AIDS-free country (Schneider and Stein, 2001).

From Stover (2000)'s viewpoint, to steer the rapid and effective implementation of AIDS policy requires the full commitment and participation of leaders from all levels of the society, which include influential political leaders, Non-Governmental Organizations (NGOs), and Civil Society Organizations (CSOs) leaders. In the case of South Africa, CSOs response was generally fragmented (van Rensburg and others, 2002 in Jones, 2005). There was "a great deal of confusion within the NGO sector as well as between the latter and government concerning what role each should be playing in the context of HIV/AIDS" (Jones, 2005, p. 428). Further, the implementation efforts were marred by incompetence and mismanagement of the programme coordinators who were unable to translate policy into practice—thus, compromising specific policy activities and rendering the initiative ineffective (Parkhursta, and Lush, 2004).

Between 1999 and 2008, things deteriorated. The long public-held view that the government response to the HIV/AIDS epidemic was slow and mild (Magnani and

others, 2005), was evidenced by the president Mbeki's dissident view that 'HIV does not cause AIDS' (Soobaroyen and Ntim, 2013; Jones, 2005; Mottiar, 2004). Similarly, the controversial minister of health publicly questioned the effectiveness and ability of Anti-Retroviral Therapy (ART) to successfully deal with HIV/AIDS, and literally deprived people living with HIV/AIDS of the drugs (Soobaroyen and Ntim, 2013; Mottiar, 2004). In response to this, international and local criticisms exerted enormous pressure on the South African government (Wouters and others, 2009). Ultimately, this led to the government resorting to short-term trivial solutions that only worsened the situation and caused more blunders in the implementation of the strategies (Wouters and others, 2009).

2.2.3.3 Entrenchment of National AIDS Policy in the medical field

The difference between the policy intentions and the policy implementation came into the picture when strategies were practically implemented (Wouters and others, 2009). In the National AIDS Strategy, the AIDS issue has always been regarded as an economic, political and developmental threat (Schneider and Stein, 2001). From this concept emerged the notion of a holistic approach in which all sectors in all spheres would be active participants in combating the spread of the virus and mitigating its impact (Schneider and Stein, 2001; Wouters and others, 2009; Mottiar, 2004). However, in the actual implementation process, AIDS strategies were predominantly located in public health sector, putting too much burden and responsibility on the barely capacitated sector and ultimately rendering policy response ineffective (Wouters and others, 2009).

2.2.4 The remarkable turn of the tide against the HIV epidemic in the post 2008 South Africa

The year 2009 marked a new era of success and unity in the fight against HIV/AIDS issue that has tormented the country for more than three decades (Chibango, 2013; Wouters and others, 2009). The implementation of the new strategy, 'The HIV & AIDS and STI National Strategic Plan on AIDS 2007–2011' was a clear manifestation of the adequate political commitment and state's capacity to act with courage and decisiveness in combating the threat of AIDS (South African National AIDS Council, 2011; Mayosi and others, 2012). Ideally, for the first time in the history of AIDS as part of human experience, South Africa came to see involvement of government, civil society and

other relevant stakeholders in the formulation of the AIDS strategy and its subsequent implementation (Motsoaledi, 2012; Wouters and others, 2009).

According to Wouters and others (2009), the strategy gained an international recognition as the most dynamic and comprehensive in a long HIV battle in which the country has been since 1982. It committed to and prioritized on reducing HIV infection by 50 per cent (South African National AIDS Council, 2011) while access to treatment, care and support were aimed to be extended to 80 per cent coverage for people living with HIV/AIDS (Department of Health, 2007 in Wouters and others, 2009). Furthermore, the strategy was aimed at scaling up access to AIDS medication, ensuring that people with negative HIV status remained negative, and minimizing the impact of the pandemic (Mayosi and others, 2012; Wouters and others, 2009).

2.2.5 Changes and outcomes of National Strategic Plan on AIDS 2007–2011

The unexpected shift in the policy response has yielded positive results in the fight against HIV/AIDS. Currently, the country has the largest Antiretroviral Therapy/Treatment programme in the world in which 50 per cent of people in need of the medication were enrolled on the programme by the end of 2011 (Mayosi and others, 2012). AIDS-caused deaths decreased from 51.2 per cent in 2007 to 43.6 per cent in 2011, and the estimates reveal that life expectancy increased from 54 years in 2005 to 60 years in 2011 (Mayosi and others, 2012). The South African National AIDS Council (2011) highlights significant progress in the new interventions scale-up, opening the door for more knowledge regarding the implementation of prevention interventions. On the side of prevention, progress has been remarkable. Both male and female condom distribution was reported to have tremendously increased (Mayosi and others, 2012), with an estimated 399 male condoms reportedly distributed in 2011 alone (Shisana and others, 2014). Furthermore, a number of medical circumcisions for men also increased from 5,190 in 2008 to 347,973 in 2011 (Mayosi and others, 2012).

Although there is significant improvement in the policy implementation, the five year strategy fell short of the set targets and preventing new infections (Wouters and others, 2009). The 50 per cent HIV reduction and 80 per cent coverage of Antiretroviral Therapy/Treatment were unattainable (Shisana and others, 2014; Wouters and others,

2009). In 2012 alone, 300,000 new HIV infections occurred within the adult age group of 25 years and above, when an estimated 2.5 per cent incidence rate was reported among females aged 15 – 24, resulting in 1.2 million more people having HIV (Shisana and others, 2014).

2.2.6 Life Skills and HIV/AIDS education as the AIDS policy response in Further Education and Training Sector

The generic policy for the FET colleges nationwide is 'National policy on HIV/AIDS for learners and educators in public schools and students and educators in further education and training institutions' published in government Gazette No. 20372 of August 1999 (Education Labour Relations Council, 2005). Like all AIDS policies in education ministry, this policy was set out in 'the National policy on HIV/AIDS' (Government Gazette, 1999). Generally, it plays down on the fear of AIDS, reduces the stigma associated with the pandemic, and fosters non-discrimination and equality within institutions when admitting students and appointing staff (Roux and others, 2005; Education Labour Relations Council, 2003). It further emphasizes the protection of constitutional rights of all learners and educators (Government Gazette, 1999). In addition, it mandates the FET colleges to develop their own AIDS policies that would speak to their contexts and reflect their specific needs, ethos and values in harmony with the national policy on HIV/AIDS (Government Gazette, 1999; van Wyk and Pieterse, 2006).

In the absence of a cure for HIV/AIDS, the policy emphasizes on AIDS education in FET colleges as the primary weapon by which the epidemic can be reversed (Education Labour Relations Council, 2003; Andersen, 2012). In FET institutions, HIV/AIDS education is integrated in the Life Orientation curriculum and Life Skills programmes to expand knowledge, raise awareness and ultimately halt further transmission of HIV (Government Gazette, 1999; Roux and others, 2005; Schenker and Nyirenda 2002). According to UNESCO (2008), incorporating HIV/AIDS directly into teaching and learning activities is intended at widening perceptions and enhancing understanding of students about the epidemic. It is HIV/AIDS content heavy, aimed at imparting a sense of responsible sexual behaviour in order to enable the recipients to avoid activities that

increase one's vulnerability to infection. This should culminate in learners translating knowledge into practice.

2.2.6.1 Challenges around sexual education and traditional moral standards

As indicated earlier in this thesis, policies on HIV/AIDS have since emphasised on raising awareness and increasing knowledge of the epidemic (Roux and others, 2005; UNESCO, 2008). Consequently, AIDS education incorporated in schools and post-high school curriculum has sexuality education as the cornerstone by which the AIDS situation can be reversed (Education Labour Relations Council, 2003; Francis, 2010; Gallant and Maticka-Tyndale, 2004).

On the contrary, the implementation of this initiative is reportedly in conflict with some cultural and religious principles (Gallant and Maticka-Tyndale, 2004; Pokharela, Kulczycki, and Shakya, 2006). In certain societies, sex-related topics with minors are sensitive and regarded as social taboo, hindering effective delivery of content in classroom situation (Mbugua, 2007; Thammaraksa, Powwattana, Lagampan, and Thaingtham, 2014). Literature has revealed that educators in other parts of the country made known their strong objections regarding sexuality education, dismissing sex-related topics in classroom context as uncomfortable and embarrassing (Gallant and Maticka-Tyndale, 2004; Mbugua, 2007).

Poor communication ability in relation to sexuality education in classroom contexts is the major obstacle for effective implementation of AIDS education programmes as some educators rarely mention productive health terms in their classroom (Thammaraksa and others, 2014; Pokharela, and others, 2006). Lastly, most African societies propagate the culture of silence on sex and HIV/AIDS issues and, therefore, creating a limited platform for open communication about sex (Mbugua 2007; Carovano 1992 in Gupta 2000).

2.2.7 Rational for measuring the outcomes of AIDS policy-based interventions

This paper has revealed that infertile policy context created by the pre—2009 South African governments rendered the national strategy ineffective in curbing the threat of AIDS (Schneider and Stein, 2001). Although literature associates the post 2008 South

Africa with holistic and effective implementation of AIDS strategy (Mayosi and others, 2012; South African National AIDS Council, 2011) the infection rates, particularly among the youth, suggest an uphill climb the country is still facing against AIDS (Shisana and others, 2014). Relatedly, the concerted efforts made by the government are undermined by new infections and irresponsible behaviour of the youth (Moodley and Phillips, 2011).

In the studies conducted around the world, the youth appeared to have a positive attitude and knowledge regarding HIV/AIDS epidemic (Magnani and others, 2005; Stadler and others, 2008; Beyers, 2012) which unfortunately do not seem to predict sexual behaviours (Moodley and Phillips, 2011; Magnani and others, 2005). This invites extensive research aimed at measuring if the knowledge and attitudes that young people have are at the level where they can influence behaviour change (Magnani and others, 2005; Kyrychenko and others, 2006). Section 2.3 deals at length with the past and current studies on HIV/AIDS prevention interventions with particular attention to examining the extent to which interventions were effective in addressing the spread of HIV.

2.3 Methods, data, findings, and conclusions on studies on and evaluation of HIV/AIDS interventions

In Sections 2.1 and 2.2, this paper provided a detailed historical description of the FET Sector and the issues that underpinned effective implementation of HIV/AIDS management interventions as well as its ultimate successes. This section reviews past and current research studies on and evaluations of AIDS policy-based interventions. Further, the section looks into the theories employed to interpret the findings, uncovers the knowledge gap on this subject in general and South Africa in particular, and finally juxtaposes the studies discussed.

Literature reveals that success of HIV/AIDS prevention interventions is determined through assessing the levels of knowledge, risk perceptions, attitudes, self-efficacy, and behaviour on HIV/AIDS among the beneficiaries (Ibrahim and others, 2012; Liao and others, 2010). To this end, literature comprising nine academic journals from both international and local studies is reviewed. It should be noted that each selected journal article deals with two or three of the outcome measures mentioned above. There are

two subsections in this part of the paper—that is, (i) a bunch of selected literature consisting of evaluation studies (Section 2.3.1), and (ii) another bunch comprising research studies on AIDS prevention interventions (Section 2.3.2).

2.3.1 Evaluation studies

Magnani and other (2005) conducted a study in an attempt to assess Life Skills education in terms of its effectiveness in influencing behaviour change of young people in KwaZulu Natal, South Africa. The study was conducted during the implementation of Life Skills initiatives in middle and secondary schools across the province. The purpose of the study was "to assess the impact of exposure of Life Skills education by youth… on knowledge and behaviours associated with the spread of HIV/AIDS", and almost all the schools had implemented Life Skills intervention of some kind when the survey came to an end in 2001 (Magnani and others, 2005, p. 289).

Magnani and others (2005) employed qualitative survey study in two different times during the implementation of the Life Skills intervention to evaluate its success. Determining the relationship between the amount of exposure to Life Skills initiative and outcomes of interest, which revolved around sexual behavioural practices, would assist in interpreting if gains in "outcome measures" mentioned in Section 2.3 reflected effectiveness of intervention (Ibrahim and others, 2012). According to Magnani and others (2005), exposure to Life Skills initiatives was measured in terms of the number of relevant topics covered. Furthermore, the researchers used 'two-stage least square approach' to estimate cumulative impact of exposure to Life Skills education.

Magnani and colleagues' approach to the assessment of interventions can be universally applied in impact evaluation studies (Kusek and Rist, 2004). In this study, data were collected in two surveys carried out in 1999 and 2001. Face to face interviews were conducted with respondents aged 14 – 24 from several subgroups in KwaZulu Natal population. Probability sample of households was used to identify the participants. Although the researchers do not provide the sample size, important to mention is that 2,222 partook in both wave 1 and wave 2 of the study. To assess the outcome measures, data collected included, among others, details concerning exposure to Life Skills initiatives and productive health issues either in school settings or in mass media; knowledge of HIV transmission and prevention. The school principals also underwent

face-to-face interview in which the point of focus was the implementation of Life Skills programmes in schools (Magnani and others, 2005).

The findings reveal that 90 per cent of the participants already had HIV/AIDS knowledge during the wave 1 survey, and there was only a 7 per cent increase in knowledge between the two waves. There were changes in sexual behaviours as 10 per cent youth reported having more than one sexual partners, however, similar to the study conducted in Nigeria (discussed later in this paper), the rates of condom use were low (Ojikutu and others, 2010).

Magnani and colleagues (2005) conclude that, although the intervention appears effective in helping youth to acquire knowledge and skills that could enable them to reduce HIV infection risk, concurrent partnership and promiscuity rates are still rife. Its weakness is that, unlike the randomized study by Cheng, Lou, Mueller, Zhao, Yang, Yu and Gao (2008) (yet to be discussed), it was impossible to randomize experiment to estimate the intervention impact as the initiative was introduced differently in the schools (Magnani and others, 2005).

Kyrychenko, Kohler and Sathiakumar (2006, p. 900) have conducted a study in Ukraine, the purpose of which was "to assess changes observed in knowledge, attitudes towards people living with human immunodeficiency virus (HIV), self-efficacy and behavioural intentions of senior secondary school students after an HIV/AIDS…intervention".

First, the writers introduce this study by bringing into perspective the alarming spread of HIV/AIDS in Eastern Europe. They then indicate the Ukrainian HIV prevalence estimated at 14 per cent—fuelled by the rise of injection drug use as the predominant mode of transmission. In addition, they bring into light the challenges of curbing the rise of the epidemic in Ukraine. They believe that a comprehensive AIDS strategy targeted at effecting change in knowledge, behaviour, attitudes as well as cognitive decision-making, is required (Kyrychenko and others, 2006).

Kyrychenko and colleagues (2006) employed quantitative research method in which a quasi-experimental design was used. A random sample was drawn to identify the schools and participants, and data came from 200 hundred students from 2 out of 18

government secondary schools. The respondents "completed anonymous self-reported pre- and post-intervention questionnaires" (Kyrychenko and others, 2006, p. 900). Similar to the study conducted by Bulduk and Erdogan (2012) discussed later in the paper, in which data were collected three times, Kyrychenko and colleagues distributed another questionnaire at a three-month follow-up in the same schools. The intention behind this was to assess the longevity of the educational intervention outcomes.

The training manual of the World Health Organisation (WHO) informed the intervention and it comprised six weekly sessions lasting 45-60 minutes. The points of focus included transmission dynamics, preventative measures, condom negotiation skills, HIV biology and danger associated with injection drug use. With a view to providing anonymity for the participants, two trained physicians were selected to conduct the classes.

Statistical analysis was done, in which a Pearson chi-square test was used to assess the differences between the control and intervention group. SPSS version 12.0 was used to analyse data. At baseline, the participants were aware of the existence of HIV/AIDS. However, there was poor knowledge regarding transmission dynamics. The attitudes towards people living with HIV were moderate. Risky behaviours were highly possible among the participants. The post-intervention results revealed significant improvement in knowledge, behaviour and attitudes. Kyrychenko and the team (2006) indicate that, although attitudes and knowledge levels had dropped at a three-month follow-up, they were still significantly high. Their behaviour remained the same.

They conclude that 'a school-based HIV/AIDS education intervention' demonstrated potential to equip Ukrainian secondary students with knowledge and skills necessary to reduce the risk of infection. They go further to indicate that Ukraine needed a comprehensive strategy to combat the spread of the virus among the youth.

Cheng, Lou, Mueller, Zhao, Yang, Yu and Gao (2008) have evaluated the effectiveness of AIDS education programme based in rural Chinese area that was hard-hit by HIV epidemic. In this study, the outcome measures assessed are HIV/AIDS-related knowledge, attitudes towards people living with HIV/AIDS and protection self-efficacy. The purpose of this study was "to evaluate the feasibility and effectiveness of a life-

planning skills training program using participatory methods among rural senior school students in Shangcai County…in China" (Cheng and others, 2008, p. 184).

Cheng and colleagues (2008) employed a quasi-experimental design to deal with evaluation of HIV/AIDS management interventions. Quantitative methods were used to solicit information from the participants. Data came from the students meeting inclusion criteria (14 – 18 years), and a questionnaire was used as an instrument of data collection. Similar to the study by Magnani and other (2005) discussed above, this study foregrounds the significance of collecting data in two different periods in the evaluation of interventions. To eliminate the margins of error in impact evaluation of the programme intervention (Kusek, 2010), Cheng and the team carried out a survey in 2003 prior to the intervention to have a baseline, and three months after. The intervention covered nine topics that included HIV/AIDS prevention, transmission dynamics, sexually transmitted diseases, myths and misconceptions about the epidemic (Cheng and colleagues, 2008).

Cheng and colleagues (2008) used ordinal and logistic regression models and multinomial logistic regression model to analyse the effects of intervention on outcome measures, and attitudes towards sex before marriage respectively. The intervention appears to have accrued positive results. There was a significant increase in HIV/AIDS-related knowledge, a positive change in the attitudes of students towards people living with HIV/AIDS and improved protection self-efficacy.

In their conclusion, Cheng and colleagues indicate that the intervention proved effective in all outcome measures it was meant to assess. Students had sound HIV/AIDS-related knowledge, which influenced self-efficacy, thereby reducing risky activities that could fuel the spread of HIV in that AIDS-hard hit area. The strategy used in identifying selected schools coupled with the kind of intervention became a limitation on its own. In it was a possibility of unknown factors capable of influencing the impact of the intervention to creep in, with a possibility to either increase or decrease the real effect of the intervention (Cheng and other, 2008).

Ibrahim and others (2012, p. 505) have conducted an impact evaluation study in the Malaysian public universities "…to develop, implement and evaluate the effectiveness of

a peer-led education program related to HIV/AIDS among university students". This study bears certain similarities to the study conducted in China discussed above (Cheng and colleagues, 2008) regarding the outcome measures and data collection methods. The outcome measures include knowledge on HIV/AIDS, attitude and risk behaviour related to HIV.

By using quantitative research method, Ibrahim and others (2012) and Cheng and colleagues (2008) create the space for understanding thoroughly how to use a questionnaire as an instrument of data collection, and statistical measures in assessing the effectiveness of HIV/AIDS prevention interventions. However, quasi-experimental as it could be, data were collected immediately after the intervention and three months after the intervention, a different approach from any study reviewed in this Section (2.3). Ibrahim and the team of scholars employed randomized controlled trial carried out in 2011. The participants were single blinded and incentivized. A random sampling was drawn and 282 students were recruited to participate (Ibrahim and other, 2012).

The intervention, which was developed in consultation with behaviour and health experts, was intended for imparting HIV/AIDS knowledge, transmission, prevention and misconceptions about AIDS. It was aimed at instilling perception of personal vulnerability to infection. The intervention comprised eight sessions of five-hour duration. The participants were divided into groups and assigned a venue with a trainer. SPSS version of 19 and Stata version of 12 were used to analyse and interpret the results (Ibrahim and others, 2012).

The immediate post intervention results in HIV/AIDS knowledge and attitude related to the pandemic and risk behaviour were lower than three months post intervention results. A peer-led education programme was effective on two outcome measures namely, knowledge and attitudes. As Ibrahim and others (2012, p. 509) indicate, "The findings of the study did not in fact nullify the effectiveness of the program intervention on sexual practice". The study used a large enough sample to be representative of the population of the Malaysian university students. However, the follow-up was done after a short time to pick up effects on behaviour change (Ibrahim and others, 2012). Although the intervention proved effective in two outcome measures, it is not certain that Malaysian university students cannot translate knowledge into practice.

Bulduk and Erdogan (2012) conducted an evaluation study in a Turkish university. Their fundamental objective was to investigate "how HIV/sexually transmitted infection peer education (PE) affected HIV knowledge, perceived prevention self-efficacy, and risky sexual behaviours among Turkish university students" (Bulduk and Erdogan (2012, p. 233). Similar to Cheng and others (2008), Bulduk and Erdogan opted for quantitative research method with experimental design to evaluate the effectiveness of HIV/AIDS intervention. HIV knowledge, prevention efficacy and sexual behaviour were the outcome measures in this study.

Similar to the study by Kyrychenko and others (2006) discussed earlier in this section, data collection was done before the intervention, three months and six months after the intervention. The findings would nullify the effectiveness of the peer education intervention (Ibrahim and others, 2012), given the last follow-up which came six months after the intervention. Inclusion criteria were met at age 18 and above, being unmarried and sexually active. A random sample was drawn using a lottery sampling method, and 118 students participated in the study.

The intentions behind the intervention included development of personal skills and implementing intervention with a view to increase HIV/AIDS-related knowledge and self-efficacy perceptions among the students (Bulduk and Erdogan, 2012). Five students were chosen as peer educators and the intervention consisted of three sessions lasting 3.5 hours. Bulduk and Erdogan (2012) compared the results of the control group and intervention group. However, for the purpose of this study, only the results of intervention group will be the focus.

Table 1 below demonstrates the results of intervention group in means (M) and standard deviation (SD) for all those three times in which data were collected, focusing only on two outcome measures: namely, HIV/AIDS-related knowledge and behaviour, as shown below.

Table 1: Means and comparison for knowledge and sexual behaviour at baseline, 3 and 6-month follow-ups

Outocme measure (Variables)	0 months M(SD)	3 months M(SD)	6 months M(SD)
HIV Knowledge	9.53 (3.03)	14.18 (1.83)	13.7(12.34)
Condome use	38.44 (9.09)	49.88 (4.76)	50.44 (4.55)
Refusing intercourse with someone not using a condom	0.48 (0.93)	1.00 (1.30)	0.90 (1.20)

Source: (Bulduk and Erdogan, 2012).

The intervention appeared effective in increasing the HIV knowledge levels among the students. Much as the perceived levels of self-efficacy were high, they were not satisfactory. In their conclusion, Bulduk and Erdogan, (2012) see educating and motivating the youth to avoid risky sexual activities a serious challenge. In this study, the sample size is clearly one of the limitations as it was too small to be representative of the Turkish university students.

2.3.2 Research studies

Swart-Kruger and Richter (1997) conducted their study four years after the implementation of the comprehensive National AIDS Strategy in South Africa (Schneider and Stein, 2001; Chibango, 2013; Wouters and others, 2009) to determine AIDS-related knowledge, attitudes as well as behaviour of street children. By vividly describing the conditions in which their population lives, the writers set out to infer contextual factors that largely increase children susceptibility to HIV infection.

Swart-Kruger and Richter (1997) employed a cross sectional, qualitative research method to determine HIV/AIDS knowledge levels, attitudes and the extent to which the street children perceive themselves as being highly at risk of HIV infection. The above-mentioned scholars collected data through fourteen tape-recorded focus groups discussion in which 141 male respondents aged 11 – 18 participated. To determine children's stand in relation to 'AIDS-related knowledge, attitudes and behaviour', recorded work was transcribed and the written work was analysed and interpreted to formulate themes. The writers confirm that the Health Belief Model and the theory of Reasoned Action being theories used in the design and formulation of behavioural

interventions (Janz and Becker, 1984; Fishbein and Azjein, 1975 in Swart-Kruger and Richter, 1997) could not be applied to the street youth.

The findings of this study tally with the time it was conducted. Compared to the findings of the study conducted in the same country, South Africa by Magnani and others in 2005, it can be concluded that there was little knowledge regarding the epidemic (Wouters and others, 2009). Moderately, children had knowledge concerning the epidemic and the transmission dynamics. However, misconceptions regarding HIV/AIDS and prevention mechanisms reflected that education campaigns and programmes had to be implemented on a larger scale in the country.

The results revealed negative attitudes towards people living with HIV, and most perturbing was that, the street children did not see themselves at risk of contracting HIV, as they associated the epidemic with homosexuality, prostitution and promiscuity (Swart-Kruger and Richter, 1997).

In their conclusion, Swart-Kruger and Richter (1997) highlight that the social and economic situations in which street children found themselves appeared to increase their vulnerability to HIV infection. The sample size of the study was big enough to be representative of the population of children living in the South African streets, and this marks the strength of the study.

Tung, Ding and Farmer (2008) begin their article by making known the epidemiological situation of HIV/AIDS in Taiwan. They further indicate the prevention imperatives such as AIDS knowledge, attitudes and behaviour related to HIV as knowledge gap that their study sought to close. Although this is not an evaluation research, the writers highlight sex education intervention as a source of information and knowledge regarding HIV/AIDS.

Tung and others (2008) employed a quantitative research method whose design was a cross sectional survey. They used a convenience sampling to identify the participants among university students. Data were collected using a self-administered questionnaire and 132 students aged 18 and above from two private Taiwanese universities

participated in the study. The questions sought to assess the knowledge levels, attitudes and behaviour that might put students at the infection risk.

Statistical Package for the Social Sciences (SPSS) version 15.0 was used to analyse and interpret the results. Using statistical measures, the three imperative measures (knowledge levels, attitudes and behaviour) mentioned above were determined. The fact that the magnitude of a problem equals the levels of knowledge concerned people have is confirmed by this study. The findings of the study conducted in 2005 by Magnani and colleagues in South Africa reveal high levels of knowledge because the HIV situation was already severe in South Africa by then (Stadler and others, 2008). In Taiwan, only 17, 370 people were HIV positive when this study was conducted in 2008, a number that was not worrisome. This implies why the findings in this study regarding knowledge levels, were so disturbing, considering the time it took place. According to Tung and others (2008), more than 50 per cent of the participants lacked knowledge regarding transmission dynamics. Approximately a quarter of the participants thought that mosquito bite, sharing toilets and swimming pools with infected people could transmit the virus.

By virtue of being Asians, more than 15 per cent of the participants believed that they were not as susceptible to HIV as the Westerners. However, more than 90 per cent of the participants had positive attitudes towards people living with HIV/AIDS. Most of the participants were not sexually active, and a few who were, reported having a single partner. In their conclusion, the writers show that university students, educated as they were had poor HIV/AIDS related knowledge, which served as a wakeup call for authorities to develop and implement more interventions. One of the limitations was a convenience and small sample because they could not generalise their findings.

Ojikutu and others (2010) present the study conducted in Nigeria, Africa; the purpose of which was to assess the levels of knowledge, perceived risks and behaviour related to HIV/AIDS among students from five tertiary institutions in Nigeria. The measures the writers attempted to assess, namely: 'knowledge, behaviour and risk perceptions' were regarded as knowledge gap in Nigerian institutions of learning by then.

The writers chose a qualitative research method in this study. A random sample was drawn and five institutions were selected as the research sites for the study. Data were collected through a questionnaire that was distributed and filled in by 1095 participants from the selected institutions. The study lasted for three months. The questionnaire was designed to assess HIV/AIDS related knowledge, the extent to which students perceived themselves as being at risk of contracting HIV, their attitude towards people living with HIV/AIDS and the behaviours that could put them at the risk of infection. Simple descriptive statistics and SPSS version 15.0 were used to analyse and interpret data generated. In addition, the writers used correspondence analysis to demonstrate the relationship between students' health risk perceptions, behaviour on HIV/AIDS and demographic backgrounds.

In terms of knowledge, more than 97 per cent of the participants were very informed about HIV/AIDS pandemic. Regarding risk perceptions, 71 per cent were concerned about the rapid spread of the disease. However, knowledge of HIV/AIDS did not seem to influence sexual habits and risk reduction among the students. 44 per cent of students who demonstrated HIV/AIDS related knowledge still indulged in risky sexual activities and concurrent multiple sex partnership was rife (Ojikutu and others, 2010). Furthermore, 37 per cent of the participants disclosed that they were not very comfortable working with people living with the virus. The situation displayed in this study is similar to that of Ibrahim and others (2012)'s study discussed earlier, in which translating knowledge into action was a challenge.

Jeckoniah (2013) has conducted AIDS study in a Tanzanian university among students. First, he brings into perspective lack of risk perception as one of the factors hampering behaviour changes among the youth and that HIV/AIDS is most concentrated in people aged 15 -49. The intent of the study "was to determine the knowledge and perceived risk of HIV/AIDS among public university students…" (Jeckoniah, 2013, p. 121).

In this study, Jeckoniah (2013) opted for a quantitative research method in which structured self-administered questionnaire was used to collect data from the students. The decision to use a questionnaire was based on high levels of literacy among the study population. The author adopted a stratified sampling technique to select faculties to

partake in the study. A random sample was drawn to select degree programmes as well as the participants. 360 students participated in the study.

Statistical Product Service Solutions (SPSS) version 16 was used to determine distribution and analyze the results. The researcher ran correlation analysis in order to determine the "relationship between misconceptions and sexual behaviours" among the participants (Jeckoniah, 2013, p. 124). The results of the study determined that university students had sound knowledge regarding HIV/AIDS. More than 92 per cent of the respondents had read about the epidemic and knew someone living with or who had died of AIDS-related illnesses.

AIDS was mainstreamed into the curriculum as part of the modules students had to learn, and 60 per cent of students studied it as their learning course (Jeckoniah, 2013). With regard to risk perception, 6.7 per cent of the respondents perceived their risk of being infected to be high. The majority did not see themselves as being highly at risk of contracting the virus.

In conclusion, Jeckoniah (2013) summarizes the findings of the research, vividly implying that efforts done through education have increased the knowledge of HIV/AIDS among university students, to the extent that all the participants moderately knew about the pandemic. However, irrespective of high levels of knowledge, the writer indicates that misconceptions about transmission dynamics proved to be part of human experience. Some students still believed that donating blood could put one at HIV infection risk, insect bites could transmit the disease and that a healthy looking people had no virus.

Contrary to the studies conducted in South Africa (Magnani and other, 2005) and Nigeria (Ojikutu and others, 2010) in which knowledge did not seem to influence behaviour change, the findings of this study determined that the participants who had comprehensive HIV/AIDS-related knowledge were less likely to indulge in risky sexual behaviours (Jeckoniah, 2013). Although not indicated, the sample size appears to be one of the major limitations of the study as it is relatively small to be representative of the university students.

2.3.3 Juxtaposition of past and current studies on HIV/AIDS management interventions

In both research and evaluation studies reviewed, quantitative methods are predominantly used to determine the success of HIV/AIDS interventions (Tung and others, 2008; Cheng and colleagues, 2008). As the reviewed studies show, the outcome measures such as AIDS-related knowledge, risk perceptions, attitudes and behaviour associated with the risk of acquiring HIV, have received the most attention in the world of HIV/AIDS research as the knowledge gaps (Eaton and others, 2003; Ojikutu and others, 2010; Rampal and other, 2012; Jeckoniah, 2013). Evidently, success of the intervention is expected to be reflected on the bases of healthy sexual behaviour among the respondents. Regrettably, even in studies where reasonable changes were observed in certain outcome measures, they did not seem to influence sexual habits among the participants.

Therefore, there is a need to establish the amount of student knowledge and attitudes that are sufficient to influence behaviour change (Magnani and others 2005; Kyrychenko and others 2006; Moodley and Phillips, 2011). Currently, we cannot claim enough knowledge to answer questions posed by Clark and colleagues (2000) as well as Zungu and Manyisa (2009). These include; 'does the intervention increase knowledge on HIV/AIDS?' 'Does this knowledge change attitudes towards sexual behaviour among students and does this, consequently, lead to a reduction on risky sexual behaviours? To answer these questions, there is a need to assess the current HIV/AIDS interventions to improve on the design and implementation of interventions that are effective, sustainable, relevant, and efficient.

Further, even though the countries around the world have been so actively responsive to the pandemic through management interventions (Wouters and others, 2014), evidence suggests that more effective implementation strategies intended at influencing behaviour change still need to be devised. Tenkorang and others (2011) blame it on the tendency to ignore the structural and environmental influences in HIV/AIDS reduction models and management interventions. The ideal intervention strategies targeted at the right population (Bertozzi, Laga, Bautista-Arredondo, and Coutinho, 2008) are not aligned to environmental factors unique to the populations (Wytt, Williams, Gupta, and Malebranche, 2012). Tenkorang and others (2011) bring into perspective the cultural traditions and socio-economic factors they believe exacerbate HIV/AIDS conditions

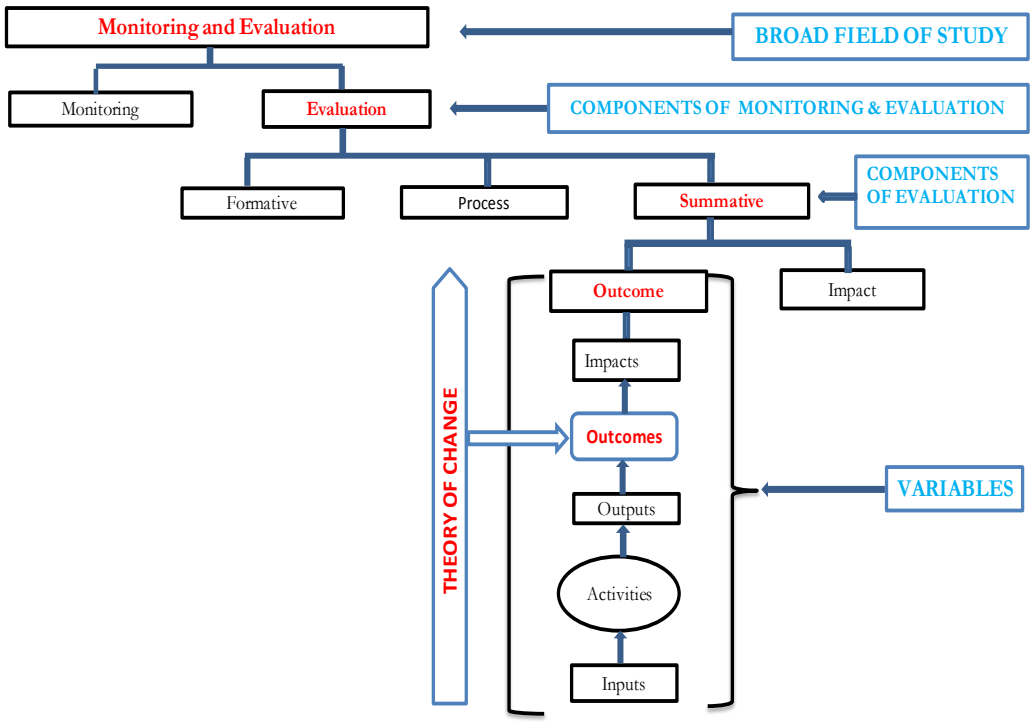
among the youth. They hold a view that incorporating cultural norms and values into prevention interventions can be more responsive.

Effective monitoring and evaluation systems are also key in the implementation of HIV/AIDS management interventions to ensure effectiveness and proficiency of the strategies (Rossignoli, Coticchia, and Mezzasalma, 2015). Section 2.4 below sets out to introduce and discuss monitoring and evaluation studies.

2.4 An introduction to monitoring and evaluation

In this section, the paper focusses its attention on introducing monitoring and evaluation (M&E) respectively, as the broad field of the study encompassing this research, and its concomitant components. Figure 1 below depicts monitoring and evaluation including its subsequent components, which appears to be the most likely the broad field housing the outcome assessment of HIV/AIDS policy-based interventions.

Figure 1: The broad field of study



Source: (Author)

2.4.1 Describing monitoring and evaluation

Monitoring and evaluation (M&E) is a concept that has been in existence for decades as part of the governments' initiatives to enhance effectiveness, transparency and accountability of the public sector (Rossignoli and others, 2015; Gorgens and Kusek, 2010). According to Gorgens and Kusek (2010), monitoring and evaluation practices have been part of human activities more than 5 000 years ago when people were absorbed in some form of traditional practices to monitor their production of grains and livestock.

Monitoring and evaluation is defined broadly as a practical management tool by which effectiveness, efficiency and accountability are attained through continuous tracking of interventions and assessing the extent to which the interventions yield the stated outcomes (Kusek and Rist, 2004; Rossignoli and others, 2015; Gorgens and Kusek, 2010). Further, it refers to "the systematic collection and analysis of information to enable managers and key stakeholders to make informed decisions, uphold existing practices, policies and principles and improve the performance of their projects" (Department of Water and Forestry, 2005, p. 4).

Although monitoring and evaluation are closely related and complementary in nature, they are distinct sets of organisational activities (Gorgens and Kusek, 2010; Kusek, 2010). While monitoring focusses on keeping track of and measuring inputs and outputs of the intervention, evaluation is intended at finding out if an intervention has produced the intended results by identifying whether there is a link between the intervention's impact and its outcomes (Kusek and Rist, 2004; Gorgens and Kusek, 2010).

There are three areas of focus in monitoring and evaluation, which Stetson (2011, p. 9) terms "business processes required for high quality M&E"—namely: the results chain, monitoring and evaluation framework and the monitoring and evaluation system. These are the processes without which there is no definition of a functional monitoring and evaluation in any given project, programme or initiative (Stetson, 2011).

2.4.1.1 The results chain

Research-based evidence suggests that the results to be achieved determine the programme design and implementation of monitoring and evaluation system (Gorgens

and Kusek, 2010). The results chain provides the monitoring and evaluation practitioners with a vivid picture as to how the intervention will produce the intended short, medium and long-term results (Kusek and Rist, 2004) as it demonstrates the casual link between the inputs, activities, outputs, outcomes and impacts (Margoluis, Stem, Swaminathan, Brown, Johnson, Placci, Salafsky, and Tilders, 2013). Result chain is detailed further in Sections 2.6 and 2.7 of this thesis.

2.4.1.2 Developing monitoring and evaluation framework

High quality monitoring and evaluation cannot come into being without a well-developed monitoring and evaluation framework, which is also known as a results framework (Kusek and Rist, 2010). According to Stetson (2011), monitoring and evaluation framework does not only provide objectives that drive monitoring and evaluation processes, but it also serves as a planning tool often used by stakeholders some of whom are not directly involved in the intervention to acquire an accurate overview of the intervention's principal purpose. Furthermore, it encourages strategic thinking in the programme design and paints a picture of how success at one point will lead to success at another (Stetson, 2011). In addition, it reflects the programme strategy known as 'the theory of change' (Stetson, 2011). This thesis deals comprehensively with the results framework and the theory of change in Sections 2.6 and 2.7.

2.4.1.3 Establishing the monitoring and evaluation system

Stetson (2011) refers to the monitoring and evaluation system as a very solid pillar to the intervention whereby the indicators are practically turned into the information forms. The intervention objectives and their indicators are practically linked to a data collection, analysis and reporting system. Data in monitoring and evaluation systems has become a crucial and sensitive matter, so data collection and analysis can be done at any time, and should be done on the regular basis to provide feedback (Kusek and Rist, 2004). Failure to do this may possibly lead to the top senior leaders exerting pressure on the technocrats, which in turn leads them into reporting on "desired rather than accurate data"—thereby tainting monitoring and evaluation reporting and ultimately compromising effective decision-making (Holvoet and Rombouts, 2008, p. 593).

The sensitivity of data in monitoring and evaluation requires that the data gathering tools be tested prior to the actual data collection to ensure that they gather the right

information; data collection personnel be properly trained; and storage as well as security for both paper-based and electronic data be prioritised (Stetson, 2011). For instance, monitoring and evaluation practitioners should ensure proper set up of filing and record keeping systems as well as regular backup of monitoring and evaluation data to facilitate secure access and avoid unnecessary data loses (Stetson, 2011).

To this end, Rossignoli and colleagues (2015) relate that the role of monitoring and evaluation in enhancing the performance of development and chronic disease management interventions has gained a global recognition in the last ten years. Both at international and local levels, the governments have increasingly adopted monitoring and evaluation tools (Rossignoli and colleagues, 2015) in order to track their expenditure, programme activities, goods and services as well as performance of interventions (Gorgens and Kusek, 2010).

Evidently, monitoring and evaluation as one unit or separate sets of organisational activities (Gorgens and Kusek, 2010) appear to be important tools to determine success or failure of HIV/AIDS management interventions (Kusek and Rist, 2004; Rossignoli and colleagues, 2015). However, for the purpose of this study, evaluation will be the point of focus in this thesis.

2.4.2 Describing evaluation

As Figure 1 shows, evaluation is obviously one of the two components of monitoring and evaluation—the other being monitoring. Farrell (2009) as well as Gorgens and Kusek (2010) describe evaluation as a systemic process meant to objectively assess performance of a planned or ongoing or completed intervention for its design (formative evaluation), implementation (process evaluation), and results (summative evaluation). In addition, the intent of this is to assess the relevance of objectives, effectiveness, impact and sustainability achieved by the intervention (Kusek, 2010; The OECD, 2000a in Kusek and Rist, 2004). With systematic collection and analysis of data, "the primary intent of evaluation is to assess some aspects of a particular programme, policy or project, usually to generate information for a specific purpose, such as whether to continue, modify, scale up, or replicate the activities" (Gorgens and Kusek, 2010, p. 369).

Kusek and Risk (2004) conclude that evaluation can be conducted at any level of the interventions, be it the project, programme or policy level. In support of this, Bertrand, Holtgrave, and Gregowski (2009) state that in the well-designed HIV/AIDS management strategies, various evaluation tools do exist to track progress and measure change at the different levels of interventions that are required to curb the epidemic. In this way, it is to determine if at all there is a link between an HIV/AIDS intervention's impact and its outcomes (Bertrand and others, 2009; Rossignoli and others, 2015).

In most cases, success of evaluation practice hinges on the 'ongoing' nature of monitoring activities (Gorgens and Kusek, 2010). The periodic nature of evaluation functions suggests that evaluation is conducted at particular intervals in the intervention cycle (Farrell, 2009), giving evidence of why HIV/AIDS interventions are not achieving their objectives—when the monitoring system has already sent signals regarding failure of interventions (Kusek and Rist, 2004). As an HIV/AIDS management tool, evaluation helps assess the suitability and quality of the intervention, and broader outcomes (Farrell, 2009; Bertrand and others, 2009) such as risk reduction, attitudes and knowledge of the beneficiaries (Ibrahim and others, 2012; Cheng and others, 2008).

2.4.3 The purpose of evaluation

Over the past years, international and regional organisations including the local governments have been using evaluation for different purposes (Rossignoli and others, 2009; Kusek and Rist, 2004). In support of this, Kusek and Rist (2004, p. 15) date the use of initial evaluations to as early as 1960s and state that "later in the 1980s and 1990s, governments used evaluation to conduct budgetary management,…by examining ways to reduce expenditure and cut public programs…[sic]".

As Farrell (2009) implies, the major purpose of evaluation comes as the answer to specific questions about the progress of the intervention—assessing the key words in its definition such as 'effectiveness, efficiency and impact' to mention but a few. To begin with, evaluation provides detailed information regarding the performance of HIV/AIDS prevention interventions (Gorgens and Kusek, 2010; Rossignoli and others, 2015) and the reasons why the strategy did or did not yield the intended outcomes (Farrell, 2009; Kusek and Rist, 2004).

Furthermore, evaluation helps keep the intervention on track by way of strengthening HIV/AIDS prevention efforts and related service delivery as well as maintaining the connection between intervention goals, objectives and services (Gorgens and Kusek, 2010). By enhancing coordination among various components of the intervention, evaluation improves the efficiency and effectiveness of the initiatives (Gorgens and Kusek, 2010). In addition, it identifies the areas in which the intervention is most successful with intentions to expand them, and works towards eliminating weaknesses in the strategy (Gorgens and Kusek, 2010).

Apart from examining the implementation process (Kusek and Rist, 2004), evaluation goes further to provide lessons, indicate significant achievements or intervention potential, and finally provides recommendations for improvement (Farrell, 2009; Kusek and Rist, 2004). Further, it aims at addressing the issue of causality in order to reveal the sequence of either successful or unsuccessful intervention outcomes (Kusek and Rist, 2004). Except for building capacity of the human resources in terms of skills and knowledge to design and implement other initiatives, one of the most important functions of evaluation is to enhance accountability within the organisations (Gorgens and Kusek, 2010).

Evaluation is a very broad entity with three primary components [also known as types of evaluation] (Bertrand and others, 2009; Farrell, 2009; Kusek and Rist, 2004), which are dealt with in more details in the subsequent paragraphs.

2.4.4 Major components of evaluation

This section provides a detailed discussion of the major evaluation components which determine when and how evaluation operations will occur, depending also on the stage and level of the intervention (Kusek and Rist, 2004; Bertrand and others, 2009). As illustrated in the introductory part of Section 2.4, in which the broad field for this study is depicted, this paper limits its discussion on three primary components of evaluation (Bertrand and others, 2009) namely—formative, process and summative evaluation (Gorgens and Rist, 2010).

Bertrand and colleagues (2009, p. 571) associate formative evaluation with an "assessment conducted prior to the intervention that is used in guiding the design of the

evaluation in terms of content, audience, message, logistics and related factors". It is intended to assess the strengths and weaknesses of the intervention design and strategies before its implementation, with the purpose of increasing success of the intervention before the activity commences (Gorgens and Kusek, 2010).

Process evaluation is conducted during the implementation of the intervention strategies to look at how well the intervention is working (Gorgens and Kusek, 2010). It is intended to thoroughly and objectively examine procedures, operations and internal dynamics involved in implementing the HIV/AIDS strategies (Kusek and Rist, 2004; Gorgens and Kusek, 2010) with a view to determine if the AIDS programmes are practically being implemented according to plan (Bertrand and others, 2009).

Summative evaluation, which is conducted at the end of the intervention (Kusek and Rist, 2004), focusses on whether the intervention was able to yield the expected outcomes and ultimately the desired impact (Bertrand and others, 2009) such as AIDS related knowledge which is expected to influence the beneficiaries' behaviour change (Magnani and others, 2005; Beyers, 2012). It focuses on outputs, outcomes, impacts and pursues the questions, 'did the intervention work?', 'was it effective?', 'was it sustainable?', 'was it relevant?', 'was it efficient?' (Kusek and Rist, 2004; Gorgens and Kusek, 2010).

In addition, summative evaluation is further split into impact and outcome evaluation. Although both impact and outcome evaluations are conducted at the end of the intervention (Bertrand and others, 2009), the latter focusses on short-term results and the former looks beyond the immediate effects of the intervention (Vito and Higgins, 2015; Gorgens and Kusek, 2010). Outcome evaluation will provide descriptions on the immediate effects of the life skills and HIV/AIDS education programmes on the FET students and percentage of the students showing increased AIDS awareness; while impact focusses on long-term effects that include high rate of responsible behaviour countrywide (Gorgens and Kusek, 2010). For the purpose of this study, we confine this evaluation to the outcomes of the intervention under investigation.

2.4.5 Major processes of evaluation

Evaluation is an integral part of intervention management (United Nations Development Programme, 2009) without which it would be virtually impossible to assess the effectiveness, deficiency and relevance of the interventions (Kusek and Rist, 2004). In order to attain this, evaluators should be clear of (1) the change an intervention seeks to effect, (2) specific objectives to achieve that change, (3) the indicators and how they will measure the required change (outcomes), and (4) means to collect and analyse data (United Nations Development Programme, 2009). Relatedly, these are believed to inform the major processes of evaluation (Acevedo, Rivera, Lima and Hwang, 2010) which this paper understands to be activities and those deliverables required for evaluation objectives to be achieved.

With regard to data, Kusek and Rist (2004) bring the timing of evaluation into perspective. The decision as to when and how to deploy resources to start gathering the baseline data is as important as the time scheduled for commencement of the implementation (Gorgens and Kusek, 2010; Kusek and Rist, 2004). Baseline data should be gathered well ahead of the implementation processes to determine the evaluability of the intervention, and whether or not to continue with evaluation work (Gorgens and Kusek, 2010).

Choosing outcomes to evaluate is another process that cannot be realised without knowing exactly what the intervention seeks to change (United Nations Development Programme, 2009). This implies that the theories of change as well as terms of reference for the intervention are available and known, without which the intended outcomes are blurry (Gorgens and Kusek, 2010). Furthermore, evaluators should select key indicators to evaluate outcomes, and these indicators should be specific, measurable, attainable, relevant and time-bound (NORAD, 1999).

The next process is data collection for evaluation information (Kusek and Rist, 2004). In Taylor-Powell and Steele (1996)'s view, the purpose of evaluation, consideration of the stakeholders and the kind of information needed should guide the whole process of data collection. The information collected should be accurate, reliable and not biased – and to reduce the margins of error, data must be collected from different sources and then triangulated (Christensen, Johnson, and Turner, 2011). This evaluation information

assists stakeholders analyse what is working or what is not, document the poor implementation and weak design (Kusek and Rist, 200). The following Section (2.4.6) discusses established fact about evaluation.

2.4.6 Established facts in evaluation

This paper derives its understanding of 'established facts' from Stout (1996, p. 139)'s philosophical perspective that established facts should be perceived in conjunction with that which is bound to happen or remains unchangeable according to what the author refers to as "the method of practical justification".

To this end, the notion of evaluation emerged from the Chinese societies of antiquity who existed as early as 2200 B.C (Shadish, Cook, and Leviton, 1991), and became part of modern societies in 1960s as indicated earlier on (Kusek and Rist, 2004). At current, evaluation has become a functional management tool by which organisational decision-makers and stakeholders access the effects of programme interventions against the required change (Hogan, 2007; Vito and Higgins, 2015; Kusek and Rist, 2004). In addition, evaluation of programme interventions is utilised by the public sector and other private organisations to determine the progress, procedures and outcomes (Hogan, 2007).

Kusek and Rist (2004) bring into light that evaluation can successfully be conducted at the project, programme or policy level. It is further established that evaluation provides information regarding why the intervention is successful or unsuccessful (Farrell, 2009; Gorgens and Kusek, 2010). Moreover, evaluation information richly provides processes and tools organisational workers can apply to obtain valid, reliable and credible information to address a variety of questions regarding the performance of intervention (Hogan, 2007).

Evaluation can be conducted prior to the intervention, during the intervention and at the end of the intervention (Bertrand and others, 2009). Both qualitative and quantitative research methods are appropriate to utilise in evaluation activities to answer the questions in relation to the intervention (Bertrand and others, 2009). Finally, when done correctly, the evaluation team should first secure a buy-in from the authorities and conduct it religiously in order to be regarded not as a policing strategy, but as a

functional tool by which the organisational objectives can be achieved (United Nations Development Programme, 2009; Kusek and Rist, 2004).

2.4.7 Key issues in the study of evaluation

A number of key issues regarding evaluation studies, some of which present challenges that programme evaluators are currently grappling with, are inferred in the works of Craig, Dieppe, Macintyre, Michie, Nazareth, and Petticrew (2008), Kusek and Rist (2004) as well as Luo and Liu (2014). A selection of the few includes: measuring appropriate outcomes, understanding the processes, assessing feasibility, appropriateness of data collection method, and the use of evaluation information (Craig and others, 2008; Luo and Liu, 2014).

Craig and colleagues (2008) caution that evaluation actors have to be cautious in deciding on appropriate outcomes and when dealing with multiple outcomes in their analysis as these render them failure in most evaluation assignments. With regard to the outcomes, the authors go further to indicate that, though some may be either primary or secondary, they may not adequately assess responsiveness of HIV/AIDS interventions. With reference to the issue of 'understanding the processes', Craig and others (2008) elucidate that inadequate understanding of evaluation processes often leads to providing unexpected evaluation results.

As implied in Craig and colleagues (2008)'s words, assessing feasibility in evaluation is tantamount to determining appropriateness of the intervention, and evaluations in most cases are often undermined by this problem when piloting was not well executed. Further, Luo and Liu (2014) also bring into light the importance of appropriate data collection methods in evaluation. They indicate that failure to use appropriate data collection methods has been an obstacle for the interventions to yield the expected outcomes (Luo and Liu, 2014). In addition, insufficient use of evaluation information can also be a stumbling block in evaluation. In support of this, Kusek and Rist (2004, p. 115) caution that, "good evaluative information can provide answers to a broad range of questions relevant to performance and the achievement of outcomes".

Where evaluation information reveals unexpected results, it is often due to the implementation of some HIV/AIDS interventions being hampered by contextual

development factors in which they operate (Jones, 2005; Schneider and Stein, 2001). This hinders activities and prevents the intervention's outputs and outcomes from being realised (NORAD, 1999). The above-mentioned activities, outputs and outcomes are some of the variables in this study, and Section 2.5 below presents them in detail.

2.5 Key variables to consider in the evaluation of HIV/AIDS policy-based interventions

Christensen and colleagues (2011, p. 30) broadly define a variable as "a characteristic or phenomenon that can vary across or within organisms, situations or environments". This part of the paper focusses its attention on key variables of evaluation. To this end, particular attention is given to inputs, activities, outputs, outcomes and impacts respectively, which serve as the variables in evaluating the HIV/AIDS prevention interventions.

2.5.1 The inputs

The inputs generally refer to what is being invested in the intervention. By definition, inputs are understood as all the resources to be used in the intervention in order to accomplish the tasks, and they are financial, material, services, and human resources including their evaluative thinking (NORAD, 1999; Kusek and Rist, 2004). These resources should be appropriate for a specific intervention in order for the expected outputs to be realised (NORAD, 1999).

For the FET-based HIV/AIDS interventions to produce the intended outputs (NORAD, 1999), the inputs that are necessary include classrooms, well-trained lecturers and their text books or training manuals (Kyrychenko and others, 2006) covering prevention, transmission dynamics, myths and misconceptions about the AIDS epidemic as the major topics (Cheng and others, 2008). To this end, it is owing to the above-mentioned inputs that vital outcome measures such as AIDS-related knowledge and risk perceptions can manifest in behaviours of the beneficiaries (Campbell, 2003; Ibrahim and other, 2012).

As AIDS education is incorporated in the curriculum (Roux and others, 2005; Education Labour Relations Council, 2003; Schenker and Nyirenda 2002), financial

resources are included in the 80 per cent of the total cost of college programme with which the South African government funds FET education (Gewer, 2010).

2.5.2 The activities

In defining activities, NORAD (1999) already provides linkage between inputs, activities and outputs. Precisely put, "an activity is an action which is necessary to transform given inputs into planned outputs within a specific period of time" (NORAD, 1999, p. 65). These are tasks, which personnel undertake using other resources to produce the intended outputs (Kusek and Rist, 2004). Apparently, activities are included in the programme or project design and they should be target-oriented as tasks are undertaken to produce a particular output (NORAD, 1999).

In the FET-based AIDS interventions, major activities include teaching and learning of life skills programmes, the content of which largely focusses on raising HIV/AIDS awareness (van Wyk and Pieterse, 2006; Francis, 2010; UNESCO, 2008). In this case, the FET Sector intends to impart knowledge, attitudes and risk susceptibility (outputs) that can be realised through behaviours which do not put students at risk of contracting HI virus (Jeckoniah, 2013).

In the final analysis, the outcome indicators of this intervention are measured through assessing levels of AIDS knowledge, attitudes, self-efficacy, risk perceptions and behavioural practices that increase susceptibility to HIV infection (Ojikutu and others, 2010; Jeckoniah, 2013; Magnani and others, 2005).

2.5.3 The outputs

Outputs are new capabilities or knowledge, skills and equipment that the intervention does achieve—the products, capital goods and services resulting from an intervention, which are relevant to realising the outcomes (Rowena, 2003; Kusek and Rist, 2004). In diluting confusion between the outputs and the purpose, NORAD (1999) indicates that an achievement of the purpose suggests that the outputs are produced in numbers by the intervention at various levels throughout the implementation period of the intervention. As indicated above, outputs come into being as a result of personnel using resources to accomplish certain tasks (Kusek and Rist, 2004).

In the context of HIV/AIDS prevention interventions in South African FET Sector, it can be concluded that one million students have been enrolled in life skills programmes based on the overall enrolment of students at FET colleges in a particular year (NORAD, 1999) and these are the outputs. Based on inputs made available and assumptions that activities were carried out according to plan, the enrolled one million students are eventually expected to demonstrate AIDS-related knowledge and awareness through their safe behavioural practices, which marks the desired outcome or the impact of the intervention (Magnani and other, 2005; Bulduk and Erdogan, 2012).

2.5.4 The outcomes

According to Kusek and Rist (2004), outcomes refer to the short-term or medium term effects, benefits or changes that occur due to the intervention outputs and activities. They demonstrate whether success of the intervention is being achieved or not. Kusek and Rist (2004) go further to indicate that collective effort by the stakeholders is of paramount importance when determining and choosing the outcomes.

In the school-based HIV/AIDS management interventions, the efforts are intended at ensuring that students have sound knowledge of the pandemic, risk susceptibility and ability to translate knowledge into practice (Magnani and other, 2005; Bulduk and Erdogan, 2012). Consequently, changes observed in these areas constitute outcomes (Kyrychenko and other, 2006; Stadler and other, 2008; Zungu and Manyisa, 2009). The teaching and learning activities as well as the outputs (UNESCO, 2008) finally lead to the intermediate effects (outcomes) by which it can be determined whether the intervention is succeeding or failing (Kusek and Rist, 2004; Kyrychenko and other, 2006).

Section 2.7 in this very chapter will graphically explain how the intervention outcomes are evaluated in harmony with the research purpose—measuring levels of knowledge, risk perceptions and behaviours on HIV/AIDS among FET students to determine the success of the policy-based interventions (Magnani and others, 2005; Ojikutu and others, 2010; Cheng and colleagues, 2008).

2.5.5 The impacts

Kusek and Rist (2004, p. 99) define the impacts as "long term, widespread improvement in society". It is generally the benefits and achievements by the target group. In the context of FET-based interventions, the ultimate goal (impact) of Life Skills and HIV/AIDS education is to develop youth's knowledge and necessary skills for safe and healthy sexual relationships as well as responsible decision-making (Selesho and Modise, 2012). In the end, this is not only intended to protect the beneficiaries and their partners from HIV infection, but also to halt further spread of the epidemic countrywide (Selesho and Modise, 2012).

The measures may be the same for both outcome and impact evaluation (Kyrychenko and other, 2006; Selesho and Modise, 2012). However, the impact indicators include more than acquisition of AIDS-related knowledge, attitudes, risk perceptions, and behaviour change of those involved (Selesho and Modise, 2012), as they extend to influencing all the youth to exercise caution and practice safe behaviours that ultimately reduce their vulnerability to infection country wide (Kusek and Rist, 2004). In the final analysis, the countrywide knowledge, attitude and perceptions which reduce incidence and prevalence rates as well as youth susceptibility to the HIV/AIDS epidemic is the impact (goal) the intervention is intended to have on society (Selesho and Modise, 2012; Kusek and Rist, 2004).

To this end, in executing the intervention activities, inputs are effectively used to achieve outputs during the implementation (Kusek and Rist, 2004; NORAD, 1999). These ultimately produce the short-term and long-term results—namely: outcomes and impacts (Kusek and Rist, 2004).

2.6 Explanatory frameworks that explain outcomes of the Further Education and Training Sector HIV/AIDS intervention

This section of the paper focuses on: (Section 2.6.1) introducing the theory of change, and (Section 2.6.2) presenting the results chain and results framework. Section 2.6.3 will look specifically into theory of change and assumptions underpinning the AIDS policy-based interventions, as well as the results chain and frameworks in relation to the HIV/AIDS prevention interventions in FET Sector.

2.6.1 The theory of change

Theory of change is a planning tool that explains how and when an intervention works as well as when it will achieve the stated results (Valters, 2014; Weiss, 1997). As of late, theory of change has become an effective way of presenting a project or programme intervention to a range of stakeholders as it allows organisations to explain coherently and precisely what change they intend to make and how they intend to make it happen (Valters, 2014). In addition, it serves as "…an outcomes-based approach which applies critical thinking to the design, implementation and evaluation of initiatives and programmes intended to support change in their contexts" (Vogel, 2012, p. 1). Its rise to popularity stems from the hope that, as an approach, theory of change will surely overcome the shortcomings and limitations previously experienced in the evaluation of social interventions (Machenzie and Blamey, 2005).

2.6.1.1 The emergence of the theory of change and how it evolved with time

Although it is perceived as a new concept in the mainstream (Vogel, 2012), literature reveals that the theory of change has been in existence from as early as 1930s (Coryn, Noakes, Westine, and Schroter, 2011). Since its emergence, it evolved with time and came to be called numerous names that include programme-theory evaluation, theory based evaluation, theory of action, programme logic, logical framework, programme theory-driven evaluation science, and most recently, the theory of change (Mark, Henry and Julnes, 1998 in Coryn and others, 2011).

The current evolution, which draws from evaluation and informed social action and the theory of change for evaluation, was developed from 1960s to date (Vogel, 2012). Since then, theory of change came to prominence on a wide scale, became accepted in the evaluation community and was increasingly espoused by various evaluation scholars as an effective tool and methodology which maps out the logical sequence of an intervention, from activities way up to the change desired (Coryn and others, 2011; Valters, 2014). At current, theory of change is widely accepted as a legitimate form of evaluation practice (Coryn and others, 2011) used in both international and local civil society, governmental and non-governmental organisations as well as in research programmes aimed at supporting and enhancing development outcomes (Vogel, 2012).

2.6.1.2 Key functions of the theory of change

One of the principal functions of the theory of change is to provide descriptions of what the evaluators should do when conducting their work, specifying evaluation purposes, responsibilities of the evaluators, activities and users, among others (Fournier, 1995; Smith, 1993 in Coryn and others, 2011). It generates knowledge concerning whether an intervention is effective or efficacious, explaining richly a causal relationship that exists between the variables (Coryn and others, 2011). In addition, theory of change makes assumptions explicit, thereby informing the design and implementation of the intervention (Vogel, 2012).

Moreover, widely used for programme design and to correctly guide implementation (Vogel, 2012), the theory of change helps explain the rationale behind the intervention, and the way things are expected to work (International Network on Strategic Philanthropy, 2005; Valters, 2014). As stipulated in International Network on Strategic Philanthropy (2005, p. 6), "theories of change help the evaluators develop research questions that focus the measurement on changes that can occur given the particular strategies that are operative at systems, programs (sic), and client level".

Vogel (2012) postulates that the theory of change, like any other approach can be poor or poorly used. For the theory to be regarded as well-developed and articulated, which in essence implies that its various components relate well with one another (Davidson, 2000 in Coryn and others, 2011), it should meet certain requirements. First, it should be plausible, which means its planned activities are clearly linked through an existing evidence base (Mackinzie and Blamey, 2005).

Further, doability is the second requirement. Doability of the theory of change is determined by the extent to which its activities are deliverable within the context of the programme intervention, timeframe and resources available for it (Mackinzie and Blamey, 2005). Lastly, it has to be testable, which means that the theory is specified well enough "to allow verification of progress in delivering the plan and subsequently, the measurement of the intended outcomes" (Mackinzie and Blamey, 2005, p. 156).

2.6.1.3 Criticism of the theory of change

Irrespective of it being espoused, accepted, promoted and defended by various evaluation scholars who include among others, Donaldson and Gooler (2003), Chen (1994), Coryn and others (2011), Mackinzie and Blamey (2005) and Vogel (2012), as the best-known tool for effectively conducting evaluation, theory of change has also been a subject of severe criticism (Coryn and others, 2011).

One of the most vocal critics is Michael Scriven. In his1994 publication, the author dismisses the theory of change on the grounds that a component evaluation requires neither understanding of the relation existing between the components, nor an understanding of the programme itself (Scriven, 1994). In his 1998 publication, he views it as lack of understanding to hold a view that evaluation needs a theory, and he goes further to discard the use of theories as expensive and unnecessary (Scriven, 1998). Relatedly, Stufflebeam and Shrinkfield (2007) quoted in Coryn and colleagues (2011, p. 206) argue that "there is no much to recommend about theory-based program evaluation since doing it right is not feasible and failed or misrepresented attempts can be highly counterproductive".

2.6.2 The results chain and framework

This section of the paper introduces the results chain and results framework to the study. To begin with, the results chain is defined as a visual tool that graphically explains what the intervention is doing and why, stipulating a sequence of activities to undertake in order to achieve the intended results (Kusek, 2012; Bester, 2012). In addition, it serves as a map that depicts the casual linkage between the inputs and activities and the results generated as the outputs, outcomes and impacts (Kusek, 2012; Margoluis and others, 2013).

Valters (2014) asserts that results have increasingly become a pervasive part of the global development discourse, compelling both public and private organisation to perform. Ideally, the results framework can be defined as a graphic form of cause and effect logic (USAID, 2013). According to USAID (2010, p. 1), it is a functional tool which "conveys the development hypothesis implicit in the strategy and the cause-and-effect linkages between the intermediate results and the objectives". Apart from having

hypothesis which explains the logic behind the causal chain of results, the results framework serves as a useful tool in monitoring and evaluation to measure the results achieved against the strategic objectives (USAID, 2010 and 2013). To this end, the results framework and results chain go hand in hand as the fundamental pillars of the monitoring and evaluation systems in setting goals, and ensuring that the intended objectives are achieved (Kusek, 2012).

The results chain and its concomitant framework (Gorgens and Kusek, 2010) are graphically discussed in the context of this study in Section 2.7. Ideally, each item making up the results chain—namely, inputs, activities, outputs, outcomes and impacts (Margoluis and others, 2013; Kusek, 2012) has indicators, baselines, targets and assumptions (NORAD, 1999; United Nations Development Group, 2010). As the results chain items have already been discussed in Section 2.5, and are again to be highlighted in Section 2.7, they are excluded in this section as the subsequent paragraphs respectively focus their attention on indicators, baselines, targets, assumptions and risks.

2.6.2.1 Indicators

Indicators specify the manner in which the achievement of objectives has to be measured at different times (NORAD, 1999) and determine if the standard of an intervention is of required quality (World Bank, 2005). In addition, they describe what should actually be measured in order to assess if activities will lead to success in the fight against HIV (Kusek and Rist, 2004).

In setting indicators for HIV/AIDS interventions, a blanket approach cannot be utilised with respect to all FET institutions in the country, given different contextual factors that might hamper the implementation processes (Schneider and Stein, 2001). Relatedly, the sequence of indicators chosen should reflect the causal linkage intended for actions to be carried out so as to enable the monitoring and evaluation practitioners to monitor at all levels, and provide feedback with respect to the inputs, activities, outputs, outcomes and impacts (Kusek and Rist, 2004; Corlazzoli and White, 2013;).

Irrespective of whether the indicators are CREAM (clear, relevant, economic, adequate, and monitored) or SMART (specific, measurable, attainable, realistic and time-bound), they should be in line with AIDS management objectives, technically doable, policy

relevant and practical (Kusek and Rist, 2004; World Bank, 2005). Most importantly, they have to be context-specific to the FET institution in which the evaluation strategy is implemented (World Bank, 2005).

2.6.2.2 Baselines

According to Kusek and Rist (2004), the baseline refers to the circumstances prior to the implementation of the intervention, and without baseline data to compare and contrast with, indicators on their own cannot be completely accurate in measuring the impact of the intervention. It is essentially useful as a starting point in HIV interventions to determine and influence how implementation process should occur (Kusek and Rist, 2004). In the impact evaluation of HIV/AIDS management interventions, evaluators collect baseline data prior to the intervention and once or twice after the strategy in order to measure the impact indicators and the extent to which intervention has been effective (Bulduk and Erdogan, 2012; Cheng and others, 2008; Ibrahim and others, 2012). Ideally, the baselines in these evaluations play the principal role to enable the researchers to determine and monitor the progress or change, in line with set goals (Kusek and Rist, 2004).

2.6.2.3 Targets

Kusek and Rist (2004, p. 92) define targets as "what the situation is expected to be at the end of a program or activity". It is the anticipated change in AIDS-related behaviour, prevalence and incidence rates as well as other AIDS conditions in the country when all efforts and strategies intended to expand knowledge have been fully exhausted (UNESCO, 2008; Roux and others, 2005). For AIDS strategies to accrue positive results, the targets should be set in harmony with the budget, which in the case of life skills in FET colleges, comes from the government (Wouters and others, 2009). Further, the technical capacity of the personnel to translate essential policy actions into reality, and other resources that will enable students to comprehend AIDS content should be considered when setting targets (Kusek and Rist, 2004).

Moreover, when setting targets, baseline information is crucial to put into consideration as it serves as a guide to those implementing strategies (International Network on Strategic Philanthropy, 2005; Kusek and Rist, 2004). In addition, flexibility and caution

should be exercised throughout the entire process of setting targets as the unexpected factors with respect to resources may surface (Kusek and Rist, 2004).

2.6.2.4 Assumptions

Vogel (2012, p. 15) defines assumptions as "making explicit the interpretations of how change might happen relevant to [a given] context hypothetical cause-effect links, and explanations of the worldviews, beliefs, rationales, analytical perspectives and evidence that informs the analysis". They describe circumstances, events and decisions necessary for the success of the intervention, but are beyond the control of the intervention (NORAD, 1999). It is of paramount importance for those evaluating AIDS interventions to identify assumptions based on the importance of each level of the performance matrix (NORAD, 1999). Furthermore, it is imperative that the personnel in HIV/AIDS management interventions use 'if' and 'then' logic if at all the assumption is necessary to the logic of AIDS policy-based interventions so as to eliminate obvious and killer assumptions (World Bank, 2005; NORAD, 1999).

2.6.3 The theory of change, results chain and framework of AIDS policy-based interventions

We understand that this outcome evaluation requires criterion against which success of the intervention will be judged. Therefore, in Sections 2.6.3.1 and 2.6.3.2, we uncover and present the theory of change and the assumptions underpinning HIV/AIDS policy-based interventions implemented in FET Sector. It should be noted that the uncovered theory of change is informed by literature reviewed in Sections 2.1, 2.2 and 2.3. In Section 2.6.3.3, we analyse the theory to determine how the intended results will be realised. Finally, we look into the results chain and its concomitant framework underlying the uncovered theory of change in Section 2.6.3.4. To this end, note should be taken that Section 2.6.3.4 presents ideal results chain against which the findings of this study will be judged.

2.6.3.1 Theory of change for HIV/AIDS policy-based interventions in Further Education and Training institutions

The fundamental function of the theory of change is to clearly set out the impact or goal the intervention is aimed at achieving (Valters, 2014; Vogel, 2012). As indicated earlier in the study, the mission of the AIDS interventions in FET colleges is to develop young

people's knowledge (Selesho and Modise, 2012) with a view to encourage responsible sexual practices (Moodley and Phillips, 2011). The ultimate goal is to counter the threat posed by the epidemic in the country (Government Gazette, 1999; Wouters and other, 2014).

Based on the mission of the AIDS policies implemented in FET institutions, and the threat of AIDS as an issue the intervention is intended to address (Roux and others, 2005; Education Labour Relations Council, 2003), the implied theory of change for intervention is: 'to expand AIDS-related knowledge in order to combat the spread of HIV/AIDS among the youth'.

2.6.3.2 Key assumptions related to the theory of change

Working through the theory of change for any given intervention helps reveal assumptions that otherwise might be concealed (Vogel, 2012; Weiss, 1997). To this end, the following assumptions are derived from the uncovered theory of change that is stated in Section 2.6.3.1 above:

a) Integrating HIV/AIDS into the curriculum will result into students having comprehensive knowledge about the epidemic.
b) Being knowledgeable of HIV/AIDS will increase young people's risk perceptions.
c) Risk perceptions will shape HIV/AIDS-related behaviours and change attitudes of young people towards people living with HIV.
d) If people are knowledgeable about the consequences of risky sexual practices, they will change their sexual behaviours accordingly.
e) Responsible sexual behaviour will ultimately halt further transmission of HIV among the youth nationwide.

2.6.3.3 Analysing the intervention's theory of change in the context of Further Education and Training Sector

This section of the paper provides a little analysis of the theory of change for life skills and AIDS education in terms of the Logic Model, which according to Milstein and Chapel (2013), depicts precisely how each variable leads to the desired outcomes. Further, the theory is further analysed on the basis of the three core frames—namely:

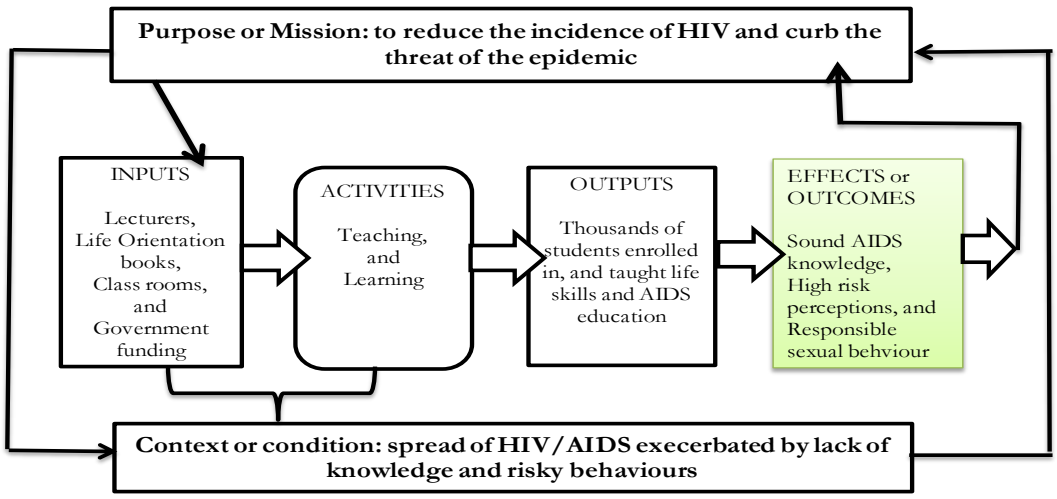
population, strategies and outcomes (International Network on Strategic Philanthropy, 2005), of which the Logic Model also highlights in its analysis.

a) The intervention Logic Model

Newton, Poon, Nicole, Nunes, and Stone (2013, p.91) define a logic model as "a graphical representation of a programme's theory of action … [which] illustrates the connection between programme activities and outcomes". Not only does Logic Model serve as a reflection of the thinking behind an initiative's plan, but it also presents a clear picture of how an initiative is expected to work (Milstein and Chapel, 2013). In addition, a Logic Model provides an explicit statement of the activities, which leads to the stated outcomes in the final analysis (Milstein and Chapel, 2013).

Figure 2 below presents the Logic Model, demonstrating all processes in the implementation of the initiative, from the inputs, activities and way up to the desired outcomes (Roux and others, 2005; Education Labour Relations Council, 2003; UNESCO, 2008).

Figure 2: Logic Model for AIDS Policy-based interventions



Source: Developed from Margoluis and others (2013)

This is the ideal Logic Model, revealing how the HIV/AIDS intervention in the FET Sector should work, not necessarily how it is working. It does not indicate any

shortcomings in how outcomes are achieved, but just the way the HIV/AIDS problem or condition is alleviated by the actors carrying out activities to produce outputs and outcomes in order to have the mission of the intervention fulfilled (Milstein and Chapel, 2013; Mackinzie and Blamey, 2005).

b) The core frames of the theory of change

As indicated earlier, the three core frames of the theory are population, strategy and outcomes (International Network on Strategic Philanthropy, 2005). The Logic Model above provided a clue of what strategy and outcomes entail. The question of how population features in the programme theory is as important as understanding why it is necessary for the intervention to yield the intended outcomes (Valters, 2014; Mackinzie and Blamey, 2005).

To start with, population refers to the beneficiaries of the intervention, who in this case happen to be the FET college students (Government Gazette, 1999; UNESCO, 2008). Without the population benefiting, the outcomes of the intervention might, to a larger extent, be unintended (Milstein and Chapel, 2013). In other words, it is indicative of the intervention failing to achieve its stated objectives.

However, as highlighted in Section 2.3 of this paper, the sexual behaviours displayed by the beneficiaries do not seem to be in line with the mission of the intervention (James and Abieyuwa, 2013; Tung and others, 2008; Cheng and others, 2008; Ojikutu and others, 2010; Jeckoniah, 2013). "Despite the concerted efforts of educational and HIV prevention campaigns to influence their behaviour", the youth continue to indulge in risky sexual practices in South Africa (Eaton and other, 2003, p. 150) and many other parts of the world (Rampal and others, 2010; Jeckoniah, 2013; Bulduk and Erdogan, 2012). As per the revelation of the past and current studies reviewed in this study, more still has to be done in terms of implementation strategies in order for the intervention to accrue positive results (Rampal and others, 2010; Magnani and other, 2005).

2.6.3.4 The results chain and framework underlying the uncovered theory of change for AIDS policy-based intervention in Further Education and Training Sector

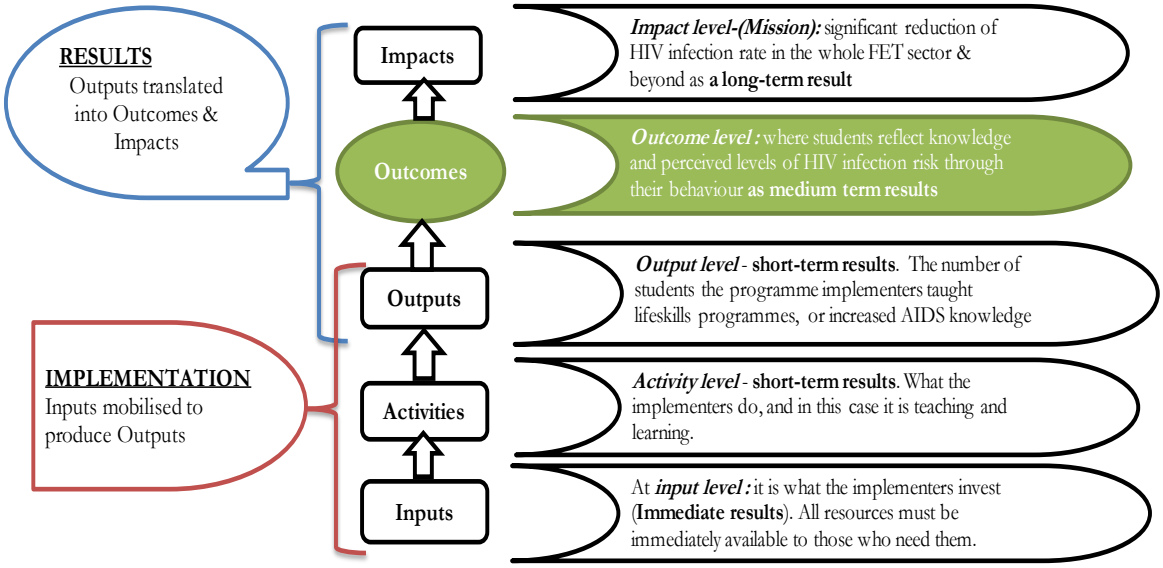
In context, the results chain clarifies the assumptions about how AIDS policy implementation activities contribute towards curbing the threat of the epidemic and

mitigating its impact (Thomas and Luo, 2011; Clark and others, 2000). To this end, results should be representative of the change made through the cause and effect relationship that exists between the inputs, activities, outputs, outcomes and impacts (United Nations Development Group, 2010).

Literature has revealed that the success of the HIV/AIDS interventions hinges on the results chain showing explicitly the assumed relationship among actions, intermediate outcomes as well as the intended ultimate goal (Margoluis and others, 2013). From Thomas and Luo (2011)'s standpoint, when the results chain has missing elements or broken linkages, the prospect of reaching the desired outcomes is very blurry.

Figure 3 below depicts the ideal Model of the results chain underlying the uncovered theory of change. It vividly demonstrates how the assumed causal link between the intervention and desired outcomes (Margoluis and others, 2013) leads to the stated results (Gorgens and Kusek, 2010).

Figure 3: Showing the results chain for policy intervention, with accompanying results framework



Source: Developed from NORAD (1999), Kusek and Rist (2004), as well as Gorgens and Kusek (2010)

The figure above demonstrates what results are expected at each level of the results chain (Gorgens and Kusek, 2010; NORAD, 1999; Margoluis and others, 2013). Every

intervention is motivated by the assumption that actions taken will eventually lead to a result (Bester, 2012). However, in the fight against HIV/AIDS, explicit assumptions about how the intervention will lead to reduced infection rates (Bester, 2012; Campbell, 2003; Thomas and Luo, 2011) can do very little if the beneficiaries lack a will to be the active participants for their own gain (Beyers, 2012; Stadler and others, 2008). However, this does not erase the fact that FET based interventions should be of a compelling nature to influence the recipients change their behaviours as expected by the stakeholders.

To this end, the ideal theory of change, results chain and its accompanying framework play a major in assessing success and measuring the results. The importance of the results chain for completing the above is imbedded in its principal role of explaining 'if and when' logic, assuming that everything is carried out according to the plan at every level (United Nations Development Group, 2010). It is inferred in this section that the theory of change for this intervention is pivoted on the Knowledge Deficit Model and the Health Belief Model summarised in Schultz (2002) as well as Janz and Becker (1984), respectively. The former believes that knowledge is a strong predictor of behaviour and assumes that an individual does not know the details around HIV/AIDS, and that their behaviour can lead to infection. Therefore, the model emphasises that educators should communicate the necessary information on HIV/AIDS. Based on the belief that a certain health action will promote desire to avoid illness or if ill, to recuperate, the latter requires educators to communicate that HIV/AIDS is serious, everyone is at risk of getting HIV/AIDS, and there are benefits to one changing their sexual behaviour.

Bester (2012) has argued that every intervention assumes that its activities will eventually lead to the desired results. However, in the fight against HIV/AIDS, explicit assumptions about how the intervention will lead to reduced infection rates (Campbell 2003; Thomas and Luo 2011; Bester 2012) can only happen if participants change their sexual behaviour (Stadler and others 2008; Beyers 2012). This should not erase the fact that FET interventions should not compel the recipients to change their behaviours as expected.

2.7 Evaluating the outcomes of AIDS policy-based interventions in Further Education and Training Sector, a conceptual framework

In this chapter, we reviewed various sources on South African response mechanisms to the threat of AIDS. We revealed that the policy on HIV/AIDS prevention implemented in FET institutions is set out in the National policy on HIV/AIDS (Government Gazette, 1999), whose formulation dates back to 1992 as the national strategy to combat the spread of the epidemic in the country (Schneider and Stein, 2001).

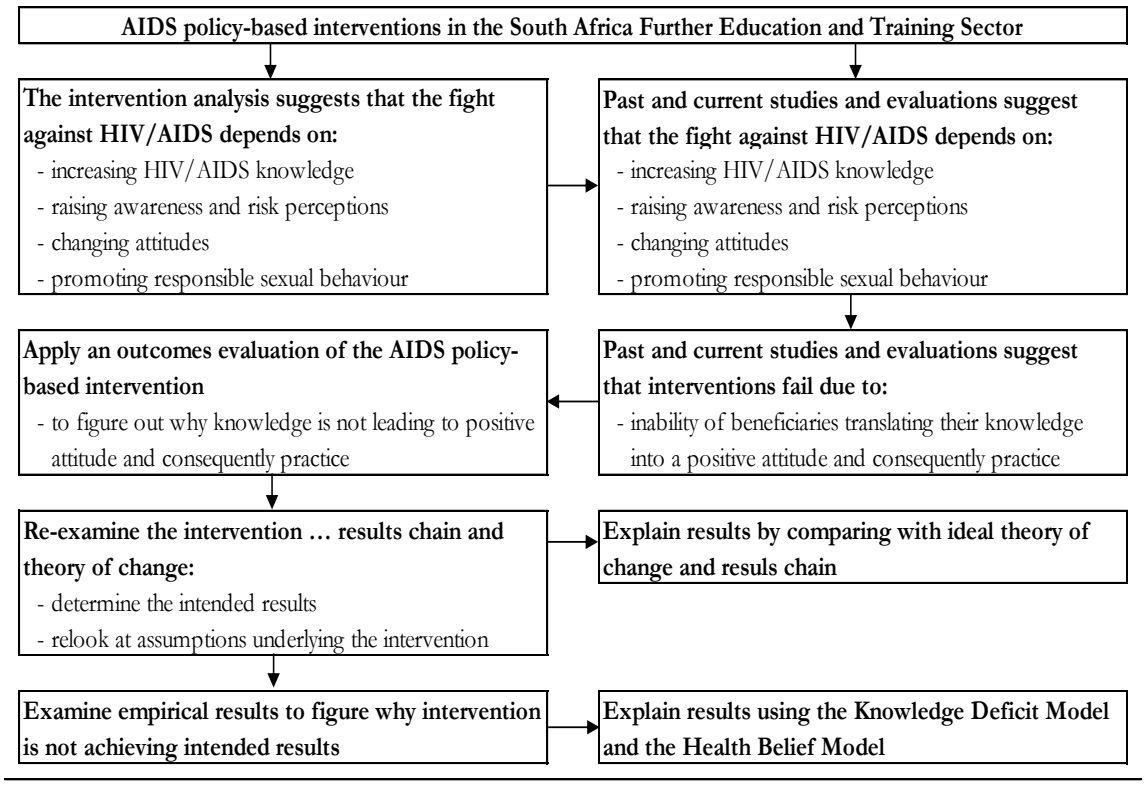
The South African Government has rolled out the National AIDS Strategy to the FET Sector to combat the thread posed by the epidemic in the country (Schneider and Stein 2001). These institutions have since incorporated HIV/AIDS programmes into their curriculum. Despite challenges that initially hampered the effective implementation of the National AIDS Strategy, such as lack of political will and power struggle within the government departments (Schneider and Stein 2001; Wouters and others 2009), literature has recorded some successes in the fight against HIV/AIDS (South African National AIDS Council, 2011; Mayosi and others 2012). Regardless, HIV/AIDS is still a danger to young people and, therefore, skills development which is a core function of FET Sector (Akoojee 2008; Moodley and Philips 2013; Vogtenhuber, 2014).

Figure 4 shows a summary of how the interventions links-in with the literature that details this intervention as well as the literature spelling out the procedures of evaluating this intervention. Our description of the intervention (Section 2.2), and past and current studies (Section 2.3) suggest that the fight against HIV/AIDS should (i) increase the knowledge on HIV/AIDS (ii) raise awareness and risk perceptions (iii) change attitudes, and (iv) promote responsible sexual behaviour among students (Education Labour Relations Council, 2003; Tenkorang and others, 2011; Selesho and Modise, 2012).

Unfortunately, HIV/AIDS interventions do not often always yield the intended results because as pointed out by van Dyk (2005), behavioural matters are only meaningful if addressed in relation to the specific context in which an individual is at the time. This implies that comprehensive knowledge of HIV/AIDS and risk susceptibility may not translate into responsible behaviour (Magnani and others 2005; Cheng and others 2008; Moodle and Philips 2013). To answer the question why this is so we need to continuously assess interventions and learn how increasing knowledge can change

attitudes towards sexual behaviour among students and how this will consequently, lead to a reduction on risky sexual behaviours.

Figure 4: Showing the intervention, its deficiency, and the proposed methodology of pursuing its evaluation



Source: (Author)

Therefore, in harmony with the mission of the intervention—which is to halt further transmission of HIV among the youthful students—we measure success in the selected three of key focus areas of the intervention in out pursuit of outcomes evaluation. In our quest, we intend to measure students' levels of AIDS-related knowledge, risk perception and behaviour associated with the risk of acquiring HIV as shown in figure 5. To arrive at the mission of the intervention, literature emphasises on expansion of AIDS related knowledge and raising awareness with a view that risk susceptibility and perceptions will be high (Selesho and Modise, 2012). This psychological impact of the intervention will, in turn, be reflected on the basis of beneficiaries' attitudes towards disease and most importantly, people living with HIV/AIDS. The ultimate impact of the intervention should be reflected on young people's behaviours, which neither increases their vulnerability to infection nor expose them to any risk of acquiring HIV

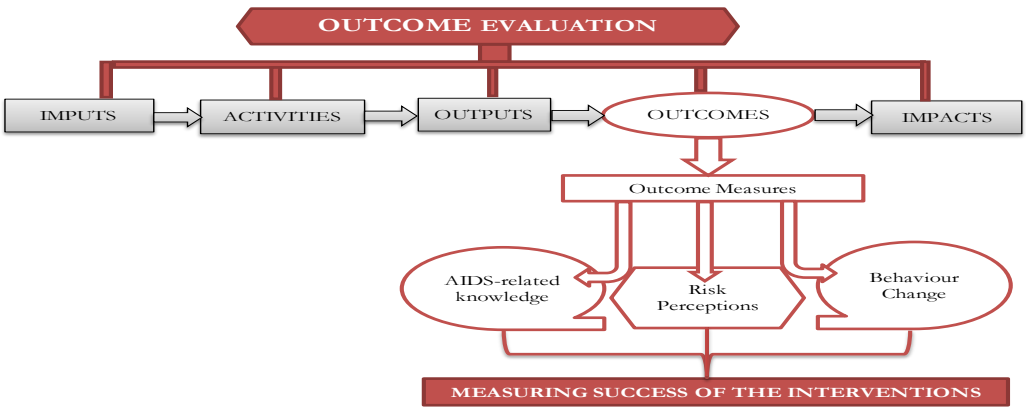
(Education Labour Relations Council, 2003). Finally, it is by means of responsible behaviours that the intervention will be deemed successful in accomplishing its mission.

However, as indicated earlier on, the reviewed various sources regarding AIDS prevention interventions in South Africa and beyond (Section 2.3) confirmed van Dyk's philosophical view. He concludes that "…talking to people about 'safe sex practice' in general will rarely have any effect on their behaviour because the concept 'safe sex practice' is vague and refers to a whole category of behaviours instead of to one specific behaviour" (van Dyk, 2005, p. 93).

Could it be the implementation gap, showing a need to identify risky behaviour in cooperation with an individual person as van Dyk encourages? Alternatively, should the issue of AIDS be explained within the context of cultural influences existing in the environment of an individual student as Tenkorang and colleagues (2011) suggest? The studies reviewed were not aimed at filling these knowledge gaps—neither is this one. However, as much as this is not the point of focus now, more research is required in these areas.

In Section 2.4, we broadly detailed what evaluation entails, with all components and variables, and then limited the study to summative evaluation, more specifically an outcome evaluation. This variable (the outcomes) marks the section from which the answers to the research questions and the test of hypotheses will come. Figure 5 below depicts the outcomes—the variable from which outcome measures of interest (AIDS-related knowledge, risk perceptions and behaviour on HIV/AIDS) emerge.

Figure 5: Outcome measures



Source (Author)

Relatedly, the selected outcome measures, in essence, serve as the incubators of intervention's efficiency as they help evaluate the outcomes in harmony with the research purpose (Cheng and colleagues, 2008). Therefore, in our pursuit of outcome evaluation we deliberately re-look at the results chain of the intervention so that in our quest we can also re-examine the intended results and how these link in with what the implementers are actually doing. Actually, we pay attention to the theory of change described in Section 2.6.3.1, in which we will look at the assumptions underlying the interventions just in case that is where the blockage is. Consequently, we shall thoroughly examine the empirical results to figure out why the intervention is or is not achieving its intended results. In doing so, we will attempt to figure out the possibility of missing elements between the outputs, outcomes and the impact of the AIDS policy-based interventions implemented the FET Sector.

The theory of change presents the purpose of the intervention and how the relationship between the variables leads to accomplishing the required change, assuming that operations were carried out according to plan (Valters, 2014). Similarly, results chain and framework graphically show causal linkage of the elements that lead to the required change (Valters, 2014). It is by means of the assumptions, targets, results and many more—stipulated in the theory of change and results chain that the actual results of this intervention will be judged as they are against what they should be. That is, we shall compare the findings of this research with what the theory of change says.

Furthermore, we will then employ strands of the Knowledge Deficit Model and the Health Belief Model (Section 2.6) to explain why knowledge on HIV/AIDS, change in attitude, risk perceptions and other measures are not translating into responsible sexual habits (Bulduk and Erdogan, 2012; Kyrychenko and others, 2006). This, in the final analysis, along with Sections 2.2 and 2.3 will inform chapter 6 which consists of summary, recommendations and conclusion.

More generally, such an evaluation should be undertaken using a quantitative research strategy and data collected using a cross-sectional research design described in Bryman (2012). The quantitative approach, hence a questionnaire instrument, allows for huge coverage and of course representativeness of FET community, given the intervention under investigation. Another reason is that, quantitative means measure variables in the

same way without the possibility of linguistic problem or distortion. Chapter 3 below details the approach mentioned above and why is deemed suitable for this evaluation research.

3 RESEARCH TECHNIQUES, PROCEDURE AND METHODS

In this chapter, we outline the research methodology deployed in the study. In doing so, we describe the selected research design, the chosen and applied procedures for collection and analysis of data, study population and the selection of the sample. The chapter concludes with a discussion of the statistical analysis of the empirical data and the criteria used to establish credibility and trustworthiness of the findings (Brink, 1993). Specifically, Sections 3.1 and 3.2 describe the strategy and design of the research respectively, and review past attempts, which used the same strategy and design to vindicate our choice. Section 3.3 deals with research procedure and methods in which procedure in designing the instrument and collecting data (Section 3.3.1); target population and sampling (Section 3.3.2); ethical consideration (Section 3.3.3); data collection and storage (Section 3.3.4); data processing and analysis (Section 3.3.5); and the study respondents (Section 3.3.6) are described. Lastly, Section 3.4 details how certainty of measurement was established in which reliability (Section 3.4.1) and validity (Section 3.4.2) are explained.

3.1 Research strategy

Bryman (2012, p. 35) defines a research strategy as "a general orientation to the conduct of the social research". It is a plan of action vital in providing the social researcher with a clear direction in terms of a range of research activities that need to be carried out (Wagner, Kawulich and Garner, 2012; Christensen and other, 2011). A research strategy guides the methodology of research, that is, how the entire research will unfold, influenced by philosophical beliefs and understanding regarding the nature of reality (Wagner and others, 2012) in which the study will be conducted. In the realm of social research, there are three strategies: qualitative, quantitative and mixed methods (Bryman, 2012; Wagner and others, 2012; Christensen and others, 2011).

Briefly drawing a line of demarcation between the strategies, Christensen and others (2011) elucidate that a qualitative strategy is based on non-numerical data, quantitative is numerically based study and mixed method is the combination of the former and the latter. To this end, we situated our study in quantitative research, a strategy emanating

from the positivist approach paradigm, which implies that the social researcher deals with a cause-effect relationship derived from general theory, and then comes to the measurements of the social world (Neuman, 2006).

Contrary to the view that interpretive social science (ISS) researchers hold, thus the research should be intended to seek understanding of the people, through the meaning that individuals assign to it (Neuman, 2006), in this approach the researcher is detached and neutral (Neuman, 2011). In this study, this assisted us to examine evidence with the highest degree of objectivity and impartiality (Neuman, 2011) when testing hypotheses and quantitatively proving facts (McLoughlin, 2007).

The selection of this strategy was based on the research question, existing knowledge on the subject, the population and the guesses one comes to when reviewing literature on the subject (Saunders, Lewis, and Thornhill, 2009). The intent of this study was to evaluate the outcomes of policy-based interventions designed to manage HIV/AIDS in FET Sector. The AIDS interventions—the purpose of which is to expand knowledge among the beneficiaries with a view to reducing risky behaviours that might increase students' susceptibility to HIV infection (UNESCO, 2008; Wouters and others, 2009)—were evaluated using the outcome measures we graphically discussed in Section 2.7 of this thesis. Further, literature has indicated the use of the quantitative strategy as a way through which the outcome measures in question, could be successfully assessed (Tung and others, 2008; Ojikutu and others, 2010; Bulduk and Erdogan, 2012).

To vindicate this view, we reviewed three evaluation studies conducted internationally in education settings, which used the same strategy. We looked into the works of Bulduk and Erdogan (2012) who evaluated peer education in Turkey; Ibrahim and colleagues (2012) who assessed the effectiveness of peer-led education intervention in Malaysia; and Cheng and the team (2008) who wanted to see how responsive a school-based education programme was among students in China.

Obviously, the studies were conducted in different environments evaluating slightly different interventions aimed at raising awareness and curbing the spread of HIV/AIDS in learning settings. Therefore, cultural, environmental and social contexts with their influences were different (Tenkorang and others, 2011). However, all the researchers

successfully made use of quantitative research methods in which a structured questionnaire was suitable to assess the outcome measures of interest (Bulduk and Erdogan, 2012; Cheng and others, 2008; Ibrahim and colleagues, 2012). The successes of the reviewed studies indicate precisely that the chosen strategy was appropriate for this research study.

3.2 Research design

Research design is defined as "a structure that guides the execution of a research method and the analysis of the subsequent data" (Bryman, 2012, p. 46). In social research, the function of the design is primarily to provide the researcher with a clear direction on how to conduct the study (Wagner and others, 2012; Christensen and others, 2011). When conducting a study, there are five research designs to choose from, namely: experimental or quasi experimental, cross-sectional survey, longitudinal survey, case study and comparative (Wagner and others, 2012; Bryman, 2012; Christensen and others, 2011).

This study committed to a cross-sectional survey. According to Bryman (2012), a cross-sectional survey is a survey carried out at one point in time. The study used this design for a number of reasons. First, we sought to evaluate the outcomes, not the impacts of the interventions, and data had to be collected not more than once (Bryman, 2012; Wagner and others, 2012). Second, a cross-sectional survey allowed the researcher to gather data on a number of variables at a low cost in a short time, and both time and financial constraints were the primary factors that influenced the decision to go for this design (Mcmillan and Schumacher, 2010).

Literature revealed that a cross-sectional survey has been effective in determining success of AIDS interventions using structured interviews, questionnaires or both (Tung and colleagues, 2008; Bryman, 2012). In support of this, we reviewed two studies with similar measures that used a cross-sectional survey. First, Swart-Kruger and Tichter (1997) conducted a cross-sectional study in South Africa, the purpose of which was to assess knowledge, risk perceptions and attitudes towards HIV/AIDS among the children living in the streets. Second, Tung and colleagues (2008) conducted a quantitative study in Taiwan, in which he used cross-sectional survey to assess knowledge, attitudes and behaviour of university students with regard to the epidemic. Although data were collected at one point in time (Bryman, 2012), the studies managed

to achieve their objectives—implying that collecting data once did not, in any way, compromise this study in its pursuit of assessing the extent to which the AIDS interventions are successful at the outcomes level.

3.3 Research procedure and methods

This section deals with how the paper handled the empirical data used to answer the research questions (Christensen and others, 2011). To this end, this part of the paper chronologically begins with a data collection instrument, study population and sampling, ethical consideration, collection and storage of data. This section further reveals data processing and analysis used, description of the participants, issues of reliability and validity as well as research limitations.

3.3.1 Data collection instrument

The data collection instrument is generally understood to be the device or mechanism by which the researcher solicits primary data from the study participants (Christensen and others, 2011; Wagner and others, 2012); in harmony with the research design, population and the contours that the researcher needs to uncover (Bryman, 2012). Depending on the purpose, nature and population of the study, there are two types of instruments the researcher can choose from—namely: an observation schedule and an interview schedule (Bryman, 2012; Wagner and others, 2012).

As Christensen and colleagues (2011) indicate, observation and interview schedules can be used in both qualitative and quantitative studies. However, an observation schedule is most suitable for the population of minors where the researcher observes and keeps an open mind concerning the behavioural patterns and contours of what is needed in the study (Christensen and others, 2011; Bryman, 2012).

To this end, the study committed to interview schedule defined as a data collection instrument in which the respondents' stand with regard to what the researcher needs, is sought through different types of questions (Christensen and others, 2011; Wagner and others, 2012; Bryman, 2012). Further, interviews can be divided into three categories: fully structured, semi-structured and unstructured interviews (Bryman, 2012; Christensen and others, 2011). While semi-structured and unstructured interviews bear

certain similarities in terms of allowing the respondents room to reveal in-depth information and subjective perspectives (Christensen and others, 2011), a fully structured interview questions are answered in the same way by all the respondents (Bryman, 2012).

In this research, we used a fully structured interview (also known as a questionnaire) which Christensen and colleagues (2011, p. 56) define as, "a self-report data collection instrument that is filled out by research participants", measuring their attitudes, opinions, knowledge, and perceptions of the research phenomena. We committed to a fully structured interview because it is rated the most inexpensive way of collecting data (Christensen and other, 2011), given that the research was conducted only for study purposes.

The questionnaire comprised 4 sections and 23 questions adapted from Liao and others (2010), Jeckoniah (2013), and Tung and other, (2008) in Demographic and Health Studies (DHS). The first section assessed demographic data such as gender, age, level of education and college of study. From the second to the fourth section respectively, the questionnaire was designed to gather details regarding AIDS knowledge, risk perceptions and HIV/AIDS risk related behaviours.

To measure the participants' levels of knowledge, there were closed questions (Yes or No and True or False) assessing HIV knowledge on transmission dynamics and misconceptions about the disease. Further, for measuring the 'perceived risk of contracting HIV', a single dependent variable was used: 'how possible do you think you can contract HIV?' (Ward and others, 2004). Likert – scaled response choices ranging from 1 (not at all) to 5 (certain) was used to determine high or low risk perceptions (Jeckoniah, 2013; Ward and others, 2004).

To evaluate the behaviour on HIV/AIDS, questions elicited information concerning protective measures students use in sexual relationships. To do this, questions with five response choices were used. Further, other questions with three response choices required details concerning the use of substances. The questionnaire was pretested using 8 students in one of the campuses from which data were collected. The pre-test

results showed no ambiguity in the instrument, as the students who participated in the pre-test thoroughly understood the questions.

The paper now considers the past studies, which featured interview schedules and structured interviews. First, Kalichman, Rompa, Cage, DiFonzo, Simpson, Austin, Luke, Buckles, Kyomugisha, Benotsch, Pinkerton, and Graham, (2001, p. 84) conducted an evaluation study using "a theory-based intervention to reduce risk of HIV transmission for people living with HIV". Kalichman and the crew (2001) used a fully structured interview in which self-administered questionnaire was used as a data collection instrument. The outcome measures included self-efficacy and behaviour change, and significance improvement was reported in all measures, following the second data collection.

Another study of a similar nature in terms of data collection instrument was conducted in Chinese primary schools (Liao and others, 2010). Life Skills education was the intervention under investigation, the purpose of which was "to foster healthy lifestyles and lower HIV/AIDS related risk behaviours" (Liao and others, 2010, p. 409). The questionnaire was distributed in three different surveys to collect primary data from students to assess knowledge and self-perceived level of life skills. The results of the study proved this instrument very efficient (Liao and others, 2010).

The last study to consider was conducted at a University of Tanzania by Jeckoniah (2013). The intention behind this study was to assess knowledge and perceived risk of HIV/AIDS among university students. Similarly, Jeckoniah (2013) used the interview schedule in which a self-administered questionnaire was used to collect data. Similar to the studies conducted by Kalichman and other (2001), and Liao and others (2010), this study was able to measure all the variables for which it was intended. High levels of knowledge regarding HIV/AIDS were found, as well as perceived risk of the pandemic (Jeckoniah, 2013). This confirms to Vito and Higgins (2015)'s view that evaluation studies successfully feature the use of quantitative means to collect data. This gives interview schedules an upper hand over other schedules when assessing the outcome measures of this study and reveals that we were more successful in measuring the study variables using this schedule than we would be using another.

3.3.2 Target population and sampling

Population refers to the universe of units that comprise people, nations as well as cities from which the researcher will select the sample (Bryman, 2012). Christensen and others (2011, p. 150) refer to sampling as "drawing elements from a population to obtain a sample" that is representative of the entire population.

In this study, a sample was drawn from two public FET colleges namely, South West Gauteng College and Western College both located in south west of the city of Johannesburg in the province of Gauteng (Stadler, Delany and Mntambo, 2008). A non-probability sampling was used in which the two FET colleges were chosen because they had many students and it was convenient to work with them. During the time of study, both South West Gauteng College and Western college were big colleges with six campuses each—giving a preliminary sampling frame of 12 campuses with approximately 6000 Level 3 and Level 4 students distributed among them.

The participants meeting inclusion criteria were registered students aged 18 years and above, both males and females who were at least in the second year of their studies in the college and were willing to participate. The intention was to ensure that students had reasonable exposure to Life Skills and HIV/AIDS education (Selesho and Modise, 2012; Government Gazette, 1999) and were old enough to give consent. For all the study 'outcome measures' to be assessed, subjects were eligible to inclusion if they had sexual experience. A total of 518 students participated in the study.

3.3.3 Ethical considerations when collecting data

Bryman (2012) observes that research ethics play a major role where the study participants are likely to be subjected to any form of harm, where there is lack of informed consent, possible invasion of privacy and where deception is possible during the research process. According to Christensen and colleagues (2011, p. 96), "research ethics is a set of principles that assist the community of researchers in deciding how to conduct ethical research". The ethical considerations in the study were intended to ensure that research processes were conducted professionally without exerting either physical or emotional harm to the participants (Bryman , 2012; Wagner and other, 2012).

Before data collection, the University of Witwatersrand ethics committee provided ethical clearance. Permission to conduct the study was sought and obtained from the Department of Higher Education and Training (DHET). The senior management of South West Gauteng College and Western college also granted permission for the survey to be carried out in the institutions. Participation in this study was voluntary. No participant was coerced to take part or fill in any form without the respondent's will. A high level of confidentiality was fully maintained with regard to data collected and the respondents involved in the study. That is, participants were assured of anonymity. No identifying information was sought or requested from the respondents. That is, the study participants were requested not to write their names, ID or students numbers anywhere in the data collection instrument. The study findings were also presented in generic way without associating any individual persons with details.

The right to withdraw from the study at no expense of the relationship between the researcher and respondents was made known to the participants before they started filling in the questionnaire. It was also disclosed that the filled in questionnaires would be safely kept in the locked cabinet and destroyed when the study was completed. It was also mentioned to the subjects that the researcher would ensure that information collected was captured in a password protected personal laptop and not be made accessible to any person.

Self-disclosure and declaration of interest in pursuing this study

My name is Mohlalefi Edwin Moiloa. I am a student pursuing the degree of Master of Management (in the field of Public Sector Monitoring and Evaluation) in the University of the Witwatersrand. I am conducting an evaluation research entitled 'Outcomes of AIDS policy-based interventions in the Further Education and Training Sector' as part of my Masters' thesis. I am working closely with my supervisor, Dr. Kambidima Wotela, who is the main contact person for this paper.

The project is part of the nationwide response assessment that seeks to evaluate the actual successes of the intervention in question, against the outcomes sought, and the possibility of the interventions arriving at the intended results. In doing so, the project seeks to assess the levels of HIV/AIDS-related knowledge, risk perceptions

and behaviour associated with the danger of contracting HIV among the FET students in the selected institutions. The interest to pursue this topic came into being due to the rising HIV prevalence and incidence rates in the face of the interventions intended at combatting it in the country. The study is carried out only for obtaining the degree mentioned-above (study purposes). There are no external bodies funding this research. That means the researcher finances this project all alone.

3.3.4 Data collection and storage

The participants were approached while in their class settings to be given the participant information sheet and have a five-minutes self-administered questionnaire. To avoid issues of peer pressure and coercion, the subjects were allowed to fill in the questionnaire wherever they chose, be it in class or outside. Filling in the questionnaire meant consent and the students with no willingness to participate were asked to return the questionnaire blank. In the final analysis, data storage systems were developed for both paper-based forms and electronic data (Stetson, 2011) for filled in questionnaires and captured information.

3.3.5 Data processing and analysis

Once data were collected, we developed code categories for close-ended responses and assigned numerical representations to nominal and ordinal variables (Christensen and other, 2011; Wagner and others, 2012). That is, turning male into 1 and female into 2. Yes and True answers were credited with a score of 1 while No and False with a score of 2 (Salkind, 2010). Data were entered into a statistical software program called the Statistical Package for Social Sciences (SPSS) version 23 for processing, analysis and presentation (Christensen and other, 2011; Wagner and others, 2012).

Caution was exercised during data cleaning to check the quality of data in order to avoid data entry error that might negatively affect the process and analysis (Christensen and others, 2011; Baron and Kenny, 1986). Using SPSS, we tried to detect errors by determining if at all the responses were logical, and checked the presence of outliers in our responses. That is, we detected and corrected errors by ensuring that the minimum and maximum values were within the range of the values in the questionnaire, and ultimately there were no values distant or outside the range (Christensen and others, 2011). The statistical measures that include the mean (M), standard deviation (SD),

percentage, and frequency distributions were carried out (Salkind, 2010) in order to describe demographic variables such as age, gender and level of study. The above-mentioned measures of statistics were further utilised to describe the outcome measures: AIDS-related knowledge, risk perceptions and HIV/AIDS risk-related behaviour (Tung and others, 2008; Salkind, 2010).

Moreover, regression analysis was conducted to establish the relationship between the respondents and outcome variables of AIDS knowledge, perceptions and behaviour (Moodley and Phillips, 2012). To determine statistical significance, a level of $P < .05$ was used for all the analysis in this study (Salkind, 2010; Wagner and other, 2012). Data were presented using analysis techniques such as tables, bar graphs and descriptive statistics. Where SPSS could not, Microsoft Excel was used to present the results. In the final analysis, the process was followed by running Linear Regression Hypotheses Tests for the research (Wagner and others, 2012) in order to answer the research questions.

To establish if our procedure would enable us answer the research questions, we reviewed the past evaluation studies with almost similar outcome measures. In their impact evaluation of 'a Life-Skills-based HIV/AIDS education' intervention, Liao and others (2010, p. 409) employed SPSS in their analysis of results but t-tests to "examine the difference between the intervention and control groups". Interestingly similar to this study, the outcome measures of Liao and colleagues' study were AIDS related knowledge, attitudes and perceived levels of life-skills (Liao and others, 2010).

Further, in their study to explore 'knowledge, attitudes and behaviour related to AIDS', Tung and others (2008) made use of SPSS version 15.0 and the statistical measures such as mean, standard deviation and frequency distribution to describe sources of information concerning AIDS, and variables mentioned above. In terms of behaviour related to the epidemic, Tung and the team used a Chi-square test. Interestingly, a level of $P<.05$ was also used to determine statistical significance (Tung and others, 2008; Salkind, 2010).

Lastly, Moodley and Phillips (2011) conducted the study that featured some similar elements of data processing and analysis, in South Africa. They sought to investigate 'AIDS-related knowledge and behaviour of FET' students. Although the researchers

used mixed methods, measures such as mean and standard deviation; a logical regression analysis and a level of P<.05 to determine statistical significance, were all used in the quantitative part of the study (Moodley and Phillips, 2011). The fact that statistical measures employed by the authors enabled them to achieve successes when dealing with data, guarantees appropriateness of this procedure and suggests that—with the use of the same measures—the research questions were correctly answered and hypothesis tests properly carried out in this study.

3.3.6 Description of the respondents

A total of 518 registered FET students with reasonable exposure to life skills and HIV/AIDS education returned fully completed questionnaires. Of this, 34.7 per cent were males and 65.3 per cent were females with the (M=1.65) and (SD=0.477). The participants were aged 18 and above. This was in harmony with the South African constitution in which 18 years of age marks the beginning of adulthood and only adults can, on their own, consent to participate in the study (Mahery and Proudlock, 2011) . Demographic scores reveal that 82.0 per cent of the participants were in the 18-25 age group, when 26 and more age group gave only 1.7 per cent of the participants. Figure 6 below presents demographic information of the participants regarding college of study, sex and level of education.

Figure 6: Showing demographic details of the respondents

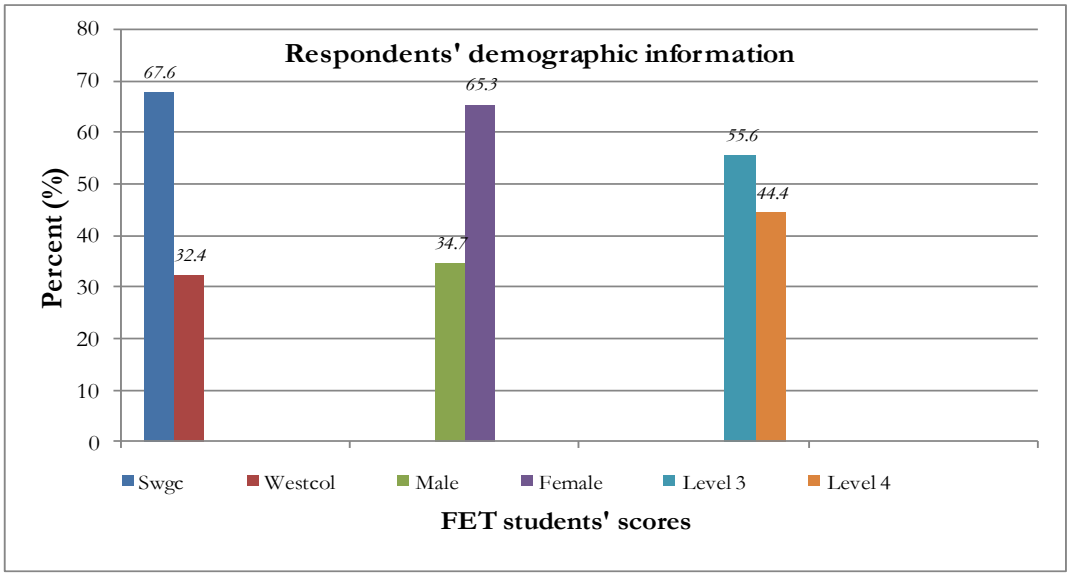


Figure 6: Percentage distribution of the respondents' demographic details

To this end, 67.6 per cent of the participants came from South West Gauteng College when Western student participants' percentage score was 32.4. Finally, the levels of education scores were 288 and 230 for Level 3 and Level 4 respectively, with the (M=1.44) and (SD=0.497). Nated students were not part of the study as life skills and AIDS education were not incorporated into their curriculum. Similarly, NCV Level 2 students could not meet the inclusion criteria because of the minimal exposure to AIDS education.

3.4 Research reliability and validity measures

This part of the paper sets out to discuss how certainty of the correct measurement was established in order to ensure that the findings of the study can be trusted (Christensen and others, 2011; Wagner and others, 2012). Good measurement in research is perceived in the light of reliability and validity (Christensen and others, 2011).

3.4.1 Reliability

Brink (1993, p. 35) defines reliability as "the ability of a research method to yield consistently the same results over repeated testing periods". It helps estimate how consistent the measurement is (Wagner and others, 2012; Field, 2006). In this paper, we could use neither test-retest reliability nor inter-rater reliability test due to quantitative and cross-sectional nature of this research study. According to Wagner and others (2012), the former requires the researcher to administer the same measuring instrument to the same sample in two different times when the latter needs observers to rate the phenomenon. Test-retest was therefore not in line with cross-sectional survey study when quantitative nature of the study overruled inter-rater reliability.

Further, Cronbach's coefficient Alpha that is used to measure internal consistency of the measurement scale was inappropriate as most of our questions did not have multiple items making up a composite scope of a measurement of a construct (Wagner and others, 2012). However, the 23 questions used to elicit information from the research respondents were adapted from Demographic and Health Studies (DHS), particularly from the works of professional research experts such as Liao and others (2010), Jeckoniah (2013), and Tung and other, (2008). As such the tool had been tested and used by the above-mentioned authors and therefore, reliable.

3.4.2 Validity

According to Wagner and others (2012), validity refers to the extent to which the research is measuring what it has intended to measure from the beginning. It is "the accuracy of the inferences, interpretations, or actions made on the basis of test scores" (Missick, 1989 in Christensen and others, 2011, p. 145). This study used face validity, which is some form of content validity, to determine if the items appeared to be representing what the research is attempting to measure (Christensen and others, 2011). In order to measure exactly what the researcher intended to measure, the following steps were taken. First, we crosschecked if indeed the research questions and hypotheses actually did flow from the theoretical and conceptual framework (Treu and others, 2010). Second, we consulted with the professional experts in the area of research to determine if the 23 questions in the data collection instrument would ideally measure what the researcher actually intended to measure (Christensen and others, 2011). It was commented that the scales appeared to be measuring (i) AIDS-related knowledge of the students, (ii) students' levels of risk perceptions, and (iii) the behaviour associated with the risk of HIV infection.

3.5 Research limitations

The findings of this study should be viewed within the context of its limitations. The first limitation in this study was the use of a convenience sample: therefore, the findings of this thesis cannot be generalised. Administrative issues such as time and financial constraints limited the pursuit of more pertinent issues in this research. For instance, the researcher opted for outcome evaluation when impact would shed more light into the issues surrounding HIV/AIDS and interventions intended to curb it. Furthermore, distance and ethical obligation not to interfere with the organisational duties of the colleges in which the survey was carried out, were limiting factors in this research. The above-mentioned constraints also led to methodological limitations. That is, inadequate budget and the set deadline for submission of the research report compelled us to confine the study to one research method, when mixed method would provide more insight concerning the subject. The projection of 800 participants was unattainable due to the sensitivity of the questions, resulting into students withdrawing from participation.

4 PRESENTATION OF FINDINGS

This chapter sets out to achieve two main objectives. First, we generally and more broadly present and describe the findings of the research. Lastly, we run the research hypothesis tests and present the subsequent results. Specifically, the chapter is limited to addressing the three research questions and their accompanying hypotheses presented in Chapter 1. The questions we posed are: 'What are FET students' levels of knowledge regarding HIV/AIDS?'; 'What are students' perceived risks concerning HIV infection?' and finally, 'What are the FET students behaviours associated with the risk of acquiring HIV?' Lastly and most importantly, we hypothesised that the HIV/AIDS knowledge among FET students is high because of AIDS policy-based interventions; and that the HIV/AIDS risk-perceptions of FET students are high because of AIDS policy-based interventions. The last hypothesis was that the responsible health behaviours of FET students are low despite AIDS policy-based interventions.

To this end, this chapter presents the findings pertaining to each question of the research. That is, Section 4.1 focuses on the first question and its accompanying hypothesis; Section 4.2 looks into the second question and its hypothesis when Section 4.3 pursues the last question and its subsequent hypothesis. Specifically, each section ends with hypothesis testing in which we use a Linear Regression Hypothesis Test, and the description of test results.

4.1 Levels of HIV/AIDS knowledge among Further Education and Training students

With reference to HIV/AIDS-related knowledge, the paper has divided its findings into two sets of variables—the first being the established facts about the epidemic when the second is a set of variables on misconceptions concerning HIV/AIDS.

4.1.1 AIDS-related knowledge—established facts

Concerning the established facts, six questions on HIV transmission dynamics were used to assess the participants' knowledge on HIV/AIDS. The questions inquired whether HIV can be transmitted through sexual contact, blood transfusion, mother to child transmission during birth, tattooing and piercing objects, and using unsterile needles. The last question posed to assess the participants' knowledge on the modes of

transmission was whether HIV individuals infected with STI are more likely to transmit HIV through sex. To this end, Figure 7 below—in which all 'Yes' choices are the correct responses—presents how the participants performed in this assessment.

Figure 7: Showing students responses on facts about HIV/AIDS

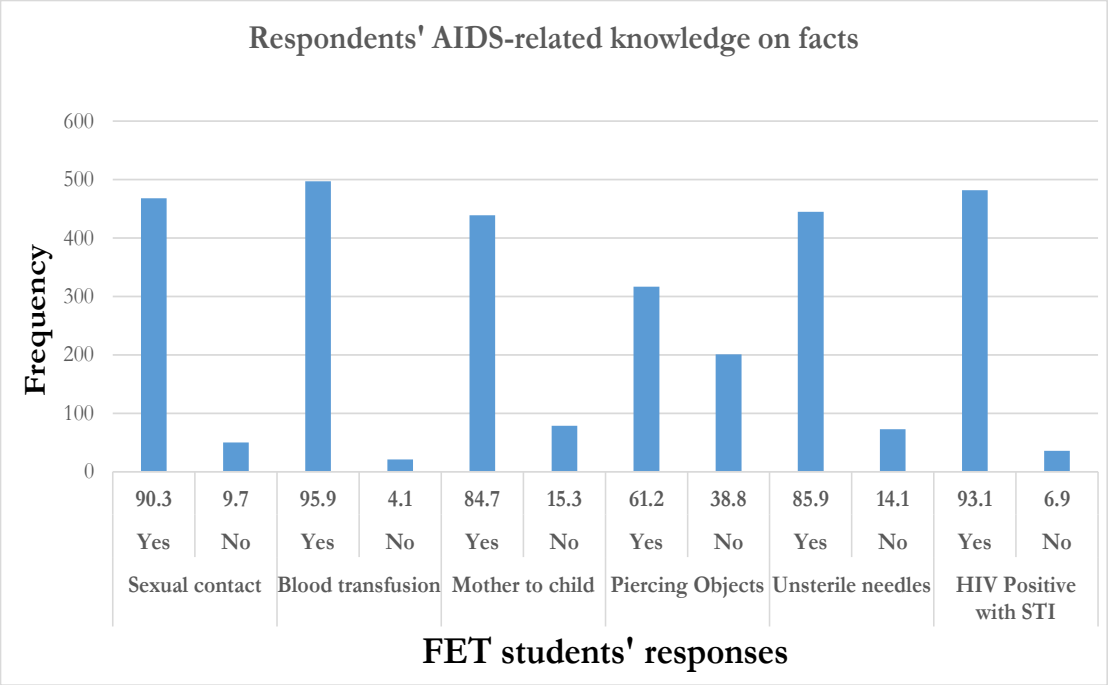


Figure 7: Frequency distribution of the FET students' responses on established facts about HIV/AIDS pandemic

As indicated in Figure 7, the levels of HIV knowledge with regard to transmission dynamics are significantly high at 85.2 per cent on average. The scores for correct responses are very high in comparison with the scores for the wrong answers. These corroborate the views of and are in line with the results of evaluation studies conducted in South Africa (Magnani and others, 2005), Ukraine (Kyrychenko and others, 2006), and China (Cheng and others, 2008) in which comprehensive knowledge was observed among the participants.

4.1.2 Misconceptions on HIV/AIDS

Six statements were posed to assess the FET students' levels of knowledge regarding the common misconceptions surrounding the issue of AIDS. The participants' task was to choose whether the statements were true or false. The statements carried the ideas that

body fluids, casual contacts and sharing eating utensils transmit HIV. They went further to assess the respondents' knowledge on whether infected people can be identified by the way they look, adults being more vulnerable to infection than young people, and people not being at risk of infection when sleeping with virgins. The correct choices were 'No' or 'False' throughout. This set of AIDS-related knowledge is presented in charts and tables.

To start with, Figure 8 below presents the students' scores on whether mosquito bites and body fluids such as tears, sweat, and urine can transmit HIV from one person to another.

Figure 8: Presenting responses on whether mosquito bites and body fluids transmit HIV

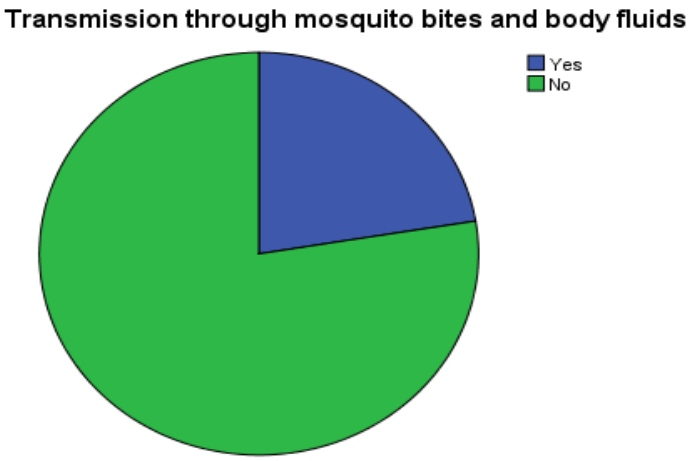


Figure 8: Frequency distribution of respondents' knowledge on whether mosquito bites and body fluids transmit HIV

As Figure 8 indicates, 77.6 per cent of the respondents (N=402) knows that mosquito bites and body fluids such as tears, sweat, and urine do not pose any danger of transmitting HIV from one person to another. Only 22.4 per cent are of a view that HIV can transmit through them. This finding is consistent with the results in Tung and other (2008)'s study reviewed in Chapter 2, in which approximately a quarter of the participants was of a view that mosquito bite, sharing toilets and swimming pools with people living with HIV/AIDS could pose an infection risk.

Further, the respondents were asked to indicate whether casual contacts as indicated in Table 2.1 below can transmit HIV from one person to another. Their responses are presented below.

Table 2.1: Respondents' knowledge on whether casual contacts transmit HIV

People can get HIV transmission through casual contacts such as hand shaking, hugging and sharing toilet		
	Frequency	Percent
Yes	22	4.2
No	496	95.8
Total	518	100.0

As demonstrated in Table 2.1, less than tenth of the respondents (N=22) are of a view that hand shaking and sharing the toilet seats with people living with HIV/AIDS puts them under infection risk. More than 95 per cent is knowledgeable that these contacts do not pose any risk of infection. Following the casual contacts was the statement measuring the respondents' knowledge on whether sharing eating utensils can transmits the virus. The respondents' scores are as presented in Figure 9 below.

Figure 9: Presenting students' scores on whether sharing eating utensils can transmit HIV

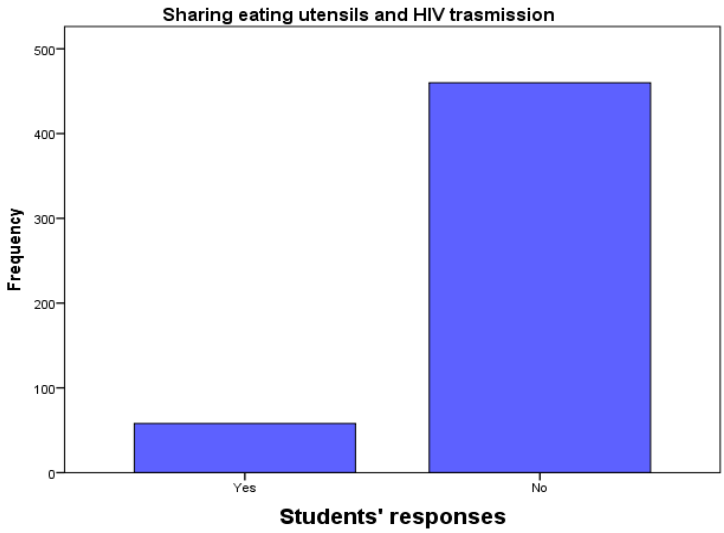


Figure 9: Frequency distribution of students' responses on whether eating utensils can transmit HIV from one person to another

The majority of the FET students (88.8%) know that sharing eating utensils with people living with HIV/AIDS cannot expose them to any risk of HIV infection. The scores reveal that a small number of respondents (N = 58) was of a view that sharing eating utensils increases their risk of contracting HIV (Figure 9).

The next question was on the possibility of identifying people who are infected with the virus just by the way they look. Table 2.2 presents the FET students' scores for this challenge.

Table 2.2: Respondents' knowledge on whether looks can reflect HIV status

It is possible to know whether a person is infected with HIV by the way they look		
	Frequency	Percent
True	91	17.6
False	427	82.4
Total	518	100.0

According to the findings in Table 2.2, the majority of the respondents are aware that the way people look cannot determine whether they are living with the virus or not. However, 17.6 per cent of those who believe this myth is still high, given the concerted effort that has since been put into the campaign against HIV epidemic (Roux and others, 2005). Figure 10 below indicates the students' knowledge on whether young people are less vulnerable to HIV than the old ones.

Figure 10: Showing students' knowledge on whether adults are more likely than young people to contract HIV

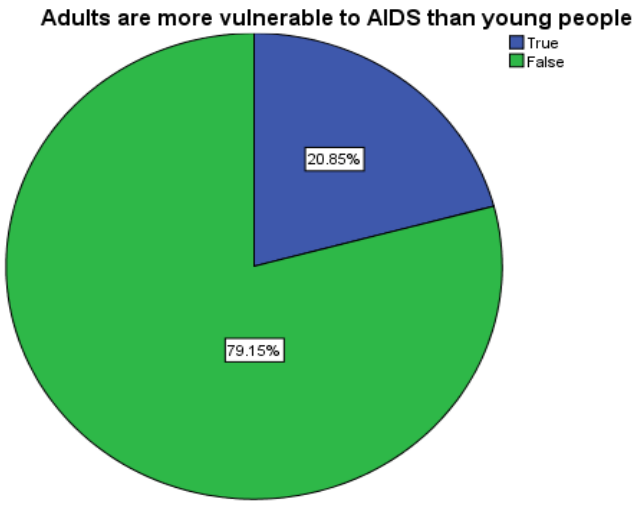


Figure 10: Percentage distribution of FET students' responses on whether adults are more vulnerable to AIDS than young people are

More than two thirds (79.2%) of the respondents are knowledgeable of the fact that adults and young people alike are vulnerable to HIV infection if they are exposed to the virus or if their behaviour is associated with the risk of acquiring HIV.

With regard to the common misconception that sleeping with virgins is safe, Table 2.3 below shows the participants' scores.

Table 2.3: Responses on whether virgins can transmit HIV

You don't get HIV from sleeping with a virgin		
	Frequency	Percent
True	88	17.0
False	430	83.0
Total	518	100.0

As reflected in Table 2.3 above, the number of respondents believing a myth that people cannot contract HIV when sleeping with virgins was high at 17 per cent.

4.1.3 Hypothesis testing for AIDS-related knowledge

The hypothesis framed for this section of the study was: 'The HIV/AIDS knowledge among FET students is high because of AIDS policy-based interventions'. In essence, we assumed that the implementation of the AIDS policy-based interventions in the sector has led to acquisition of adequate knowledge among the students. To have this hypothesis tested, we used a Linear Regression Hypothesis Test to determine if at all there is an existing relationship between the intervention in question and the increase in knowledge among FET students, using levels of Education as independent variable and all 12 measures of knowledge as dependent variables. ANOVA Table 1 below presents hypothesis results.

ANOVA Table 1: Linear Regression Hypothesis Test Results for AIDS-related knowledge

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.054	12	.504	2.091	.016[b]
	Residual	121.823	505	.241		
	Total	127.876	517			

In line with the ANOVA Table for the linear regression (F(12,505) = 2.091, P=0.016), there was relation between the independent variable, 'Level 3 and Level 4 students" and 12 dependent variables measuring AIDS-related knowledge. Since the probability of the

F statistic (P=0.016) was less than the level of significance (0.05), the null hypothesis was rejected in favour of the research hypothesis.

To this end, the research hypothesis that 'The HIV/AIDS knowledge among FET students is high because of AIDS policy-based interventions' was supported. Model Summary Table 1 presents the Correlation Coefficient (R) results for AIDS-related knowledge.

Models Summary Table: Correlation Coefficient for the test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.218[a]	.047	.025	.491

Based on the Model Summary Table, which presents the significant F-test results, the Correlation Coefficient (R) that is sitting at 0.218 was interpreted. The relationship between the variables was characterised as very weak, based on the fact that 0.0-0.20 is considered very weak; 0.20-0.40 is weak; 0.40-0.60 is moderate; 0.60-0.80 is strong and anything above 0.80 is very strong (Salkind, 2010; Williams, 2015).

4.2 Levels of HIV/AIDS risk-perception among Further Education and Training students

In this section, we present the findings on whether the FET students perceive themselves as being highly at risk of contracting HIV. Perceived risk of HIV infection was measured with a single variable: 'how possible do you think you can contract HIV?' The findings of this study in this outcome measure did not corroborate the assertion that high levels of AIDS-related knowledge would lead to high risk perceptions among the respondents (Ibrahim and other, 2012; Lewis, Malow and Ireland, 1997), neither were they in consistent with the findings of many past studies reviewed in Chapter 2 of this research. As shown in Figure 11, the students' Likert scale ranging from 1 – 5 shows scores of the respondents: not at all (25.7%), likely (15.8%), do not know (37.5%), very likely (12.3%), and certain (8.7%).

Figure 11: Showing students' scores on risk perceptions

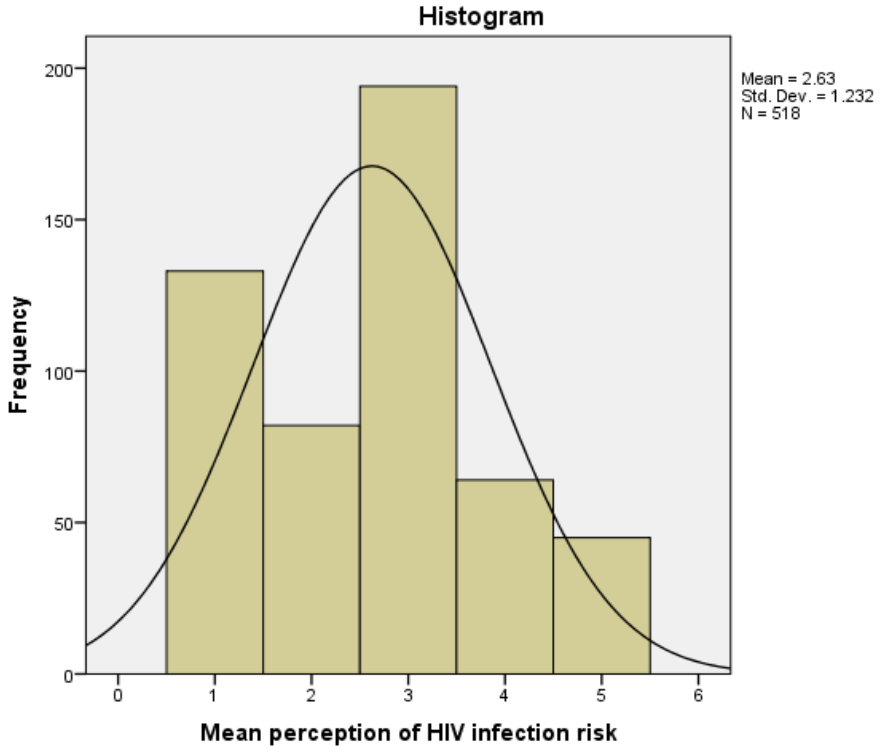


Figure 11: Frequency distribution of students' perceived risks of acquiring HIV

As Figure 11 indicates, the majority of the mean scores of the respondents are at scale midpoint of 3, with the graph almost skewed to the right. The scale mean stands at M=2.63 with SD=1.232. This shows that most respondents thus have low risk perceptions of contracting HIV.

4.2.1 Hypothesis testing for the perceived risk of being infected with HIV

For perceived risk of getting HIV/AIDS, we hypothesised that: 'The HIV/AIDS risk-perceptions of FET students are high because of AIDS policy-based interventions'. In fact, we were of the view that exposure to AIDS education would ultimately increase HIV/AIDS risk perceptions among the students (Kayiki and Forste, 2011; Andersen, 2012; UNESCO, 2008). Similarly, we used Linear Regression Hypothesis Test to examine if at all the intervention was able to increase perceived risk of contracting HIV among the students. Owing to the fact that Linear Regression test assesses whether or not there is relationship between the variables (Salkind, 2010; Williams, 2015), we examined if the relationship between the FET students and high-risk perceptions existed. ANOVA Table 2 below presents the results of hypothesis test.

ANOVA Table 2: Linear Regression Hypothesis Test Results.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.031	1	.031	.140	.708[b]
	Residual	113.483	516	.220		
	Total	113.514	517			

Based on the ANOVA Table for linear regression (F(1,516) = 0.140, P = 0.708), there was no relationship between the dependent variable 'FET students' and the independent variable 'how possible do you think you can contract HIV?'. Since the probability of the F statistic (P =0.708) was greater than the level of significance (0.05), the null hypothesis of coefficient (R=0) was not rejected.

So, the research hypothesis that 'The HIV/AIDS risk-perceptions of FET students are high because of AIDS policy-based interventions' was NOT supported. Since the hypothesis test results showed no relationship between the variables, the Correlation Coefficient (R) could not be interpreted.

4.3 Students' levels of behaviour associated with the risk of acquiring HIV

This section presents the research findings on the FET students' behaviour associated with the risk of acquiring HIV. We used six questions to assess the intervention outcomes on behaviour, with questions having the minimum of 3 and the maximum of 5 response choices. In each question, only one response choice is indicative of healthy and responsible behaviour. The findings in this section are presented in graphs and tables to indicate the respondents' scores for each question.

The first question under behaviour was: 'What forms of sexual activities do you prefer?' Figure 12 below shows the respondents' choices.

Figure 12: Presenting scores on preferred forms of sexual activities

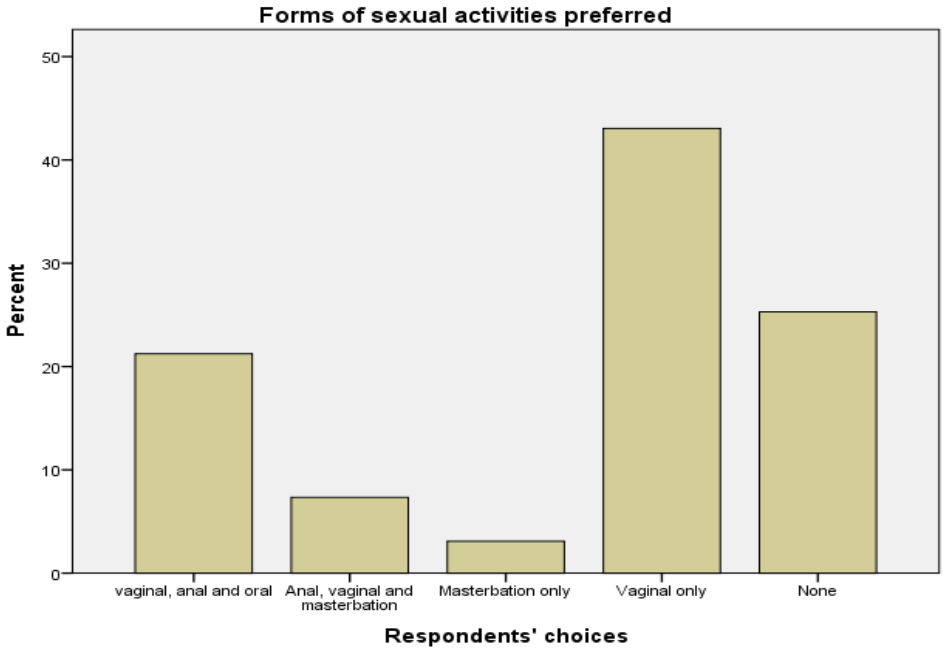


Figure 12: Percentage distribution of students' response choices on the preferred forms of sexual activities

On average, 71.6 per cent of the responses (N=371) are in the category of risky sexual activities, that is, response choices 1, 2 and 4. The response choices, 3 (masturbation) and 5(none) constitute only 28.4 per cent of all the respondents' scores when they are considered safe sexual practices that put no one at risk of contracting the virus.

The second question was on the number of sexual partners. Table 3 below presents the study findings for this question.

Table 3: Students responses on the number of sexual partners

How many sexual partners do you have in life?		
	Frequency	Percent
One	330	63.7
Two	66	12.7
Three	36	6.9
Four and more	26	5.0
Unknown	60	11.6
Total	518	100.0

Based on Table 3, the majority of students (N=330) have one sexual partner. However, less than 37 per cent of the respondents falls within promiscuous way of living as the scores indicate that they have concurrent multiple sexual relationships. Similar to other

two studies conducted on African soil, this study experiences a downward trend of positive results from the first outcome measure, to perception and then behaviour (Magnani and others, 2005; Ojikutu and others, 2010).

The third questions was: 'I only have unprotected sex with someone…' Figure 13 below shows the respondents' scores for this question.

Figure 13: Showing scores on who the respondents have unprotected sex with

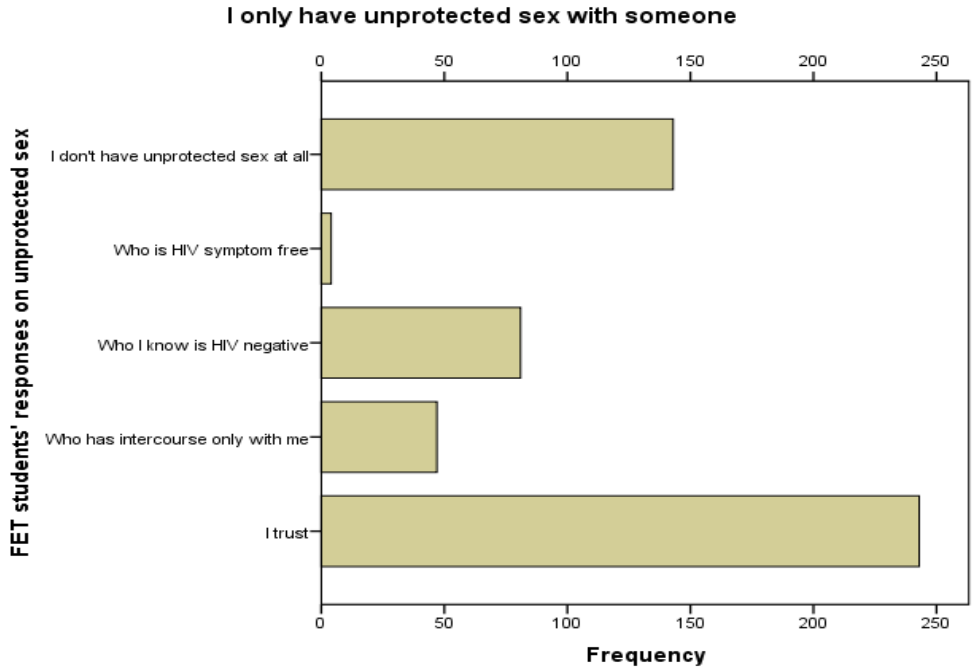


Figure 13: Frequency distribution on who the respondents have unprotected sex with

The majority of the respondents (72.4%) agreed to be engaging in unprotected sex. Their fear-provoking answers that they had unprotected sex with someone—"I trust (46.9%); who has intercourse only with me (9.1%); whom I know is HIV negative (15.6%); who is HIV symptom free (0.8%); and I don't have unprotected sex at all (27.6%)"—served as a confirmation of Magnani and others (2005)'s argument. The authors' viewpoint is that life skills education should—more than ever before—be aimed at influencing health-seeking behaviours. These are consistent with the findings of the studies contacted in Nigerian tertiary institutions (Ojikutu and others, 2010) and Turkish University (2012) in which knowledge of AIDS did not appear to have any influence on sexual habits.

The fourth statement examined the students on safety measures they employ when using the cutting or piercing objects. Their responses are shown in Figure 14 below.

Figure 14: Showing scores on who the students share cutting or piercing tools with

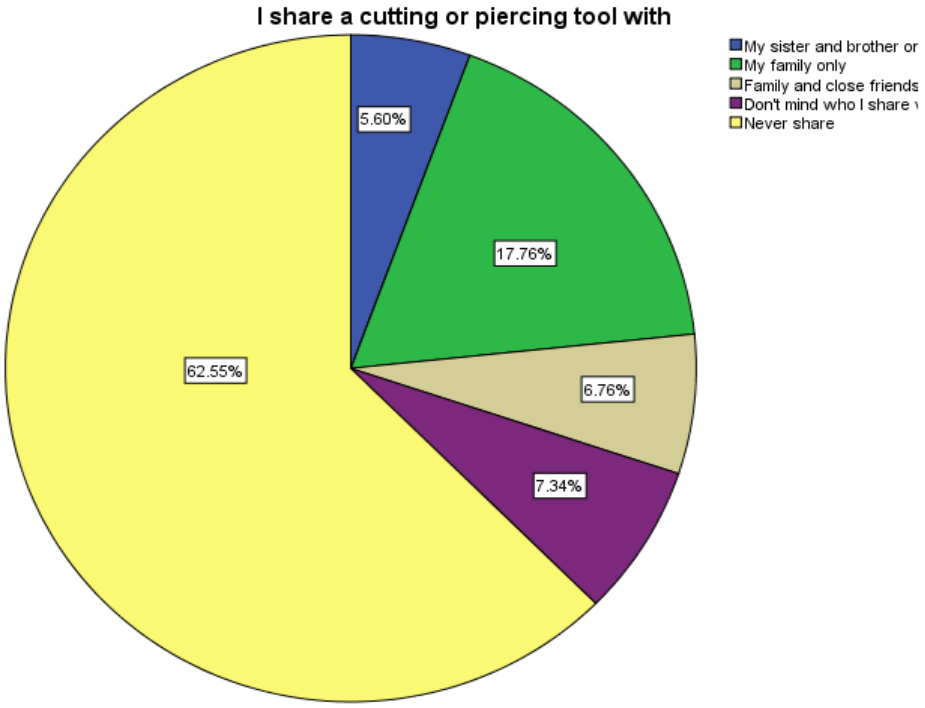


Figure 14: Percentage distribution of the students' responses on who they share the cutting or piercing objects with

More than half of the respondents (N=324) do not share the cutting or piercing objects with any person, which is a commendable behaviour. However, more than one third of those who admitted sharing piercing objects is still too high considering the prevalence rate of HIV in the country (Simelela and Venter, 2014; Petros, 2014).

In the fifth question, the participants were required to disclose how often they use alcohol in their lives. Figure 15 represents how they fared in this assessment.

Figure 15: Presenting scores on the frequency of alcohol use

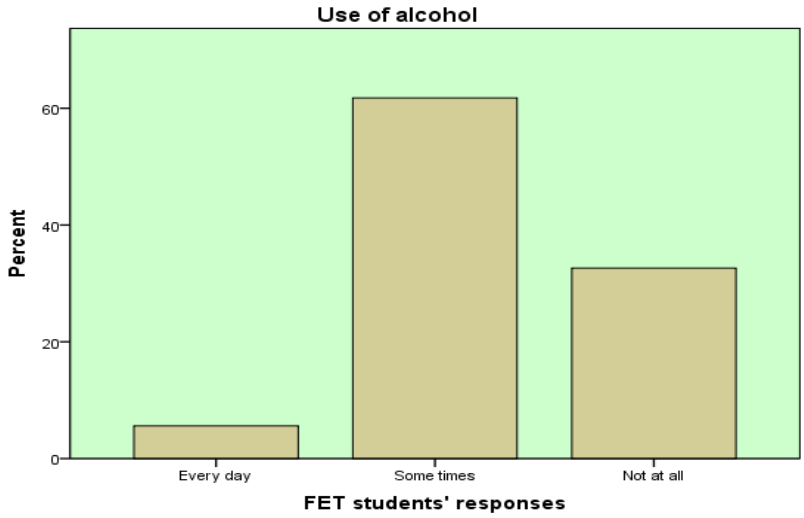


Figure 15: Distribution of the respondents' use of alcohol

As indicated in figure 15 above, more than 67 per cent of the respondents (N=349) agreed to using alcohol. Only 32.6 per cent of the students (N=169) disclosed not to be using alcohol at all.

The last question assessed students on the rate at which they use illicit drugs. Figure 16 shows the respondents behaviour when it comes to the use of substance.

Figure 16: Depicting the scores on the use of forbidden drugs

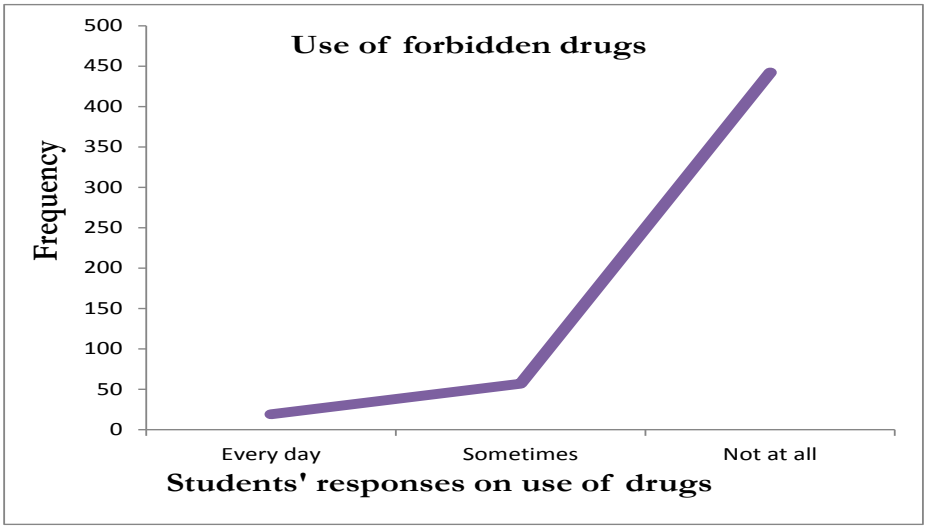


Figure 16: Frequency distribution of the respondents' use of illicit drugs

As scores indicated in Figure 16 above, 19 respondents (3.7%) used drugs every day, 57 respondents (11%) use illicit drugs some times when 442 students—constituting 85.3 per cent disclosed not using forbidden drugs at all.

4.3.1 Hypothesis testing for behaviours associated with the risk of acquiring HIV

With regard to AIDS-related behaviour, we hypothesised that: 'The responsible health behaviours of FET students are low despite of AIDS policy-based interventions'. In essence, our assumption was that the interventions had no influence on behaviour change among the students. Using male and female students as the independent variable, we ran a Linear Regression Hypothesis Test to determine the relationship between the variables, that is, FET students and all the six variables measuring behaviour. ANOVA Table 3 below presents the SPSS results.

ANOVA Table 3: Linear Regression Hypothesis Test Results for behaviour associated with the risk of infection

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.714	6	2.952	15.126	.000[b]
	Residual	99.738	511	.195		
	Total	117.452	517			

As revealed in the ANOVA Table for the linear regression ($F(6,511) = 15.126$, $P<0.001$), there was no existing relationship between the FET students as independent variable and a set of six dependent variables measuring behaviour. Since the probability of the F statistic ($P=0.001$) was less than the level of significance (0.05), the null hypothesis that correlation coefficient ($R=0$), was rejected in favour of the research hypothesis.

The research hypothesis that 'The responsible health behaviours of FET students are low despite AIDS policy-based interventions' was retained. Owing to the fact there is no relationship, the Correlation Coefficient (R) could not be interpreted and characterised.

To summarize, the research findings indicate that the AIDS policy-based interventions were successful in one outcome measure, being AIDS-related knowledge. The respondents' scores were significantly high on both established facts and misconception about the epidemic. With regard to the other two outcome measures, the FET students had low risk perceptions, and demonstrated indulgence in risky behavioural practices. This confirms Dyk (2005)'s view that people can practice safe sex when they see themselves as being highly at risk of infection—meaning that there is a strong correlation between perception and practice (Section 5.2). Although one research hypothesis was not supported, all the research hypothesis tests were in line with the research findings.

5 DISCUSSION OF RESULTS

Generally, this chapter sets out to discuss the research findings presented in Chapter 4 using the theoretical frameworks detailed in Chapter 2. That is, the chapter uses frameworks in Section 2.6 to interpret the meaning of the empirical findings on: (i) levels of HIV/AIDS among the FET students, (ii) levels of HIV/AIDS risk-perceptions among FET students, and (iii) behaviour associated with the risk of acquiring HIV/AIDS among the FET students. Specifically, Section 5.1 interprets the results of the three research questions and their accompanying hypotheses using the theory of change detailed in Chapter 2. That is, we judge the actual outcomes against the outcomes sought and identify the unintended results. In Section 5.2, we use the Knowledge Deficit Model and the Health Belief Model to explain the research findings. Lastly, we explain AIDS intervention paralysis in the context of monitoring and evaluation to determine the possibility of the intervention arriving at the intended results (Section 5.3).

5.1 Interpretation of the research findings using the theory of change

In Section 2.6 of this paper, we uncovered the theory of change for the AIDS policy-based interventions and analysed it in the context of the FET Sector. In this analysis, we stated key assumptions underlying the theory—culminating in the theory of change showing precisely how the intervention was intended to produce the desired outcomes. Judging the intervention results as they are against what they should be, this section zooms into what was set to change in order to compare the actual outcomes of the intervention to the anticipated ones. First, we briefly locate the theory within the broader understanding of the intervention and state the required change in order to establish a solid basis for measurement, interpretation and discussion (Bamberger, Rugh, and Mabry, 2006; Vogel, 2012). Second, we look into the assumptions related to the theory to determine the deviations in the actual outcomes as compared to the intended ones. Lastly, we analyse the intervention results in terms of the results chain for policy intervention and its accompanying results framework to establish the shortfalls of the intervention and unintended outcomes.

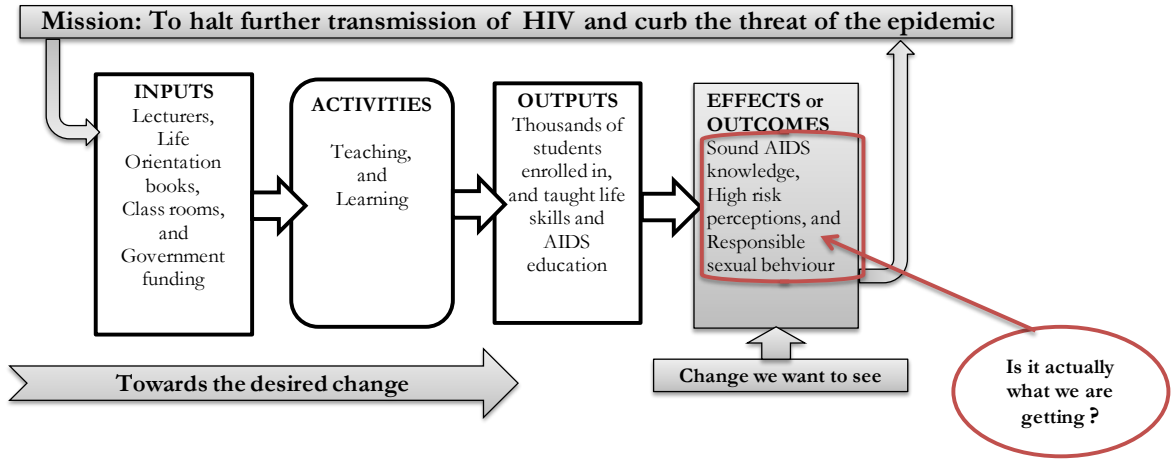
5.1.1 Locating the theory of change within the broader understanding of the AIDS intervention

As indicated in Chapter 2 of this thesis, the theory of change for AIDS policy-based interventions serves as a functional tool for mapping out the sequence of the intervention (Vogel, 2012; Bamberger and others, 2006). It is understood within the context of the intervention. That is why the mission of the intervention—which is 'to expand knowledge in order to combat the spread of HIV/AIDS among young people'—marks the starting point for the theory of change in explaining the steps that need to be followed in order to have knowledge expanded and the spread of HIV halted (Valters, 2014; Government Gazette, 1999). In other words, there is no theory of change without initiative. At the same time how the intervention is intended to produce the outcomes and impacts is blurry without the proper theory of change (Vogel, 2012).

In this study, measuring the students' levels of knowledge, risk perceptions and behaviour associated with danger of contracting HIV was a more potent method of determining whether the AIDS education in FET curriculum was an efficient essential policy action. This is so because knowledge, perceptions and behaviour are strong pillars in the implementation of the initiative and serve as ultimate indicators of intended change as indicated in Figure 16. To this end, they are central in the interpretation of the research findings. In order to correctly interpret the actual outcomes against the desired ones; it is important to understand how—according to the theory of change—the intervention got us where we are.

Figure 16 below presents the model of how the steps in the initiative should be carried out in order for the intervention to yield the intended outcomes (Vogel, 2012).

Figure 17: Presentation of the change the intervention is intended to make and how it is expected to make it occur



Source: Developed from Margoluis and others (2013)

The figure explains how the implementation process of AIDS policy-based intervention in FET got to this stage where comparison can be made. It therefore establishes the basis for measurement which finally enables us to judge 'the change we have' against 'the change we want to see' and conclude whether our research findings are anywhere near the intended outcomes. This marks the point of departure in this section of the paper. Chapter 4 of this thesis has shown scores demonstrating ineffective or failure on the part of AIDS policy-based interventions implemented in FET colleges. The following Section (5.1.2) interprets the findings of this study in terms of the assumptions underpinning the intervention.

5.1.2 Theory of change and assumptions underpinning the AIDS policy-based interventions

Based on the results of the study—most of which are not in line with the theory of change—our results interpretation follows a logical sequence of the assumptions underpinning the intervention in order to determine where and how the actual results started deviating from the intended ones. Owing to the dependency of one assumption on another, the assumptions related to the theory of change are dealt with in their order in the subsequent paragraphs.

5.1.2.1 Integrating HIV/AIDS into the curriculum will result into students having comprehensive knowledge about the epidemic

As a response mechanism to the threat of HIV/AIDS, campaigns intended to raise awareness and expand knowledge have always been part of the AIDS prevention agenda (Education Labour Relations Council, 2003; Roux and others, 2005). In harmony with the theory of change, the research findings confirmed this assumption. FET students demonstrated high levels of AIDS-related knowledge with regard to transmission routes and misconceptions about the HIV/AIDS pandemic. Based on the scores of the first set of six questions that measured modes of transmission, levels of HIV knowledge were as significantly high at 85.2 per cent on average. However, the percentage number of students who answered 'NO' to whether one should be concerned about HIV if one is getting a tattoo or piercing was alarmingly high at 38.8 per cent. This was concerning in the South African context, given the growing popularity of body tattooing and piercing worldwide (Fisher, 2002) and the shocking epidemiological conditions of HIV/AIDS in South Africa when this study was conducted (Petros, 2014; South African National AIDS Council, 2011).

Relatedly, the scores on misconceptions about HIV/AIDS reflected comprehensive knowledge on the part of FET students. On average, misconceptions gave the score of 84.5 per cent of correct response choices. The common misconception such as mosquito bites and body fluids like tears (77.6%), and sharing eating utensils transmitting HIV (88.8%), people not getting HIV when sleeping with virgins (83%) had less than expected scores. These findings are consistent with those in Tung and other (2008) in which people even believed that being Asians made them immune to infection.

5.1.2.2 Being knowledgeable of HIV/AIDS will increase young people's risk perceptions

It is quite logical to believe that awareness and knowledge of AIDS would sharpen the students' perceptive powers to the point where they realise that acquiring HIV can happen in a split second. However, the results of this study did not confirm the claim. Contrary to what the theory of change has stipulated, the FET students did not see themselves as being highly at risk of contracting HIV. The frequency distribution of the students' response choices (Figure 11 in Chapter 4) indicated that, those who did not at all perceive themselves as being highly at risk of contracting HIV constituted 25.7 per

cent of the respondents. The students who answered 'likely' constituted 15.8 per cent when the neutral scale midpoint of 3 marked a safe haven for the majority of the respondents (37.5%) who neither had low risk perceptions nor saw themselves as being highly at risk of HIV infection. From the response choice—'very likely (12.4%)' to 'certain (8.7%)'—a tremendous decline in number of respondents was observed. This was indicative of low risk perceptions among the FET students.

This disturbing finding—which suggests how students' behavioural choices are likely to be—is similar to a study conducted in a Tanzanian University in which the students' risk perceptions were relatively low (Jeckoniah, 2013). Further, low perceived risk of HIV/AIDS suggests a possibility of high magnitude of risky behaviours as literature warns of a strong positive correlation between risk perceptions and risky sexual behaviour (Akwara, Madise, and Hinde, 2003), which actually suggests that low risk perceptions can lead to people indulging in risky sexual behaviour.

5.1.2.3 Risk perceptions will shape HIV/AIDS-related behaviours and change attitudes of young people towards people living with HIV/AIDS

The logical sequence of assumptions creating a chain in AIDS preventative strategy comes to a sudden halt. A transition from perceptions to behaviour stipulated in the theory of change is broken by the results of the study. Since the FET students demonstrated low levels of perceived risk of acquiring HIV, there is no linkage between perceptions with behaviour in the findings of this study. With the link between perceptions and behaviour broken, the chances of knowledge fostering healthy behavioural practices (Selesho and Modise, 2012) are blurry, given that people change their behaviour when they see the seriousness of contracting illness (Janz, and Becker, 1984). Therefore, AIDS-related knowledge becomes the only outcome measure whose influence on behaviour is likely and this is discussed in the subsequent assumptions.

5.1.2.4 If people are knowledgeable about the consequences of risky sexual practices, they will change their sexual behaviours accordingly

This assumption is backed by Khoiron (2015)'s viewpoint that knowledge plays a major role in transforming behaviour. In the fight against HIV/AIDS, transformation of behaviour comes out as the central focus, and all efforts made to increase awareness, change attitudes and expand knowledge are intended at ultimately influencing behaviour change (Clack and others, 2000; Zungu and Manyisa, 2009). However, the research

findings reveal that risk reduction is relatively low among the FET students. Although caution and sensibility were minimally observed on the part of the respondents in that 330 out of 518 indicated to be in monogamous sexual relationships, the degree of concurrent multiple sexual partnerships were also shockingly high at 36.3 per cent. Relatedly, as heterosexual intercourse is reportedly the predominant mode of HIV transmission (Pettifor and others, 2011; Jeckoniah, 2013), the question on unprotected sex did not mark only the point of focus, but also the centre of attention in this study. Concerning this question, 72.4 per cent of the FET students agreed to be engaging in unprotected sex. This finding was shocking, considering the status on AIDS in the country which is characterised by high incidence and prevalence rates (Simelela and Venter, 2014; Petros, 2014). Contrary to the theory of change, the intervention appears unsuccessful in promoting safe and healthy sexual relationships as well as responsible decision-making among the college students (Selesho and Modise, 2012).

5.1.2.5 Responsible sexual behaviour will ultimately halt further transmission of HIV among the youth nationwide

Behaviour change that can ultimately have a significant nationwide effect on HIV transmission rate depends largely on the amount of influence the intervention has on risk perceptions (Section 5.1.2.2) and behavioural practices (Section 5.1.2.4). Unfortunately, the research findings indicated no connection between knowledge, perceptions and behaviour—thereby revealing a blurry prospect of having further transmissions halted and the AIDS situation reversed. The current thinking and implementation strategies do not seem parallel with the individual's description of risk, and consequently failing to appeal to youthful students in the manner that would influence their sexual habits. The observed failure of the intervention to yield the stated outcomes suggests the presence of unintended results, which are the focus of the next Section (5.1.3).

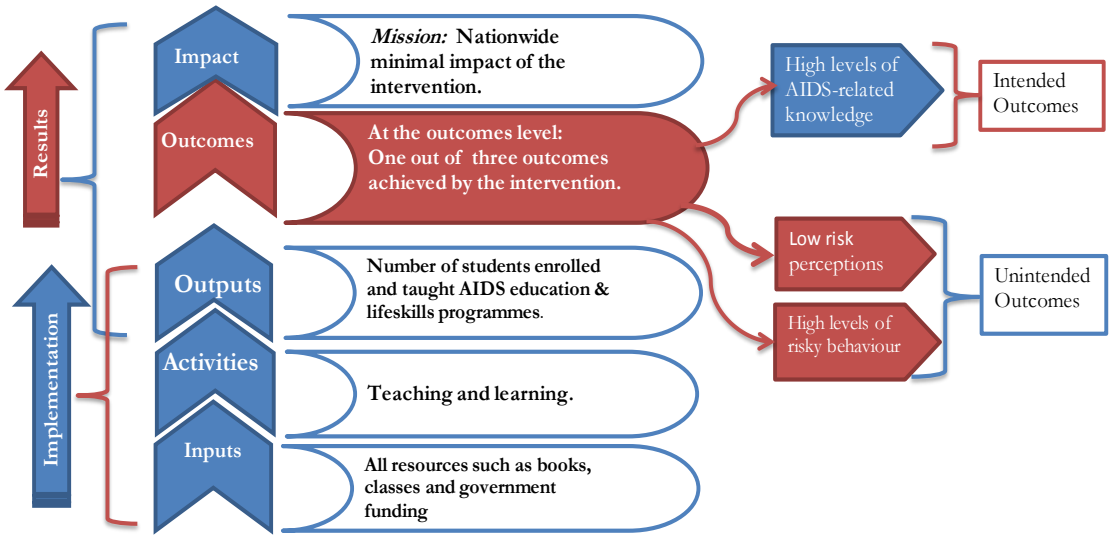
5.1.3 Perceived unintended outcomes of the AIDS policy-based interventions

In this section of the paper, we look into the research findings in the light of the intervention's results chain and its accompanying results framework to establish the shortfalls of the intervention and unintended outcomes. In doing so, we present what

was achieved against what was intended. As indicated earlier in this paper, the results chain clarifies the assumptions about how AIDS policy activities should contribute towards achieving increased knowledge of AIDS, risk perceptions, and behaviour change (Thomas and Luo, 2011; Clack and others, 2000).

Further, success of the intervention hinges on the results chain showing the existing relationship between the inputs, activities, outputs, outcomes and impacts (United Nations Development Group, 2010), and actions taken accordingly at every level of the results chain (Bester, 2012). Figure 18 presents the interpretation of the research findings in the light of the results chain and its results framework underlying the theory of change, showing how the linkage between the results chain items led to the unintended outcomes.

Figure 18: Conditions contingent to success of the intervention



Source: Developed from NORAD (1999), Kusek and Rist (2004), as well as Gorgens and Kusek (2010)

The figure above demonstrates where the intervention begins to lose touch with the theory of change and anticipated order of results chains and its accompanying framework. Literature has revealed that when the results chain has the missing elements or broken linkages, the prospect of reaching the outcomes sought is very blurry and almost unlikely (Thomas and others, 2011). According to the research findings, the

outcomes sought seem to influence the actions in the results chain up to the output level only. That is, students enrolled and taught AIDS education and Life-skills programme. Beyond the output level there is a missing element as the outcomes reached are too distant, and of course a direct opposite of the outcomes sought—hence a broken chain.

Relatedly, it is probably the case of inputs and activities producing a set of outputs which in turn fail to produce a chain of effects that would influence the final outcome sought (Mayne, 2007), resulting in two perceived unintended outcomes. As shown in the figure above, the desired results both at outcome and impact levels still remain the goals to achieve not goals achieved as the research results reveal that the intervention is not anywhere near the set goals. With current strategy coupled with inability of the FET students to translate knowledge into practice, the prospect of the required change at impact level—the nationwide significant reduction of HIV—is still miles away.

5.2 Using the Knowledge-Deficit Model and the Health Belief Model to explain the research findings

One of the implicit assumptions in the Knowledge-Deficit Model is that "action causes knowledge" (Schultz, 2002, p. 70). In the context of AIDS interventions, this assumes that an individual's exposure to HIV/AIDS content increases the amount of AIDS knowledge in that person. Based on this assumption and the findings of similar research and evaluation studies reviewed in Section 2.3, we hypothesised that the results of this research would show a significant relationship between 'exposure to AIDS content' and 'knowledge'. In essence, we assumed that the students' exposure to AIDS education has led to acquisition of adequate knowledge of AIDS in FET Sector.

Relatedly, comprehensive knowledge of HIV/AIDS among the FET students in the research findings (Chapter 4) and hypothesis test results confirmed the logic in and relevance of the assumed connection in the Knowledge-Deficit Model. The P Value in the ANOVA Table 1 sat at 0.016, as such less than the level of significance ($P<0.05$), thereby justifying the logic behind the AIDS initiative. Explicitly, research findings and hypothesis results confirmed: (1) the existing relationship between the research variables, (2) the assumed relationship between action and knowledge in the

Knowledge-Deficit Model, and of course (3) theory of change's claim that the intervention is succeeding in expanding knowledge in FET Sector (Section 5.1.2.1).

Furthermore, risk perception is the linchpin of the Health Belief Model. In Chapter 2 of this thesis, we indicated that the Health Belief Model requires implementers to communicate that HIV/AIDS is serious, everyone is at risk of acquiring it, and there are benefits to one changing their risky behavioural practices (Janz and Becker, 1984). In this submission, it is inferred that knowledge correlates with risk perceptions. In other words, knowledge of AIDS should sharpen an individual's perceptive powers and enable them to detect and discern the choices that might put them at risk of contracting the virus. We relied on this assumed relationship between knowledge and risk perception when we hypothesised that the HIV/AIDS risk-perceptions of FET students are high because of AIDS policy-based interventions.

Although research on a number of instances has consistently found knowledge to be increasing risk perceptions (Kayiki and Forste, 2011; Andersen, 2012; UNESCO, 2008), it was not the case in this study. The hypothesis test results in harmony with the research findings could not corroborate the assumed correlation between knowledge and perceptions. The hypothesis test results (ANOVA Table 2) had P Value at 0.708, as such more than the level of significance ($P>0.05$); thereby dismissing our claims and the assumption in the Health Belief Model that there is a relationship between the two as shown in Section 5.1.2.2. With the majority of the mean scores of the respondents at scale midpoint of 3, and the graph of histogram almost skewed to the right (Figure 18), it is apparent that the intervention is unsuccessful in increasing risk perceptions among the FET students and the assumed relationship does not hold according to the research findings.

Generally, the most important assumed connection in the Knowledge-Deficit Model is that "knowledge correlates with behaviour and that a well-designed education campaign can change beliefs and increase knowledge" (Schultz, 2002, p. 71). In the context of HIV/AIDS prevention, knowledge should enable an individual to realise their vulnerability to a negative health outcome and the benefits associated with responsible behaviour in order to change their behaviour accordingly (Janz and Becker, 1984; Jirojwong and MacLennan, 2003). This brings into light how the Knowledge-Deficit

Model and the Health Belief Model meet each other half way and work in collaboration in the ideal HIV/AIDS prevention situation. However, the research findings are not in line with this assumed connection.

Based on the escalating rate of pregnancy among the youth in FET colleges (Zungu and Manyisa, 2009) and results of the reviewed sources, our assumption in the hypothesis was that the interventions had no influence on behaviour change among the FET students, contrary to what the theories stipulate. In harmony with our assumption, the research findings and hypothesis test results proved that knowledge cannot consistently be a good predictor of behaviour. On a contrary, the hypothesis test results—where $F(6,51)=15.126$, $P=0.001$) and P Value less than the level of significance ($P<0.05$)—do not only dismiss the assumed relationship between knowledge, perception and behaviour in the Knowledge-Deficit Model and the Health Belief Model but also assumptions stipulated in the theory of change from Section 5.1.2.2 - 5.1.2.5. Apparently, knowledge is not always an accurate and consistent predictor of risk perceptions and behaviour.

5.3 Explaining AIDS intervention paralysis in the context of monitoring and evaluation to determine the possibility of the intervention arriving at the intended results

In Chapter 2 of this thesis, we highlighted that proficiency of HIV/AIDS interventions hinges on effective monitoring and evaluation system (Rossignoli and others, 2015). However, Chapter 4 reveals clearly that the intervention outcomes are not synonymous with 'proficiency' in two crucial outcome measures. This brings us to three roles of monitoring and evaluation system summarised in Gray and Schuller (2001), against which the intervention outcomes are finally judged. According to the authors, once the initiative has been implemented, it should be constantly monitored and evaluated to make sure that:

5.3.1 It has been efficiently and successfully implemented

In this study, we were able to diagnose the missing link between the outputs and outcomes of our intervention (Figure 18) and that the assumed connection between AIDS-related knowledge, risk perceptions and behaviour associated with the risk of getting infected (Section 5.2) is not confirmed by the research findings. Technically, the

research findings enabled us to identify just where the problem lies in the causal linkage of the results chain items. However, the evident problem could likely be more of a reflection of numerous contextual factors within and between the steps in the implementation phase, leading to identified missing elements or broken chain. This suggests lack of effective monitoring system sending signals about failure of the intervention (Kusek and Rist, 2004). For instance, literature revealed that lecturers in FET Sector have content knowledge but not industrial experience required (ETDP SETA, 2012). Therefore, failure on the lecturers' side to explain the AIDS concepts in depth and practical terms could constitute a proxy indicator because of which monitoring system would pick a problem at activities or output level. Identifying problems early in the implementation would definitely lead to correct implementation strategies that would ultimately lead to anticipated results, of which it is probably not the case in this intervention.

5.3.2 It is appropriately targeted at the problem

Appropriately targeting the intervention at the problem, in our language, requires a broader understanding of the problem as it is, feeling part of it and feeling responsible and committed to solving it. Contextually speaking, it means educators must have a clear understanding of the primary purpose (mission) of the intervention, view HIV/AIDS as a serious problem whose impact should be alleviated, and understand their role as the principal players in the campaign against HIV/AIDS. This can promote the atmosphere in which content delivery will be tailored towards meeting the objectives of the intervention, rather than being a simple presentation of factual information in which students just absorb content and regurgitate it out in the examination room without actually seeing the benefit of applying it in their lives.

Regrettably, high scores in AIDS-related knowledge preceding poor scores in perceptions and behaviour (Chapter 4) suggests the possibility of the implementers' intentions at ground level, slightly deviated from those of the policy designer. That is, prioritising 'passing' over 'applying' is the possible mistake, which probably paralyses the AIDS prevention intervention on a continual basis. That is why knowledge is high but practice low, and the outcomes sought remaining a difficult goal to reach, not to talk of the impacts intended.

5.3.3 It is having the anticipated impact upon the problem

Although there are prevention measures in place for HIV/AIDS infection and the resources channelled towards the right targets (Schneider, 1998; Wouters and others, 2009), the implementation and results appear not be parallel with each other. The problem is identified at the outcome or impact level, suggesting once again that effective monitoring system is required to identify and measure the indicators for unwanted results in the implementation stages of the intervention (Kusek and Risk, 2004). Lack of functional monitoring and evaluation systems means the problem is realised only when the impact is not what we anticipated.

With the current approach and policy implementation strategy, the possibility of the AIDS policy-based interventions arriving at the stated results is almost zero. To start with, the intervention is two down at outcome level; two important outcome measures (risk perception and behaviour associated with the risk of contracting HIV) proved unsuccessful. The intervention is obviously not benefiting the target population—which is indicative of the intervention failing in its course (Milstein and Chapel, 2013). Consequently, this reduces to almost zero, the possibility of realising the stated results at impact level (Figure 18).

6 SUMMARY, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

Technically, the main objective of this chapter is to present the lessons we learnt from conducting an outcome evaluation of AIDS policy-based interventions implemented in the South African FET institutions. First, we provide a detailed summary of the research (Section 6.1) in the light of what we promised in Chapter 1, in which we touch on the research problem, purpose statement, the main goal of each chapter and what has been accomplished, thereof. Second, we provide the main findings and conclusions of the study (Section 6.2). Lastly, we explicitly point out the limitations of this research and make practical recommendations based on the identified limitations (Section 6.3).

6.1 Summary

The thrust of this research was to evaluate the outcomes of Life-Skills and AIDS education in the FET Sector. Life-Skills and AIDS education were incorporated in the NCV curriculum as some of the AIDS policy-based interventions envisioned to prevent HIV transmission among the youth, particularly in the South African FET Sector (Education Labour Relations Council, 2003). Since its origin in early 1980s (Chicoine, 2012) the intensified onslaught of HIV/AIDS has constituted a serious threat to economic growth and social development as the epidemic has continued preying on the young and productive population (Petros, 2014: Mateus and other, 2005).

In the countries hard hit by HIV/AIDS like South Africa (Simelela and Venter, 2014), the education system is in a precarious state as the epidemic takes its toll on learners and educators alike (Stadler and others, 2008; Lyby 2010). Institutions of learning, particularly FET colleges, have come under a constant threat—given that individuals who attend these colleges are at the peak of sexual activity. In response, the South African Government has enacted a multi-sectoral response to the epidemic. All Government departments have since developed and implemented a range of measures at all levels (Schneider and Stein 2001). The South African Further Education and Training Sector is no exception. This Sector's interventions are informed by the national AIDS policy and have been implemented for over eight years (Marock 2010; UNESCO 2008).

Despite the concerted efforts to intervene, empirical evidence suggests that the prevalence of pregnancy among South African teenage girls as well as among post high school students is on the increase (Zungu and Lanyisa 2009; James and Abieyuwa 2013; Government Gazette 2015). This is an indirect indication of risky sexual behaviour and definitely contributing to the high prevalence rates of HIV in the country (Mathews 2008), and obviously an entry point for the pandemic to launch its offensive among the students (Zungu and Manyisa, 2009). This questions the effectiveness of AIDS education in FET institutions (Government Gazette 1999; Roux and others, 2005), and is consequently seen as threatening skills development—a national imperative associated with the core functions of the FET Sector.

Because the failure of AIDS interventions to counter the onslaught of the epidemic appears to be continuing, like Clark and others (2000) as well as Zungu and Manyisa (2009), we asked ourselves: 'does the intervention increase knowledge on HIV/AIDS?' 'Does this knowledge change attitudes towards sexual behaviour among students and does this, consequently, lead to a reduction of risky sexual behaviours? Using these questions, we quantitatively conducted an outcome evaluation of the intervention in which a self-administered questionnaire was used as an instrument of data collection.

The evaluation results indicated that the students' levels of AIDS-related knowledge were sub optimal (less than 95%). This is the only outcome measure in which the intervention appeared to have yielded the intended results. Risk perceptions and behaviour change were way below the expectation. The Linear Regression Hypothesis test results for all the outcome measures were in harmony with the research findings. However, it is only in one instance (knowledge of AIDS) that Correlation Coefficient (R) for the test was interpreted. The relationship between the FET students and high levels of knowledge was characterised as very weak. Concerning other outcome measures, hypothesis test results showed no relationship.

The theory of change proposed for this intervention was used to interpret the results. To start with, the results of the research deviated from the logical sequence of the assumptions underpinning the intervention as early as in the second assumption. This marked shortfalls on the part of the intervention or implementation processes. When interpreting the results against results chain and results framework, the outcomes sought

appeared to be influential on the actions in the results chain up to the output level only, suggesting a missing link. Relatedly, this missing element between the outputs and outcomes gave birth to two perceived unintended outcomes: low risk perceptions and high levels of risky behaviours among the students.

These findings dismissed the assumed correlation between knowledge and behaviour stated in the Knowledge-Deficit Model and the believed relationship between knowledge and perception in the Health Belief Model. However, the first assumed relationship that is between action and behaviour was confirmed by the research findings only for the logical sequence to be quickly broken as knowledge failed to lead to perceptions and ultimately behaviour. Having two out of three unintended outcomes at outcome level suggested that the possibility of the intervention arriving at the stated results (impact) was almost zero if the thinking and implementation strategies were not improved or changed. This ultimately informed the recommendations in Section 6.3.

6.2 Findings and conclusions

Although UNAIDS (2010) vehemently states that HIV/AIDS prevention measures are working, the findings of this thesis backed by the results from both research and evaluation studies (Section 2.3) suggest otherwise. The failure of AIDS-related knowledge to transform behaviour is not only a problem in South Africa, but a global issue (Ojikutu and others, 2010; Cheng and others, 2008). Apparently, even the most results-driven interventions fall short of fostering healthy life-styles and responsible behaviour among the youth. At face value, mainstreaming HIV/AIDS into the NCV curriculum was supposedly one of the most effective strategy by which dangerous behavioural habits would be reversed (Education Labour Relations Council, 2003). However, the reality on the ground dismisses this attempt as one of the defeated against the continuing onslaught of the epidemic—contextually speaking, showing a missing link in our results chain of this intervention.

High levels of AIDS knowledge which practically fail to increase risk perceptions among the students suggests that the concept 'risk perception' does not match an FET individual's 'self-description' of being at risk (van Dyk, 2005), which makes it even harder for one to realise when they are actually at real risk of an HIV infection. A tendency to view AIDS education just as a subject instead of an intervention intended

for their livelihood obviously reduces their perceptive powers, thereby increasing their susceptibility to infection.

Although theory of change's interpretation indicated the possibility of inputs and activities producing a set of outputs which fail to produce effects that would have influence on the outcomes sought (Mayne, 2007), the implementation as a whole could be—to a larger extent—the area from which a problem emanates. The design of the intervention has its shortcomings that lead to ineffectiveness of the intervention; however, much of the problem rests on the implementation. To substantiate this view, literature has revealed that the social contexts within which the implementation of AIDS prevention interventions takes place, are not fertile enough to influence change in the fight against this issue (Schneider, and Stein, 2001). This constitutes a problem and renders any preventative measure ineffective regardless of where it is initiated.

Further, literature indicates that manhood—which is defined in the context of concurrent partnership among young people—is a psychological and cultural element (Parker, Makhubela, Ntlabati and Connolly, 2007) outcompeting the interventions intended for prevention of HIV infection. This suggests that there is a need for a different approach in the fight against HIV/AIDS. A psychologically and culturally driven approach is worth trying in the design and implementation of AIDS prevention interventions as Section 6.3 shows.

6.3 Recommendations

In order to positively influence perceptions, life-styles and sexual habits of the youth, a few recommendations are proposed in this paper. First, the current implementation strategies do not bear fruits to the problem. As such, there is a need to review the implementation strategies for the AIDS policy-based interventions to be more meaningful and outcome-driven in order to achieve the set objectives. That is, the content of Life-skills programme and AIDS education should not be presented in such a manner as to make it sound a factual information, instead it should be tailored towards instilling a sense of responsibility, growth and eagerness to stay healthy.

Second, research-based evidence points to inadequate resources as the major encumbrance to effective delivery of the intervention (ETDP SETA, 2012). Therefore,

lecturers giving AIDS education should be fully equipped with skills necessary for effective delivery of the content, and must be capacitated with quality training and adequate resources. Not only will these enhance teaching and learning, but it will also make the FET lecturers more effective in the implementation of the AIDS prevention interventions.

Third, research has acknowledged the existence of social, political and cultural barriers. To overcome them, the content of Life-Skills programmes and AIDS education should be imparted within the psychological and cultural contexts of the FET students. The intent for this is to establish connection between the intervention and life as understood by and known to the beneficiaries. In this way, it will be easy for students to relate the intervention to their world of understanding as they engage with the content that guides them towards developing a sense of healthy behavioural choices. As such, the intervention will increase perceived risk of HIV among the students, which Akwara and colleagues (2003) indicated quite clearly that it has a strong correlation with sexual behaviour.

Fourth, there is limited participatory involvement of external bodies in the fight against the crises. Therefore, there is a pressing need for collaboration between HIV/AIDS interventions and the justice, education, labour, social welfare, and community systems to achieve efficiencies and synergies in this course (UNAIDS, 2010). This suggests that HIV/AIDS education should extend beyond the classroom contexts to make it part of the lives of our youthful students.

Lastly, UNAIDS (2010) discloses its concerns about the monitoring and evaluation of HIV prevention interventions being inadequate, poorly described and tracked. There is a need to ensure that we have monitoring and evaluation systems that are effective and efficient in order to track and continually improve the progress of our AIDS prevention interventions. This will help send signals about the possibility of the missing elements in our results chain as indicated in Figure 18, well before hand—thereby enabling the implementers to change their implementation strategies towards achieving the outcomes sought.

REFERENCES

Acevedo, G.L., Rivera, K., Lima, L., and Hwang, H. (2010). *Challenges in Monitoring and Evaluation: An opportunity to institutionalize M&E Systems*. Washington DC, World Bank.

Akoojee, S. (2008). Private Technical and Vocational Education and Training (TVET) and national development: The South African reality. *International Journal of Educational Development*. Vol. 28, (6) 764 – 765.

Akoojee, S. (2012). Skills for inclusive growth in South Africa: Promising tides amidst perilous waters. *International Journal of educational Development*. Vol.32, (5). 674 – 685.

Akoojee, S., Gewer, A. and McGrath, S. (2005). South Africa: skills development as a tool for social and economic development. *Vocational education and training in Southern Africa*. Cape Town: HSRC Press.

Akoojee. S. (2008). FET college lecturers: the 'devolving' link in the South African skills development equation. *Journal of Vocational Education and Training*. Vol. 60, No. 3, 297–313

Akwara, P.A., Madise, N.J. and Hinde, A. (2003). *Perception of risk of HIV/AIDS and sexual Behaviour in Kenya*. Cambridge University Press, United Kingdom.

Allais, S. (2012). Will skills save us? Rethinking the relationships between vocational education, skills development policies, and social policy in South Africa. *International Journal of Educational Development*. Vol.32, (5) 632 – 642

Andersen, L.B. (2012). *The role of schools in supporting HIV-affected children in sub-Saharan Africa: a systematic review*. Institute of Social Psychology, London School of Economics and Political Science, London, UK

Bamberger, M.; Rugh, J. and Mabry, L. (2006) Real World Evaluation: *Working under Budget, Time, Data and Political Constraints,* SAGE.

Barchiesi, F. (2008). Wage Labor, Precarious Employment, and Social Inclusion in the Making of South Africa's Post-apartheid Transition. *African Studies Review*. Vol. 51, (2). 119-142

Baron, R.B. and Kenny, D.A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*. Vol. 51, (6). 1173 – 1182

Bertozzi, S.M., Laga, M., Bautista-Arredondo, S., and Coutinho, A. (2008). Making HIV prevention programmes work. *The Lancet*. Vol. 372, (9641). 831 -844

Bertrand, T. J., Holtgrave, D.T., and Gregowski, A. (2009). Evaluating HIV/AIDS programs in the US and developing countries. *HIV Prevention: A comprehensive approach*. Pages 571–590

Bester , A. (2012). *Results-Based Management in the United Nations Development System: Progress and Challenges*. A report prepared for the United Nations Department of Economic and Social Affairs, for the Quadrennial Comprehensive Policy Review

Beyers, C. (2012). Picture that: supporting sexuality educators in narrowing the knowledge/practice gap. *South African Journal of Education*. Vol. 23, (4).

Brink, H.I.L. (1993).Validity and Reliability in Qualitative Research. *Curationis*. Vol. 16, (2). 35 – 38.

Bryman. A. (2012). *Social Research Methods*, 4th ed. United State: Oxford University Press.

Bulduk, S. and Erdogan, S. (2012). The Effects of Peer Education on Reduction of the HIV/Sexually Transmitted Infections Risk Behaviors Among Turkish University Students. *Journal of the Association of Nurses in AIDS Care.* Vol. 23, (3). 233 – 243

Campbell, C. (2003). *Letting them die: why HIV/AIDS intervention programmes fail*. Indiana University Press.

Chen, H.T (1994). Theory-driven evaluations: Need, difficulties, and options. *Evaluation Practice*. Vol.15, (1). 79–82

Cheng, Y., Lou, C., Mueller, L.M., Zhao, S., Yang, J., Tu, and Gao, E. (2008). Effectiveness of a School-Based AIDS Education Program among Rural Students in HIV High Epidemic Area of China. *Journal of Adolescent Health*. Vol. 42, (2). 184 – 191

Chibango, C. (2013). South Africa's HIV and AIDS Policy and Legislation: An Analysis. *Greener Journal of Medical Sciences*. Vol. 3 (6), pp. 240-250.

Chicoine, L. (2012). AIDS mortality and its effects on the labour market: Evidence from South Africa. *Journal of Development Economics*. Vol. 98, (2). 256 – 269

Christensen, L.B., Johnson, R.B. and Turner, L.A. (2011). *Research Methods, Design and Analysis*. Boston: Pearson.

Clark, J.N., Van Eck, R.N., King, A., Glusman, B., McCain-Williams, A., Van Eck, S. and Beech, F. (2000). HIV/AIDS education among incarcerated youth. Journal of Criminal Justice. Vol. 28 (5) 415 – 433

Corlazzoli, V. and White, J. (2013). *Practical Approaches to Theories of Change in conflict, Security, and Justice Programmes. Part 11: Using Theories of Change in Monitoring and Evaluation.* Search for Common Ground, DID & UKAID.

Coryn, C.L.S., Noakes, L.A., Westine, L.A., and Schroter, D.C. (2011). A Systematic Review of Theory-Driven Evaluation Practice From 1990 to 2009. *American Journal of Evaluation*. Vol. 32, (2) 199-226.

Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., and Petticrew, M. (2008). Developing and evaluating complex interventions: the new Medical Research Council guidance. *Research Methods and Reporting*. BMJ 2008;337:a1655

Department of Higher Education and Training. (2014). *Statistics on post-school education and training in South Africa: 2012*. Pretoria. Department of Higher Education and Training, Republic of South Africa.

Department of Higher Education and Training. (2015). *Statistics on post-school education and training in South Africa: 2013*. Pretoria. Department of Higher Education and Training, Republic of South Africa.

Department of Water and Forestry. (2005). *Project Monitoring and Evaluation*. South Africa. http://www.daff.gov.za/doaDev/sideMenu/ForestryWeb/dwaf/cmsdocs/Elsa/Docs/PFM/PFM%20Guideline7.pdf assessed on 29 May 2015

Djillouli, N. and Quevedo-Gomez, M. C. (2015). Challenges to successful implementation of HIV and AIDS-related health policies in Cartagena, Columbia. *Social Science & Medicine*. Vol. 133, 36 – 44

Donaldson, S.I. and Gooler, L.E. (2003). Theory-driven evaluation in action: lessons from a $20 million statewide Work and Health Initiative. *Evaluation and Program Planning*. Vol. 26, 355 – 366

Eaton, L., Flisher, A.J., and Aaro, L.E. (2003). Unsafe sexual behaviour in South African youth. *Social Science & Medicine*. Vol. 56, 149 – 165

Education Labour Relations Council [ELRC]. (2003). *Policy Hand Book for Educators: The Education Labour Relations Council* . http://www.education.gov.za assessed on 10 April 2015

ETDP SETA (2012) *Public Further Education &Training Sector Skills Plan 2013/14 Update*. www.etdpseta.org.za accessed on 11 February 2015

Farrell, G.M. (2009). *Results-Based Monitoring and Evaluation at the Commonwealth of Learning: A Handbook*. Canada, The Commonwealth of Learning.

Field, A. (2006). Research Methods 11. *Reliability Analysis*. www.statisticshell.com/doc/reliability.pdf accessed on 28 February 2016

Fisher, J.A. (2002). Tattooing the Body, Marketing Culture. *Body and Society*. Vol. 8 No. 4. 91 – 107

Francis, D. (2010). Sexuality education in South Africa: Three essential questions. *International Journal of Educational Development*. Vol. 30, (3). 314 – 319

Gallant, M. and Maticka-Tyndale, E. (2004). School-based HIV prevention programmes for African youth. *Social Science & Medicine*. Vol. 58, (7), 1337–1351

Gewer, A. (2010). *Improving quality and expanding the further education and training college system to meet the need for an inclusive growth path*. Development Bank of Southern Africa. http://www.dbsa.org assessed on 04 June 2015

Gorgens, M. and Kusek, J.Z. (2010). *Making Monitoring and Evaluation System Work: A Capacity Development Toolkit*. Washington DC, The World Bank.

Government Gazette (1999). *National policy on HIV/AIDS for learners and educators in public schools, and students and educators in further education and training institutions*. Vol. 410, No. 20372. Pretoria: Government Printer.

Government Gazette (2015). *Draft National Youth Policy 2014 - 2019*. No. 38393 . http://www.gov.za/sites/www.gov.za/files/38393_gen15.pdf assessed on 16 May 2015.

Gray, P., Fox, C., and Schuller, N. (2001). *Community safety practice briefing: The Nacro guide to monitoring & evaluation.* http://www.researchgate.net/profile/Chris_Fox5/publication/239597485_The_

Nacro_guide_to_monitoring__evaluation/links/00b7d5343cd1bac86c000000.pdf assessed on 28 April 2015

Grubb, N.W. (2006). *Vocational Education and Training: Issues for a Thematic Review. University of Calfornia*. Berkeley. CA U.S.A. http://www.oecd.org/education/skills-beyond-school/43900508.pdf accessed in the 12 March 2015.

Gupta, G.R. (2000). *Gender, Sexuality, and HIV/AIDS: The What, the Why, and the How*. International Center for Research on Women (ICRW). Washington, D.C. U.S.A. http://siteresources.worldbank.org/EXTAFRREGTOPGENDER/Resources/durban_speech.pdf assessed on 15 May 2015

Harrison, A., Newell, M.L., Imrie, J., Hoddinott, G. (2010). *HIV prevention for South African youth: which interventions work?* A systematic review of current evidence. BMC Public Health, 10:102

Herbst, J.H., Beeker, C., Mathews, A. McNally, T., Passin, W., Kay, L.S., Crepaz, N., Lyles, C.M., Briss, P., Chattopadhyay, S. and Johnson, R. (2007). The Effective of Individual-, Group-, and Community-Level HIV Behavioral Risk-Reduction Interventions for Adult Men Who Have Sex with Men: A System Review. *American Journal of Preventive Medicine*. Vol. 32, (4S).

Hogan, R.L. (2007). The historical development of program evaluation: exploring the past and present. *Journal of Workforce Education and Development*. Vol. 11, (4).

Holvoet, N., & Rombouts, H. (2008). The challenge of monitoring and evaluation under the new aid modalities: experiences from Rwanda. *The Journal of Modern African Studies*. Vol. 46,(04), 577–602

Ibrahim, N., Rampal, L., Jamil, Z. and Zain, A.M. (2012). Effectiveness of peer-led education on knowledge, attitude and risk behavior practices related to HIV among students at a Malaysian public university – A randomized controlled trial. *Preventive Medicine*. Vol. 55, (5). 505 – 510

International Network on Strategic Philanthropy, [INSP]. (2005). *Theory of Change Tool Manual*. http://www.dochas.ie/Shared/Files/4/Theory_of_Change_Tool_Manual.pdf assessed on 20 May 2015

Jackson, H. (2002). *AIDS Africa continent in crisis*. Zimbabwe: Frontline Electronic Publishing.

James, O.A and Abieyuwa, O.P. (2013). Adolescents' perspective regarding adolescent pregnancy, sexuality and contraception. *Asian Pacific Journal of Reproduction*. Vol. 2, (2). 58 – 62

Janz, N.K. and Becker, M.H. (1984). The Health Belief Model: A Decade Later. *Health Education Quarterly*. Vol 11, (1).

Jeckoniah, J. (2013). Knowledge and perceived risk of HIV/AIDS among Tanzanian University students. *Kivukoni Journal*. Vol. 1, (2). 121 – 138.

Jirojwong, S. and MacLennan, R. (2003). Health beliefs, perceived self-efficacy, and breast self-examination among Thai migrants in Brisbane. *Journal of Advanced Nursing*. Vol. 41, (3). 241 – 249

Jones, P.S. (2005). "A Test of Governance": rights-based struggles and the politics of HIV/AIDS policy in South Africa. *Political Geography*. Vol. 24, (4), 419–447

Kalichman, S.C., Rompa, D., Cage, M., DiFonzo, K., Simpson, D., Austin, J., Luke, W., Buckles, J., Kyomugisha, F., Benotsch, E., Pinkerton, S., and Graham, J. (2001).Effectiveness of an Intervention to Reduce HIV Transmission Risks in HIV-Positive People. *American Journal of Preventive Medicine*. Vol. 21, (2). 84 – 92

Kayiki, S.P. and Forste, R. (2011). HIV/AIDS Related Knowledge and Percieved Risk Associated with Condom Use among Adolescents in Uganda. *African Journal of Reproductive Health*. Vol. 15, (1).

Khoiron, D.R. (2015).The Role of Sexual Behavior In The Transmission Of HIV and AIDS In Adolescent In Coastal Area. *Procedia Environmental Sciences*. Vol. 23. 99 – 104

Kumar, R. (2014). *Research Methods: A Step-by-Step Guide for Beginners*. 4th ed. Thousand Oaks, Ca: SAGE Publications Ltd.

Kusek, J. Z. ; R. (2010). *Ten Steps to a Results-Based Monitoring and Evaluation System: A Handbook for Development Practitioners (2nd ed.)*. Washington: World Bank Publications

Kusek, J.Z. (2012). *When The Results Chain Breaks: Four Simple Rules To Implement for Better Results*. IPDET. http://www.ipdet.org/files/2012%20Guest%20Lectures/Kusek_Presentation.pdf assessed on 11 June 2015

Kusek, J.Z. and Rist, R.C. (2004). *Building Results-based Monitoring and Evaluation Systems: Assessing Developing Countries Readiness*. Evaluation, 01, 151–158.

Kyrychenko, P., Kohler, C., and Sathiakumar, N. (2006). Evaluation of a School-Based HIV/AIDS Educational Intervention in Ukraine. *Journal of Adolescent Health*. Vol. 39, (6). 900 – 907

Lewis, J.E., Malow, R.M. and Ireland, S.J. (1997). HIV/AIDS Risk in Heterosexual College Students: *A Review of a Decade of Literature*. Journal of American College Health. Vol. 45, (4). 147 – 158

Liao, W., Jiang, J., Yang, B., Zeng, X., and Liao, S. (2010). A Life-skills-based HIV/AIDS Prevention Education for Rural Students of Primary Schools in China: What Changed? What Have We Learned? *Biomedical and Environmental Sciences*. Vol. 23, (5). 409 – 419

Loveder, P. (2010). Globalization and Vocational Education and Training. *International Encyclopedia of Education, (Third Edition)*. 411 – 415.

Luo, L.P. and Liu, L. (2014). Reflections on conducting evaluations for rural development interventions in China. *Evaluation and Program Planning*. Vol. 47. Pp 1–8.

Lyby, E. (2010). Vocational Education and Training in Post-Conflict Countries. *International Encyclopedia of Education (Third Edition)*. 441 – 447.

Mackenzie, M. and Blamey, A. (2005).The Practice and the Theory: Lessons from the Application of a Theories of Change Approach. *SAGE Publications*. Vol. 11,(2). 151–168.

Magnani, R., Maclntyre, K., Karim, A.M., Brown, L., and Hutchinson, P. (2005). The impact of life skills education on adolescent sexual risk behaviours in Kwazulu-Natal, South Africa. *Journal of Adolescent Health*. Vol. 36, (4). 289 – 304

Mahery, P. and Proudlock, P. (2011).*Legal guide to age thresholds for children and young people [5th ed]*. Children's Institute, University of Cape Town. http://www.ci.org.za/depts/ci/pubs/pdf assessed on 24 June 2015

Makole, K. (2010*). FET Specialist, SADTU National Office. Discussion Document: The challenges of National Curriculum Vocation (NCV) and its planned review*. http://www.sadtu.org.za/docs/disc/2010/ncv.pdf accessed on 14 February 2015

Malangu, N.G. (2008). *Self-reported adverse effects as barriers to adherence to antiretroviral therapy in HIV-infected patients in Pretoria*. http://www.safpj.co.za

Margoluis, R., Caroline Stem, C., Swaminathan, V., Marcia Brown, M., Johnson, A., Placci, G., Salafsky, N., and Tilders, I. (2013). Results Chains: a Tool for Conservation Action Design, Management, and Evaluation. *Ecology and Society*. Vol. 18, (3).

Marock, C. (2010). *Thinking 'out the box' by thinking 'in the box': Considering skills development: Challenges and recommendations*. Development Bank of Southern Africa [DBSA].

Mateus, A.D., Allen-Ile, C., and Iwu, C.G. (2014). Skills Shortage in South Africa: Interrogating the Repertoire of Discussions. *Mediterranean Journal of Social Sciences*. Vol 5, No 6.

Mathews, C. (2008). *HIV/AIDS in South Africa*. New York: Cambridge University Press.

Mayne, J. (2007). *Challenges and lessons in implementing results-based management Evaluation.* London, Sage Publications. Accessed on 12 March 2015.

Mayosi, B.M, Lawn,J.E., van Niekerk, A. Bradshaw, D., Karim, S.S.A., Coovadia, H.M. (2012). Health in South Africa: changes and challenges since 2009. *The Lancet*. Vol. 380, (9858), 2029–2043

Mbugua, N. (2007,). Factors inhibiting educated mothers in Kenya from giving meaningful sex-education to their daughters. *Social Science & Medicine*. Vol. 64, Issue 5, Pages 1079–1089

McCourt, W. (2003). Political Commitment to Reform: Civil Service Reform in Swaziland. *World Development*. Vol. 31, (6). 1015–1031

McGrath, S. and Akoojee, S. (2009). Vocational education and training for sustainability in South Africa: The role of public and private provision. *International Journal of Educational Development*. Vol. 29, (2). 149 – 156.

McLoughlin, D. (2007). Could your research be more interesting? Expanding the debate on qualitative vs. quantitative research. *Journal of Purchasing and Supply Management*. Vol. 13, (3). 199 – 201

McMillan, J. H., and Schumacher, S. (2010). *Research in Education: Evidence-Based Inquiry*. (7th ed.). Boston, MA: Pearson

Milstein, B. and Chapel, T. (2013*). Developing a Logic Model or Theory of Change.* Retrieved from http://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/logic-model-development/main

Mitton, J. (2000). The social spread of HIV/AIDS in South Africa. *Journal of the Association of Nurses in AIDS care.* Vol. 22, (4). 17 – 26

Moodley, C.G. and Phillips, J.S. (2011). HIV/AIDS-related Knowledge and behavior of FET college students: Implications for sexual health promotion. *African Journal for Physical, Health Education, Recreation and Dance*, (Supplement), 49 – 60

Morrissey, O. (1995). Political Commitment, Institutional Capacity and Tax Policy Reform in Tanzania. *World Development*. Vol. 23. No. 4, 637 – 649

Motsoaledi, A. (2012). Progress and changes in the South African health sector. The Lancet. Vol. 380, (9858), 1969–1970

Mottiar, S. (2004). Local government and HIV/AIDS in South Africa: Multi sectoralism, mainstreaming and partnering: towards a local government response to HIV/AIDS. *Policy: issues and actors*. Vol. 17, (8).

Neuman, W.L. (2006). *Social Research Methods: Qualitative and Quantitative Approaches*. [6th ed.]. New York: Pearson.

Neuman, W.L. (2011). *Social Research Methods: Qualitative and Quantitative Approaches. [7th ed.]*. London: Pearson.

Newton, A.X., Poon, R.C., Nicole L. Nunes, N.L., and Stone, M.E. (2013). Evaluation and Program Planning: Research on teacher education programs: Logic model approach. *University of California, Berkeley*. Vol. 36, (1). 88 – 96

NORAD. 1999 (4th Ed.). *The Logical Framework Approach*: (LFA) handbook for the objectives-oriented planning.

Ojikutu, R.K., Adeleke, I.A., Yusu, T. and Ajijola, L.A. (2010). Knowledge, risk perception and behaviour on HIV/AIDS among students of tertiary institutions. *Department of Actuarial Science and Insurance.* Lagos.

Oketch, M.O. (2007). To vocationalise or not to vocationalise? Perspectives on current trends and issues in technical education and training (TVET) in Africa. *International Journal of Educational Development*. Vol. 27, (2). 220 – 234

Parker, W., Makhubele, B., Ntlabati, P. and Connolly, C. (2007). *Concurrent Sexual Partnerships Among Young Adults in South Africa:* Challenges for HIV prevention communication. www. Cadre.org.za accessed in 28 February 2016

Parkhursta, J.O. and Lush, L. (2004). The political environment of HIV: lessons from a comparison of Uganda and South Africa. *Social Science & Medicine*. Vol. 59, (9), 1913–1924

Peltzer, K. (2008). *HIV/AIDS and Society: 'The Public Education Sector and HIV/AIDS*. South Africa: University of Kwazulu – Natal Press.

Petros, P. (2014). Risk perception, HIV/AIDS related knowledge, attitude and practice of the university community: The case of Ethiopian Civil Service College. *HIV & AIDS Review*. Vol. 13, (1). 26–32

Pettifor, A.E., Levandowski, B.A., Macphail, C., Miller, W.C., Tabor, J., Ford, C., Stein, C.R., Rees, H., and Cohen, M. (2011). A Tale of Two Countries: Rethinking Sexual Risk for HIV Among Young People in South Africa and the United States. *Journal of Adolescent Health*. Vol. 49, (3). 237–243

Pokharela, S., Kulczycki, A. and Shakya, S. (2006).School-Based Sex Education in Western Nepal: Uncomfortable for Both Teachers and Students. *Reproductive Health Matters*. Vol.14, (28), 156–161

Polidano, C. and Tabasso, D. (2014). Making it real: The benefits of workplace learning in upper-secondary vocational education and training courses. *Economics of Education Review*. Vol 42. 130 – 146

Powell, L. (2012). Reimagining the purpose of VET – Expanding the capability to aspire in South African Further Education and Training students. *International Journal of Educational Development*. Vol. 32, (5). 643 – 653.

Ren, W. (2009). Thoughts on the Solutions to Problems in Vocational Education of the New Age. *Asian Social Science*. Vol. 5, (8).

Rispel, L.C. and Metcalf, C.A. (2009). Breaking the silence: South African HIV policies and the needs of men who have sex with men. *Reproductive Health Matters*. Vol.17, (33). 133 – 142

Rossignoli, S., Coticchia, F., and Mezzasalma, A. (2015). A critical friend: Monitoring and evaluation systems, development cooperation and local government. The case of Tuscany. *Evaluation and Program Planning*. Vol. 50, 63–76

Roux, E.G., Ebersohn, L., Smit, B. and Eloff, I. (2005). HIV/AIDS programmes: what do learners want? *South African Journal of Education*. Vol. 25, (4). 253 – 257

Rowena, C. (2003). Evaluating digital libraries in the health sector. Part 1: measuring inputs and outputs. *Health Information and Libraries Journal*. Vol.20, (4). 195 – 204

Salkind, N.J. (2013). *Statistics for People Who Think They Hate Statistics (3rd ed)*. Washington DC, SAGE Publication, Inc.

Saunders, M., Lewis, P. & Thornhill, A. (2009) *Research methods for business students*, 5th ed., Harlow, Pearson Education.

Schenker, LI. and Nyirenda, I.M. (2002). Prevention of HIVIAIDS in schools. *International Academy of Education.* (No. 9).

Schneider, H. (1998).*The politics behind AIDS: the case of South Africa.* Centre for Health Policy. University of Witwatersrand: Johannesburg. ftp://gega.org.za/chp/aids_polit.pdf *assessed on 24 April 2015*.

Schneider, H. and Stein, J. (2001). Implementing AIDS policy in post-apartheid South Africa. *Social Science and medicine*. Vol. 52, (5). 723 – 731

Schultz. P.W. (2002). "Knowledge, Information, and Household Recycling: Examining the Knowledge-Deficit Model of Behaviour Change". *New Tools for Environmental Protection: Education, Information, and Voluntary Measures*. Washington DC: National Academic Press.

Scriven, M. (1994). The fine line between evaluation and explanation. *Evaluation Practice*. Vol. 15, (1). 75 – 77

Scriven, M. (1998). Minimalist Theory: The Least Theory That Practice Requires. *American Journal of Evaluation*. Vol. 19, (57). 56 – 70

Selesho, J.M. and Modise, A.M. (2012). Strategy (ies) in Dealing with HIV/AIDS in Our Schools: Changing the Lenses. *Hum Ecol*. Vol. 38, (3). 181 – 189

Shadish, W.R., Cook, T.D., and Leviton, L.C. (1991). *Foundations of Program Evaluation: Theories of Practice*. California: Sage Publications, Inc.

Shisana O, Rehle T, Simbayi LC, Zuma K, Jooste S, Zungu N, Labadarios, D., Onoya, D *et al*. (2014). *South African National HIV prevalence, Incidence and Behaviour Survey, 2012*. Cape Town: HSRC Press.

Shisana O, Rehle T, Simbayi LC, Zuma K, Jooste S, Pillay-van-Wyk V, Mbelle N, Van Zyl J, Parker W, Zungu NP, Pezi S & the SABSSM III Implementation Team. (2009). *South African national HIV prevalence, incidence, behaviour and communication survey 2008: A turning tide among teenagers?* Cape Town: HSRC Press.

Simelela, N.P. and Venter, W.D.F. (2014). A brief history of South Africa's response to AIDS. *History of HIV and AIDS in South Africa*. Vol. 104, (3). 249 – 251

Soobaroyen, T. and Ntim, C.G. (2013). Social and environmental accounting as symbolic and substantive means of legitimation: The case of HIV/AIDS reporting in South Africa. *Accounting Forum*. Vol. 37, (2). 92 – 109

South African National AIDS Council. (2011). *South African HIV Epidemic, Response and Policy Synthesis - Getting to Success: Improving HIV prevention Efforts in South Africa*. http://supportservices.ufs.ac.za/dl/userfiles/Documents/00001/1432_eng.pdf accessed on 01 May 2015

Stadler, J.J., Delany,S. and Mntambo, M. (2008). Women's perceptions and experiences of HIV prevention trials in Soweto, South Africa. *Social Science & Medicine*. Vol. 66, (1) 189–200

Stetson, V. (2011). *Monitoring and Evaluation (M&E) Guide: Catholic Relief Services – United States Conference of Catholic Bishop*. Baltimore, Catholic Relief Services (CRS). www.crsprogramquality.org assessed on 29 July 2015

Stout, R. (1996). *Things that happen because they should: A Teleological Approach to Action*. United States, Oxford University Press Inc.

Stover, J. (2000). *HIV/AIDS Toolkit: Measuring Political Commitment*. http://www.policyproject.com/pubs/bookblue.pdf *assessed on 27 April 2015*

Swart-Kruger, J. and Richter, L.M. (1997). AIDS-related knowledge, attitudes and behaviour among South African street youth: Reflections on power, sexuality and the autonomous self. *Social Science & Medicine*. Vol. 45, (6). 957 – 966

Taylor, N. (2011). *Priorities of Addressing South Africa's Education and Training Crisis: A review commissioned by the National Planning Commission*. South Africa: Jet Education services.

Taylor-Powell, E. and Steele, S. (1996). *Collecting Evaluation Data: An Overview of Sources and Methods*. Program Development and Evaluation, University of Wisconsin-Extension. G3658-4

Tenkorang, E.Y., Maticka-Tyndale, E. Rajulton, F. (2011). A milti-level analysis of risk perception, poverty and sexual risk-taking among young people in Cape Town, South Africa. *Health and Place*. Vol. 17, (2). 525 – 535

Thammaraksa, P.,Powwattana, A., Lagampan, S. and Thaingtham, W. (2014).Helping Teachers Conduct Sex Education in Secondary Schools in Thailand: Overcoming Culturally Sensitive Barriers to Sex Education. *Asian Nursing Research*. Vol. 8, (2), 99–104

Thomas, V. and Luo, X. (2011). *Overlooked Links in the Results Chain: Evaluation Brief 14*. Washington, D.C., The World Bank.

Treu, P., Olivier, M.A.J., Bean, P. and Van der Walt, J.L. (2010). A group of educators' stance on the implementation of South Africa's further education and training curriculum. *Teaching and Teacher Education*. Vol. 26, (2). 343 – 350.

Tung, W., Ding, K. and Farmer, S. (2008). Knowledge, Attitudes, and Behaviors Related to HIV and AIDS Among College Students in Taiwan. *Journal of the Association of Nurses in AIDS Care*. Vol. 19, (5). 397 – 408

UNAIDS. (2010). *Combination HIV Prevention: Tailoring and Coordinating Biomedical, Behavioural and Structural Strategies to Reduce New HIV Infections*. Switzerland. www.unaids.org assessed on 18 March 2016

UNESCO. (2008). *Booklet 1: Overview. Good Policy and Practice in HIV & AIDS and Education (Booklet series)*. Paris, UNESCO.

United Nations Development Group. (2010). *Results-Based Management Handbook: Strengthening RBM harmonization for improved development results*. http://www.un.cv/files/UNDG%20RBM%20Handbook.pdf assessed on 13 June 2015

United Nations Development Programme. (2009). *Handbook on planning, monitoring and evaluating for development results*. New York, Suazion Inc.

USAID, (2010). *Performance Monitoring & Evaluation Tips: Building a Results Framework*. https://www.ndi.org/files/Performance%20Monitoring%20and%20Evaluation%20Tips%20Building%20a%20Results%20Framework.pdf assessed on 22 May 2015

USAID, (2013). *Technical Note on Developing Results Frameworks*. Version 1.0. https://usaidlearninglab.org/sites/default/files/resource/files/RF_Technical_Note_Final_2013_0722.pdf assessed on 20 May 2015

Valters, C. (2014). Theories of Change in International Development: Communication, Learning, or Accountability? The Asian Foundation, Londan WC2A 2AE.

van Dyk, A. (2005). *HIV/AIDS Care and Counseling*. South Africa: Maskew Miller Longman (Pty) Ltd

van Wyk, B. and Pieterse, J. (2006). *Institutional Response to HIV/AIDS from Institutions of higher education in the Southern African development community*. South Africa: Centre for the study of AIDS University of Pretoria.

Vito, G.F. and Higgins, G.E. (2015). Outcome evaluation. *Practical Program Evaluation for Criminal Justice*. 79 – 95

Vogel, I. (2012). Review of the use of 'Theory of Change' in international development. DFID, (April).

Vogtenhuber, S. (2014).The impact of within country heterogeneity in vocational specificity on initial job matches and job status. *Journal of Vocational Behavior*. Vol. 85, (3) 374 – 384

Wagner, C., Kawulich, B. and Garner, M. (2012). *Doing Social Research: A global context*. London: McGraw-Hill.

Wagner, C., Kawulich, B. and Garner, M. (2012). *Doing Social Research: A Global Context*. Berkshire, McGraw-Hill Education.

Ward, E. G., Disch, W.B., Levy,J.A,. and Schensul,. J.J. (2004). Perceptions of HIV/AIDS risk among urban, low-income senior-housing residents. *AIDS Education and Prevention*. Vol. 16, (6), 571–588.

Weiss, C.H. (1997). Theory-based evaluation: Past, present, and future. *New Directions for Evaluation*. 1997 (76). 41 – 55

Whiteside, A. (2008).AIDS in Africa: facts, figures and the extent of the problem: *Ethics & AIDS in Africa*. South Africa: New Africa Books (Pty) Ltd.

Williams, R. (2015). *Using SPSS for OLS Regression*. University of Notre Dame. http://www3.nd.edu/~rwilliam/ accessed on 25 February 2016

World Bank. (2005). *The LogFrame Handbook:* A logical framework approach to project cycle management. World Bank.

World Health Organisation [WHO]. (2009). *Priority interventions: HIV/AIDS prevention, treatment and care in the health sector*. World Health Organisation HIV/AIDS Department. http://www.who.int/hiv/pub/priority interventions web.pdf assessed on 15 May 2015

Wouters, E., HCJ van Rensburg, H.C.J., and Meulemans, H. (2009). The National Strategic Plan of South Africa: what are the prospects of success after the repeated failure of previous AIDS policy? *Health Policy and Planning*. Vol. 25, (3).171-185

Wouters, E., Masquillier, C., Ponnet, K. and Booysen, F. R. (2014). A peer adherence support intervention to improve the antiretroviral treatment outcomes of HIV

patients in South Africa: The moderating role of family dynamics. *Social Science & Medicine*. Vol. (113), 145–153

Wytt, G.E., Williams, J.K., Gupta, W., and Malebranche, D. (2012). Are cultural values and beliefs included in U.S. based HIV interventions? *Preventive Medicine*. Vol. 55, (5), 362 – 370

Zungu, L.I. and Manyisa, Z.M. (2009). Factors contributing to pregnancies among student nurses at a nursing college in Mpumalanga province, South Africa. *African Journal of Nursing and Midwifery*. Vol. 11, (2) pp. 61 – 74

APPENDICES

Appendix 1.1: Data collection instrument

Outcomes of AIDS policy-based interventions in Further education and training sector

Dear participant

I am a Wits student conducting a research on the above mentioned topic. The survey is designed to provide interesting and relevant data on the outcomes of the interventions based on HIV/AIDS policy implemented in FET institutions. This research is anonymous and voluntary. You will not be required to write your name or any identifying information in this form. The data obtained in this study may be kept for use in publication, but no findings that could identify any individual participant will be kept or published. If you choose to participate in this survey, please complete the form. Submitting the completed questionnaire is taken to mean consent. The questionnaire will take 5 minutes of your time to complete. Thank you for your time.

Demographic information

1. What is your age?
   - 18 – 25
   - 26 – 30
   - 31 – 35
   - 36 and more

2. What is your gender?

   Male ○ Female ○

3. What level are you?

   Level 3 ○ Level 4 ○

4. Which college do you attend?

   SWGC ○ WESTCOL ○

AIDS-related knowledge

This section aims to determine students' knowledge on HIV/AIDS in FET sector. There are 'yes or no' and 'true or false' responses. Please select the appropriate response in each.

5. HIV can transmit through sexual contact.

   Yes ☐ No ☐

6. HIV can transmit through blood transfusion

   Yes ☐ No ☐

7. HIV can transmit through body fluids such as sweat, tears, and urine as well as mosquito bites.

   Yes ☐ No ☐

8. Can people get HIV transmission through casual contacts such as hand shaking, hugging and sharing toilet seat with people living with HIV/AIDS?

Yes ☐ No ☐

9. HIV can transmit through mother-to-child transmission.

Yes ☐ No ☐

10. Sharing eating utensils can transmit HIV from one person to another.

Yes ☐ No ☐

11. HIV-positive individuals who are infected with another STI are more likely to transmit the virus through sex

Yes ☐ No ☐

12. HIV can transmit through using unsterile needles

Yes ☐ No ☐

13. It is possible to know whether a person if infected with HIV by the way they look.

TRUE ☐ FALSE ☐

14. Adults are more highly vulnerable to AIDS than young people.

TRUE ☐ FALSE ☐

15. One should be concerned about HIV if one is getting a tattoo or piercing?

TRUE ☐ FALSE ☐

16. You don't get HIV from sleeping with virgins

TRUE ☐ FALSE ☐

Risk perceptions

The following section sets out to assess risk perceptions of students associated with the risk of acquiring HIV. Please provide your answer to the question on a scale between 'not at all' to 'certain' below.

17. How possible do you think you can contract HIV?

- Not at all
- Likely
- Don't know
- Very likely
- Certain

Behaviours on HIV/AIDS

The following questions relate to behavior that might increase students' risk of getting infected. Pease choose your response in relation to your behavior.

18. What forms of sexual activities do you prefer? (choose one)

    - Vaginal, anal, and oral
    - Anal, vaginal and masturbation

- Masturbation only
- Vaginal only
- None

19. How many sexual partners do you have in life?
    - One
    - Two
    - Three
    - Four and more
    - Unknown
20. I only have unprotected sex with someone:
    - I trust
    - Who has intercourse only with me
    - Whom I know is HIV negative
    - Who is HIV symptom free
    - I don't have unprotected sex at all
21. I share a hair cutting or piercing tool with:
    - My sister or brother only
    - My family only
    - Family and close friends
    - Don't mind who I share with
    - Never share
22. How often do you use alcohol?
    - Every day
    - Sometimes
    - Not at all
23. How often to you use forbidden drugs
    - Every day
    - Sometimes
    - Not at all

Appendix 1.2: The participant information sheet

Outcomes of AIDS policy-based interventions in Further Education and Training Sector

You are asked to participate in a research study conducted by Mohlalefi Edwin Moiloa, a master's student from Wits School of Governance. This research is for educational purposes and not funded. You were selected as a possible participant in this study because of having registered with this FET College. If you are under 18 and have no sexual experience, PLEASE DO NOT participate.

1. Purpose of the study

The purpose of this study is to evaluate the outcomes of AIDS policy-based interventions in halting HIV infection in FET colleges and to make recommendations thereafter.

2. Procedures

If you volunteer to participate in this study, we would ask you to do the following:

2.1 Questionnaire

Fill in the questionnaire that will take not more than five minutes of your time to complete, and drop it into the box by the door of the next class where the researcher will be waiting. Note that filling in the questionnaire would mean consent.

3. Potential risks & discomforts

Please note that the interview has the possibility to inconvenience the subjects as it is going to take their precious time. Apart from that, sensitivity of the subject can be the cause of shame and great discomfort on the part of the subjects.

4. Confidentiality and anonymity

Questionnaire is anonymous and confidential. You are kindly requested NOT to write your name anywhere on the questionnaire. The questionnaire will be safely kept in the locked cabinet where no one except the researcher, can have access to them. The information collected will not be made accessible to anyone except the researcher, it will be captured on a personal laptop of the researcher, which will be password protected. The filled in questionnaires shall be burnt after analysis.

5. Identification of investigators

If you have any questions or concerns about the research, please feel free to contact researcher: Mohlalefi Edwin Moiloa at Cell: 0718126729, email: moiloamohlalefi@yahoo.com or the supervisor: Dr Kambidima Wotela at Cell: 0712603260, email: kambidima.wotela.wsg@gmail.com

6. The rights of research subjects

You may withdraw from participation without penalty, by submitting the form blank. Please note that you are not waiving any legal claims, rights or remedies because of your participation in this research study.

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Appendix 1.3: Filled in data collection instrument

Data collection instrument

Outcomes of AIDS policy-based interventions in Further education and training sector

Dear participant

I am a Wits student conducting a research on the above mentioned topic. The survey is designed to provide interesting and relevant data on the outcomes of the interventions based on HIV/AIDS policy implemented in FET institutions. This research is anonymous and voluntary. You will not be required to write your name or any identifying information in this form. The data obtained in this study may be kept for use or publication, but no findings that could identify any individual participant will be kept or published. If you choose to participate in this survey, please complete the form. Submitting the completed questionnaire is taken to mean consent. The questionnaire will take 5 minutes of your time to complete. Thank you for your time.

Demographic information

1. What is your age?
   - [X] 18 – 25
   - [ ] 26 – 30
   - [ ] 31 – 35
   - [ ] 36 and more

2. What is your gender?
   Male ( ) Female (X)

3. What level are you?
   Level3 ( ) level1 (X)

4. Which college do you attend?
   SWGC (X) VISTCOL ( )

AIDS-related knowledge

This section aims to determine students' knowledge on HIV/AIDS in FET sector. There are 'yes or no' and 'true or false' responses. Please select the appropriate response in each.

5. HIV can transmit through sexual contact.
   Yes [X] No [ ]

6. HIV can transmit through blood transfusion
   Yes [X] No [ ]

7. HIV can transmit through body fluids such as sweat, tears, and urine as well as mosquito bites.
   Yes [ ] No [X]

8. Can people get HIV transmission through casual contacts such as hand shaking, hugging and sharing toilet seat with people living with HIV/AIDS?
   Yes [ ] No [X]

9. HIV can transmit through mother to child transmission

Yes ☒ No ☐

10. Sharing eating utensils can transmit HIV from one person to another.

Yes ☒ No ☐

11. HIV positive individuals who are infected with another STI are more likely to transmit the virus through sex

Yes ☒ No ☐

12. HIV can transmit through using unsterile needles

Yes ☒ No ☐

13. It is possible to know whether a person if infected with HIV by the way they look.

TRUE ☒ FALSE ☐

14. Adults are more highly vulnerable to AIDS than young people.

TRUE ☐ FALSE ☒

15. One should be concerned about HIV if one is getting a tattoo or piercing?

TRUE ☐ FALSE ☒

16. You don't get HIV from sleeping with virgins

FALSE ☐ TRUE ☒

Risk perceptions

The following section sets out to assess risk perceptions of students associated with the risk of acquiring HIV. Please provide your answer to the question on a scale between 'not at all' to 'certain' below.

17. How possible do you think you can contract HIV?

- ☒ Not at all
- ○ Likely
- ○ Don't know
- ○ Very likely
- ○ Certain

Behaviours on HIV/AIDS

The following questions relate to behavior that might increase students' risk of getting infected. Pease choose your response in relation to your behavior.

18. What forms of sexual activities do you prefer? (choose one)

- ☒ Vaginal, anal, and oral
- ○ Anal, vaginal and masturbation
- ○ Masturbation only
- ○ Vaginal only

- None

19. How many sexual partners do you have in life?

- One
- Two
- Three
- Four and more
- Unknown

20. I only have unprotected sex with someone:

- I trust
- Who has intercourse only with me
- Whom I know is HIV negative
- Who is HIV symptom free
- I don't have unprotected sex at all

21. I share a hair cutting or piercing tool with:

- My sister or brother only
- My family only
- Family and close friends
- Don't mind who I share with
- Never share

22. How often do you use alcohol?

- Every day
- Sometimes
- Not at all

23. How often to you use forbidden drugs

- Every day
- Sometimes
- Not at all

Appendix 2.1: Ethical clearance

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Mo..oa

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H15/12/01**
PROJECT TITLE	Outcomes of AIDS policy-based interventions in the further education and training sector
INVESTIGATOR(S)	Mr M Moiloa
SCHOOL/DEPARTMENT	Wits School of Governance/
DATE CONSIDERED	07 December 2015
DECISION OF THE COMMITTEE	Approved unconditionally
EXPIRY DATE	07 December 2018

DATE 08 December 2015 **CHAIRPERSON** J. Knight
(Professor J Knight)

cc: Supervisor : Dr K Wotela

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

mmoiloa
Signature

08 / 12 / 2015
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix 2.2: Permission from the Department of Higher Education and Training

higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Private Bag X174, PRETORIA, 0001, 123 Francis Baard Street, PRETORIA, 0002, South Africa
Tel: (012) 312 5911, Fax: (012) 321 6770
Private Bag X9192, CAPE TOWN, 8000, 103 Plein Street, CAPE TOWN, 8001, South Africa
Tel: (021) 469 5176, Fax: (021) 461 4761

Enquiries: Renay Pillay *Email: Pillay.r@dhet.gov.za* *Telephone: 012 312 6191*

Mr Mohlalefi Edwin Moiloa
PO Box 6027
Westgate
ROODEPOORT
1734

By e-mail: moiloamohlalefi@yahoo.com

Dear Mr Moiloa

REQUEST TO UNDERTAKE RESEARCH IN TWO TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN GAUTENG - THE SOUTH WEST GAUTENG TVET COLLEGE AND WESTERN TVET COLLEGE: OUTCOMES OF AIDS POLICY-BASED INTERVENTIONS IN THE FURTHER EDUCATION AND TRAINING SECTOR

I acknowledge receipt of your request for permission to conduct research in two (2) Technical and Vocational Education and Training (TVET) Colleges in Gauteng – the South West TVET College and the Western TVET College on the topic "Outcomes of AIDS policy-based interventions in the further education and training sector".

Your request has been evaluated by the Department of Higher Education and Training (DHET) and it is my pleasure to inform you that your request for permission to undertake the above research has been granted. You are advised to obtain further permission from the Principals of the South West TVET College and Western TVET College before commencing any research activities.

You are also requested to attach the following documents to correspondence addressed to the Principals of the South West TVET College and Western TVET College:

a) copy of this letter from the DHET;
b) copy of the "Ethical Clearance Certificate" issued by the University of the Witwatersrand; and
c) copy of the "completed application form to undertake research in public colleges".

The topic of your research is of great interest to the Department. It will therefore be appreciated if you could share the findings of your research with the Department upon completion of your research.

I wish you all of the best in your research study.

Yours sincerely

pp **Mr GF Qonde** Firoz Y. Patel
Director-General

Date: 09/12/2015

Appendix 2.3: Self-disclosure and declaration of interest

My name is Mohlalefi Edwin Moiloa. I am a student pursuing the degree of Master of Management (in the field of Public Sector Monitoring and Evaluation) in the University of the Witwatersrand. I am conducting an evaluation research entitled 'Outcomes of AIDS policy-based interventions in the Further Education and Training Sector' as part of my Masters' thesis. I am working closely with my supervisor, Dr. Kambidima Wotela, who is the main contact person for this paper.

The project is part of the nationwide response assessment that seeks to evaluate the actual successes of the intervention in question, against the outcomes sought, and the possibility of the interventions arriving at the intended results. In doing so, the project seeks to assess the levels of HIV/AIDS-related knowledge, risk perceptions and behaviour associated with the danger of contracting HIV among the FET students in the selected institutions. The interest to pursue this topic came into being due to the rising HIV prevalence and incidence rates in the face of the interventions intended at combatting it in the country. The study is carried out only for obtaining the degree mentioned-above (study purposes). There are no external bodies funding this research. That means the researcher finances this project all alone.