Managing the impact of HIV/AIDS in Botswana's education system: Redefining effective teaching and learning in the context of AIDS

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ABSTRACT

Managing the Impact of HIV/AIDS in Botswana's Education System: Redefining Effective Teaching and Learning in the Context of AIDS

This study has as its starting point the central contention that the implications of the AIDS pandemic in sub-Saharan Africa affect a wide range of societal structures including all levels of the education system.

This multilevel qualitative case study of Botswana's education system sets out to complement national quantitative HIV/AIDS impact studies. Using the draw-and-write technique and unstructured and semi-structured interviews, the study examines the impact of HIV/AIDS on the pupil, classroom, school and contextual levels, as experienced by primary age pupils, teachers, head teachers, regional educational officers and officers at the ministerial level, in high HIV/AIDS prevalence areas. The analysis of data reveals that HIV/AIDS does not only have an impact on orphans and vulnerable children, but affects the majority of children's psychosocial well-being, perception of self, hopes, beliefs and aspirations for the future, as well as, teaching, learning and the management of learning. Moreover, the impact of the pandemic influenced many of the factors that have been shown to correlate positively with pupils' achievements in School Effectiveness (SER) research.

The findings of the study thus challenge SER's goal of universality and its narrow focus on academic outcomes. Consequently, the researcher argues that HIV/AIDS needs to be regarded as a contextual variable that not only influences processes and pupils' outcomes at all levels in the education system, but also as variable that must necessitate a shift in the goals, content and role of education, in order for schools to be regarded as 'effective' within the context of AIDS. The study identifies a number of academic and affective educational outputs, outcomes and processes that should be integrated into the primary school phase in order for pupils and schools to not only mitigate the impact of the pandemic but in order that they can become active change agents in reversing the current AIDS trend. The researcher proposes that through a synthesis of the School Effectiveness and the Educational Indicator Research Paradigms, effective process variables can be identified, measured and monitored against relevant outputs and outcomes to support the process of turning the HIV/AIDS trend around.

ACKNOWLEDGEMENTS

Dedication

This thesis is dedicated to a year six pupil,

in the hope that we can all work together to prove you wrong.

"By 2014 many people will be infected and others will die of this disease. Children will be left alone, they too will die of this disease and of hunger. They will get food in the dustbins. They will run to have children. Their children will die, because there will be no one to remind them. They will grow fatherless and motherless because their parents will be dead."

(Year six pupil's vision of the future, Selebi Phikwe, Botswana, (1/6/3)

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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-Retroviral Therapy
ARV	Anti-Retro Viral Drugs
BHRIMS	Botswana HIV/AIDS Response Information Management System
CJSS	Community Junior Secondary School
DMSAC	District Multi-Sectorial Aids Committee
ECOWAS	Economic Community of West African States
EFA	Education For All
EIR	Educational Indicator Research
HIV	Human Immunodeficiency Virus
MoE	Ministry of Education
MoH	Ministry of Health
MLG	Ministry of Local Government and Lands
MTCT	mother to child transmission
NACA	National Aids Co-ordinating Agency
NGO	Non-Governmental Organisation
OLS	Ordinary Least Square
OVC	Orphans and Vulnerable children
SES	Socio-Economic Status
SER	School Effectiveness Research
SIR	School Improvement Research
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNAIDS	Joint United Nations AIDS Programme
UNICEF	United Nations International Children's Emergency Fund

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INTRODUCTION

This thesis is a first phase in three phased processes aimed at identifying the many factors and processes within the different levels of schooling that are influenced by AIDS, in order to identify cultural and contextual contingent educational outcomes and processes that will not only assist the mitigation process, but also help to turn the trend around.

1.1   Research background

Since the discovery of the Human Immunodeficiency Virus (HIV) in 1981, infection rates have escalated from a few cases in 1997 to an estimated 39.5 million people world-wide in 2006. 4.5 million new infections occurred worldwide in 2006 alone.   Though the number of people newly infected now mirrors that of the number of people dying of AIDS, the new infection rates continue to rise (UNAIDS, 2006). Sub-Saharan Africa is hardest hit and hosts approximately 63% (2.8 million) of people living with AIDS. Though Uganda has often been portrayed as an example in terms of turning the trend around, recent studies indicate that the new infection rates are on the rise again (UNAIDS, 2006). The pandemic epicentre is in Southern Africa, where 34% of all people living with AIDS reside. Whilst South Africa has the fastest growing epidemic in the world, with 5.5 million people living with AIDS (UNAIDS, 2006), recent population surveys indicate that Botswana has one of the highest HIV prevalences in the world. With a population of 1.6 million, 33.4% are infected and at least 40% of pregnant women are HIV-positive (Seipore, 2006). This is significantly higher compared to neighbouring Zimbabwe with 24% (UNAIDS, 2005), Zambia with 10-25% (Ministry of Health, Zambia, 2005) and South Africa with 30.2% (Department of Health, South Africa, 2006). Life expectancy has dropped in Botswana from 71 years down to 35 (UNAIDS/WHO, 2002).   In the age group of 30-35 within which a high proportion of primary age children's parents fall, infection rates continue to escalate (Sephore, 2006).

Between 1992 and 2001, approximately 13.2 million children have been orphaned by HIV/AIDS worldwide. Nearly 90% of these children live in Africa (UNAIDS, 2001). By 2005 it was estimated that 12 million children in Sub-Saharan Africa alone had been orphaned. In the same year 47,964 children were registered as orphans in Botswana (NACA, 2005). However, not all children who are orphans are registered. Many relatives feel uncomfortable registering their relatives as orphans as that may culturally suggest that they are not able to look after their relatives. Hence the number of actual orphans in Botswana is likely to be much higher. These figures are predicted to rise: by 2010 it is estimated that nearly 25 million children will be orphaned by AIDS worldwide (UNICEF, 2002) with a rate of 25% of Zimbabwean children, nearly 19% of Zambian children (Kelly, 1999b) and every second 10 to 14-year-old child in Botswana (ABT, 2002). Already in the late 1990s studies showed that Zambia had more than 130,000 child-headed families, and 860,000 South African children had become teacherless (Coombe, 2001). Not only are AIDS orphans less likely to attend school, but Coombe (2001) predicted that they may suffer from unique AIDS-related pressures which may lead to depression, hopelessness and psychological trauma later in life. As their teachers are increasingly becoming sick, pupils' learning is not only affected by the impact of AIDS on their own families but also on the impact of AIDS on their teachers' health and lives.

While early predictive studies suggested that AIDS will influence the demand and supply of education, availability of financial resources, characteristics of learners, content, processes, management and interaction within the educational system, as well as donor support for education (Kelly, 1999), others drew the conclusion that since teacher mortality rates are likely to be less than predicted, the education system would have the capacity to cope with the increased teacher mortality rates (Bennell, 2005a). Conclusions such as the latter and others, which suggest that the AIDS pandemic has stagnated as the number of new infections mirrors that of the mortality rates (UNAIDS, 2006), does not, I argue, sufficiently take into account the loss of human life and the potential societal and educational development that these people would have contributed.

With these staggering figures and frightening trends, HIV/AIDS is no longer merely a health problem. Its implications stretch far beyond, threatening to undermine and fragment social, economical, political and educational structures both now and in the future. It could also easily be argued that with these trends and such a high percentage of the next generation being orphaned or affected by AIDS and possibly without (or with limited) parental and adult guidance, this will have a long-term effect on national development and thus also the ability for these nations to engage in international affairs on equal terms with others.

1.2   Purpose of investigation and main research questions

Findings from my Master's dissertation on the education system's role in the actualisation of Botswana's long-term vision, 2016, indicated that AIDS was likely to become its greatest threat. Not only was AIDS becoming a threat to Botswana's development, but also to an increasing number of countries worldwide. Although HIV/AIDS has been placed high on the international and national emergency agendas and has periodically been given a high profile in the press, many countries have been slow to realise the inextricable link between HIV/AIDS and education and the potential role of education in both long-term and short-term mitigation. None of the school inspectors at the Botswana National Conference for School Inspection thought that AIDS would have any impact on the quality of education, nor was there any collaboration between the Ministry of Health (MoH) and the Ministry of Education (MoE) at the inception of this research project. In the first years of the 21st century a few predicative and quantitative impact studies of AIDS on the education system emerged, as well as a few case studies portraying the impact of AIDS on families and children. Since then, more studies have transpired, exploring aspects such as the quantitative impact on vulnerable children and orphans at the classroom level, pupils' and teachers' knowledge of AIDS, psychosocial impact on orphans, impact of teacher absenteeism on pupils' learning rates, factors influencing teachers' willingness to teach about AIDS, teacher mortality and absentee rates, and teacher and pupil behaviour. The majority of these studies have been quantitative in nature.

Although they have provided valuable data and analysis in this almost uncharted research territory, few research projects have focused on the qualitative impact on children as learners, on teachers and on the management of education at the school level. Nor have cultural and contextually sensitive qualities, capabilities and educational processes required to mitigate the impact and empower pupils, teachers and managers to turn the pandemic around been sufficiently analysed. Nor have studies explored the impact of AIDS as a contextual variable, influencing factors that contribute towards learning and high attainment in both academic subjects and in more affective long-term outcomes of schooling.

Numerous charities and Non-Governmental Organisations (NGOs) have been formed, strategies developed, HIV/AIDS information programmes and books written, television shows produced, to try to curb the trend. Though these have played an important role, new infection rates continue to rise as the divisive field of AIDS and education continues to be plagued with controversy and tensions. There is a continual struggle between the need for long-term strategies and short-term intervention programmes that yield quick returns to donor agencies, charities and NGOs, as well as between the need for funding for identified nations' long-term goals and intervention strategies, and available large earmarked donor funds that are more often based on foreign perceptions of effective strategies in the form of a one-size-fits-all programme. There is a tension between the need for urgent action, and at the same time ensuring that intervention programmes and strategies are built on sound research, taking into account the national, cultural and regional context. There is a tension between the need to mitigate the impact of AIDS on the one hand and the need to develop strategies to turn the trend around, on the other. The fragmented effort in the international arena coupled with often severely bureaucratic structures within the recipient countries cause further problems and frictions between nations. This often results in an overemphasis on external expert knowledge and action at the expense of local knowledge and ownership of the process. There is also the challenge to begin to explore the many sensitive underlying issues from within the cultures rather than from outside, without threatening people's sense of identity and causing friction between groups, cultures and nations.

1.2.1 Research objectives

The main objective of this vertical cross-sectional qualitative analysis of the impact of AIDS on the education system in Botswana is firstly to complement commissioned quantitative impact studies on AIDS and education in that country. Secondly, to begin to unravel the multitude of factors involved in schooling that are being influenced by AIDS, through providing an in-depth analysis of the impact on the different levels of the education system through the eyes of pupils, teachers, head teachers and educational officers at the regional and national level. It is suggested that only when we begin to actively seek children's perception of the impact of AIDS can we support mitigation and thus help children develop the resilience to cope with the impact (UNICEF, 2007). Thirdly, in line with Botswana's National Development Plan Nine (NDP-9), National Commission for Education (NCE), UNESCO's agenda of Education for All (EFA) suggests cultural and contextual sensitive qualities, capabilities, educational processes and systems that will need to be incorporated into the new curriculum, not only to support the mitigation process but also to help pupils to become active change agents in turning the trend around on a long-term basis. Seipone (MoE Botswana, 2005) suggests that bringing about behaviour change is the most important factor that will help reduce the number of new infections, and that such change is our greatest challenge in the fight against AIDS. Fourthly, it is hoped that the data and analysis, as well as the format, will contribute towards the emerging research field of AIDS and education, by providing valuable background data and a framework for the development of large-scale qualitative multilevel impact studies and monitoring tools.

Though the thoughts and focus behind this study were conceived in direct response to the findings in my Master's dissertation, they were discussed and encouraged by the Hon. Minister of Health in Botswana. Once the research questions and design had been developed, these were discussed and modified together with the Director of Research, Planning and Statistics within the Ministry of Education in Botswana, to ensure that this research project supported Botswana's research and development needs.

1.2.2 Research questions

This study therefore explores the following main questions:

1. What impact does HIV/AIDS have on the education system in severely infected areas?
2. What kind of educational components would enhance pupils' ability to develop capabilities that would allow them to make healthy and proactive choices about their behaviour now and in the future and take an active role in turning the current HIV/AIDS trend around?
3. What management strategies and systems would enhance the education sector's ability to provide quality primary education for all in the light of the impact of AIDS?

1.3 Theoretical perspectives and research methodologies

The initial lengthy interdisciplinary literature review into the impact of AIDS on different factors influencing children, teachers, head teachers, families and education, spanning disciplines such as sociology, public health, psychology, education, anthropology, development studies, revealed numerous ways in which AIDS influenced teachers, learners and managers of education. Moreover, documentary research into factors influencing Botswana's educational policy, dissemination and implementation development, revealed that proposed strategies from international consultancy projects and aid packages to Botswana were underpinned by findings from the School Effectiveness Research (SER) paradigm, with different success rates. This sparked a lengthy study into the SER paradigm and its sister paradigm, the Educational Indicator Research paradigm (EIR). Though these paradigms, as will be discussed in the literature review, have received severe criticism, they have also provided valuable information from which the many factors influencing pupils' learning and attainments at the different levels of schooling can be viewed and measured. Consequently, though this research does not draw on methodologies from these paradigms, it is nevertheless framed within them and uses knowledge derived from them.

1.3.1 School Effectiveness Research and Education Indicator Research paradigms

Both the School Effectiveness Research and the Educational Indicator Research paradigms were developed as a direct response to a perceived need for more detailed information about education, how and to what extent it achieved its goals, at a time when nations increasingly began to compete against each other and there was a growing concern that school had limited influence over pupils' outcomes. Whilst SER initially set out to disprove the interpretation of the Coleman et al. (1966) report that schools did not matter and that pupils' backgrounds were more influential in determining attainments, it has since then focused on identifying and measuring the magnitude of those processes which correlate positively with pupils' achievements in primarily standardised tests in subjects such as maths and language. The EIR paradigm, on the other hand, set out to track the performance of the educational system by developing particular indicators that are monitored at regular intervals. Indicators are thus designed to provide a lot of information by reporting the status of a few items. These are used to detect progress towards defined goals or to provide early warning signals of identified problems.

Whilst SER can be said to have primarily taken the traditional goals of education as de facto, EIR has engaged in the debate of the goals of education by measuring what is valued. It thus defines quality of education as "sustainability for purpose" (Fitz-Gibbon, 1996, p. 3). Consequently, EIR has focused on both academic and affective outcomes of schooling, while SER has focused primarily on narrow academic goals.

Both paradigms share similar origins and aims, are anchored within the positivistic research paradigm, use statistical models to measure outcomes and measure correlations rather than causations. Nevertheless, little overlap is found in the literature and they remain mostly independent in form.

Since their inception in the 1960s the two have grown in sophistication through a process of critique from both within and outside the paradigms. Methodologies and findings from the two paradigms have increasingly influenced educational policy, practice, definition of standards and direction at the classroom, school, regional and national level in both the West and the East. Findings from the SER, in the form of effectiveness variables, are migrating more and more across borders to the developing world, without taking into account the national and cultural contexts, the educational system with its goals and role of education, or the underlying values and beliefs about the nature of people and children, as well as the critique against the paradigm itself. The SER paradigm assumptions, theoretical perspective, and process variables are increasingly underpinning the process, one-size-fits-all models and advice in Western aid packages and international consultancy contracts to the developing world. While some prove to have a close fit with the local context, others are introduced without sustainable success, as they have limited anchoring within the local cultural context and system. Instead they serve as inoculations against further innovations and development initiatives both from within and from outside the country.

Despite the massive body of criticism against the two paradigms, the SER paradigm provides a framework from which education can be viewed and analysed, while EIR serves as a powerful tool to monitor valued outcomes of schooling. Though I challenge the SER paradigm's search for universality both now and in the future, its limited focus on primarily academic outcomes and function to compare schools across nations and continents and to hold schools accountable once contextual variables have been controlled, I also recognise the valuable contribution that the paradigm has made to unravel the many processes involved in schooling at different levels of the education system. The paradigm has therefore served as a valuable format from which the findings and the impact of AIDS can be viewed. However, as will be shown through this thesis, I do propose a number of development points for the paradigm, as well as a merger between the two paradigms, in order to identify variables and processes that will effectively support the mitigation process.

Consequently this study not only contributes towards the emerging research field of HIV/AIDS and education, but also to both these research paradigms. Through a qualitative approach this study begins to explore country and region-specific contextual variables and their potential form of measurement, as suggested by Teddlie, Stringfield and Reynolds (2000); it supports Fitz-Gibbon and Kochan's (2000) effort to try to close the gap between the two paradigms, by suggesting that the EIR paradigm can serve as a tool to monitor and measure the continually changing context of AIDS; it increases the exploration of important affective outcomes of schooling for the 21st century, as argued by Fitz-Gibbon (1996) and as suggested by Reynolds and Teddlie (2000); and it begins to identify potential interfaces between levels of schooling that I argue would need to be studied further in the context of AIDS.

1.3.2 Methodologies

Whilst these two paradigms have played a vital role in both identifying the many factors involved in effective schooling and in monitoring standards of quality of education in many countries in the West, in this early stage of this emerging research field and mitigation processes, research tools and assumptions from these paradigms may not yield reliable or useful results. Even after considering the lengthy interdisciplinary literature at the onset of this research project, I propose that there is still insufficient understanding of the many qualitative factors, at the different levels of schooling, that are influenced by the impact of AIDS, in order to select appropriate process variables or define qualitative outcomes and useful indicators to measure. Moreover, such methods would not sufficiently allow for pupils' voices to be heard.

Instead, as a first step this study seeks to answer the three research questions through an in-depth multidisciplinary multilevel qualitative case study approach. A lengthy literature review into the concept of researching children's perspectives on sensitive issues, both in the West and in Botswana, was also carried out before the research tools were developed and piloted. Drawing on research methodologies such as children's drawings and unstructured questions combined with a few structured questions, children's views of the impact of AIDS on their lives, their families, their country and

their learning were elicited. Children's perceptions of the impact are not only verified through unstructured questions, but also through observations and experiences obtained through semi-structured interviews with teachers and head teachers. The impact on teachers and on teaching and learning at the classroom level, and on the management at the school level, was elicited through semi-structured interviews with teachers and head teachers and verified through semi-structured interviews with head teachers, regional educational officers (REOs) and officers from the Ministry of Education (MoE). Validity and interpretation of data and cultural phenomena was thus sought through interviews with respondents at different levels of the education system, as well as through triangulation with other studies and government documents from Botswana and neighbouring countries.

This research was carried out in Botswana, a landlocked country in Southern Africa with a population of 1.6 million. Since its independence, Botswana has experienced both political stability and an economic growth rate (GDP) that outpaces that of the tiger economies (Leith, 2005). Botswana has reached the EFA goal of 100% enrolment in primary education and recent figures show 80% completion (MoE-1). Moreover, it was the first country in Africa to provide free Anti-Retroviral Therapy (ART) to all its citizens. However, a major concern in the early stages has been the limited uptake of this provision, as well as limited change in behaviour. As a result infection rates continue to grow. Until recently, Botswana had the highest prevalence of HIV-positive population.

The research was carried out in six average-level government primary schools in two districts in Botswana. The first area, Selebi Phikwe, was identified for its highest prevalence of AIDS, as approximately 46.5% of pregnant women test positive. The second area, Kanye, was selected because my Master's study was carried out a few years earlier in this area. Not only could differences over the years be detected, but as Kanye has a much lower prevalence of 28.2% of pregnant women, differences of impact in different levels of prevalence may also be detected. Schools were selected with different community-type contexts, through consultation with the REOs.

Whilst many studies and intervention programmes have focused on secondary pupils, as it is assumed that many of those pupils may already be sexually active, this study has focused on primary pupils, for two reasons. Firstly, because it is in the primary years of schooling that the foundation for values that underpin behaviour are developed and formed. Consequently, long-term interventions are more likely to be sustainable when focused on the primary school years. Secondly, many pupils have not yet become sexually active and are therefore primarily assumed to be HIV-negative.

This study is thus the first step in a series of studies aimed at supporting the development of strategies to turn the trend around. Whilst Luader et al. (1998) suggest there is a need to further explore contextual variables through a longitudinal study using primarily quantitative methods, I argue that it is only through first exploring the qualitative impact that the context of AIDS can be mapped, that indicators and tools that can measure the qualitative impact of AIDS on pupils over time can be developed and the context of AIDS fully explored. The development of such an indicators system thus becomes the second step in the proposed mitigation process. As will be seen in the next section, this and the third step will be discussed further in the data and analysis chapter (Chapter 6).

1.4   Overview of the chapters

Chapter 1, the introductory chapter, has provided an overview of the background to this study, the main research problem and questions, the theoretical perspective and methodology.

Chapter 2 provides an overview of the School Effectiveness Research paradigm, its theoretical background, underlying assumptions and its critique. It presents and discusses the paradigm's methodological development in its search to unwrap the 'black box' of schooling. The chapter challenges the narrow focus of academic goals and the paradigm's search for universality both now and in the future, at the level of process variables, once contextual variables have been controlled. It suggests that such an aim may fail to take into account national and local needs and cause a value shift in goals of education, which may marginalize many people whose interest and talents fall outside its narrow focus.

By proposing that HIV/AIDS needs to be regarded as a contextual variable in its own right, **Chapter 3** further challenges the SER paradigm's search for universality by exploring how the contextual variable of AIDS may influence the definition and possible measurement of the most commonly studied contextual variables. The interdisciplinary review of the impact of AIDS on children and teachers suggests that the context of AIDS may also have a differential effect on the various levels of schooling. Rather than statistically controlling for the context of AIDS, the chapter proposes that the real value in exploring the context is, at this stage, to understand how it influences pupils, teachers and head teachers, as well as teaching, learning and the management of education, in order to develop strategies to support the mitigation process.

Chapter 4 provides an overview of the Educational Indicator Research (EIR) paradigm, its theoretical background, underlying assumptions and methodological tools. In the absence of a cure for AIDS and where the only real vaccine is large behaviour change, the chapter presents and analyses factors that influence behaviour development and decision-making and analyses ways to measure and monitor affective outcomes through the use of the EIR paradigm.

Rather than carrying out a pure SER study using available tools and methodologies to control for the context of AIDS to identify variables that can support the mitigation process, **Chapter 5** proposes that the uncharted research field of AIDS and education would first need to be explored through a qualitative approach in order to identify how the context of AIDS influences the numerous processes of schooling. By using drawings, unstructured and semi-structured interviews this research seeks to capture the perceptions, thoughts and feelings of pupils, teachers, head teachers and officers at the regional and national levels, about the impact of AIDS on their lives and on teaching, learning and the management of education.

Chapter 6, which presents and analyses the qualitative impact of AIDS at the pupil, classroom, school and contextual level, argues that AIDS can no longer be regarded as

merely a health problem, but must be regarded as a contextual variable in its own right, as it influences all strata and organisations of society and at all levels of the education system. Its influence stretches beyond orphan and vulnerable children, as all children's lives, learning and attainments are affected. Hence, this data shows that the impact of AIDS, as shown in many studies, is grossly underestimated. The context of AIDS necessitates a shift in the goal, role and processes of education. In the light of these findings, I argue that in order to support the mitigation process there is an urgent need to develop a two-tier indicator system to monitor the qualitative impact of AIDS on the different levels, as well as pupils' progress towards the proposed goals. Such a step can not only provide valuable information about the impact of AIDS to support the mitigation process, but can also serve as a tool to measure the compositional effect of AIDS on pupils' learning. It can also provide tools and standards to measure pupils' progress and attainment against affective outcomes. Consequently the development of AIDS and cultural contingent educational indicators enables the identification of effective variables correlating positively to outcomes deemed essential in the mitigation of AIDS, through a SER study.

The **seventh and final chapter** concludes that although the numerical impact of AIDS, in terms of teacher mortality and absentee rates and orphan ratios in schools, is lower than initially predicted, its impact on all pupils' and teachers' lives and on factors that have been identified through the SER paradigm as contributing to high academic outcomes at the pupil, classroom and school level is more severe than previously assumed in other studies. Though the Government of Botswana and its teachers have shown great willingness and have taken great strides to mitigate the impact – arguably an example to many neighbouring countries – in order to ensure that the next generation becomes change agents for turning the trend around, these findings call not only for a redefinition of the quality of education, but by merging the SER and the EIR they also call for the swift development of a system that can effectively monitor and spur the mitigation process forward at all levels.

It is therefore hoped that through this study and its proposed further steps, we can begin to develop effective cultural and contextually sensitive long-term strategies to ensure that the year six pupil's perception of the future, quoted in the Dedication, does not become a reality.

2

The School Effectiveness Research paradigm – the search for a universal model of an effective school

"Every age hath its own problem, and every soul its own particular aspiration.
The remedy the world needeth in its present-day affliction
can never be the same as that which a subsequent age may require."
(Bahá'u'lláh, 1986, p. 213)

2.1   The School Effectiveness Research paradigm

The School Effectiveness Research (SER) paradigm was born out of controversy surrounding the Coleman (1966) report, which indicated that a child's examination results could be more accurately predicted by looking at the child's family background than at the school he or she attended. Early SER studies' primary focus was to dispute the interpretation of the report that 'schools did not matter' (Harris, 2001), while contemporary studies have searched for universally applicable school effectiveness factors which enhance pupils' outcomes beyond the average expectations, and have attempted to measure and compare the magnitude of these school effects. The SER paradigm, which can be said to have consistently striven for equity and efficiency, has now taken centre stage in educational policy development in many Western countries. In an increasingly competitive, market-driven, globalised world, findings and methodologies from the paradigm have been used by inspectorate systems to hold schools accountable; as benchmarks to improve schools; to compare schools within and between countries; and to share school effectiveness variables across borders and cultures. The SER paradigm is thus said to have become a global industry, claiming to produce consistent results when transferred to different contexts. As such claims raise a number of questions regarding its methodology and ideology, the paradigm's development path has been paved with criticism from researchers within and outside the paradigm. These have

served as springboards for further development and greater methodological sophistication. The following sections of this chapter aim to provide, firstly, an overview of the paradigm; secondly, to analyse the methodological issues related to the paradigm's search for universality; and thirdly, to analyse the critiques that continue to develop school effectiveness ideas.

Though the definition of school effectiveness has evolved during the last thirty years, Bollen (1996) suggested that it can be defined as

> "the extent to which any (educational) organisation as a social system, given certain resources and means, fulfils its objectives without incapacitating its means and resources and without placing undue strain upon its members". (Georgopoulos and Tannenbaum, 1957, in Bollen, 1996, p.2*)*

However, as SER is anchored within the positivistic research paradigm, the latter part of the definition may be hard to measure statistically (Bollen, 1996). At the heart of the SER paradigm is the quest to explore the relationship between school organisations and the extent to which they achieve their goals, by identifying those 'process variables' or 'school effectiveness factors' which will have a direct impact on pupils' academic results. Variables which are assumed to have an impact are thus selected and statistically tested against each other and against pupils' academic results, to identify the link between process variables and outcome. Consequently, factors which have not been investigated could not show any correlation. Fidler (2001) suggests that there is therefore a risk that local common sense factors or contextual specific process variables are disregarded, as these are not measured. Whilst the Educational Indicator Research paradigm (EIR) is driven by conceptualising desirable outcomes, the SER paradigm, whose primary focus is the school system, has been criticised for its conservative affiliation. It accepted prevailing educational goals, content and form as 'de facto', rather than engaging in the debate about what schools ought to be and the role they should serve in societal development.

Measures of pupils' outcomes and performance therefore continue to be restricted to mostly historical and quantifiable data, usually derived from test scores of basic skills in standardised tests in subjects such as maths, science and in some instances language. National test scores, such as the GCSE in the United Kingdom, are also applied (Fidler, 2001; Reynolds and Stoll, 1996). Though some studies have used behaviour outcomes based on attendance, truancy levels and socio-psychological scales (Rutter et al., 1979), most of these have been measured against pupils' academic results of processes of learning. Whilst Lauder points out that "not all justifiable processes of aims of education can or should be measured quantifiably", many would agree that such restricted measures of pupil's outcomes can easily lead to a narrow view of the goal of education and the definition of an effective school (Slee and Weiner, 1998). Rather than engaging in the debate about the goal of education and the particular needs of the question under study, scientists within the SER paradigm have primarily been concerned with the scientific rigour required to avoid methodological criticism (Ralph and Fennessey, 1993; Rowan, Bessert and Dwyer, 1993)

In pursuit of a robust and scientific method and evidence to

> "illustrate a complex idea and to reveal a more acute picture of the
> many factors in schools which determine standards among pupils"
> (Sammons et al., 1994, p.1)

the SER paradigm uses statistical models, such as Zero-sum multilevel and Ordinary Least Square (OLS) regression analysis and multilevel modelling, to calculate to what extent selected variables, the so-called 'school effects', enhance pupils' progress beyond the average expectations (Sammons et al., 1995). The magnitude of the school effect, on the other hand, can be defined as the difference between a school's average performance level and expected standards, after adjusting statistically for the characteristics of the school's intake (Willms, 1992). Though early studies measured impact at one point in time, researchers now regard growth in pupils' achievement over time as the most appropriate way to measure impact of schooling (Hill and Rowe, 1996; Raudenbush,

1989, Stringfield, 1994a; Willms, 1992). This indicates that there is a direct effect associated with attendance at a particular school (Cuttance, 1985). The SER paradigm is therefore concerned with the extent that schools differ from each other; schools are subsequently described as "effective if their pupils perform at a higher average level than the average school" (Cuttance, 1985, p. 13). Though each school is considered to have its unique impact on pupils' outcome, this effect is in direct proportion to schools with similar background and resources. Fidler (2001) therefore concludes that a school may be regarded as effective as a direct result of its own improvement, by decline in other schools, or by both. Though researchers over the last thirty years have questioned the existence of school effects, there is now a common understanding that school effects do exist and that they are substantial (Mortimore et al., 1988; Reynolds and Cuttance, 1992; Scheerens, 1992; Teddlie and Stringfield, 1993), even though they may not be as influential as the family and the community, as previously believed (Reynolds, 1992). However, the magnitude of the school effect is greater and more easily detected in school systems with more variance. Consequently, schools in homogeneous systems or those with a low level of variance would show a lower level of school effect (Hill and Rowe, 1996; Tymms, 1993, Rutter, 1983a, 1983b). Rutter (1983a, 1983b) therefore concluded that the variation in students' achievement is influenced by the extent of the variance within the school system of study, the methodology used and the choice of process, outcome and contextual variables, as well as the level of analysis.

The historical focus of the school as the only level of analysis has been severely criticised for its distance to factors which have a direct effect on pupils' learning, namely the classroom level factors. SER can thus be said to be built on the assumption that schools, rather than teachers, have a direct impact on pupils' attainment (Hanushek, 1986). Bollen (1996) argues that in the absence of a global consensus on the goal of education, school effectiveness would need to be built on teaching and learning in order to become transferable to other cultures. However, even this view may not necessarily take into account the particular processes required for teaching in particular contexts. There is now, however, a general agreement among SER researchers that classroom level factors have greater influence over children's levels and rates of learning than school level

factors. Although the introduction of multilevel modelling has allowed SER to study the different levels of schooling's impact on learning, the school level remains the most common level of study. As learning is now rightly being viewed as an ongoing process as the child progresses through the years, it is argued that the school level becomes more important than the individual class effect. The sum of all teachers' efforts, which is greater than the sum of the individual teacher, can thus best be measured at the end of a phase through longitudinal rather than cross-sectional studies (Rowe and Hill, 1994; Hill and Rowe, 1996; Raudenbush, 1989; Willms, 1992). Moreover, detection and the impact of school ethos are easier in longitudinal school level studies (Teddlie, Reynolds and Sammons, 2000) and policy makers argue that whole school level change is more effective. The continual debate between the most effective levels of analysis thus supports Creemers' and Reezigt's (1996) call for the development of a SER model and the use of multilevel analysis involving the pupil, classroom and school level. This, they argue, would not only play a vital part in depicting the numerous processes involved in effective schooling, but also in enhancing SER's transferability. The development of a model will be discussed further in section 2.2 on the search for effective process variables.

The paradigm is thus built on the assumptions that there are relatively autonomous relationships between various departments and levels within schools and that by analysing the performance of each level separately, effectiveness at each level and between the levels can be identified (Lauder et al., 1989). By drawing on the research of Barr and Dreeben (1983), Lauder et al. (1989) point out that the SER paradigm assumes that a school's structure and organisational culture, although interlinked with central and local government, is relatively autonomous. Moreover, SER is built on the assumptions that school effects are not caused by chance, but rather through structural adjustments in school organisation and teaching (Lauder et al., 1989); that schools are rational, in that goals are clear and agreed and are related to pupils' achievements (Harris, 2001); and that teachers and pupils will respond favourably to the system as within any other organisation (Lauder et al., 1989). This disregards individual pupils' and teachers' motivational factors (Jamieson and Wikely, 2001), and cultural and religious influences

(Thrupp, 1996) on individual perceptions of self, learning processes and the purpose of school.

Although the SER paradigm emerges as a direct response to the Coleman report, rather than as a consequence of a more recent market-driven educational reform (Sammons et al., 1996), research findings and methodologies have been adopted by policy makers and politicians as a means to solve an alleged educational crisis (Mortimore, 1998) and as a vehicle for macro political change (Hamilton, 1998; Ball, 1996). The SER paradigm's operational branch, the School Improvement Research (SIR) paradigm, emerged as result of early SER researchers' dissatisfaction with merely identifying processes within an effective school and consequently they set out to build effective schools for the urban poor. However, the two paradigms remain separate. Though SIR scholars now rarely base their school improvement strategies on work from SER (Mortimore, 1998; Reynolds, 1991a), Stoll and Finks (1992, p.24) suggest that

> "it is only when school effectiveness research is merged with what is known about school improvement, planned change and staff development, that schools and teachers can be empowered and supported in their growth towards effectiveness."

However, hardcore SER researchers would perceive such a merger as a betrayal of the paradigms (Reynolds et al., 2000). Fidler (2001, p.47) argues that it is illusionary to assume that

> "if school effectiveness research can identify the features which make a school successful then school improvement research can provide a means by which these features could be put in place and all schools could be made effective."

The two paradigms differ greatly in their core beliefs, conceptualisation and theoretical and methodological orientation. As Fidler (2001) suggests, factors identified as effective

may not be the same as the ones originally making the school effective. Nevertheless, school effectiveness factors are prescribed as "good practice" by local educational authorities and used at the school level as goals for improvement, often regardless of contextual factors such as culture, stage in school development and type of leadership.

Hamilton (1998) points out that by adopting a sales pitch discourse whilst ignoring the concerns, critiques and complexities identified by the research community, some governments now offer "quick fix", short-term, best-fit D-I-Y packaged solutions in the form of school effectiveness lists which can be applied to educational settings deemed to be failing. However, Slee, Weiner and Tomlison (1998) and Ranson (1997) argue that these prescriptions cannot be taken on trust, as their educational principle and theoretical and methodological standpoints are questionable.

In the early stages school effectiveness research and literature focused almost exclusively on the country of origin. Very few cross-national studies existed (Reynolds, 2000). However, school effectiveness variables are now increasingly migrating across borders, as "simplistic transplants of knowledge from one culture to another, without any detailed acknowledgement in the political or educational policy debate" (Reynolds, 2000, p.233). In the SER search for universality, Reynolds (2000) calls for greater international collaboration to develop a greater understanding of how school effectiveness variables are related to the local and national contexts. However, the migration of the paradigm has not only involved effectiveness variables, but SER studies are now carried out and used to monitor and compare countries in both the developing and the developed world in the form of national and international league tables. Though these have been used to identify "good practice" and provide grounds for national studies, the outcomes of such studies offer grave concern as to their validity, as curriculum, educational policy, cultural practices and age of intake vary across borders.

Despite practitioners and politicians sometimes misusing SER findings, Reynolds (1995, p. 53) suggests that the paradigm has

> "helped to combat pessimism about the importance of the school system, to build professional self esteem and to provide a knowledge base that can act as a foundation for the development of improved practice."

Though it has provided a valuable baseline against which to evaluate schools and can be said to have consistently striven for equity and efficiency for all, the paradigm's search for a universal model of effectiveness continues to be plagued by criticism. A large proportion of this critique centres on the methodological concerns surrounding the identification of school effectiveness factors and the calculations and comparisons of these factors. The following section will explore SER's search for universal process variables.

2. 2   Process variables – the search for the Holy Grail within SER

The search for variables which may have a direct impact on pupils' learning has been at the centre of the SER paradigm since its inception, when the first economically driven input-output studies made use of pupils' test scores as output variables, and of purely static input school factors such as number of school books, per pupil expenditure and school facilities and pupils' SES background (Reynolds, Teddlie, Creemers, Scheerens and Townsend, 2000). However, SER's continued focus on educational goals, or output variables, deriving from its inception, can arguably be perceived as one of its greatest stumbling blocks for universality, as it may not take into account countries, contexts and individual schools' particular educational goals. Consequently, process variables which are effective for one particular goal in one country may not be perceived as effective within the context of other educational goals. Hence validity of outcome may be questionable. However, SER's limited focus on academic goals based on standardised test scores in maths and language can, at the same time, be perceived as enhancing its transferability, as goals within these areas can more readily be universally agreed.

Though SER's limited focus on academic achievement outcomes has been severely criticised (Good and Brophy, 1986; Hurley and Smith, 1993; Ralph and Fennessy, 1993: Fidler, 1998; Rose, 1995), the majority of SER studies continue to focus on limited academic outcome measures. Research findings, however, now suggest that outcome indicators, which tend to focus primarily on academic results, do not present a true picture of a school's effectiveness status (Teddlie and Stringfield, 1993). Hence, there is now a growing conclusion that there should be outcome measures other than purely academic (Good and Brophy, 1986; Levine and Lezette, 1990; Purkey and Smith, 1983; Rowan et al., 1983), as non-achievement outcomes or sensitive outcomes such as pupils' behaviour, attitudes, or self-concept are also important outcomes of schooling. Although a minority of studies have used multiple outcomes measures that include some behaviour indices, most of these have related to pupils' or teachers' attendance and retention, or in a few studies measures of self-concepts and locus of control through effectiveness scales. However, even the latter outcomes have primarily been in relation to perception about academic ability and achievements (Fitz-Gibbon, 1985, 1991; Kochan et al., 1996; Mortimore et al., 1888; Reynolds, 1979a, Rutter et al., 1979) rather than in relation to people, society, or life beyond school in an increasingly globalised world. In studies focusing on both social and academic outcomes, results from primary schools indicate that the two are loosely linked, whilst in secondary schools they are more closely related. However, Kochan, Tashakkori and Teddlie (1996) found that in some cases school effects were larger in non-academic achievement outcomes than in the academic. Differences may, however, be caused by individual schools' particular balance of focus between social and academic outcomes. Whilst there is a considerable body of evidence indicating that schools can vary in their effectiveness in promoting academic outcomes, there is much less evidence concerning schools' ability to effect pupils' social outcomes. Likewise, such findings may be caused by limited correlation between the schools' goals and the studies' outcome measures.

Though there is a growing recognition of the need to focus on both social and academic outcomes and some contemporary studies are beginning to use more sensitive outcomes such as attendance, attitudes and behaviour (Teddlie and Stringfield, 1993), Teddlie and

Reynolds (2000) suggest that future research would need to include attitudes towards self and other, which would support UNESCO's (Delors, 1996) Education for All's (EFA) principle of "learning to live together". Furthermore, Fitz-Gibbon (1991) argues that outcomes also need to be sensitive to the needs of the 21st century, hence measures such as perceived racism, equal opportunities and learning to learn would need to be included. Moreover, Teddlie and Reynolds (2000) suggest that where possible it would be important to measure behaviour, since it is behaviour that is likely to be crucial in determining the nature of future society. Hence the establishment of universally agreed denominators or sets of outcome measures at some level would be deemed paramount in the search for transferable process variables or school effectiveness factors, since these are in direct relation to outcome measures.

Taking the prevailing educational goal and aims as de facto, the SER paradigm sets out to identify those school effectiveness factors or process variables which are predicted to have a direct impact on pupils' achievements. In reviewing major SER studies in different countries over the years, a wealth of effectiveness factors or effective process variables emerge. Whilst early studies in the US focused purely on academic outcomes, early studies in the UK involved some behaviour indices. Though studies were carried out in different contexts with likely different educational goals, using different research designs and outcome measures, considerable overlaps in effectiveness variables have been found between the studies. Whilst these can be grouped into effectiveness variables of effective leadership, effective teaching, developing and maintaining focus on learning, positive school culture, high expectations, student responsibility and rights, monitoring and assessment, staff development and parental involvement (Reynolds and Teddlie, 2000), there is a risk that they may be interpreted differently in different contexts and cultures.

Process variables at the school level thus indicate that effective leadership is paramount to school effectiveness (Hopkins et al., 1994) and would involve shared, firm and purposeful leadership (Rutter et al., 1979; Mortimore, 1988; Teddlie and Stringfield, 1993; Sammons et al., 1997), a clear vision amd mission (Louis and Miles, 1992), a high

level of involvement in academic affairs (Levine and Lezotte, 1990) and monitoring and proactiveness in staff performance (Levine and Lezotte, 1990; Armor et al., 1979; Mortimore et al., 1988; Teddlie et al., 1989a; Austin and Holowenzak, 1985).

Furthermore, a positive school culture with a strong vision, mission, sense of community (Hopkins et al., 1994) and a positive climate for pupils (Reynolds and Sullivan, 1979) would be built on shared goals (Rutter et al., 1979; Lightfood, 1983; Stoll and Finks, 1994; Edmonds, 1979a, 1979b) and a high level of perceived ownership (Fullan, 1991; Hopkins et al., 1994), coupled with consistency of rules and application of policy (Rutter, 1979) and orderliness (Edmonds, 1979a).

Effective teaching, with high focus on academic goals and processes, would involve a high commitment to mastery of central learning skills (Levine and Lezotte, 1990) and a student culture which encourages achievement (McDill and Rigsby, 1973). Moreover, a wide curriculum coverage (Bennett, 1992), the use of regular and checked homework (Ruter et al., 1979; Sammons et al., 1995b) and giving high priority to maximising learning (Anderson, C., 1992; Teddlie and Stringfield, 1993; Teddlie, Kirby and Stringfield, 1989), have been perceived as effective at the classroom level. Furthermore, high expectations of pupils' academic achievement and behaviour have since the early Edmonds model shown the most consistent positive results (Brookover et al., 1979; Edmond et al., 1979a, 1979b, 1981; Stringfield and Teddlie, 1993; Stringfield and Teddlie, 1991b; Rutter et al., 1979; Mortimore et al., 1988; Reynolds et al., 1994a; Sammons et al., 1988; Reynolds and Cuttance, 1992; Creemers, 1992; Levine and Lezotte, 1990).

Though frequent monitoring of pupils' progress was already identified as contributing to effectiveness in the Edmond's (1979a, 1979b) five factor model, frequent monitoring and over-testing can also have an adverse effect (Mortimore et al., 1988). However, both the school improvement literature (Hopkins et al., 1994) and the High Reliable School programme (Stringfield, 1995; Reynolds and Stringfield, 1996) support the notion of

monitoring and evaluating and the use of rich data as an integral part of school development.

Though school-based staff development has shown in many studies to lead to effectiveness (Austin and Holowenzak, 1985; Hallinger and Murphy, 1985; Mortimore et al., 1988), it is vital that such programmes are practical and an integral part of the school development, rather than an ad-hoc activity (Mortimore et al., 1988). Finally, whilst parental involvement has generally been perceived as a positive effectiveness factor (Levine and Lezotte, 1990, Armor et al., 1976), some contextually sensitive studies have indicated that the impact of parental involvement may vary between different contextual factors (Brookover and Lezotte, 1979; Hallinger and Murphy, 1985, 1986, 1987; Teddlie and Stringfield, 1993). Likewise, depending on the type of involvement, the impact may be positive or negative. Whilst involvement such as synchronising home and school demands, raising resources within the school, or liaison with children's individual teachers has been perceived as positive, involvement in parent-teacher associations, which can easily lead to clichés and complaints, may have shown a negative effect (Reynolds and Teddlie, 2000).

However, in grouping variables together regardless of context, research design, outcome measures and national educational policy and goals, there is a risk that effectiveness factors may be interpreted differently, which would consequently question the validity of the results. Researchers have therefore called for a model, which could provide a theoretical framework for SER studies, guide future researchers and describe and compare studies more easily.

2.3   The search for a SER model

The early SER studies in the 1980s were severely criticised for a lack of hierarchical analysis of the aggregated and mixed level data gathered through the Ordinary Least Square (OLS) regression analysis. With the introduction of multilevel modelling, which analyses data at different levels as well as over time, the problem was rectified. It was now argued that school processes could be more adequately depicted. Changes in a

school's effectiveness status over time could now also be identified (Fidler, 2001). Whilst the early SER studies demonstrated significant difference in the magnitude of the school effect between the two methods, a review of more recent work shows limited difference (Daly, 1991; Fitz-Gibbon, 1992, 1995a, 1996; DeLeeuw and Kent, 1995a, 1995b; Mason, 1995; Freeman and Teddlie, (1997). However, whilst Teddlie, Reynolds and Sammons (2000) suggest that anyone who would like their SER studies to be taken seriously should use multilevel modelling, there are still many researchers who opt for the OLS regression analysis, due to the complexity and universal inaccessibility of multileveled modelling. Tymms (1993) argues that if monitoring of schools through the use of SER is going to contribute to school improvements, and for the process to be transparent (Fitz-Gibbon, 1992), school data and calculations need to be accessible to those involved in the improvement process. She therefore proposes a two-step middle way strategy with an initially more simple analysis for school use, followed by a more sophisticated longitudinal multileveled analysis.

With the introduction of multilevel modelling a number of SER models have been developed. Though many of these support Edmonds' original five factor model, most multileveled SER studies are based on the early Carroll (1963) model, as it most clearly depicts the processes within a school through offering a set of relevant factors at the pupil and the classroom level (Creemers; 1991; Scheerens, 1992; Stringfield and Slavin, 1992; Walhberg, 1984). In this model, which Creemers (1994) suggests has sufficient empirical evidence to verify its influence, students' achievement is defined by

> "the degree of learning, as a function of the time actually spent divided
> by the time actually needed by a student." (Creemers, Sheereens and
> Reynolds, 2000, p.283)

The function of pupils' learning rate would, according to Carroll (1963), be based on aptitude, perseverance, ability to understand and the quality of instruction and opportunity to learn, whilst actors at the school and context levels would be measured to the extent they enhance the class level factors.

At the pupil level this would suggest that in addition to pupils' background, motivation and aptitude, the time that they are willing to spend on learning determines their achievement. In addition to the pupil variables, the classroom level would include the quality of teaching and teacher behaviour. Whilst quality of teaching would be measured through the use of grouping of children, resources, curriculum, structure and assessment of teaching, teacher behaviour would be determined by the ability to create a orderly learning environment with high expectations, the ability to structure, transfer knowledge in a sequential and clear way and use evaluation of pupils' learning, feedback and corrective instruction effectively. At the school level, Levine and Lezette (1990) and Scheerens (1992) suggest that most of the variables such as orderly climate and evaluation of pupils' achievements are reflections of the extent to which they enhance variables at the classroom level. However, due to insufficient research there is limited empirical evidence to differentiate the separate contributions at the school level. Consequently, rules, agreements, policies and management structures regarding classroom instruction, use of curriculum materials, teacher behaviour, testing and assessment, and consistency within and between grades are measured against pupils' outcomes. However, in addition, the organisational structure and culture related to ownership of educational goals, ethos, policies and school development, absenteeism and cancellation of lessons, creation of cohesion, coherence and continuity, are also measured against their effect on pupils' achievements. At the context level, on the other hand, time, opportunity and quality of instruction are translated into national policy recommendations in relation to subject time, the availability of an indicator or monitoring system, supervision and training (Creemers, Sheerens, and Reynolds, 2000).

Though it was hoped that the synchronisation between levels would clarify how they affect each other, researchers have found that these relationships are not as clear-cut as earlier envisioned. Furthermore, Fidler (2001) suggests that though effectiveness variables are perceived to operate concurrently, many factors may need to be analysed in a sequential manner. Reynolds and Teddlie (2000) thus advocate the need to explore the interface between levels as well as relationship patterns within the schools' impact on

pupils' outcomes. Drawing on theories from sociology and methods from qualitative research, Durland and Teddlie (1996) and Teddlie and Kochan (1991) used network analysis to link the levels of analysis through patterns of personal relationships. Reynolds (1992b) argues that sociograms are more effective as they are less reactive than surveys (Webb et al., 1981). Speculative work into ineffective schools would suggest a relationship between a low level of network and dysfunctional staff relationships (Myers, 1995; Stoll, 1995; Stoll et al., 1996; Stoll and Fink, 1996; Teddlie and Stringfield, 1993), as the presence of clashes, feuds and personal agendas would hamper rational decision making, argues Reynolds (1996). Effective schools, on the other hand, are assumed to have more integrated and coherence relationship patterns (Durland and Teddlie, 1996; Teddlie and Kochan, 1996). Although coherence within practice has been associated with effective schools within most SER studies, I would suggest that coherence can be analysed at the level of vision and values, policy, and the pragmatic level of classroom practice. Drawing on theories of change, school improvement, and human capacity development, coherence has proven important at the first two levels, whilst I would argue that differences in practice would need to involve honouring and utilising the uniqueness of each individual's strengths and capacities. However, such range in practice has mostly been associated with less effective schools within SER (Teddlie and Stringfield, 1993). Drawing on literature on family socialisation, Teddlie and Reynolds (2000) point out the crucial link between parental consistency in rule enforcement and healthy child development and similarly the link between inconsistent discipline and dysfunctional individual behaviour. However, such a parallel would suggest that schools that are drawing on staff's unique and different capabilities and strengths, thus increasing the range of practice, would be assumed less effective. Similar increase in range has been noted in studies measuring school improvement intervention, as members of staff take ownership of intervention at different rates. Consequently school improvement interventions have lowered the school effectiveness status through increasing the range within practice. Whilst Reynolds and Teddlie (2000) therefore call for the study of the impact of range, I would suggest that it would be important to differentiate the study of range to the level of vision and mission, policy and classroom practice. Furthermore, I would suggest a differentiation between the range's effect on academic and sensitive

outcomes, as a wide range in practice may prepare pupils more effectively for life in an increasingly globalised world, while it may be less effective in terms of developing narrow academic skills in maths. Hence range in practice may need to vary between contexts, as well as over time, as a result of the shifting constellation of an ever more interconnected society.

2.4 Contextual variables

At the heart of the School Effectiveness Research paradigm is the search for a highly reliable organizational model, which transferred to different contexts still gives consistently similar results (Creemers, 1994). With the introduction of contextual variables into the SER paradigm, Teddlie, Stringfield and Reynolds (2000) suggest that the paradigm has taken a leap into remedying what was previously perceived as the greatest limitation to the paradigm (Good and Brophy, 1986). As contextual variables enhance the generalisability of school effects, Bryck et al. (1986a, 1986b) argue that schools can now accurately be compared with each other. Though there are still researchers who contest the existence of contextual variables, the study of context has greatly enhanced the development of all three strands within the paradigm and led to a more advanced level SER theory (Teddlie, Stringfield and Reynolds, 2000). The following section explores the nature and impact of contextual variables on pupils' outcomes, the magnitude of school effects, process variables and the interplay between contextual variables, as well as its claim to universality.

Contextual variables, or composite variables as they are sometimes called, can be defined as

> "the differential effect associated with certain variables (specifically SES of student body, community type, grade-phase of schooling and governing structure) upon scientific properties of school effects, the characteristics of effective schools and the school improvement process." (Teddlie, Stringfield and Reynolds, 2000, p. 163)

These variables have an impact on pupils' outcomes beyond the individual pupil's or teacher's effort, capacity or background (Willms,1992). However, Shavit and Williams (1985) noted that there are circumstances where these effects are hard to detect, such as areas and countries with limited variation between schools. The magnitude of the contextual variable is affected by variation between schools, statistical model and the type of outcome measures used (Willms, 1986). A number of studies have failed to detect a contextual effect (Alwin and Otto, 1979; Bondi, 1991; Mortimore et al., 1988) suggests that they are statistical artifacts generated by a underspecified mathematical model or caused by peer pressure (Blakely and Health, 1992; Clifford and Health, 1984; Erbing and Young, 1979). Research in the Netherlands draws upon contingency theories to explain their effect and predict future results (Scheerens, 1992).

Though researchers have explored a variety of context variables such as school size, experience of head teacher and faculty and country, in reviewing contextual sensitive studies Teddlie, Stringfield and Reynolds (2000) found that the compositional effect of SES of student, community type, grade-phase of schooling and governing structure have yielded the clearest differential results. They suggest that countries may need to develop their own contextual variables specific to their country and they warn against using too many, as it may lead to balkanization and theoretical entanglement.

Findings from contextually sensitive SER studies have shown that the magnitude of contextual variables varies in different settings. Characteristics of school effects may also vary even though contextual differences have been controlled. This suggests that there is a link between context and process variables, as schools have tended to use different strategies in different contexts to become effective. Teddlie and Stringfield (1985, 1993) for instance found that schools in high SES areas became effective by promoting high pressure and future expectations. However, schools in low SES areas were effective by emphasizing high present expectations. Similarly, effective process variables varied between grade-phases. Whilst relevance of the curriculum was important in secondary schools, it showed less importance in primary schools (Firestone and Wilson, 1989). Great variance was also seen in the type of management and leadership in different

community type, grade-phase and SES contexts. However, as Cuttance (1988) predicted, the type of leadership may not only be connected with those contextual variables, but also with the school's development phase. This would suggest that there is not only an effect of individual contextual variables, but also a separate effect related to the link between two or more contextual variables. Hannoway and Talbert's (1993) findings support this notion, as their research indicated that school size has a positive effect on teachers in suburban schools but a negative effect in urban schools. Though researchers have speculated about the reason for these differences by drawing mostly on contingency theories, few have drawn on cultural or sub-cultural characteristics such as values and beliefs about the nature of children, learning and education held by these groups or communities. Willms and Raudenbush (1989, p.213) indicate that

> "researchers have not yet specified precisely the mechanism though which contextual effects arise… but to some extent they are associated with factors that lie outside teachers' control, such as peer influence or the effect of the local community."

Despite contradicting results and views of interpretation, an overall review of results from studies in the UK, USA, and other countries indicates that there is, indeed, a compositional effect. Though the introduction of contextual sensitivity into the three strands of SER has played a vital role in exploring SER's claim to universalism and has led to greater sophistication within the paradigm, Brown (1998) argues that the use of current contextual variables are over-simplistic, mostly developed within a Western context, and are thus insufficient in comparing schools between countries and continents. A critique which would adhere to Reynolds and Teddlie (2000) calls for the study of regions and nations, as there may be great differences particularly between large countries or in the developing world, because not only the geographical context may vary, but also the educational context at the national policy level. Harber and Davies' (1997) findings indicate that there are great differences between the educational context of the developing world and that of Western industrial nations. However, they argue that the perceived need to generalize about the developing world may cloud our abilities to

recognize and highlight similarities between the two. They therefore propose that they should be seen as a broad continuum rather than two opposing poles. Whilst Reynolds (2000) suggests that the context of community may be the most important when transferring SER to the developing world, Harber and Davies (1997) suggest that demography, economics and resources, health, culture and the context of war may need to be explored.

However, Rea and Weiner (1998) argue that contextual variables are not only the factors that need to be controlled, as currently done within SER, but variables which need to be explored, identified and analysed in order to determine their impact on teaching and learning, attitudes, beliefs and attainments as well as how they best support development. Though the context has been shown to have an impact on effective process variables, I would suggest that a particular context may also need to influence the goal, values and the desired outcomes and output of education. There is therefore a need to study how particular contexts and their educational values influence educational goals and outputs in different countries.

2.5 Critique of the SER's search for a universal and transferable model

At the heart of the School Effectiveness Research paradigm is the search for a highly reliable organisational model which, if transferred to a different context, would give consistently similar results (Creemers, 1994). However, Slee and Weiner (1998) and Bollen (1996) contest this aim, arguing that it would assume that the concept of "school effect", once contextual factors have been controlled, would be universal now and in the future. All stakeholders would also be assumed to adhere to the same educational values and beliefs (Slee and Weiner, 1998; Bollen, 1996). Similarly, one could argue, such an aim would suggest that all pupils and teachers possess the same potentials and have developed the same preferences and capacities. Differences identified between schools and within individuals are seen, within the SER paradigm, as contextual variables to control rather than diversities to analyse, celebrate and explore their relationship with

pupils' achievements. Rea and Weiner (1998) consequently advocate that within such a model pupils are objectified and regarded as intake variables.

Furthermore, there is growing unease concerning the narrow role and aim of education generated through the SER paradigm. Its limited focus on pupils' test scores of basic skills in maths and language as outcomes of effective schooling have detracted attention away from the broader curriculum, higher order learning, and the moral, social and aesthetic aspects of learning (Fidler, 1998; Rose, 1995). Placing such high emphasis on limited measures to evaluate school effectiveness brings the increased risk that teachers teach to the exams (Fidler, 1998). This questions both the validity of the outcomes as well the moral obligation towards the broad curriculum. Rose (1995) argues that using such outcomes as the basis for defining effective schooling and as goal posts for school improvement makes education terribly impoverished and narrow. Furthermore, I would argue that by limiting the definition of effective schooling to the currently measured subjects, an over-emphasis of the value of subjects is created at the expense of others within the school, in the minds of the public, teachers and pupils. This is a value shift which can cause many pupils whose talents, interests and gifts lie outside these measurable subjects to feel marginalised. Thus one may argue that equity and efficiency for all, transpired from SER, would be more closely related to sameness than to equality and justice. Moreover, societal development in the local, national and global arena may require other values to be placed equally high on the agenda in order for academic achievements to be fulfilled and effectively used for societal development.

In reviewing the impact of SER on educational processes in many Western countries, Hamilton, (1998) and Ball (1996) condemn the use of the paradigm by policy makers as a vehicle for macro political change and suggest that the SER and its operational branch school improvement is now driven by the whims of the market economy rather than principles about the nature of children and the role of education in shaping the next generation (Slee and Weiner, 1998; Ranson, 1992; Fiddler, 2001).

From a methodological standpoint Fidler (2001) questions the validity of SER findings, as he argues that findings derived from regression analysis and multilevel modelling of a number of schools at one point in time measure correlations between pupils' outcomes and factors already assumed to be significant. Hence, factors which have not been investigated could not show any correlations and consequently local, regional or national common sense effectiveness factors may be disregarded and invalidated, as they have not been measured. Furthermore, he suggests that a school's effectiveness status is not a true reflection of an individual school's impact on pupils' outcomes, as calculations are based on a zero-sum model where the effectiveness status is related to the performance of other schools. Consequently one could argue that such a measure cannot be used to hold schools accountable for their practice nor be easily transferable to other schools.

Lauder et al. (1998) contests SER-inspired inspectorate systems' assumptions that schools have the same capacity, potentials and limitations, once contextual factors have been controlled. They support Fidler's argument that schools cannot be held equally accountable for pupils' outcomes using such a model, as their relative autonomy would differ. Drawing on the work of Brown (1987) and Thrupp (1996) which indicated that the mixture of pupils' social class created a school's culture and influenced its pedagogy, rather than the other way around, and on contingency theories, Lauder et al. (1998) propose a longitudinal re-evaluation of contextual factors influencing school effectiveness. Making use of quantitative and qualitative methods, they suggest that such a study would need to seek to understand the school's community, its intake and the educational market's impact on educational outcomes over time. The study would seek to understand the conditions in which schools could perform better and the contextual criteria needed to hold different schools accountable. Lauder et al. (1998, p.64) consequently argues that they would break with the "proselytizing inference that because some schools can be relative autonomous and hence 'effective', that all schools can".

Similarly, Jamieson and Wikely (2001) challenge SER's argument of universal school effects which can be transplanted and used regardless of internal and external contextual factors. Drawing on research focusing on learning by Kolb (1984), Hudson (1979) and

Gardner (1993), rather than teaching as within SER, as well as on studies indicating that each subject requires its own set of learning attitudes, behaviour and activities (Whitty et al.,1994), Jamieson and Wikely (2001) dispute the consistency approach advocated by SER. They remark that such an approach may in fact have a demotivating effect on schooling in the long run as it strips people "of their social identities, culture and experiences" (Jamieson and Wikely, 2001, p.168): an effect they argue could be seen in Steinberg's (1996) large-scale school effectiveness study where approximately 50% of pupils had disengaged themselves from learning by the age of 12-16. Rather than laying the blame solely on the school, they propose that this lack of motivation is dependent on contextual factors and partially derives from a combination of socio-economic inequalities, neo-liberal ideologies (Green, 1990) and the lack of connection between educational credentials and employment opportunities.

Jamieson and Wikely (2001) consequently postulate that motivation has a direct impact on pupils' outcomes and argue that "unless pupils are engaged and motivated to learn, school effectiveness strategies are unlikely to be very effective" (p.169). Ascribing to contingency theories, they propose that teaching and learning strategies should take into account the sub- and local cultures within and outside the school and evolve through a process of bargaining between the school and its clients to adapt to the needs and motivation of the pupils. However, while I support the close link between motivation and pupils' outcomes, I would argue that such a proposal could, if not set in relation to a number of contextual factors such as culture, grade-phase, local, national and global trends, take education further down the route of instant gratification and swaying to the whims of the increasingly materialistic market economy.

Adherence and exploration of contextual factors thus play a vital role in exploring SER's claim to universalism. Not only as factors that need to be controlled, but factors which need to be explored, identified and analysed (Rea and Weiner (1998). If contextual factors currently used have proven to be insufficient in SER studies within and between mostly Western countries as Brown (1998) suggests, what contextual factors would need

to be explored and what modifications would need to be made in order to conduct SER studies in the developing world?

Harber and Davies (1997) suggest that the context in which schools in the developing world operate is often very different from that of the developed world. However, they argue that the perceived need to generalise about the developing in comparison to the developed world may cloud our abilities to recognise and highlight the similarities between the two. They therefore propose that rather than seeing the two worlds as an absolute divide, they should be regarded as a broad continuum. In order to explore both similarities and differences, SER studies would sufficiently explore the contextual variables affecting pupils' attainment within and around the schools, as these may be very different from those in the developing world (Harber and Davies, 1997; Walberg, 1991). Hence they propose that context factors such as the demographic, economic, resources, health, culture and the context of war may need to be explored (Harber and Davies, 1997).

To conclude, whilst the school effectiveness development path has been plagued and spurred on by critiques from both within and outside the paradigm, it has played a vital role in not only raising the status of education and providing a model from which to analyse educational process, but also in beginning to identify processes that are related to pupils' attainments. Regardless of critiques, findings from SER studies continue to influence educational practice, policy direction and the definition and standards of quality of education in both the West and the East. Increasingly these findings, in the form of effectiveness variables, are also being incorporated into aid packages underpinning educational development packages and international consultancy work. However, to what extent SER's goal of universalism is methodologically attainable, or even desirable at the pragmatic level of process variables in an increasing globalised, yet incredible diverse world is questionable, as different contexts and times in societal development may, as Bahá'u'lláh (1986) proposed, need different remedies. Drawing on Reynolds and Teddlie's (2000) argument of the need to develop region-specific contextual variables, the next chapter will explore the universality and transferability of SER to the context of

AIDS in the developing world by analysing how AIDS may influence contextual variables and the way in which these are defined and measured.

3

THE CONTEXT OF AIDS: HIV/AIDS' CHALLENGE TO THE SCHOOL EFFECTIVENESS RESEARCH PARADIGM

> *"We need pretty complete descriptive and analytical understanding of what now exists before we can make useful judgements about what we ought to do, about what changes should be made"*
>
> *(Riggs,1964, p. pii)*

With the introduction of contextual variables, or compositional variables as they are sometimes called, it was suggested that the SER paradigm had taken a giant leap in its search for a universal model that would yield similar results in different settings (Creemers, 1994; Teddlie, Stringfield and Reynolds, 2000). They are said to enhance school effects' generalisability. Willms (1992, p. 41) defines this contextual effect thus:

> "The composition of a school's intake can have substantial effect on pupils' outcomes over and beyond the effect associated with pupils' individual ability"

There continues to be a stream of critiques, ranging from those contesting the aim of SER and the realism of universalism, to those that perceive contextual variables as factors to understand rather than to control (Rea and Weiner, 1998). However, the benefits of the introduction of context variables cannot be dismissed. It has led to an increasing awareness of the need to understand and work with the educational context's impact on

pupils' achievements, on school development and change processes, management processes and school improvement research. Though the compositional variables of Socio-Economic Status (SES), community type, grade-phase, and governing structure have consistently yielded the clearest results (Teddlie, Stringfield and Reynolds, 2000), Harber and Davies (1997) suggest that when transferring SER studies to the developing world the context of war and violence, culture, health, demographics and resources may also need to be studied. A review of contextually sensitive studies in both the developing and the developed world would reveal that the contextual factors' influence and importance vary between countries and regions. This would not only suggest that that there is an interplay between contextual factors, but it also substantiates Teddlie and Reynolds' (2000) call for the development of country- and region-specific context factors. However, as contextual variables are more easily detected in education systems with greater autonomy and variance (Shavit and Williams, 1985), in schools in the developing world where there is a centralised system with limited autonomy, this interplay and the magnitude of school effects may be hard to detect statistically. Nevertheless, they may still influence processes within schools and pupils' outcomes.

Harber and Davies (ibid.) assign the effect of AIDS as an integral part of the context of health, as case studies have shown that children affected by AIDS are more likely to develop TB and other life-threatening diseases (Basaza and Kaija, 2002), but I strongly argue that HIV/AIDS is no longer merely a health problem. Rather, its implications stretch far beyond, threatening to undermine and fragment society, economic, political and educational structures and national development, both now and in generations to come. In a world plagued by AIDS, 12 million children have been orphaned by AIDS (UNICEF, 2007) and 860,000 children have lost their teacher to AIDS in Sub-Saharan Africa alone (Coombe, 2001). With an escalating infection rate it is estimated that nearly 25 million children worldwide will be orphaned by AIDS by 2010 (UNICEF, 2002). In Southern Africa, where most countries have reached 100% enrolment in primary education, it is estimated that 25% of Zimbabwean children, nearly 19% of Zambian children (Kelly, 1999b) and every second 10 to 14-year-old child in Botswana (ABT Associates, 2001) will be an orphan by 2010 and that there will be 130,000 child-headed

families in Zambia (Kelly, 1999b). Not only will this result in reduced enrolments and increased death rates among teachers, but also, I would suggest, it will affect the education system at all levels.

I therefore argue that the impact of HIV/AIDS will need to be explored as a contextual variable in its own right – not only as a variable to control, but rather to understand its influence on pupils' outcomes, other contextual variables, and processes of effective schooling at different levels of the education system. The following section explores the interface between the contexts of AIDS and commonly used contextual variables. The second section will analyse the impact of AIDS on the different levels of the education system.

3.1   The compositional effect of the Socio-Economic Status (SES) of the pupil population

The introduction of measuring the impact of Socio-Economic Status (SES) of the pupil population on pupils' outcomes was traditionally a means to measure the impact of social class (Curtis and Jackson, 1977). The SES is thus mostly calculated through using [state] *official* data concerning parental occupation and educational level, or through the measure of free school meals or other aid to families with dependent children (Hallenger and Murphy, 1986; Teddlie et al., 1985, 1989). Though a review of SES-sensitive studies would indicate that the proportion of high and low SES of the student population has an effect on pupils' achievements beyond each child's own SES (Brookover et al., 1978, 1979; McDill et al., 1969; Shavit and Williams, 1985; Willms, 1985b, 1996; Willms and Raudenbush, 1989; Rutter et al., 1979), there are still authors who argue that this effect is caused by other factors. Whilst some (Blakey and Heath, 1992; Clifford and Heath, 1984) suggest that this effect is related to peer pressure, Willms (1986) suggests that high SES schools are more likely to have greater support from parents, a higher proportion of highly qualified teachers and fewer disciplinary problems, and consequently an atmosphere more conducive to learning. In transferring the contextual variable to the context of an ever-escalating HIV/AIDS infection rate, it is likely that not only will there be an interlink between the two variables, but also this effect may change over time, thus

substantiating Willms' (1986) suggestion that a school's SES status may change over time.

In reviewing the context of AIDS in Southern Africa, researchers have found that HIV/AIDS flourishes in environments that are socially and economically deprived, have a high level of gender inequality, violence, abuse, discrimination and a low status of women (UNICEF, 2003b), suggesting that there is a link between poverty, low level of education and the increase of HIV/AIDS (Information System Directorate, 2000). However, this suggests that not only is the impact of AIDS having a greater effect in low SES schools, but as an increasing proportion of the community becomes affected, families' coping mechanism, the families' ability to produce food and generate an income, is being eroded. Thus the impact of HIV/AIDS would also lower the SES. Furthermore, the SES is likely to be affected further by the reduction of life expectancy as a result of AIDS, such as in Botswana from 71 years to 35 (Kelly, 2003), thus substantially reducing the number of productive adults contributing to the family, educational, local and national economy. A study in Zimbabwe indicated that two-thirds of families that had lost a key female adult were no longer financially self-sufficient and often disintegrated as a result (UNAIDS/WHO, December, 2002b). The family economy is further reduced through the diversion of funds from education and food to medical treatments and funeral costs. In severe cases the ever-increasing attendance at funerals may lead to dismissal from work (Dow, 2004). Children, and particularly girls, are often drafted in to take care of sick relatives and younger siblings, and to work to substitute the family income and prepare funerals. Consequently, the school attendance of AIDS-affected children is becoming increasingly erratic, which may undermine the families' and the children's long-term development. Though many studies indicate that HIV/AIDS orphans are less likely to attend school (UNAIDS, 2001), Bennell et al. (2001) found that in Botswana, where schools provide free meals, both attendance and attainments of orphans were surprisingly good in comparison to neighbouring countries. Consequently, where the percentage of free school meals would be linked with lower attainments in the West, it may be linked with higher attainments in the context of AIDS. I would therefore suggest that in the context of AIDS, SES may be better measured through family

constellations and the number of available non-school-aged income-generating family members.

In conclusion, the context of AIDS may further increase the proportion of low SES within schools, thus substantiating Willms' (1989) findings that a school's SES status may change over time. However, whilst Willms found that the positive impact of SES was greater in the high SES schools and the attendance in low SES schools would have less effect on attainment, I would argue that in the context of AIDS there is a greater likelihood that a negative effect may be found in low SES schools, through the downward spiral effect of the interplay between the two contexts. Thus an increasing proportion of pupils who are unable to attend classes regularly and concentrate on learning due to hunger responsibilities towards younger siblings, ill parents and household income, may reduce the teaching speed for all, as well as the focus within lessons and the ability to complete the intended curriculum. Consequently, I note not only that there is a clear interplay between the context of AIDS and the SES and that these two may change over time, but also that this interplay may need to influence the choice of process variables in order to be effective in the context of AIDS. Whilst I would endorse Teddlie and Stringfield's (1985, 1993) findings which indicated that high and low SES schools had adopted different strategies to become effective, suggesting that schools with high and low levels of AIDS may need to adopt different strategies, there may still be a need for schools with low HIV level to use similar strategies to those with a high level, in order to build up the school's defence mechanism.

3.2   The compositional effect of community type

Though there have been fewer community contextually sensitive studies, findings reveal a similar pattern to those focusing on SES, where the context of the community has shown an effect on both pupils' outcomes and the processes used to be effective. These studies have analysed the different effect of geographical factors such as inner city vs. suburban schools (Witte and Walsh, 1990) and urban, suburban and rural schools (Hannaway and Talbert, 1993). In reviewing international community-sensitive studies, evidence suggests that the variance between the community type differed between

countries and between governing structure and school size. Whilst Cuttance, (1988, p. 212) found that the "range of effectiveness within community type decreased as they become less urban", Witte and Walsh (1990, pp.192-3) found that "there were two very separate educational worlds in the city and suburban schools". Moreover, rural and suburban schools were more often found to have smaller, homogeneous and cohesive faculties, with more highly educated staff, whilst inner city schools were often larger, described negatively, had less educated staff, and the student population often came from poorer minority backgrounds (Lomotey and Swanson, 1990; Witte and Wash, 1990). However, in reviewing these studies, the difference in variance has been attributed to a variety of factors, ranging from denomination of the school (Cuttance, 1988), period in which the school was established (Freeman and Teddlie, 1997), different human and fiscal resources (Buttram and Carlson, 1983; Stringfield and Teddlie, 1991b), and teacher's educational and racial background (Hannaway and Talbot, 1993; Witte and Wash, 1990). This would suggest that not only is there an interplay between community and country, which would support Teddlie and Reynolds' (2000) call for the study of country, but also between community and governing structure, size of school and racial and cultural background. These findings collectively suggest that the study of geographical features, as a basis for the context of community, although important, is insufficient. Rather, I argue that there is a need to identify and analyse the composite factors that influence and make up the different communities, such as culture, ethnic background, religion and class, as these would have obvious implications for attitude towards learning and achievements, as well as for producing effective schools in different localities. Whilst there is a difference between the variance in different community types in different countries in the West, Reynolds and Teddlie (2000) speculate that the variance between community types will be even greater in the developing world. Consequently, they suggest that the study of community may have the greatest impact among the contextual variables, when transferring SER studies to the developing world.

Similarly to some studies in the West, and substantiating Reynolds' and Teddlies' (2000) speculations, Harber and Davies (1997) found that many rural schools in the developing world had far less fiscal and human resources than their town counterparts. Lack of

electricity in rural schools and lower teacher salaries in rural areas had a direct impact on teaching and learning, as teaching hours were restricted to daylight hours and teacher had to take on second jobs to supplement income, thus diverting energy and attention away from school. The former had a particularly hampering effect in schools, which due to large numbers of pupils had to run two school shifts a day (Harber and Davies, 1997). The gradual difference between rural and urban schools followed a similar pattern to Cuttance's (1988) findings, thus schools became more resourced closer to urban area and major tar roads. However, in the context of AIDS this may change more than once.

While young, more affluent and educated people in the UK and US tend to migrate to the suburbs and surrounding villages, the urban population in the developing world is expanding twice as fast as the total population. As the young and educated migrate to the cities in search of a better life, leaving the older generation to care for young children in the villages (Harber and Davies, 1997), village development is undermined and family ties are weakened, as city life is more individualistic (Guest, 2001). However, with the increase of HIV/AIDS this trend of a high proportion of young, educated and energetic teaching force in the cities and urban areas is likely to be inverted, as sick teachers are increasingly being transferred to cities and urban areas to get access to medical treatments (Kelly 2000a). Consequently city and urban schools will have an increased proportion of sick teachers in need of regular medical attention leading to increased absenteeism, decreased teacher effectiveness and learning opportunities for children. In the absence of a readily availability of supply teachers, children may be left without teachers or classes doubled up for lengths of time during teacher absences.

However, as the sick are migrating to the cities, children are sent to the villages to be cared for by relatives, thus increasing the already overcrowded and less resourced rural schools. The degeneration of the village coping capacity is further increased as the dying are discharged from hospitals and return to the villages to be cared for by relatives. As children without adequate protection are often drafted in to care for the sick, their risk of infection increases and their enrolment in school, attendance and focus on learning decrease (Matshalaga, 2004). Hence with the increase of AIDS, the inextricable link

between the context of SES and community increases. It is also very likely that the effect will shift over time.

Moreover, as children are sent to the villages to be cared for by the older generation, the number of orphans in the rural areas increases. However, with an increasing infection rate the older generations' ability to care for their grandchildren will be saturated. Guest (2001) found that in Zambia, orphans in the towns were more likely to be cared for by an aunt or uncle or to be living on the streets, whereas their rural counterparts were cared for by grandparents. UNESCO estimated that the number of street children in Zambia had increased from 35,000 in 1991 to 75,000 in 1998 (UNICEF, 1999b).

In conclusion, when transferring the contextual variable of community type to the developing world, a redefinition of community types that is country-specific may be necessary not only in order to understand the many factors that may influence and make up the community type but also, as suggested by Harber and Davies (1997), to allow SER findings to form a more useful knowledge base for national educational development plans.

3.3   The compositional effect of culture

Though the study of societal culture as a contextual variable has to, my knowledge, not yet been used within the school effectiveness strand, references have been made in explaining differences in community contexts, as well as within the school improvement research paradigm. However, Teddlie and Reynolds' (2000) identification of the need to study relationships within schools would suggest a need to draw not only on theories of sociology, psychology and organisational culture, but also on societal culture and anthropology, as beliefs, perception of self and societal aspirations and roles, which are influenced by culture, underpin behaviour and interactions (Hofstede, 2001). He defines culture as "collective programming of the mind which distinguishes the members of one human group from another" (p. 9).

Hofstede (2001) divides this programming into the levels of universalism – collective and individual – and points out that the collective level, which has its roots in a set of values, is learnt and "shared by people who have gone through the same learning processes" (p. 3), whilst the individual level is unique to each person. Thus culture is the collection of people's cognitive maps of conventional patterns of behaviour, moral and social values, aesthetic preferences and spiritual aspirations (Laszlo et al., 1996). Though culture differs from identity, in that the latter answers the questions about belonging (Hofstede, 2001), a shared set of values can contribute to the identification and ownership process.

Though ownership of strategies may be more effective when anchored within people's value system and culture (Perry, 1995; Leithwood et al., 1999), I would suggest that there is a danger in taking contemporary and traditional cultures, by definition, as good. Without an in-depth analysis of cultures' underlying values and practices, some cultural practices may prove to hamper both societal and educational development now and in the future. There is, therefore, a need to not only to control the contextual variable of culture, but also to analyse its impact and effect on pupils' learning and achievements, as well as the necessary selection of process variables and their role in shaping the organisational culture of the school.

Though numerous researchers have studied and compared societies and cultures from different theoretical backgrounds, Hofstede's (2001) five dimensions are increasingly being widely quoted and used across disciplines to compare cultures across national borders.

The dimension of power distance measures the degree of inequality and the expected power distribution within a society, whilst the dimension of uncertainty avoidance measures the extent to which society programmes encourage people to feel comfortable or uncomfortable in unstructured situations. The third dimension, individualism vs. collectivism, measures the importance of the group or the individual. Masculinity and femininity, on the other hand, measures to what extent the society's functions, processes and solutions are predominantly tough or tender. The fifth dimension, long-term vs.

short-term orientation, which would be very important on both the collective and the individual level in the context of AIDS, refers to the extent the culture programmes its people to accept delayed gratification for long-term goals.

However, whilst Hofstede (2001, p.11) argues that "social norms have led to the development and pattern maintenance of institutions in society with particular structures and ways of functioning", in developing countries and former colonies these patterns may be a closer reflection of the former colonial powers' social norms than the local culture. Consequently Riggs (1964) describes these cultures as prismatic in that they contain elements of both traditional and more modern cultural values and practices. Hofstede's suggestion that "these institutions, once established, reinforce the societal norms" (2001, p.11) suggests that these prismatic societies will be reinforced.

Drawing on Hofstede's (2001) analysis of culture, Dimmock and Walker (2000) suggest that similar principles can be applied when analysing educational organisational cultures in both East and West, and that there are direct links between the societal culture and the organisational culture. In reflecting on Riggs' (1964) analysis of prismatic societies in the developing world, I suggest that the organisational culture in many educational systems in developing countries is likely to be prismatic, in that the structure, organisation and leadership structures were often established during the colonial area and supported through post-colonial development strategies. A review of colonial history indicates that the involvement of indigenous people in the establishment and running of administrative and managerial systems varied between the colonial powers (Stravrianos, 1981). This suggests that remnants of colonial organisational culture and structures vary between former colonies. Furthermore, I argue that there may be clear differences between former colonies and former protectorates in that the nature of the relationships between the countries differed. Riggs (1964, p.32) suggests that "many formal administrative structures in transitional societies turn out to be mere facades, while the effective administrative work remains a latent function of older, more defuse instructions". This, however, depends on the level of indigenous people's involvement in administration and management during the colonisation and post-colonial area. Thus, the

organisational culture within the educational system at different levels may be more closely related to the former colonial power's structure and culture than the country's traditional societal or prismatic culture. Hence in addition to Dimmock's tensions, the dimension of modern or Western vs. traditional cultural values and practices may need to be studied.

Similar to the inextricable link between organisational culture and societal culture, between organisational culture and pupils' outcomes, there is an equally strong link between culture and the spread of HIV/AIDS. Applying Hofstede's (2001) dimension of individualism vs. collectivism and Dimmock and Walker's (2000) tension of proactive vs. fatalism, a collective society where ties and relationships between people are tight and harmony and face-saving values are strong, coupled with a strong fatalistic perception of life, HIV/AIDS-related stigma may create an organisational culture of secrecy wherein people withdraw in fear of stigma and exclusion. Furthermore, this may prevent people from being tested, taking protective precautions and making long-term healthy choices. In more individualistic, proactive societies with high levels of stigma, people may still get tested, seek help, take greater control of their lives and more confidently take precautions. Though HIV/AIDS may impact both the societal and the organisational culture, the influence may vary over time, as infection rates increase and the impact on society becomes more visual. Whilst the stigma may be high in societies with low infection rates, it may well be reduced as the infection rate and society increasingly becomes affected by HIV/AIDS-related factors. As a result, an organisational culture of fear of discrimination and alienation may be replaced by a culture of sadness, low energy and depression as loved ones become sick and pass away.

Consequently, I suggest that there is a clear case for the need to study culture as a contextual variable in its own right in the context of AIDS. Though it is important to analyse and measure societal and organisational culture's impact on pupils' outcomes, I argue that it is also necessary to study how cultural beliefs, practices and values influence learning, perception of self, behaviour, attitudes towards others, society and the future. Likewise, it is necessary to study what cultural characteristics may hamper and enhance

the HIV/AIDS mitigation process and the school's ability to stay healthy. Hofstede (2001) suggest that societal cultures are stable over time and are therefore difficult to change, as cultural values are formed before the age of ten (Hofstede, 2001). However, in the context of AIDS, where an increasing number of children become orphans and receive less parental guidance, I argue that values that will enhance pupils' ability to survive and become healthy citizens would need to be incorporated into primary education.

3.4   The compositional effect of governing structure

The study of governing structure as a contextual factor has explored the impact of private, government or church school effect on pupils' outcome, as well as the impact of school board and local education authorities. Though there can be no doubt that there is a difference in how they are managed (Teddlie, Stringfield and Reynolds, 2000), there continues to be a debate about their impact on pupils' outcomes. Whilst Coleman et al.(1981) identified a small positive impact of private schooling, Willms' (1995a) replicate of the study found no governing structure effect. Similarly, MacPherson and Willms (1996) found that pupils in Catholic schools in Scotland achieved higher than non-denominational schools, whilst Van Cuyck-Remijssen and Dronkers (1990) found no such effect in the Netherlands. Such conflicting results indicate that not only is the magnitude of the context of governing structure greater in educational systems which allow schools greater autonomy (Teddlie, Stringfield and Reynolds, 2000), but also that the context of governing structure is connected with both culture and country. Explanations for the differences between different governing structures ranges from pupil and staff selection process and greater parental support in private schools (Teddlie, Stringfield and Reynolds, 2000) to supportive and cooperative leadership (Rowan, Raudenbush and Kang, 1991) leading to greater coherence in values, vision and mission within schools (Fuller and Izu, 1986) and with parents in church schools (Coleman and Hoffer, 1987). Furthermore, pupils in private and church schools were found to have greater social capital, which enhanced their results (Coleman and Hoffer, 1987).

To what extent there is a direct link between the impact of HIV/AIDS and the governing structure is not yet known. However, management structures, leadership roles and the relationship with local and regional educational authorities are likely to be challenged, as the demand, supply, and support of education, as well as the characteristics and needs of learners and teachers may alter as a direct response to the increased of HIV/AIDS (Kelly, 1999).

The magnitude of governing structure as a contextual variable would possibly be lower, or even hard to detect, in highly centralised and often bureaucratic educational systems with limited power over staff selection, policy and the curriculum, as in many schools in developing countries (Harber and Davies, 1997). Though Dimmock and Walker (2000) argue that schools in a highly centralised system have less need for school-based decision processes, I would suggest that in the context of AIDS, where the educational environment becomes more turbulent, schools in a centralised system would need to develop skills and structures to make both day-to-day and long-term decisions in order to maintain sustainable education for all pupils in the community. Furthermore, though closer coherence between values, vision and mission in the community may enhance pupils' attainment, it would be vital that these truly support the HIV/AIDS mitigation process. Hence, it would be important to study the extent to which the governing structure enhances staff's ability to take ownership, professional development, and the school's ability to be flexible and develop school-based strategies and shared management.

3.5   The compositional effect of grade-phase

Most grade-phase contextual studies have been focused on either secondary or primary schools and few have been studied at the same time. In reviewing evidence from these studies Sammons (1996) found significant evidence of school effects at all levels of schooling. However, evidence from studies in the US and the UK indicate that the magnitude of the effect is greater in the younger years (Thomas and Nuttall, 1993; Sammons, 1996). Whilst Teddlie, Stringfield and Reynolds (2000) argue that these differences stem from the less competing factors influencing achievements in lower

grade-phases, I would suggest that learning and developments are more rapid in the first seven years of a child's life, hence the magnitude may appear greater. Moreover, Virgilio et al. (1991) found that primary and secondary schools differed substantially in processes of teaching and learning, tension between child-centred and knowledge-centred curriculum, and leadership and management structures, which would not only influence the magnitude of the effect, but also the processes used to become effective. Likewise, since children at different ages experience the trauma of AIDS, family sickness and death differently, it is likely that the impact of HIV/AIDS may affect grade-phases differently. Consequently, in the context of AIDS it is essential that the processes set in place differ in order to meet the needs of the different age groups. For instance, the findings of Firestone and Wilson (1989), Hallinger and Murphy (1987) and Levin et al. (1984) highlighted the importance of the relevance of the curriculum in effective secondary schools to pupils' particular career and future aspirations. This may, in the context of AIDS with an increasing child-headed family rate, be perceived as an effectiveness variable already in the primary school, as many children have to choose between seeking employment or going to school.

In conclusion, in the context of AIDS it may be vital not only to measure and control the contextual factor of grade-phases, but to explore the impact HIV/AIDS may have on the different grade-phases, as child infection rates and children's experiences of the impact, and their coping mechanisms, would differ greatly between the early years and secondary school. Consequently, processes of supporting children and mitigating the impact would need to differ. The debate of mitigation and prevention has primarily focused on infusing sex and health education into the curriculum even in the lower grades. Drawing on child development theories (Erikson, 1977) and Hofstede's (2001) arguments that basic values are formed by the age of ten, I would suggest that it is vital to include values, beliefs and attitudes that would allow children to make healthy long-term choices about life. Moreover, findings that indicate that subjects may require different effectiveness variables suggest a need to study and evaluate which processes are most effective in teaching these values, in order to respond to the children's needs at the different grade-phases.

3.6 The context of HIV/AIDS' differential impact on the various levels of the education system

In reviewing the impact on HIV/AIDS on people, school and society, it is evident that AIDS is no longer merely a health problem, but a pandemic that will impede all processes of life, education and society. Furthermore, the varied distribution of infection rates in countries and continents proves not only that there are different stages of development within the pandemic but also that HIV/AIDS, its spread and effect, does not take a universal path. Not only is it influenced by national and local contextual factors, but it also exacerbates these same factors at the same time. Consequently, I would support Rea and Weiner's (1998) call for contextual variables as factors to analyse and understand rather than variables to control, both in terms of HIV/AIDS influence on schools and educational outcomes, and in terms of processes and goals needed in order to mitigate the impact and turn the horrific trend around. Though there continues to be a debate within SER regarding the level of study, even after the introduction of multilevelled modelling, a review of the impact of the context of AIDS would suggest the need to take a multilevelled approach, as the impact of AIDS is likely to vary between the different levels of the educational system. Whilst models such as Creemers and Reezigt (1996) only specify indirect influence of school level on pupils' achievements, Hallinger and Heck (1996) found a direct influence, thus the relationship between school level and classroom level may be both direct and indirect, as well as having a mutual effect on each other. Likewise a similar effect may be seen between the impact of AIDS at the various levels and between the levels. The following section will therefore elaborate on the impact that HIV/AIDS may have at the level of pupils, classroom, school and district/nation, as well as the influences between the different levels.

3.6.1 The pupil level

The staggering figures of child death and orphan rates brought about by the HIV/AIDS epidemic and poverty are not only affecting the education system quantitatively, through decline in enrolment figures, but also qualitatively, hampering pupils' ability to focus and

their time available to spend on learning. Whilst Carroll (1963) points out that pupils' willingness to spend time on learning contributes to their outcomes, in the context of AIDS, with the increasing number of child-headed families, the question may not lie in their "willingness" but rather in the necessity to spend time away from learning.

A review of reports and case studies of HIV/AIDS' impact in the Sub-Saharan region indicates that, with the exception of Botswana (Bennell, 1999b), orphans who have lost one parent are less likely to attend school. In addition to the poor attendance records of orphans, achievements are further reduced by the stigma that surrounds HIV/AIDS. Coombe (2001) noted that many suffer severely from unique pressures, which lead to depression, hopelessness and psychological trauma later in life, as almost

> "without exception, children orphaned by AIDS are marginalised, stigmatised, malnourished, undereducated and psychologically damaged. They are affected by actions over which they have no control and in which they have no part. Many deal with the most trauma, face the most dangerous threats and have the least protection. And because of this too they are likely to become HIV/AIDS positive." (UNICEF, 2002, p. 1)

However, the plight of orphans and their opportunities for further education differ. Guest (2001) and Matshalaga (2004), for instance, found that though orphans cared for by an aunt or uncle were financially better off and more likely to continue with school, those cared for by grandparents were more deprived financially, received less discipline and encouragement to continue schooling, but felt more equally loved. A close review of care-giving by grandparents in a mining town in Zimbabwe showed that orphan grandchildren were often required to work to supplement income, care for their young siblings and carry out most of the work in the house, as the grandparents, although head of the family, were old and frail (Matshalaga, 2004). Furthermore, many of these orphans had limited access to paraffin or candles, thus homework had to be completed by the light of the fire (Matshalaga, 2004). Hence, many children directly or indirectly

affected by AIDS often felt anxious, confused, insecure (Devine and Graham (nd); Ebersohn and Elof, 2001) and suffered from discrimination and stigma, resulting in difficulties in focusing on learning while in school (UNICEF, 2001).

However, before the child becomes an orphan, the child's home environment is beset with illness, distress and often poverty, as the parents' ability to work, provide discipline and care for them is reduced or taken over only by older siblings (Guest, 20001), and subsequently children's school attendance becomes increasingly randomised. A study in Malawi found that one third of children reported missing from school were caring for sick family members, and for an increasing number of Zambian children school was no longer an option, due to lack of money and time. Though opting out of school may, in the short term, help bring in much needed cash, in the long term "it entrenches the household poverty and puts children at greater risk of becoming infected with HIV" (UNAIDS/WHO, 2002, p. 28). Although children aged 5 to 13 are presumed HIV/AIDS-negative, many children, and particularly girls, are at greater risk of infection even within the school system, as one third of all reported rapes of girls younger than 15 in South Africa were perpetrated by teachers (Coombe, 2000). Hence, with the increase of AIDS, pupils' available time to spend on studies, as well as their ability to persevere and understand concepts taught, will be reduced. These factors, according to the Carroll (1966) and Creemers and Reezigt (1996) models, will have direct impact on the classroom environment and the culture of learning in schools.

3.6.2 The classroom level

Though people may be unwilling to admit or talk about the impact of AIDS, the increasing number of children directly or indirectly affected by AIDS means that the classroom environment in many parts of Southern Africa is beginning to show symptoms of: lack of concentration and focus on learning due to malnutrition, as sickening families struggle to support themselves; depression and anxieties stemming from fear of losing, or loss of, loved ones; lack of support or people to share their fears with; and incorrect beliefs about HIV/AIDS such as "there is no way to avoid it". These ever-increasing

feelings of hopelessness and uncertainty about their HIV/AIDS status, or fear of being infected, are manifested in withdrawal, resignation and isolation, resulting in a strong sense of insecurity, instability and lack of trust in adults and the community (Kelly, 2000). Creemer (1994) argues that effectiveness at the classroom level is not only affected by pupils' aptitude, perseverance and time spent on learning, but also by quality of instruction, which is influenced by the curriculum, grouping and teacher behaviour. However, Creemer's (1994) description of teacher behaviour as being influenced by their motivation, classroom management, clear and explicit goals, presentations of knowledge and high expectations of pupils' achievements, is in the context of AIDS also increasingly influenced by anxieties similar to those experienced by pupils.

In most Southern African countries, teachers represent the largest group of public sector employees, a profession which shoulders the responsibility, one could argue, for the well-being of the next generation as the parental generation is dying in increasing numbers. However, in the context of AIDS, where 20% of all Zambian (Kelly 1999b) and 12 % of South African (Abt Associates 2001) primary school teachers were reported HIV-positive in 1996 and more than 30% of Malawian teachers are estimated to be infected, this hope may falter (UNICEF 1999). Without access to Anti Retroviral Therapy (ART), life expectancy from the time of infection is approximately seven to ten years, which would suggest that many of these teachers will die before 2010. Calculations about teacher infection rates, which are based on the same criteria as the general population, suggest that teachers are at a higher risk of infection because they fall within the high infection age group, and are more often female and mobile. In the absence of obligatory testing or detailed risk assessments of teachers, which would take into account their attitudes, knowledge and behaviour, a more accurate picture of HIV/AIDS' impact on teachers would have to be based on mortality rates (Bennell, 2001). Whilst the Zambian teacher death rate rose from 680 in 1996 to 1300 in the first ten months of 1999 (Kelly 1999b), in the relatively small country of Botswana 507 teachers died between 1999 and 2002 (Mohothi 2003). In the worst hit countries, teachers are dying faster than they can be replaced. Furthermore, before a teacher dies, he or she will be suffering from a number of HIV-related illnesses, which may result in up to six months of professional time away

from work before they develop full-blown AIDS, and a further 12 months before becoming terminally ill (Kelly 2000a). In many Sub-Saharan countries, where teachers are avoiding taking formal sick leave for fear of redundancy, schools systems are unable to replace or find substitute teachers. Consequently, pupils are left without a teacher or classes are being doubled up to cover lengthy teacher absenteeism. These absentee figures are further increased when teachers have to leave work to care for sick family members or arrange or attend increasingly frequent funerals. Consequently, the cumulative effect of pupils' struggling to focus on learning and keeping up with the regular curriculum is further hampered by teachers' trying to respond to pupils' individual academic and emotional needs and cope with increased class sizes and workload and their own fears and anxieties.

In a culture of denial, secrecy and fear of HIV/AIDS related stigma, these anxieties, with the added financial, physical and emotional burden which surrounds the loss of loved ones, friends and colleagues to AIDS, contribute to a feeling of hopelessness, lack of faith in the future and disempowerment. These factors further reduce teacher effectiveness (Coombe, 2002). Schubert (2000) thus concludes that the increase of AIDS in communities and schools will texture the learning environment and the school culture with rapid change, distress and stress, affecting not only the pupil and classroom level, but also the school and context level.

3.6.3 The school level

The impact of the growing AIDS pandemic on the pupil and classroom levels spills over onto the school level, as the school culture becomes textured with anxieties and distress and head teachers and managers strive to provide sustainable and effective learning opportunities in an increasingly unpredictable educational context, thus substantiating the observations of Creemer, Scheerens and Reynolds (2000), Levine and Lezette (1990) and Scheerens (1992) that the majority of effectiveness school-level factors are a reflection of indicators of quality of instruction, time and opportunity to learn.

The impact of AIDS at the school level may not yet be perceived to be distressing, as the number of AIDS-related deaths of teachers in each school is still relatively low (Bennell at al., 2002). Enrolment figures are just beginning to stagnate, or show signs of decline, in Southern African schools (Kelly 1999b; Coombe, 2002). Nevertheless, Kelly (1999b) predicts that the increase of AIDS will impact on the quality of instruction and organisation at the school level very severely. He suggests that in addition to affecting the characteristics of pupils and teachers, the increase of AIDS will, at the organisational level, affect the delivery, time and content of education. Furthermore, as available resources are reduced, educational and managerial processes, as well as interaction within and between school and contextual level, will be strained (Kelly, 1999b). Moreover, as the societal culture becomes permeated with HIV/AIDS-related stigma, schools' organisational cultures may become characterised by fear, mistrust, denial, secrecy, isolation, hopelessness and fatigue, leading to reduced collaboration among staff, which may not only hamper the schools' ability to mitigate the impact of AIDS but also impede the quality of instruction at the classroom level.

In reviewing SER studies, Creemers, Scheerens and Reynolds (2000) found that, due to the insufficient number of studies exploring the pupil, classroom and school level simultaneously, it was hard to identify school level factors independently of classroom factors that contributed to pupils' outcomes. In the context of AIDS and a growing school-aged orphan and child-headed family population, Bennell's (2001) findings in Botswana, which indicated a correlation between free school meals and lack of decline in attendance and attainment of orphan pupils, may, however, be a significant independent school level factor.

The different levels influence each other through interaction and Creemers, Scheerens and Raynolds (2000) argue the need for consistency between the levels. However, the continually changing needs of pupils, teachers and school leaders suggest that consistency at the level of practice may be neither possible nor favourable. Indeed, consistency at the level of values, attitudes and perceptions of the role of education on the part of the teacher and the school may be more important in the mitigation process.

Moreover, though schools may be in need of a monitoring system to analyse the impact of AIDS at the student, teacher, classroom and school level in order to adapt practices to meet the new demands, evidence from diagnostic tools, which are often based on national academic tests at the end of grade-phase, is often inaccessible to the schools as they are collated and analysed at the national level. Also, I would suggest that they are unlikely to show any statistically significant trends of reduced attainments for years to come, when the opportunity for effective mitigation will have been missed. Hence, in the context of AIDS it would be important to analyse the effectiveness of the link and communication between schools and the regional and national level in order to measure to what extent national policies, implementation strategies and communication channels are enhancing not only pupil attainment but also the HIV/AIDS mitigation process.

3.6.4 Context level – national level

> "When a person is affected with AIDS, the immune system breaks
> down, leaving the individual exposed to the hazards of opportunistic
> illnesses. In the absence of preventative measures, the education
> system in a country that is seriously HIV infected . . . is also in danger
> of breaking down and being prey to myriads of opportunistic
> problems." (Kelly, 1999a, p. 5)

The components of quality, time and opportunity to learn can, at the national level, be translated into: national policies focusing on effective education, availability of an assessment and indicators system, teacher training that supports policies, national guidelines of curriculum development and national policies of time allocations (Creemers, Scheerens and Reynolds, 2000). Furthermore, I argue that in more centralised educational systems allocations of teachers to schools would have a direct impact on the quality of education. In the context of AIDS, the quality of teaching at the classroom level will have an impact at the national level through migration of sick teachers to urban

areas with greater health facilities and the decline in teaching force. Though the loss of teaching staff in one given school per year may not be disastrous, "the relentless loss of skills build up to a significant human resource deficit" (Coombe, 2002, p.12) is leading to gradual a decline in the quality of the teaching force and creating a smaller pool of experienced teachers to mentor newly qualified teachers (NQT). Though Dr. Juma's (2001) research would argue that with the ever-increasing death rate of young adults, investment in education is no longer perceived as useful, Coombe (2001, p. 3) argues that "teachers are the first line of defence, after the medical profession in the fight against AIDS". Consequently she suggests that the education system has a twofold role: firstly, to educate children to make healthy choices about sexual behaviour; and secondly, to provide a safe and secure learning environment that protects their rights and provides care and counselling for pupils in need. Such a role suggests that the role and goal of education needs to be redefined in the light of AIDS. Consequently it would be vital to evaluate and analyse not only the effectiveness of national policies on pupils' academic outcomes, but also their effect on processes that will enhance the mitigation of AIDS. National policies of admission requirements, such as birth certificates, funding, or uniform, may in the context of AIDS turn away a number of children from school and put teachers, who desire to educate all children, in an ethical dilemma. The factor of quality of instruction at the national level would also involve the development and use of evaluation systems at the school level to check pupils' outcomes and identify learning problems in order to rectify these at an early stage. In the context of AIDS, such a system is even more vital. I argue that a monitoring system should not only measure pupils' academic outcome based on standardised tests in maths and language, but should also monitor social and emotional life skills, attitudes, perceptions and behaviour, which are the foundation for making healthy life choices. Moreover, in order for schools to effectively and quickly meet the needs of the pupils, such a system needs to be analysable not only at the national level, but also at the regional and school level.

In reviewing the impact that HIV/AIDS is having on the school system at the different levels, it is clear that there are some characteristics that are similar at all levels. Some are specific to particular levels, but will have a ripple effect on other levels. Consequently, I

would suggest that any study into the impact of HIV/AIDS or mitigation strategy would need to take not only a multilevel approach but also a lateral interdisciplinary approach to the study of context, in order to unravel the many factors that contribute to the spread of AIDS and the change of behaviour.

3.7   Summary

Within the SER paradigm's developments to date, the introduction of contextual variables can arguably be seen as one of the greatest contributing steps towards generalisability and universalism, even though both the feasibility and desirability of these aims, at the level of process variables, are questionable. However, in transferring SER to the developing world and the context of AIDS, I suggest that the most commonly used contextual variables are insufficient in their scope to allow fair comparisons across national and continental borders. This is not only because national or regional education systems may vary in their policies related to pupil progression, enrolment age and curriculum, as suggested by Reynolds (2000), but also because the goals of education and its role in societal development are closely related to culture, perception of the nature of people and the world, and the particular needs of a society at the particular time in development. Both these sets of factors influence pupil outcomes, directly and indirectly. Though there is continuing controversy regarding the existence of a compositional effect of context, nevertheless, its introduction into all strands of SER has raised the awareness of the influence of context on pupils' learning, teaching and the management of education. Furthermore, it has opened a door for further research and a platform for development. However, to use the knowledge and understanding derived from the study of context only to statistically control in order to enhance SER's generalisability would be an underestimation and waste of such a wealth of knowledge.

Reynolds (2000) calls for the study of a country as a contextual variable, in order to enhance the ability to compare in the international arena. The real value of the context of country may only be relevant in fairly homogeneous countries, though there it may be hard to statistically detect. In less homogeneous countries with dual or multiple tribes,

cultures and religions, the study of culture may reveal greater insights into the many factors that influence teaching, learning and management. Likewise, in some countries in West Africa with a strong North-South divide, religion may be an important contextual variable. Consequently, the selection of contextual variables may need to differ between countries. Similarly, as shown earlier, the definition and characteristics of measuring a particular contextual variable may need to be redefined to become more country-specific. However, this may enhance the ability to generalise between countries and at the same time also question the validity of the outcome, as merely transplanting a contextual variable across borders and continents may equally yield questionable results. Hence the real strength in the introduction of contextual variables to the different strands of SER may not lie in controlling them for international comparative studies, but rather to support specific countries in defining the quality of education within their particular context. It would be particularly important to analyse the influence of contextual variables on the different layers of the education system, their influence on each other in different combinations and over time, the reasons behind differential effects, and their role in the selection of process variables to be studied, as well as the identification of the goal and the role of education. In transferring SER studies to the developing world and in the context of AIDS, I would suggest that such an approach to contextual variables would become even more important.

Many commonly used contextual factors have influenced the processes of effective education. Few have necessitated a shift in the goal and desired outcome of education or in the role it will need to serve in societal development. When a high proportion of children achieving top results in academic subjects do not live long enough to contribute back into society, due to AIDS infection, the quality of education cannot be defined by academic excellence alone.

> "In the absence of curative and prophylactic vaccines, the only way currently available for dealing on a large scale with HIV/AIDS is through developing appropriate standards of behaviour, with

information being translated into behaviours that promote a healthy state of mind, body and spirit." (Siame, 1998)

Consequently, the context of AIDS, I would argue, necessitates just such a shift. It however needs to be based on a thorough examination and analysis of not only the many factors that influence the spread of AIDS, but also those factors that influence human behaviour, integrity, motivation, decision making, long-term planning and responsibility towards self and society in both short- and long-term situations. Hence, I not only endorse Coombe's (2000) and Kelly's (1999) urgent call for the education systems in countries affected by AIDS to re-evaluate the role they need to play in societal development, but through this study also hope to support such a development. The following chapter will analyse the many factors that influence behaviour development and changes. Drawing on the Educational Indicator Research paradigm it will also explore how these can begin to be monitored.

4

THE EDUCATIONAL INDICATOR RESEARCH PARADIGM: MONITORING AFFECTIVE OUTCOMES OF SCHOOLING

"Life is change,
Growth is optional,
Choose wisely."
(Karen Kaiser Clark, in Maurer 1996, p. 65)

The analysis of AIDS' influence on commonly used contextual variables and at different levels of the education system indicated that both the epidemic and its influence are likely to change more than once. It is likely that this will vary in different countries and regions and influence their selection of contextual, outcome and effective process variables. Hence it was argued that the context of AIDS should not be seen as variables to purely control, but to understand, in order to adjust the educational content to the changing needs of learners. The education system thus needs adequate and functional tools to monitor both the qualitative and quantitative impact of AIDS on the different levels of the education system. In order for schools to become the first line in defence against AIDS after the medical procession, they not only need to monitor this impact, but they would also need to begin to identify and understand the many processes and goals that underpin capabilities that may help pupils to protect themselves and take an active role in turning this trend around, and integrate these into the educational programme. Hence schools would need a system that can both monitor the impact, as well as support the development of these outcomes and processes. At the present stage of the mitigation

process the use of the SER paradigm in its current form was ruled out, as it may take years before AIDS will show statistical significance on pupils' outcomes; on the other hand, it is likely that the impact will become visible earlier in affective outcomes. To what extent SER's sister paradigm, the Educational Indicator Research paradigm, may play an important role at this stage and in this process will be explored in this chapter.

4.1   The Educational Indicator Research paradigm

Indicator systems are increasingly being used within both the private and public sectors to measure and evaluate: performance; the progress and the state of an organisation; the impact of programmes and interventions; educational attainments and development; and the well-being of children. Fitz-Gibbon (2002) argues that indicators, which are an integral part in the development of complex non-linear systems, are here to stay. They are increasingly transforming processes of evaluation and management strategies, organisational cultures (Johnson, 2005), educational practices and reforms (Ryan, 2005; Fitz-Gibbon and Kochan, 2000), public perception and the direction of development (Moore, 2006). Though Greene (1999) suggests that the increasing demand for accountability is a sign of the loss of faith in the public service, Fitz-Gibbon (1996, p.42) strongly argues that we can only choose the development direction by "choosing what to care about enough to measure, measure it and edging towards the desired outcomes". Within the field of education, the Educational Indicator Research paradigm (EIR), which shares its origin with and has similar aims to the School Effectiveness Research paradigm (SER), has been used as a tool to hold educational settings accountable for their outcomes. Though SER's school effects have often been presented as causations, findings from both SER and EIR studies present only correlations. However, whilst SER seeks to explore and measure correlation between educational practices and academic outcomes, by identifying and measuring the magnitude of universal effectiveness variables through controlling the context, EIR seeks to measure the quality of education against a school's goal. Quality within EIR can thus be defined as 'to what extent the educational organisation delivers its long- and short-term goals'. Progress is measured

against these goals within the intended and the hidden curriculum. Hence, within EIR both academic and affective outcomes are often measured and monitored.

Indicator systems and the EIR paradigm are built on the assumption that the future of complex systems, such as education, cannot be scientifically predicted (Glass, 1979; Maee, 1976; Fitz-Gibbon, 1996, 2002). Therefore such systems would need to resolve to focus on problem location and problem solving in the present (Maee, 1976). Fitz-Gibbon (1996) consequently argues that the only way to choose an organisation's direction is to measure what is valued, and slowly work towards it. Based on this idea, there is a constant need for a flow of information and feedback to those in decision-making positions. She therefore suggests that complex systems such as education can only evolve through continuous monitoring of their performance, inferenced through experimental action and research.

An indicator can be defined as "an item of information collected at regular intervals to track performance of a system" (Fitz-Gibbon, 1996, p.1). An education indicator is thus a collection of information related to a particular construct of education (Shaverlson et al., 1989), which serves as a gauge of how well the system is working and provides a knowledge base for decision-making and planning (Ben-Arieh et al., 2001; Fitz-Gibbon, 1996). Indicators consequently tell a great deal about the system by reporting on a few particular items. Indicators and indicator systems are therefore not neutral. They highlight and carry messages about what we value and care about (Cooley, 1983), as well as how this information is used (Fitz-Gibbon, 1996). Indicators are thus diagnostic tools that can provide opportunities for alternative decision-making rather than formative judgements (Nuttall, 1989). They point out what is, rather than why it is. Moreover, they do not highlight factors that cause an indicator to improve or decline. Fitz-Gibbon (1996) warns against the misuse and misinterpretation of indicators, as she found that hypothetical explanations are often made from trends derived from indicator systems. Once data has been generated, she therefore advocates the use of small-scale investigation and experimental observation to establish causal links to support planning and development.

In reviewing the variety of indicator systems that have been used both within public and private education in different countries, Fitz-Gibbon and Kochan (2000) found that the two most commonly used types were the "system modelling" and the "problem location" approach. The system modelling approach aims at describing the performance of the system as a whole. Indicators thus become a means to developing a greater understanding of the whole system. The development of indicators within this approach requires the collection of a myriad of information and data about educational goals within each domain. The problem solving approach, which aims at providing early warning signs, is based on already identified, analysed and defined problems. Though the latter system may require less indicators and data, both systems would need to be built on thoroughly researched and defined constructs of the area of measure. This review also revealed two main approaches to indicator system design. In most national, state and regional systems reviewed, the indicator systems were developed through a top-down approach. However, in Portugal indicators were initially developed together with a group of schools to support their development, at the time when schools were given greater autonomy. Although the systems differed in terms of time, frequency of data collection and use of data, they were all linked to both accountability and development, even though the foci on the development differed.

Countries with different educational goals, values and systems have developed different types of indicators, ranging from compliance and outcome indicators to process, assessment and contextual indicators. The most commonly used were the outcome indicators. Fitz-Gibbon and Kochan (2000), however, make a distinction between output and outcome indicators, where the former refer to particular outputs and goals achieved at the end of grade-phases or schooling. Outcome indicators then refer to long-term goals which may be achieved beyond the schooling years. An array of output indicators can be found, some of which are directly related to goals of the curriculum, core skills, attitudes towards particular subjects, health, accident rates and safety, behaviour, truancy and dropout rates. An indicator such as quality of life was measured both as an output within particular phases of schooling and an outcome indicator. Fitz-Gibbon (1996) advocates the use of process indicators, as information about processes may complement both

output and outcome data by providing clues about which processes may be associated with particular outcomes. These are also closely related to areas that can be improved by the teaching profession, which may lead to greater commitment towards using indicators and the improvement process itself. However, unlike SER's search for universalism, Fitz-Gibbon (1996) argues that process variables would need to be subject-specific, as teaching methodologies and skills vary between subjects.

Indicators are often organised into different domains, such as affective, behavioural, cognitive, demographic, expenditure and flow (Fitz-Gibbon, 2002), health and safety, social, emotional and self-sufficiency development (Hair et al., 2001), as this makes it easier to construct particular goals whilst at the same time valuing the different outputs and outcomes of education. However, in sorting them by domains there is a tendency to lose the codependencies between them (Moore et al., 2004), as well as their combined implications on other outcomes. Fitz-Gibbon (2006) questions a possible correlation between the narrow focus on driving up academic scores and the increase in truancy and social youth problems, as most educational and child well-being indicators fall within the cognitive or academic domains (Moore, 2004). Wolf (2002) argues that the current high concentration on academic outcomes is not based on a sound rationale, and that there is no conclusive evidence to suggest that it leads to better economic development. Instead, Fitz-Gibbon (1996, 2006) suggests that goals within the affective domains may in the long run be more important for societal development and well-being. Hence there is a call to draw on child well-being and moral reasoning indicators when developing an educational indicator system.

Interestingly, most academic and cognitive outcomes were often positive in nature, whereas within the domains of social and emotional development and attitudes in educational indicators, many were negatively described. The positive indicators within the affective domains focused on the likelihood of staying in school and social capital (Fitz-Gibbon, 2006), whereas the negative indicators within the same domain explored truancy, feelings and experiences of unsafeness, alienation, bullying and racism. To what degree such a heavy focus on negative indicators may in fact lead to further negative

behaviour – similar to the way that attention given when children are exhibiting negative behaviour often leads to negative attention seeking – would be interesting to explore. There might be a call to develop more positive affective indicators in order to encourage positive character and behaviour development.

The use of indicators to hold schools accountable and to support development, however, have been criticised for a number of reasons. Fitz-Gibbon and Kochan (2000) argue that if indicators are to be used to monitor the performance of a system, the system itself must have sufficient autonomy and influence over the processes and outcomes measured. If indicators are based on external goals rather than internal structure, or are not fed back to the level of management, they can easily lead to a culture of bullying and blame (Johnson, 2005), practices such as teaching to exams or support given only to groups of children who are likely to improve the data (Oaks, 1989). Likewise, Fitz-Gibbon (1996) argues that when fear is involved, the validity of the data may be questionable. Hence Fitz-Gibbon (1996) advocates for the importance of data to be reported in such a way that it does not encourage distortion or misuse. Greene (1999), on the other hand, suggests that when goals and indicators have been developed democratically involving different stake holders, both the ownership and accountability, as well as the use of the data, will lead to the intended development purpose and greater validity. However, though indicators are based on what is valued they likewise influence what people value, their attitudes, aspirations and behaviour. Similar to the critique of SER's narrow focus on academic outcomes, a narrowly focused indicator system can equally shift attention away and have a detrimental effect on the development of other areas (Tymms, 2001; Fitz-Gibbon, 2006).

Fitz-Gibbon (1996, 2002, 2006), Henerson et al. (1987) and Johnson (2005) therefore strongly recommend that the development or the adoption of indicator systems are based on a thorough understanding of the system and its many influential interdependent internal and external factors. Hence great care needs to be taken.

4.2   Educational Indicator System design

In order for indicator systems to support schools' decision-making by providing information about the operation of the greater system and its interdependent factors, Fitz-Gibbon (1996) points out five principles that would need to be considered. Firstly, indicators need to be based on factors that can be changed, since people cannot be held accountable for factors they have no influence over. Goals need to be translated into outcomes and outputs and explored to ensure that these represent what really matters to whom they are intended. Hence the balance between academic and affective outcomes needs to be reviewed and their respective influence on each other explored, to ensure that some indicators do not distract energies away from what really matters (Fitz-Gibbon, 2006). Secondly, data needs to be incorruptible, gathered without fear and cost-effective in terms of both money and time, in order to carry a high level of face validity. Thirdly, to provide information about the system to support change, decisions need to be made with regard to the use of the data, the most useful form of presentation and with whom it will be shared, as data needs to be fed back and understood by the people who have decision-making power and influence over implementation. Fourthly, indicators need to reflect improvements made; and finally, Fitz-Gibbon (1996) argues, the design of an indicator system needs to be regarded as a continually evolving process. Consequently, she argues that the system itself needs to be evaluated and reviewed regularly and problems rectified in order for it to support a sustainable quality of education.

The design of an indicator system consequently needs to be preceded by research into the many factors that influence the educational system, the impact an indicator system may have on these factors and which type of system would best benefit and support the goals of the organisation, and enhance ownership and the use of the data. Although indicator system designs can be based on theories of development, power influences from different departments, adoption of a whole system or a selection of indicators, Fitz-Gibbon (1996), Fitz-Gibbon and Kochan (2000) and Henerson et al. (1987) strongly argue that the process of designing an indicator system needs to be based on the existing system and its most valued outcomes and outputs. Consequently they propose the following four steps. Firstly, the selection of outputs and outcomes that need to be monitored and made into

indicators and the identification of appropriate types of indicators. Though Ryan (2002) argues that indicators can only support a democratic process when all stakeholders have had a say in the selection of valued outcomes and indicators, such a consensus can be hard to establish. Moreover, a consensus reached by a vast spectrum of stakeholders may focus on too superficial goals and fail to recognise the importance of the diversity within a society (Greene, 1999). Secondly, the unit of analysis and management needs to be decided upon. In reviewing child well-being indicator systems across the globe, Ben-Arieh et al. (2001) and Ben-Arieh and George (2006) found that children were not sufficiently visible. They therefore argue that in order for a group of people to become visible and heard they need to become a unit of analysis. Taking a systems view of education, it would be important to look at different units simultaneously. Thirdly, Henerson et al. (1987) suggest that tools need to developed, adopted and tested for validity and reliability. Fourthly, the system needs to be implemented and reviewed.

Since indicator systems are not easy to develop, there is a tendency to adopt indicators or part of indicator systems from other parts of the world or from similar systems, as in the case of the Irish Child well-being indicator system (Hanafin and Brooks, 2005a and b). However, though many indicators may migrate across borders better than SER variables, the tools related to these indicators may not migrate equally well, as I argue that these need to be contextually and culturally sensitive to generate valid and reliable data. This is particularly important when developing affective outcomes, as these are often connected to cultural and societal values, norms and experiences. Hence I propose that both the national and cultural contexts, in addition to the greater educational system, need to be explored when developing an indicator system.

4.3   Measuring and monitoring affective outcomes

Within the fields of social psychology and education affective outcomes often measure and evaluate the impact of particular programmes aimed at having a direct impact on children and pupils' attitudes, and behaviour or behaviour change, or as a means of evaluating affective side-effects of non-affective programmes. Within the health, social service and international organisations such as UNESCO and UNICEF, affective

indicators are used to provide information about general trends of child and youth well-being and to make predictions about the future state and the well-being of society across the globe.

In reviewing affective indicators within education, and child well-being indicators, an uneven focus on negative indicators was found. Most positive affective indicators in Britain were related to attitudes towards school, particular subjects and career aspirations. Indicators such as truancy, dropout, perceived racism and bullying are used to measure pupils' attitudes towards schooling and learning and affective outcomes outside the intended curriculum (Fitz-Gibbon, 1996). However, measuring the absence of risk factors does not sufficiently measure the development of positive attitudes or the well-being of a child (Ben-Arieh, Et al. 2001). Bad news in the form of reports on negative indicators have a tendency to lead to speculation of causal relationships of cause and effect (Fitz-Gibbon 1996), blame and punishment (Ben-Arieh et al., 2001) and to hasty short-term strategies to rectify the problems without taking into account the greater system. Moreover, negative indicators tend to focus public attention on children at risk and thus exaggerate the public's negative opinion of children and youth (Moore et al., 2004). This can amplify the problems and lead to self-fulfilling prophecies (Guzman, Lippman and Moore, 2003), or to a culture of fear and negativity (Ben-Arieh et al. 2001). Negative indicators also often fail to support the identification of positive goals and strategies for children and youth intervention and development programmes (Moore et al., 2004).

Positive indicators have, however, often been criticised for their softness and fuzziness. Moore et al. (2004) advocate for an urgent focus on the development of positive indicators. However, this is not without problems. At the heart of the problem is the lack of a united vision of which qualities, capabilities and skills may be desirable development for the next generation (Moore et al., 2004; Ben-Arieh et al., 2001). Though Moore et al. (2004) suggest that most people would agree that virtues are important to develop, statisticians and policy makers are not convinced that positive behaviour and attitude outcomes can be measured as rigorously as negative indicators such as absenteeism and death rates. Measurements of attitudes and behaviour are often dependent on people's

level of self-knowledge and awareness, and factors such as fear, a particular context, perceived expectations of others, or peer group pressures may influence the outcomes of measurement instruments. Moreover, behaviour and beliefs may not always reflect a particular attitude and there is no guarantee that an attitude may stay stable long enough to provide a reliable measure (Henerson et al. 1987). Moreover, the measurement of attitudes can only be based on inferences of a person's words and actions (Henerson et al. 1987). In an increasingly multi-cultural context this can become very complicated, as both the person whose attitude is being measured and the people who are analysing the data view the world and themselves through their own cultural perspectives. Whilst Moore et al. (2004) advocate the need for robust cross-cultural indicators, I would support Ben-Arieh et al. (2001) in their call for cultural contingent behaviour and attitude indicators, for culture and context are important factors influencing perception of self, opportunities, world views, attitudes, expectations, decision-making and behaviours. Moreover, if indicators are to be useful for development, I argue that they need to be anchored within and be meaningful to the local context. If indicators do not have a high level of face validity, they are less likely to be used effectively.

Moreover, social, emotional, attitudinal and behaviour change are hard to measure and monitor, because they are often long-term and therefore need to be regarded as outcomes rather than output. A particular construct may need to be divided into sub-goals, as there may be insufficient time for a particular behaviour to be realised within the programme time.

However, the development and monitoring of affective indicators that measure feelings, perceptions, attitudes, behaviour and behaviour change and well-being is very difficult, as the construct of positive development behaviour development is so multifaceted (Fitz-Gibbon, 1996; Henerson, 1986; Ben-Arieh and George, 2006; Ben-Arieh et al., 2001; Moore et al., 2004; Hanafin and Books, 2005a and b). Such a construct would need to be defined as precisely as possible, be based on a solid theory or research ground and linked to a set of particular behaviours, as misinterpretations of constructs would raise further questions of validity. Subsequently any design of behaviour, attitudinal or perception

indicators would need to be based on a review of theories related to the many factors underpinning such constructs. In the context of AIDS, where the only real hope of turning the trend around lies in ensuring that children develop capabilities that will allow them to make healthy behavioural choices both now and in the future, such goals are vital outcomes of education. The following section will explore the many interrelated factors that influence decision-making and behaviour development, in order to begin to identify constructs related to these goals.

4.3.1 Factors influencing decision-making and behaviour development

In reviewing factors influencing behaviour and decision-making, similar factors to those identified in the many identity development theories were found. Identity can be described as the subject-conscious and sub-conscious feelings of sameness (Erikson, 1985), of who one is and what one stands for (Jesserson, 1987) regardless of place, social situation and time (Erikson, 1985), which they suggest are formed through the interplay between one's biological characteristics, unique psychological needs, interests and defences, and the cultural environment around. Though there are many theories, such as the historical, structural, socio-cultural, narrative or psychosocial approaches, to understand identity formation, no united approach has been found. However, a review of these theories indicates that identity formation is linked to cultural and societal beliefs, self-esteem, innate virtues and processes, values and cognitive maps of the world, that are linked to the past, present and the future. How these factors are linked to decision-making and behaviour will be explored in the following sections.

4.3.1.1 Culture

Culture plays a vital part in our decision-making processes and in our choice of behaviour. From a socio-cultural identity formation perspective, culture, which Hofstede (2001, p.9) defines as the "collective programming of the mind" with its norms, discourse, values and worldviews, provides a forum for the development of identity. It also influences our views of ourselves in relation to society, our life satisfaction and aspirations (Schimmack et al., 2002) and reasons for living (Verherst, 1990).

Individualistic cultures tend to strongly emphasise independence, freedom of choice, individualistic feelings and needs, whereas more collective cultures encourage interdependence, duties, the needs of the whole group and acceptance of one's fate (Hofstede, 2001; Triandis, 1995). Diener and Diener (1995) and Suh et al. (1998) for example found that in more individualistic cultures there was a stronger emphasis on having a positive self-image and maximising personal pleasure and well-being, than in more collective societies. In more collective cultures, cultural norms may have a more influencing role in decision-making and behaviour than the maintenance of a positive self-image, which was described as the strongest influence on behaviour in more individualistic cultures.

Hofstede (2001) posits that "extreme uncertainty creates intolerable anxiety", and that the way and to what extent societies experience a need to develop coping mechanisms and to reduce the anxiety level, such as rituals, laws, rules and explanations for future events, differs between cultures (p.146). This would suggest that in societies where uncertainties become more prominent, people are likely to hold on tighter and develop stronger rituals, routines and rules to reduce the uncertainty anxiety. Paradoxically, Hofstede argues that people who experience high levels of uncertainty anxiety tend to engage in more risky behaviour in order to take control of the uncertainty and reduce the anxiety. He also found a correlation between higher tolerance for diversities, inclusiveness and low Uncertainty Avoidance Level (UAL), and higher levels of fear of differences, exclusivity and higher UAL. In addition he observed that people with lower UAL felt more in control of their own lives than those with high UAL. Though many countries in Africa may have a low UAL, the growing AIDS pandemic is likely to increase the levels, which may show earlier signs in the younger generation, in the form of raised anxiety levels but also through a stronger need for ritual and routines to hold on to. There might also be a link between the increase of "Sugar Daddies" in the context of AIDS, and young adolescent girls seeking to reduce the uncertainty anxiety levels by seeking comfort, money and stability from older men.

Drawing on Hofstede's argument and socio-cultural and the historical perspectives on identity formation, schools have a powerful role to play, not only in terms of reducing UAL through providing a stable, safe and predictable environment, but also in terms of influencing identity formation, the sense of belonging and having a role in society both in the present and the future, through the type of feedback, discourse, world views, values and the span of opportunities they provide. However, as values also play an important part in decision-making and behaviour, it would be vital that values underpin the educational system, its outcomes and outputs, and that their form of expression supports healthy decision-making and behaviour in the context of AIDS.

4.3.1.2 *Values, virtues and attitudes*

Values are constructs of desirable ways of behaving, and as such they are associated with factors influencing cultural beliefs, symbols, norms and behaviour (Hofstede, 2001; Kluckhohn, 1967). While virtues transcend cultural borders, values are often culturally bound (Erikson, 1985) but transcend situations, unlike attitudes, which are often situational in both time and context (Verplanken and Holland, 2002). Values can thus be defined as explicit or implicit conceptions of an individual or a group, which influence their selection of attitudes and behaviour from available modes (Kluckhohn, 1967). Values refers to cognitive maps of what is desirable in issues such as good or bad, clean or dirty, dangerous or safe, decent or indecent, ugly or beautiful, irrational vs. rational and normal or abnormal (Hofstede, 2001). Values are programmed in childhood, as an integral part of identity formation (Hofstede, 2001). Living up to values contributes towards a person's self-esteem and identity formation (Verplanken and Holland, 2002; Deci and Ryan, 1995).

Although Verplanken and Holland (2002) found limited literature related to the relationship between values, decision-making and behaviour, a review of research identifies a number of factors that are involved in this relationship, such as personal norms (Ajzen and Fishbein, 1972), attitudes and preferences (Feather, 1995; Furnham, 1984), perception of self (Steele and Lui, 1983), personal involvement (Stern and Dietz, 1994) and attitudinal strengths (Holland, Verflanken, Smeets and Van Knippenberg,

2001). Nevertheless, values influence and guide the standpoint and the degree of attractiveness of goals in decision-making and behaviour, by determining the importance of the goals and adding decision-weight to the related information (Verplanken and Holland, 2002). However, though values are often culturally bound, individual rankings of their importance vary. Consequently, their way and levels of living up to these values vary. Though Higgins (1996) argues that values need to be activated in order to influence decision-making and behaviour, Verplanken and Holland (2002) found that when values are connected to a person's perception of self and identity, they are activated automatically, as they not only define the situation, but also the person. If values were extremely central to the person's identity and self-perception, they were permanently activated and served as a motivating force for behaviour and decision-making. This would suggest that if children are brought up to reflect on personal values as part of their decision-making, these values not only become central to their perception of self, but they are permanently activated. Verplanken and Holland (2002) also found that the more a value was activated and used in decision-making, and an influence on behaviour, the more it became associated with intrinsic motivation and the person's positive self-image. However, though they found a link between values and behaviour, they warn that particular behaviours cannot be equated with values or vice versa, as behaviour is dependent on both the person and the situation.

4.3.1.3 Cognitive maps of society and the world

People's feelings of belonging and social cohesion, which are developed as an integral part of their identity formation and prevalent values, contribute towards the development of societal and world views. Likewise our world views, combined with our level of moral reasoning, influence our perception of self and the degree to which a person feels connected and responsible towards the community and world around. This in term influences both long- and short-term decision-making and behaviour. Hofstede (2001) found that the learning of thrift, which leads to postponed gratification, saving, and long-term commitments to long-term goals, had direct implications for people's thinking and long-term decision-making. He argues that the learning of thrift is anchored in culture and family values and developed through encouraging virtues geared towards the future

and through actions rather than preaching. In short-term cultures children are encouraged to develop virtues related to the past and present and socialised towards an immediate need for gratification, spending and sensitivity towards consumer trends. Systems are developed to feed back, provide value judgements and control short-term decisions and quick instant gains. This short-term and long-term thinking is also linked a person's perception of what is right and wrong, and abilities to calculate and consider consequences on self and others' lives. This would suggest a link with different levels of moral reasoning. However, though morality can be perceived as relating to culture (Hofstede, 2001), Kohlberg (1987) found that the stages of moral reasoning were universal and like virtues transcended cultural borders.

Drawing on Kolhberg's (1998) stages of moral reasoning and Piaget's (1971) and Erikson's (1985) stages of identity development, Lazslo (1989) argues that a person's perspective of the world and relationship to the society changes in similar stages, though these may not be age-related but rather related to a person's cognitive development and opportunity to explore and understand the world as an interdependent system. He suggests that when people begin to operate on Kohlberg's conventional level of moral reasoning, they able to reflect on their relationship to their own cultural maps and those of society. Not until people operate on the post-conventional stage do they begin to question the long- and short-term implications of their own cultural values, practices, laws and order, and begin to sift through which will have a positive implication for sustainability. From this stage emerge a strong commitment and responsibility towards justice and development, which lead to actions. This thus supports Danesh's (1997) argument that actions stem from a combination of passion or love, appropriate knowledge and the power of will.

However, both Lazslo (1989) and Greenberg et al. (1985) posit that these kinds of relationship to society are also dependent on a positive vision of the future. Ideals and vision of possible futures are important, not only because they can be fulfilled and thus provide gratification, but because they set standards, and provide direction and hope. A belief in the continuation and sustainability of their society and their world-view

encourages people to act according to society's expected norms, whereas when people's cognitive maps of the world no longer match the events of society, they feel displaced and anxious and socially acceptable norms become less important (Laszlo, 1989). Greenberg et al. (1985) found that people under pressure, faced with fear of mortality, are more likely to hold on tight and defend their world-views, even though these may no longer serve them. However, they also found that a positive world-view serves as a buffer against anxiety. They suggest that this is particular important when people are reminded of their own and their loved ones' mortality.

In the context of AIDS, where a focus on short-term gratification can lead to risky behaviour and increase risk for infection, long-term thinking, delayed gratification, a positive world view and a system view could thus counteract anxiety levels, develop hope, and contribute towards empowerment.

4.3.1.4 Self-esteem and motivation

Self-esteem is not only an important construct in terms of academic learning but is central to constructs of motivation, identity, decision-making, performance, empowerment, autonomy and general well-being (Brown and Piper, 1995; Deci and Ryan, 1991). However, contrary to general belief, Deci and Ryan (1991), Kernis, Grannemann and Barclay (1989) and Baumeister, Heatherton, and Tice (1993) found that high self-esteem is not necessarily better than low self-steem. They therefore call for a re-conceptualisation of the construct, suggesting that a division between contingent and intrinsic self-esteem would be more appropriate. The development and maintenance of contingent self-esteem is dependent on living up to externally set standards and therefore involves comparison and continual self-evaluation, whereas intrinsic self-esteem is based on an integrated and more solid sense of identity, which is stable and secure without a need for continual affirmation (Deci and Ryan, 1995).

In reviewing the extensive research on contextual influences on self-esteem, Ryan (1993) found that intrinsic self-esteem and an integrated self are developed and enhanced in environments where people's basic needs for autonomy and to feel competent and to

connect are met; where their success is felt as theirs (Ryan, Mims and Koestner, 1983); where they are able to make choices, act from inner virtues and are encouraged to internalise their own values (Deci and Ryan, 1995). In social, emotional and educational environments where acceptance, love and self-worth is contingent on specific and externally set standards and people are pressured into adopting other people's thinking, values and standards, people may feel forced to give up their autonomy and their own values. Deci and Ryan (1995) and Brown and Piper (1995) found that not only does this kind of environment encourage contingent self-esteem, but people also tend to give up the process of striving for intrinsic self. This, they argue, can have detrimental consequences for both positive decision-making and the development and maintenance of well-being.

In analysing and testing the relationship between intrinsic and contingent self-esteem and motivational processes, Kesser and Ryan (1993) found that the type of goal was a determining factor. Working towards and living up to long-term goals and values related to personal growth, inner strength, meaningful relationships and community contribution inspired intrinsic self–esteem and intrinsic motivation. In contrast, though goals of financial success, fame and physical attractiveness boosted a feeling of self-worth, this was positively correlated to contingent self-esteem. Moreover, the relative level of value a person placed on long-term goals also positively correlated with people's well-being and self-actualisation and negatively correlated with anxiety (Kesser and Ryan, 1993), vitality, social functioning (Shaffer et al., 1993) and social productivity (Ikle, Lipp, Butter and Ciarlo, 1977). Deci and Ryan's (1995) conclusion, that having oneself associated with long-term personal goals based on intrinsic values has a positive effect on self-esteem, would support the argument for values and virtues education in schools.

Ryan, Mims and Koester (1983) found that performance-contingent rewards in schools were experienced as controlling and robbed them of a feeling of ownership of their own accomplishments, as it placed the value judgement and the cause of the success outside themselves. However, if pupils were participating in the evaluation process and their frame of mind was considered, pupils displayed greater curiosity and independence in

learning, mastery of skills, as well as developing higher intrinsic self-esteem and motivation (Ryan and Grolnick, 1986). Similar results of intrinsic motivation and self-esteem were found in families and in situations where children gradually had greater autonomy and opportunity to make choices based on innate virtues, were supported in self-determining processes through meaningful discussions of related values and rationale, acknowledging their feelings, ideas and personal choices. Not only did this lead to greater intrinsic self-esteem, but also to greater tendencies to innate regulated behaviour, positive decision-making habits and confidence in their own competence.

Ryan, Mimms and Koestner (1983), Deci and Ryan (1995), and Brown and Piper (1995) thus argue that actions, behaviour and decision-making can originate from either intrinsically or extrinsically motivated forces. Intrinsic motivation is related to rewards based on spontaneous experiences, interest or enjoyment in what they are doing, whilst contingent motivation and motivated behaviour are performed to attain a separate promised consequence (White, 1959). However, Deci and Ryan (1995) found that contingent and extrinsically motivated behaviour can vary according to the extent that they are autonomous or controlled. Drawing on self-determination theories' conceptualisation of motivated behaviour along a continuum of autonomous and controlled behaviour, Deci and Ryan (1995) describe how self-esteem, motivation and regulation of behaviour can be divided into four stages of development, from contingent to intrinsic self-esteem and motivation. In the first stage, self-esteem, motivation and behaviour are completely regulated by external forces, such as attaining rewards or avoiding consequences. Although motivation and behaviour continue to be contingent in the second stage, external values are beginning to be introjected. This would mean that a value has been taken in but not yet made one's own. Consequently actions are based on what 'one ought to do'. However, once a value has been identified and accepted as important, which characterises the third stage, behaviour and motivation relating to living up to those values begin to support the development of intrinsic motivation and self-esteem. Consequently these values begin to become central to the person's perception of self, which would suggest that they would not need external activation to influence decision-making and behaviour. Deci and Ryan (1995) found that people operating in the

third stage, who had identified a set of values, felt more autonomous and experienced a greater sense of enjoyment without having their sense of self-worth contingent on immediate outcomes. In the fourth and most autonomous stage, values have been integrated into the identity and are central to the person's perception of self. Behaviour and motivation, which as a consequence have become internally regulated as values are permanently activated, in turn support the preservation of intrinsic self-esteem (Deci and Ryan, 1995). Consequently intrinsic motivation is accompanied by intrinsic self-esteem, which allows the person to act according to own values regardless of external and short-term rewards. These stages could also be set alongside Kohlberg's stages of moral reasoning, where Deci and Ryan's last stage corresponds with Kohlberg's post-conventional stage.

In conclusion, the purpose, goal or intention underpinning motivation is thus an important part in the link between identity development, perception of self, self-esteem, motivation, decision-making and behaviour (Lewin, 1951). Their argument that people are motivated to the extent that they intend to accomplish something, to the extent that they have a purpose, whether intrinsic or extrinsically motivated, supports both the argument that people's desire to maintain a positive perception of self is one of the strongest factors in major decision-making (Pelham et al., 2001), and a positive vision of self and the future is one of the strongest influencing factors for behaviour development and change (Laszlo 1989).

Though an optimal identity formation process or perception of identity may not be attainable, this review would suggest that an active exploration, use of and development of virtues, values and moral reasoning during the identity formation process would support the introjection and integration of these values into a person's perception of self. This would not only lead to intrinsic motivation and self-esteem, but if these values became highly central to the perception of self they would be permanently activated and support decision-making. Such an outcome may consequently increase a person's feeling of autonomy, empowerment and positive world-view of the future, and thus serve as an anxiety buffer in the context of AIDS. Therefore, there would be a paramount need to

identify and come to an agreement on those virtues, values, moral reasoning and positive goals for the future that would support the AIDS mitigation processes but at the same time be anchored within the positive values of the cultural context. These values, processes and understandings would need to be incorporated into the education system, not only as a way of recognising the negative and qualitative influences of AIDS, but to support the long-term mitigation process. Consequently there might be a need to monitor not only the negative influence of AIDS, but also the positive development of values, virtues, attitudes, behaviour and behaviour change. However, Fitz-Gibbon (1996) and Henerson et al. (1987) suggest that the monitoring of behaviour and behaviour change is very difficult. The following section will draw on both the Educational Indicator Research paradigm and child well-being research paradigm to explore tools for monitoring attitude, perception, values and behaviour.

4.3.2 Affective outcomes research and monitoring tools

In reviewing strategies to measure and monitor affective outcomes Henerson et al. (1987) advocate that the use of self-reports, reports of others and records are most useful in educational contexts. In order to provide a full understanding of a particular outcome or construct it is important to use a combination of methods, where at least one reflects the child's own voices through an open question format (Ben-Arieh et al. 2001). Tests may also need to be made in different situations, as behaviour and attitudes may be situational (Horner et al., 1985). Moreover, Kennedy (2002) argues that tests measuring behaviour need to incorporate measurements to establish behaviour maintenance, as he argues that the development of behaviour is long-term and though people may show a particular behaviour at the end of a successful programme, there is no guarantee that this behaviour will be maintained. Hence the study of maintenance would not only allow people to evaluate particular programmes, but would also begin to identity aspects that lead to the maintenance of particular behaviour. The benefit and values of these methods vary according to particular constructs. The following section will explore these methods and discuss their particular usefulness in regard to age and construct, while their relationship to the context of AIDS and culture is discussed in Chapter 6.

Fitz-Gibbon (1996) and Henerson (1987) suggest that measuring affective outcomes, such as attitudes, perception and feelings in education, is best done through questioning the pupils through self-reports. The process of self-report can be administered through interviews and questionnaires with open-ended or closed questions or a combination of the two, through journals, polls and attitude rating or agreement scales. Henerson et al. (1987) suggest that though interviews and direct conversation may reveal more in-depth information about children's perceptions, attitudes, beliefs and values, the use of surveys which could be incorporated into or administered in conjunction with national tests and thus provide 100% sampling would be the most cost-effective method. In order to elicit information about pupils' perceptions, feelings and attitudes about themselves, what is happening around them and issues related to AIDS, it is vital to use a combination of open and closed questions so that children's own thoughts come through unfiltered. Attitude or rating scales can be very useful when monitoring children's perceptions, fears, feelings and beliefs about particular situations, events or subjects. However, Henerson et al. (1987) found that young children struggled with rating more than two items at a time, even though the rating scales were presented in a pictorial format. The use of language and words are often culturally contingent, not only by national cultures but sometimes also related to youth or sub-cultures, hence great care needs to be taken when developing rating scales, questionnaires and sociometrics (Ben-Arieh and George, 2006). The use of self-reports, however, assumes that the person has a particular level of self-awareness and is able to express this in words or writing. Hence self-reports using questionnaires or rating scales may preferable with young children or with children operating in their second language, especially if these are accompanied by supportive pictures.

When working with younger children who have difficulties articulating their views, or when measuring and monitoring behavioural outcomes, the use of report by others may supplement or replace self-reports. These may be based on interviews, observation schedules, questionnaires and journals. They are particular useful in measuring behaviour, perceptions and approaches, when the persons measuring have regular and adequate time to gather evidence in different situations. However, lack of objectivity of

the observer and time constraints may affect the ability to observe all events or the gathering of particular information to support the findings. Interview questions, observation schedules and rating scales would have to be culturally contingent, as cultural perspective may influence the way people judge attitudes, behaviour, perceptions and feelings, as well as the way they are interpreted (Ben-Arieh et al., 2001).

The use of records or available administrative data may provide useful information over long periods of time, which should enhance the ability to identify trends in different situations (Ben-Arieh et al., 2001). Within schools this may relate to attendance, enrolment, sign-in sheets, permission slips, counsellors' files, pupils' reports, etc., and within the area of child well-being indicators data may be derived from social services or health units. However, analysis of data is often time-consuming, as records are often incomplete and many of them are designed for other purposes (Henerson et al., 1987). Moreover, data from available records are only available about children and youth who subscribe to those services (Ben-Arieh et al., 2001). Hence there is no data about children who are not in school, not attending counselling services or clubs, or not attending clinics. In the context of AIDS, such data may only provide a glimpse and possible trends, as an increasing number of children may not be able to enrol in schools. Consequently, in order for data from records to be really useful they would need to be designed to support the particular constructs of behaviour, attitudes or perception.

A review of available tools to measure attitudes, perceptions, feelings and behaviour reveals a high proportion of paper- and pen-based self-report instruments. There are also an abundance of observation schedules and rating scales. Though it would be cost-effective to draw on already existing tools, Ben-Arieh et al. (2001) argue that these would need to be modified to suit the particular context. The development of any kind of behaviour, attitudes or perception measurement tools will need to be based on stringent procedures to ensure both validity and reliability of the tools as well as the data. Henerson et al. (1987) suggest that structured and semi-structured interviews are useful in order to elicit information about behaviour, perception and attitudes related to a particular construct in a particular context; for listing particular attitudes for attitudes rating scales;

or for gathering a wide range of statements related to perceptions and feelings for agreement scales, before embarking on developing any particular tools.

4.4   Conclusion

Bernstein (1968) argues that schools cannot compensate for society and parents. However, in the context of AIDS where an increasing number of children are becoming orphans, who will? I therefore not only support Coombe's (2001) argument that schools must educate children to make healthy choices about sexual behaviour and provide a safe and secure learning environment that protects their rights, but I strongly propose that schools must strive towards taking on a larger role in the development of pupils' intrinsic self-esteem, innate virtues and values so that these can become permanently activated to support decision-making, moral reasoning, perception of self, society and the world, to allow them to see themselves as active agents of change and development for all three and take an active role in developing the nation's culture so that it serves the people within the context of AIDS.

However, as this chapter has pointed out, such developments are not easy. They require in-depth research into the contextual and culturally sensitive goals and processes that would support such development. They also need to identify a system that is anchored within the educational system and culture in order to take an active role in providing information to support both short- and long-term interventions and strategies to turn the trend around. According to Henerson et al. (1987) and Fitz-Gibbon (1996), this cannot be done without thorough research, as the mere transplanting of variables, tools and systems may not only result in adverse effects, but may not yield valid and reliable results.

This research thus sets out to begin to explore and unpack the AIDS impact on the many levels of schooling through the eyes of children, teachers, head teachers, regional educational advisors and officers at the ministerial level. It also seeks to explore, identify and define both educational outcomes and processes that are vital in influencing healthy

decision-making and active participation in societal development, and thirdly, it seeks to identify the design and components of such a system.

METHODOLOGY

5

RESEARCHING THE IMPACT OF AIDS ON THE DIFFERENT LEVELS OF THE EDUCATION SYSTEM IN BOTSWANA

"Actively seeking the perception and experiences of children in these circumstances is the key to supporting their resilience and agency"
(UNICEF, 2007, p. 5)

The development of the questions raised in this research emerged during the latter stages of my Master's dissertation's vertical cross-sectional qualitative case study research into the Botswana Education system's role in the actualisation of Botswana's long-term vision – Vision 2016. HIV/AIDS stood out as the greatest threat to the education system's ability to play a major role in the actualisation and to the actualisation itself. The perceived need for this study became more urgent when I through my research, attended the National HIV/AIDS Conference and had general discussions with people within both the Ministry of Health and the Ministry of Education, and realised that none of the nation's Regional Educational Officers perceived that AIDS would have any impact on the country's ability to provide quality education for all. Limited focus was also given to behaviour development and change in the mitigation process, talks and conferences. With the backdrop of a progressively escalating HIV/AIDS prevalence in Botswana and surrounding countries, and with encouragement from the Hon. Minister of Health, the following three research questions were developed.

The first question: **What impact does HIV/AIDS have on the education system in severely infected areas?,** was chosen because only two researchers had begun to explore and predict this effect. Though quantitative studies were later commissioned, none had explored how children saw the impact of AIDS on their lives, the people around them, their future and their learning. It was important not only to understand this impact in

order to begin to recognise what they would need to develop in order to protect themselves and become agents of change to turn the trend around, but also to raise the profile of the importance of ensuring that the mitigation process involved primary age children who had yet to become sexually active. As findings from previous studies identified factors at one level that would influence the effectiveness of other levels (Torstensson, 2000), it was important to explore not only the impact of AIDS at the pupil level, but also how AIDS affected teachers and head teachers and how this consequently influenced teaching, learning and the management of education at the school level, through a multileveled approach.

In the absence of any vaccine or cure for AIDS, the only hope of turning the trend around lies in the changes of behaviour and capabilities that are involved in making healthy life-long decisions. As this message carried a very low profile in HIV/AIDS conferences and general intervention programmes at the time, the second question: **What kind of educational components enhance pupils' ability to develop capabilities that allow them to make healthy and proactive choices about their behaviour now and in the future and take an active role in turning the trend around**?, became very important to explore, as without such a change HIV/AIDS could become the "greatest threat to everything we have achieved so far as a nation, and could undermine our effort to build a secure future for Botswana" (Botswana's President Mogae, 30/9/98, in Torstensson, 2000). It was important to explore not only educational goals and outcomes, but also processes and methodologies that would support the development of these, as well as factors that influence these aspects.

The third research question: **What management strategies and systems enhance the education sector's ability to provide quality primary education for all, in the light of the impact of AIDS?** was identified as important in order to begin to monitor both the quantitative and the qualitative impact of AIDS. The initial literature reviewed indicated that the first warning signs that pupils are affected by AIDS are likely to be visible in behaviour and in emotional and attitude change, as well as in approaches to learning, rather than in academic grades. It thus became important to begin to explore theories and

systems that identify processes involved in learning in order to monitor and measure both affective and academic impact on pupils' processes of learning and outcomes. It is hoped that through this pupils, teachers, and head teachers would be able to identify early warning signs and begin to consult about appropriate strategies of support.

Although the research draws knowledge from the SER and EIR paradigms, which are anchored within the positivistic research paradigm, the literature review indicates that in this early stage of the pandemic and mitigation process, as well as in the development of the research territory of AIDS and education, these research questions could be elucidated with greater depth through adopting an interpretive approach. This research thus makes use of the case study approach, as Yin (2003) suggests that research questions such as what, how and why are best explored through case studies. Yin (2003, p.13) defines a case study as

> "an empirical inquiry that investigates a contemporary phenomena within a real-life context, especially when the boundaries between the phenomena and context are not clearly evident."

Exploring the context of AIDS' impact on the many levels of the education system provides a valuable approach as, according to Yin (2003), it relies on multiple sources of evidence and can cope with more variables of interest than data points. It seeks to explore causal links in real life interactions that are often very complex.

5.1   The case study design

This research can, according to Yin's (2003) definition of different types of case studies, be described as a multilevel embedded case study, where the impact of AIDS is explored at the pupil, classroom, school and contextual level. In addition, links are explored between how this impact influences the interaction between the levels and their influence on learning and pupils' outcomes. These levels can thus be described as being embedded in the context of AIDS in severely affected areas in Botswana. Although there are six schools in this study from two different districts, and comparisons are identified and

analysed, they are nevertheless presented as one case study. This is done so that it is easier to explore and understand the impact on each level and on the whole, while at the same time links are made between levels, and between particular factors at the contextual level that influence the different levels in the six schools.
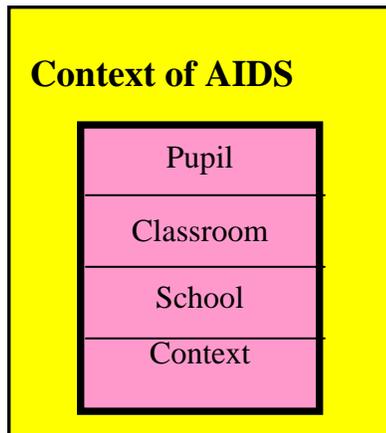
Through this design it is hoped that the data will provide a portrait of pupils', teachers' and head teachers' perception of the impact of AIDS on their lives, their learning, teaching and management, and will supplement the two commissioned quantitative impact studies to be carried out by ABT Associates and Botswana Institute for Development Policy and Analysis (BIDPA). This design would also enhance the reliability and validity of findings, as respondents can verify, explain, quantify and qualify the findings at the levels below. Moreover, it can more easily be analysed against the SER models advocated by Caroll (1963) and Creemers (1994) and against the impact that AIDS is having on the factors prescribed by these models as influencing pupils' attainment; it can also provide a platform for the development of qualitative multileveled research and monitoring.

5.2   Research procedures

The development of this embedded multileveled case study can be divided into five distinct phases spanning several visits to Botswana. However, by the very nature of this emerging research field of AIDS and education, both the documentary research and the literature review span all the phases as these become available.

Phase one sought to identify and frame the research problem, and involved exploration of data from my Master's degree study concerning respondents' views and thoughts about AIDS; general discussions with people within MoE; documentary review of available international AIDS statistics and government reports in different countries in Africa; and an interview with one of the world's two HIV/AIDS and education international ministerial consultants. This process culminated in identification of the three main research questions, which were discussed with the Minister of Health and the Director of Planning, Statistics and Research within the MoE to ensure that these were in line with Botswana's research agenda.

Phase two, of which the primary aim was to begin to understand the many facets involved in the AIDS pandemic and its impact, involved firstly four separate interdisciplinary literature reviews. The first three related to each of the three research questions, while the fourth explored research methodologies and ethical considerations in relation to researching the sensitive topic of AIDS. Without an identified research paradigm of AIDS and education at the outset of this research, the first literature review sought to understand the many factors involved in the AIDS pandemic, its impact on children's and adults' psychosocial well-being, their lives, family, community and economy. Through drawing on research studies as well as government, NGO and UN reports and theories spanning disciplines such as psychology, sociology, public health and development studies, it sought to map the context of AIDS. The second literature review, which related to the second research question, sought to explore the many factors involved in behaviour development, behaviour change and decision-making, through different theoretical perspectives. It therefore explored theories related to identity and behaviour development, cultural development and analysis. The third literature review related to the second and third research questions. These have provided valuable information in which to frame and analyse the impact of AIDS on the different levels of the education system, even though this review concluded that the use of these two paradigms, in their current form, was only possible and beneficial after this initial explorative multileveled case study.

Each of these literature reviews helped to define the research project and to identify specific research questions at the different levels. This phase culminated in the design of the research project and in line with research regulations in Botswana, the application for research permission from the Office of the President.

Phase three involved the development of research tools. These were submitted to the Office of the President for approval, which led to granted research access. This phase also involved the identification of the research population, the piloting of tools and seeking research access to the different levels and educational settings.

Phase four involved gaining informed consent from all respondents, administering the tools, verification of data and an initial analysis and interpretation of the data. A similar process was carried out in each school, where the following steps were taken:

1. Initial discussion research and sampling criteria and interview with head teacher or deputy head teacher
2. Seeking informed consent and administering the research tools with children and a brief analysis of the findings
3. Interviews with teachers
4. Where possible, these interviews were followed by a final discussion and verification and interpretation of some of the findings with the head teacher.

The administering of research tools and analysis of the findings in each school was followed by documentary research at the regional level and interviews with the regional school inspector and advisor, the Regional Educational Officers (REO). This was followed by documentary research and interviews with officers and directors at the ministerial level, where some of the findings from previous levels were discussed and interpreted. During this phase interview data was verified with respondents through a variety of methods.

Throughout this phase a number of problems were encountered, particularly in relation to gaining access to the research population. REOs were particularly difficult to get in touch

with as they were often out in schools or attending conferences. Consequently some interviews had to be administered at a regional conference. Likewise, due to the sensitive nature of the research a number of respondents did not feel comfortable being interviewed or refrained from answering some questions.

The final phase involved an extensive analysis of data, which included triangulation with relevant research studies and government reports that emerged during the course of this project, and the completion of the final thesis. This phase will, in accordance with the granted research permission, also involve the submission of the final completed thesis to the Office of the President, Botswana National Library Service and the Ministry of Education.

5.3   Research population

The decision to make Botswana the focal point of this study was made for three main reasons. Firstly, at the onset of the study it had the highest percentage of its population infected by HIV/AIDS in the world. At the same time, it had possibly the best infrastructure and economy in Africa, giving it the ability to make a real effort to turn the trend around and serve as a model for other nations. Secondly, as mentioned in the introduction, my findings from my dissertation study showed not only that AIDS was likely to become the greatest threat to the actualisation of Botswana's long-term vision, but that the importance of the education system in the long-term mitigation process would be slow to be realised. And thirdly, I consider Botswana my second home and thus feel a strong affinity with the country and its educational development.

A non-probability approach was used to identify the research population, which can be divided into five distinct groups, namely pupils, teachers, head teachers, Regional Educational Advisors, and officers within the MoE. At the ministerial level, respondents were selected based on their particular role within the MoE. Two districts were identified. The first area, Selebi Phikwe, was chosen because it had the highest prevalence of AIDS, while the second area, Kanye, which had a lower prevalence rate, was selected because my previous study was carried out in that area. This would allow for some comparisons

to be made between the two districts as well as over time in the Kanye area. The six schools were selected through consultation with the REO with the criteria of average school for the four different types of contexts. School one was located in an urban area, while school two was located in the outskirts of the same urban area. Schools three and four were both located in rural villages in the same district. School five was located in a small village, while school six was located in the large, long-established village of Kanye in the same district. Schools four and five had no electricity. The reason behind the comparison between electrified and non-electrified schools was based on the MoE need for feedback on the impact of the new TCB project.

Grades four, five and six were selected, as children in these classes were more likely to be able to understand and converse in English, since the language of tuition changes from Setswana to English in year four. Year seven pupils were not chosen, as this would have interfered with their exam period. Ten children, five boys and five girls, who had permission, were chosen from each grade level through random selection. All head teachers were invited to participate and teachers in the upper and the lower classes of the schools were also invited to participate. A total of 167 pupil and 30 adult semi-structured interviews were carried out, where of one of those interviews was a group interview with the entire teaching staff of the school. Although I made numerous visits to the schools, two of the head teachers were absent during each visit: one was attending a funeral and another was attending to official business. Though gaining access can be difficult under normal circumstances as people are not always at their posts, as also experienced by Harber and Davies (1997), the sensitive and taboo-laden nature of AIDS led to more people exercising their rights to abstain from participation. Consequently a number of teachers, a few children and one head teacher exercised their right to abstain from participating.

5.4   Research tools

Several methods have been used in this study to elicit information from the respondents at the different levels. Particular methods were selected to match the age of the respondents, the nature of the area of enquiry, English-language ability and cultural

background. Research tools were developed for the different levels after reviewing both cultural and ethical theories and considerations relating to researching sensitive issues and children's perspectives in both Botswana and other countries. A combination of the draw-and-write technique and unstructured interviews was selected to elicit children's perspective of the impact of AIDS on their lives, family, community and learning. Semi-structured interviews were selected to elicit information from the adult respondents. Documentary research was also carried out at the national and regional levels. The development and benefits of using these tools will be discussed in the following sections.

5.4.1 Documentary research

Documentary research, which has been an important part of each of the research phases as can be seen from research procedures, has been used to identify and frame the research problem, to quantify and qualify particular phenomena, to explore and analyse underlying policies affecting the impact and to triangulate findings.

At the regional level, documentary research involved the exploration of systems to monitor teacher absenteeism and absentee notes. No documentary research was carried out at the school level, as head teachers did not have data available. At the national level it involved exploration of policies, programmes and programme plans, AIDS data and research and development plans and targets. One particular government report, the BIDPA study (2003), which was commissioned at the onset of this project, has been used as a data source, as well as, for triangulation and interpretation of my own data. Although the methodology and the research population differed from my study, in that the quantitative BIDPA report primarily used agreement scales and the research population was both larger and also involved remote area dwellers, there were a number of similar findings in areas of relevance between the two studies.

5.4.2 Semi-structured interviews

In educational research, Cohen and Manion (2000) observe, questionnaires or surveys are frequently used as these are perceived as being more reliable, providing greater anonymity and privacy and encouraging greater honesty, and are less time-consuming.

Although these are important points when researching sensitive issues such as AIDS, my previous experience with research in Botswana confirmed their observation that surveys and questionnaires may have very low returns. Moreover, based on the Botswana proverb that implies that the words are in the eyes, "Mafoko a Mathlong", and Kann's (1988, p. 80) suggestion that "Botswana is still to a great extent an oral society", as well as the explorative nature of this research, more in-depth information can be elucidated from direct communication.

Semi-structured interviews were thus selected as a research tool to elicit information from the adult research population, as these are described by Tuckman (1972) and Cohen and Manion (2000) as allowing for more in-depth exploration of what the respondents think, experience and feel about the impact of AIDS on their life and work than a structured interview schedule, whilst at the same time allowing for some comparison. Their more flexible nature also allows for probing, elucidation of particular answers or observations, which can minimise linguistic and cultural misinterpretations. This approach also allows for verification and interpretation of findings at different levels.

Although semi-structured group interviews have been successful and provided valuable information in my previous studies in Botswana (Torstensson, 2000) because they allow for respondents to build upon each others' ideas and thoughts, when exploring a sensitive issue such as AIDS,' it was felt that this might not provide sufficient privacy. However, in school six where the teachers did not feel comfortable being interviewed alone, all teachers were interviewed as a group. Two teachers became the main spokespersons, while others would nod or show through body language that they supported their responses. Bers (1994) emphasises the importance of homogeneous groups, as respondents may not feel comfortable speaking up in front of higher authorities; consequently only teachers were present in the group.

Different interview schedules were developed for the teacher (Appendix 3), head teacher/deputy head teacher (Appendix 4) and the REO (Appendix 5) population groups. At the ministerial level, specialist interviews, which Bers (1994, p. 190) argues "elicits

in-depth, albeit subjective information to help research understand deeply held perspectives", were used to elicit information from respondents (Appendices 6-8), as these were designed for their particular post and the international level (appendix 9). Interview schedules were developed with open-ended questions, as suggested by Tuckman (1972) as these are more likely to provide frank and honest answers and encourage cooperation (Cohen and Manion, 2000), while the selection of prompts and probes were more specific in nature. Particular care was taken to develop easy and neutral opening questions to build rapport and trust, while questions on the impact on their own life and work came later. Interview schedules were piloted in Botswana with a few former teacher colleagues.

Interviews were recorded by hand as the majority of the respondents at the school level felt uncomfortable being recorded. At the regional and ministerial level interviews were also recorded by hand, but if the respondent felt comfortable these were backed up by tape. To avoid biases and misinterpretations, as suggested by Cohen and Manion (2000) interview data were verified and validated by the respondents. At the school level this was done through reading back the answers at the end of the interviews, as gaining feedback and verification through letters is difficult. At the ministerial level this was done through e-mail and by phone.

5.4.3 The draw-and write technique and unstructured interviews

A range of methods, including interviews, observation, rating and agreement scales, the use of pictures, and group interviews have proved to be useful in different situations and research questions when researching children's perspectives. Lindsay (2000) suggests that when researching with children it is not only important to take into consideration the environment in which the research is taking place but also the children's ability to respond. This is not only important with young children, but also when working with children with various degrees of English, as in this study. The innovative method of draw-and-write opens up a forum where children's own voices can be heard and their world-view can be spelled out. Though this technique has been used in the fields of psychology, education, sociology and health education, Tomas and Jolley (1998) suggest

that using it alone can easily cause concern for validity. Pictures in the environment (Thomas and Silk, 1990) or what is easier to depict (Williams et al. 1989) can influence children's own drawings. Children may also feel uncomfortable drawing and presenting emotional issues (Backet-Milburn and McKie, 1999). Nevertheless, the technique has been used to counteract the general top-down approach to both qualitative and quantitative research (Primore and Bendelow, 1995).

The draw-and write techniques coupled with unstructured interviews, which has successfully been used with primary age children in Botswana (Primore and Bendelow, 1995), was chosen as a research tool at the pupil level because it encouraged children to relax and feel capable, breaking down cultural barriers and allowing powerful emotions to be expressed (Primore and Bendelow, 1995), as well as providing a platform for discussion of what they perceived as an important impact of AIDS.

Though I have found the use of group interviews very useful in other studies in Botswana, as it allows respondents to explore a topic in greater depth, when exploring such a sensitive and taboo-laden subject as AIDS unstructured interviews were done individually with each child in quiet voices to allow for the privacy of each child. The use of unstructured interviews to elicit information and to establish meaning about what pupils had drawn, what it meant to them, what had happened and how they felt about it, and the impact on themselves and their families, allowed for more valid interpretations of drawings. While Beckett-Milburn and McKie (1999) found that most studies that have used both drawings and children's statements primarily use the statements for analysis; this study used both.

The draw-and-write schedules (Appendix 1) were piloted with children of the same age group and cultural background as the intended research populations, and alterations to the design and prompt questions were discussed with the children, so that the language used was clear and accessible.

5.5   Ethical considerations

Ethics in research has long influenced how, whom and why research should be undertaken. When researching sensitive issues such as AIDS, and with children, a number of ethical issues need to be considered, such as informed consent, privacy, confidentiality, cultural interpretations, emotional reaction and access. These will be presented and discussed in this section.

5.5.1 Research access

Research permission and informed consent were obtained at all levels of the education system in order to carry out this research. As mentioned in the research procedures, initial research permission was obtained from the Office of the President. With this permission, research permission was obtained from the director of primary education and the director of school inspection who provided an additional letter of introduction to REOs and head teachers. Informed consent was also obtained from all respondents.

At the school level, the nature and the purpose of the research and an overview of the research tools, as well as their rights to withdraw and abstain from answering any questions were shared and discussed with the head teachers and teachers before informed consent was obtained. Interview schedules with both pupils and teachers were arranged so that these would not take up too much important learning time, hence most interviews were done in the later sessions of the day. Interviews with teachers were done after teaching time.

According to the British Educational Research Association (BERA, 1992) guidelines, educational research should be carried out ethically, with respect for the person, knowledge, democratic values and for the quality of educational research itself. The only particular reference to children stipulates that "care should be taken when interviewing students up to school leaving age; permission should be obtained from the school, and if they suggest, the parents" (BERA, 1992, p.2). Although head teachers and regional advisors suggested that there was no need for parental consent, as they were considered the guardians during school hours, a passive approach was used to obtain parental

consent (Appendix 2). It was, however, felt that pupils would need to have the final say in whether they abstained or participated in the research. As suggested by Alderson, (1995) and Pollard (1987), it is particularly important when researching children's perspectives that they have honest, frank and accessible knowledge about the research project, what it is for, how the information will be used, and how confidentiality is obtained, in order to give informed consent. In addition to the abovementioned information, pupils were also informed at the beginning of the research about their right to abstain from answering any question or to withdraw from the research at any point in time. In addition to providing this information, pupils had the opportunity to ask questions about the research before they gave their final consent. In order for them to feel free to exercise their right to informed consent, it was important that the environment in which pupils were interviewed allowed for this, as suggested by Lindsay (2000). Interviews were therefore located in the staff room, where less interference was likely during class time. This allow pupils to withdraw and wait in the room until the group returned to the class, without being questioned by the teacher. During the unstructured interviews pupils' rights to withdraw were reiterated to each child and they were asked to nod if they did not feel comfortable answering questions or would like to withdraw, as children who feel under pressure might not have the strength to say so. In addition, great care was taken during the interview and pupils' body language was observed to ensure that they felt comfortable and did not feel compelled to answer any questions they did not feel comfortable answering.

5.5.2 Researching sensitive issues

Backett-Milburn and McKie (1999) argue that it is crucial when researching sensitive issues that the potential emotional impact on children is considered. This is not only essential, they argue, for those children who have shared their thoughts but even for those that have withheld theirs. This is particularly important when working with the draw-and-write technique as they argue that pictures often stimulate stronger emotional responses than words, and children may reveal more than they initially felt comfortable doing.

When exploring such a sensitive and taboo topic such as HIV/AIDS on their lives, I felt it was important to have full knowledge of where and whom pupils could turn to should they need to talk to somebody about the issues that emerged as a result of the research. Hence, in the initial meeting with the head teachers this was discussed and identified. In addition, time was allocated at the end of each interview session for pupils to ask questions or share their thoughts.

5.5.3 Confidentiality and privacy

Confidentiality has often been described as one of the major ethical issues to take into consideration after informed consent. In order to ensure confidentiality of all respondents, each was designated a code that showed the school, year level and the specific number given to each pupil or teacher. A second teacher in school one, teaching grade five may be coded as (T1/5/2), while a child in school six in year four, may be coded (6/4/10). Regional Educational Officers were coded with the abbreviation and a number i.e. REO-1, while officers at the ministerial level would be MoE with a number (MoE-3), etc. No individual information about pupils was shared with any teacher during teacher interviews.

However, when researching with children, Backett-Milburn and McKie (1999) suggest that there is also a need to respect children's rights to privacy even between the respondents. This I felt was crucial when researching children's perception of AIDS' impact on their own lives, as revealing information could affect children's social status and cause shame and loss of face, as Alderson (1995) points out. As mentioned, the staff room where the interviews took place was the only room where pupils could spread out and obtain such privacy. Unstructured interviews were carried out with individual children in soft voices, so that other children could not hear the answers. Some children thus chose to speak in soft voices, while others whispered. However, the level of confidentiality and privacy also raises a few contentious issues, particularly when researching with minors; as Alveson (1995) points out, that there are limits to confidentiality. Adults have a moral obligation to protect and assist the children, should the children reveal information that may suggest that they are being harmed (Fine and

Sandstrom, 1988; Masson, 2000; France, Bendelow and Williams, 2000). No such information was, however, revealed during these sessions.

5.5.4 Cultural sensitivity

As mentioned by Pridmore and Bendelow (1995), it is important that the cultural context is taken into consideration when researching sensitive issues or issues deeply connected with the cultural context. This was done through drawing on my own knowledge of the Botswana culture, having lived in both rural and urban areas, as well as through the semi-structured and unstructured interviews with the respondents, to ensure that as little misinterpretation of data as possible was made.

5.6 Data analysis

A number of steps were taken when analysing the data, some of which corresponded with Hycner's (1985) phenomenal data analysis schedule. At the pupil level, pupils' drawings were elucidated through unstructured interviews. Findings from this level were discussed, verified and interpreted by teachers' and head teachers' observations. Initially data was analysed by school to ascertain the impact of AIDS on each individual school and their particular contexts and to verify data between the levels within particular schools. Secondly, data was analysed by levels, where units of meaning were established, as can be seen in each section of the data chapter. Thirdly, clusters of units of meanings were combined to explore their particular impact on each other and their composite effect, as will be presented in the summary sections after each cluster of units in the data and analysis chapter. Fourthly, these clusters of units of meaning were drawn together and links were made when exploring the whole level as a unit of analysis, as well as between levels.

5.6.1 Trustworthiness (validity and reliability)

Yin (2003) suggests that in order to establish quality in the empirical research within a case study, four criteria need to be met, namely construct, internal and external validity and reliability.

This case study thus seeks to establish construct validity through the use of multiple sources and methods. This was done through verifying findings from one level through another, by weaving a few questions into the research tools such as pupils' knowledge of AIDS and orphan rates. Some data could be anchored and contextualised in other studies using different methodologies and through combined methods such as draw-and-write with unstructured interview, or semi-structured interviews with documentary research.

Internal validity is sought through verifying, interpreting and qualifying particular phenomena identified firstly with respondents, and secondly at one level by respondents at the other levels. As Kitwood (1977) argues that the more the rapport is developed between the interviewer and the respondents the more valid the answers are, great care was taken to develop a cooperative rapport where respondents felt free to express and explain their thoughts and observations.

Although this study makes links and comparisons with related studies in neighbouring countries, it does not seek to establish external validity beyond this particular case study. However, by suggesting and identifying how AIDS as a context may influence both other contextual variables' impact on learning as well as the different levels' impact on learning, it does propose that the context of AIDS in other areas of Botswana and other countries may also influence these factors. However, the impact on these factors and consequently on pupils' learning may differ. Lastly, this research seeks to establish reliability through ethical consideration, piloting of tools and through triangulation.

Data was triangulated through methodological, theoretical and combined levels of triangulation as suggested by Denzin (1970). In line with Smith's (1975) argument that a more meaningful picture emerges when exploring more than one level, this research makes use of the individual, group and organisational level, as well as taking account of the contextual and cultural level of analysis, in order to begin to map the many processes involved in the impact of AIDS. In addition, it draws on psychological, anthropological and educational paradigms, as well as related research from Botswana and neighbouring countries to make sense, compare and interpret the data. A few questions were woven

into the research project to allow for the study to be anchored within the national and international research context

5.7 Presentation and structure of thesis

Rather than presenting this multidisciplinary data under each question and then analysing them in a separate cgapter, the data and analysis have been combined into one chapter in this thesis. This has been done to more easily analyse the many diverse factors that influence the context of AIDS at the different levels of schooling, from the respective theoretical perspectives.

The data and analysis chapter has been divided into four levels to explore the impact of AIDS on the pupil, classroom, school and contextual levels. The chapter is presented in this way to more easily present and analyse how AIDS has a differential effect on different levels of schooling, to explore how its influence on factors at one level affects other levels, and to present the findings in such a way as to more easily support the development of a multilevel monitoring system and a possible future SER study. Rather than dividing the levels into separate chapters, the different levels are kept together in one chapter, as the analysis of each level draws and builds upon the former. As all these levels are inextricable linked to the impact of AIDS on pupils' learning and proposed solutions, it is vital that they are read and understood as a whole. The whole thus is greater than the sum of its parts.

The structure and organisation of data and analysis within the pupil, classroom and school level is linked to Hycner's (1985) phenomenal data analysis schedule, where units of data are grouped into three clusters of meaning related to particular impact of AIDS within each level. Each cluster of meaning is followed by an analysis and discussion linked to relevant literature and theory. Each analysis section also builds and draws upon previous sections. At the end of each of the three first levels, data and analysis from the different clusters of meaning are summarised, linked together and discussed as a whole. This is followed by recommendations and implications for each particular level. This step by step portrayal of each cluster of meaning allows the reader to more easily follow and

discern how the extensive data and analysis is inextricable linked within the whole portrait of the impact of aids at each level. The discussion of the impact of AIDS on the contextual level follows a similar structure to Chapter 3, where the specific impact of AIDS and the implications of definition and measuring are discussed under each commonly used contextual variable. This is done to more easily facilitate the identification and development of possible indicators to begin to explore and measure commonly studied contextual variables within the context of AIDS.

Triangulation from studies in Southern Africa has been woven into the text to highlight the similarities between neighbouring countries, to present the uniqueness of the context of AIDS in Botswana and to discuss the factors that may influence these differences.

Research tools and the research permission letter are provided in Appendix 1-9 .

DATA AND ANALYSIS

SCHOOL EFFECTIVENESS – FOR WHOM AND FOR WHAT: REDEFINING THE GOAL OF EDUCATION AND THE DEFINITION OF EFFECTIVE SCHOOLING IN THE CONTEXT OF AIDS IN BOTSWANA

"Regard man as a mine rich in gems of inestimable value.
Education can, alone, cause it to reveal its treasures,
and enable mankind to benefit therefrom"
'Baha'u'llah (1986, p. 501)

HIV/AIDS is predicted to have a detrimental impact not only on the supply and demand of education and contextual variables, but also on the socio-emotional well-being of pupils and teachers, and on teaching and learning. This in turn is expected to have a severe impact on the management of education at the school level, as shown in the literature review. To complement commissioned quantitative HIV/AIDS impact studies and support the long-term mitigation process, this thesis therefore sets out to identify and understand the qualitative impact from the perspective of pupils, teachers, head teachers, and educational officers from the regional and national level and to suggest strategies for the future, by answering three main research questions. Firstly, what impact does HIV/AIDS have on the education system in severely affected areas in Botswana? Secondly, what educational components would enhance pupils' ability to develop capabilities to protect themselves and help turn the trend around? Thirdly, what management strategies and systems would enhance the education sector's ability to continue to provide quality primary education in the light of this?

Although quantitative impact studies have shown that the teacher mortality and absentee rates and orphan ratios are much lower than initially predicted, leading some to draw the conclusion that AIDS is having a limited impact on pupils' learning, data indicates that AIDS' impact on pupils', teachers' and head teachers' health and psychosocial well-being impedes all factors that have been identified by SER studies as contributing towards high attainment. Even though the Government of Botswana has made great strides in reducing the impact by introducing new methods of teacher capacity development, free ART to all citizens, food baskets for orphans and the development of an HIV/AIDS monitoring system, further development is needed in all these areas to help turn the trend around.

Drawing on the SER model described in Chapter 2, where the degree of learning is defined as a function of available time and time needed, pupils' learning and attainment is at the pupil level influenced by their aptitude, background, motivation and available time spent on learning. As will be presented in the first level, "A portrait of AIDS at the pupil level", these factors are severely affected by the impact of AIDS on pupils' own lives and those of their family, on their perception of self and their own ability to contribute, and on their perception of the future. As will be shown in the section, "A portrait of AIDS at the classroom level", this together with the impact of AIDS on teachers' health, family and well-being, impacts on classroom level factors, as teacher behaviour and quality of teaching also influence pupils' learning and attainment. While AIDS has shown to have less of an impact on school level factors, the level of effectiveness of these factors are in the context of AIDS also influencing pupils' learning, as will be presented in the third section, "A portrait of AIDS at the school level". In the final section, "A portrait of AIDS at the contextual level", the interplay between the context of AIDS and other contextual variables is presented and analysed. The first main research question is therefore answered at each level. The second research question is answered in the discussions at the end of the pupil and classroom levels, while the third question is answered at the discussion at the end of the school and contextual levels.

6.1 A portrait of AIDS at the pupil level

Illustration 6:1 (6/6/10)

One hundred and sixty-seven pupils in years four, five and six, in six different primary schools in two districts, were asked to draw and write about their experiences of how they perceived that HIV/AIDS impacted on themselves, the family and the community. A review of the children's drawings and statements presents AIDS as a "powerful killer disease that can't be stopped" (1/4/25), which "does not choose its victims" (1/4/24). "AIDS is the disease caused by the HIV virus" (6/6/6) and it "is caused by having sex and sharing food with a person with AIDS" (6/6/10). "It kills mother, father, sister and brother" (2/4/21), as it rages through Botswana. Pupils' chose to draw pictures of symptoms of AIDS, how it is transmitted, stigma, pressures they are facing which increase the risk of infection, death, funerals and orphans and the impact on the survivors (See Table 6.1). The following section captures and presents an overview of what these pictures portray.

An overwhelming number of pupils' drawings show men, women and children who have lesions and blisters all over their bodies, wrinkled and dry skin, who are thin and have lost so much weight that their bones and rib cages are highlighted, who are so weak that they have to stay in bed as they become sick with AIDS. A year five pupil's drawing shows a six year old AIDS-infected boy with soft furry hair and blisters and lesions all over the body, who has become so thin that the bones are showing through the skin. Another

Table 6.1 What pupils' choose to draw

- Modes of transmission of AIDS
- Pressures increasing the risk of infection
- Symptoms of AIDS
- HIV impact on the family
- Pupils' fear of infection
- AIDS related stigma

27%, 2%, 9%, 30%, 30%, 2%
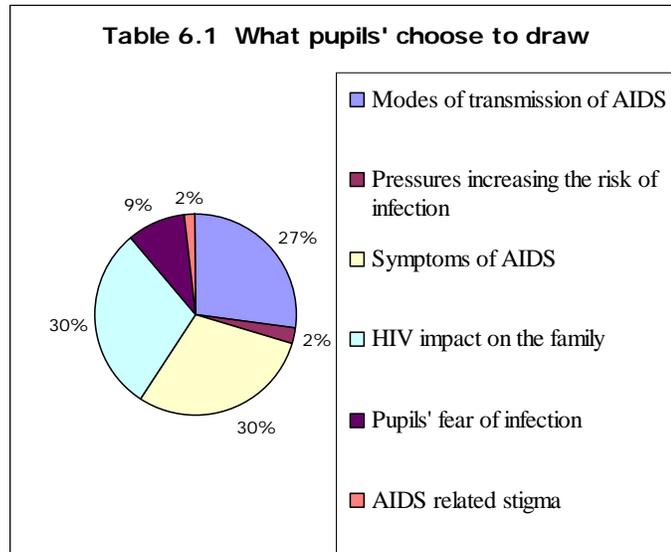
drawing shows a series of pictures of how a healthy, strong and fat person becomes unhealthy and thinner, then struggles to walk and finally dies of AIDS.

A number of drawings show pictures of coffins, with family members young and old in despair and crying by the graveside of their loved ones. One year five girl, who drew three graves with a woman and a child crying beside the graves of her husband and two children, described how she has seen many people who are sick and have died. Another picture shows the grave of a young girl who died at the age of eleven. A year six girl who had lost her father to AIDS drew a picture of the funeral of a woman, where the children were standing around crying. She wrote, "the children will be left with their father and grandmother. At school children's work will be poor, because they will be thinking of their mother" (6/6/10).

Some children's drawings show pictures of neighbours and family members becoming sick and dying one by one, leaving the younger children to fend for themselves or be cared for by relatives. Some of the pupils' descriptions of what happens to orphans are based on first-hand experiences, while others are based on fears of what might happen to

them if their parents die. One year five girl, who drew her mother's best friend's funeral, described how the daughter who is also HIV-positive had no one to stay with, as the grandfather didn't want to care for her. Another year five girl, who drew a picture of a little girl throwing soil on her mothers' grave, described what she thought would happen to the girl. "Her family will not look after her. They say that the council must look after her. She will have nothing to eat and when she goes to school children are laughing because she doesn't have a uniform" (1/5/15). Though the latter description of what happens to children is based on imagination rather than experience, children's drawing and statements about AIDS portray a high level of fear of losing loved ones, becoming orphans and becoming infected by the disease themselves.

Children's drawings also present a large number of pictures showing events, scenarios and ways in which they could become infected by HIV, ranging from children sharing food, bath tubs, blankets, toothbrushes, razors, and coughing on each other, to transmission through sexual intercourse, blood and Mother-To-Child Transmission (MTCT). Many of these drawings and statements also show how they might be pressured into situations which put them at greater risk of infection.

Though most drawings portray a very gloomy picture, many children's statements show great levels of empathy and compassion and a willingness to support those who are affected and are suffering. A year six boy, who had seen four children become orphans and live on the street wrote: "I want to take care of them and support these children" (2/6/2).

A portrait of HIV/AIDS' effect on the community, through the eyes of year four, five and six pupils, shows that AIDS affects their own health and that of their families. It has also an impact on the family constellation, children's feelings, fears, perceptions of self and others, as well as their concepts of relationships and family. For the majority of the children HIV/AIDS also featured strongly in their perception of their own, the family's, the community's and the country's future, as well as influencing their ability to learn. Most studies carried out have primarily focused on single and double orphans or

vulnerable children, i.e., those who have sick family members at home. However, this study's findings indicate that HIV/AIDS has an impact on all children, regardless of whether they have had direct contact with AIDS or whether their experiences and thoughts are based on what they have heard, seen on television and radio, or learned from teachers. This substantiates the call to regard AIDS as a contextual variable in its own right, as its influence stretches beyond individual pupils' personal experience.

Drawing on pupils' pictures, statements and writing, triangulated against teachers' observations and data from research commissioned by the MoE in the BIDPA study, the following sections on the pupil level will firstly present pupils' knowledge, thoughts, perceptions and feelings about AIDS; secondly, their experiences and perception of AIDS impact on the family and children; thirdly, their perceptions of themselves, their future and the role that they see they have in protecting themselves and mitigating the impact of AIDS. This is followed by a summary and a discussion of the capabilities that pupils would need to develop in order to protect themselves against AIDS and play an active role in the mitigation process.

6.1.1 Pupils' knowledge, thoughts and perceptions about HIV/AIDS

The knowledge of symptoms, modes of transmission and prevention of HIV/AIDS is central in all HIV/AIDS prevention programmes. Many are based on the assumption that this knowledge alone will automatically lead to behaviour change and fewer infections. Though knowledge is only one factor influencing behaviour change, findings indicate that the source and the form of this knowledge influences not only prevention strategies but also pupils' well-being. All 167 children in this study had heard about AIDS, and 79 pupils had seen people suffering from AIDS first hand. These figures are much higher than findings from the BIDPA study in 2003. This may indicate that there has been a distinct increase in knowledge and prevalence of AIDS in the two years separating these studies. It is also likely that it is caused by the difference in sampling and design described earlier. However, a number of similarities were found between the two studies. Both studies revealed that though the level and accuracy of knowledge differed between schools, it increased with pupils' age and the more urban the school was. In contrast to

most other studies, there were no gender differences in pupils' knowledge in either of these studies. However, the study revealed gender differences in relations to pupils' feelings about AIDS, fears of becoming infected and what pupils chose to draw, except for those choosing to draw symptoms of AIDS. More girls chose to draw HIV/AIDS' impact on children, fears and pressures related to transmission, whereas more boys chose to draw modes of transmission. The following sections will present and discuss pupils' knowledge of HIV/AIDS symptoms and transmission, as well as their feelings and the impact of AIDS on their thoughts and feelings.

6.1.1.1 Pupils' knowledge of symptoms of AIDS

Illustration 6:2 (4/4/28)

The most common choice of pupils' drawings was to portray people (24 boys and 26 girls), family and community members of different ages suffering from the later stages of AIDS symptoms, indicating that many pupils know at least one symptom of AIDS. Only a few pictures showed different stages of the infection cycle. Like the BIDPA's findings, pupils' knowledge increased with grade-level. Only a few year four pupils were able to describe more than one correct symptom, whereas most of the children in year six were able to describe a range of symptoms. The most common symptoms portrayed were, in order of feature: severe weight loss; blisters in the face or lesions or sores all over the

bodies; change in colour and very dry and wrinkled skin "like an old person" (2/6/5). Some children also described symptoms such as coughs, headaches, spots, diarrhoea, fever and struggling to retain food. A few year six pupils drew and mentioned different stages of symptoms, as this boy described:

> "They become thin. Then they change their colour. Their face becomes like an old man. Their stomach becomes swollen. The hair grows soft. They go to bed and they get blisters on their body" (5/6/9).

Another boy in the same school also mentioned how they get sweaty and struggle to walk. Only two year six pupils, in urban schools, described how it could take up to ten years before an HIV/AIDS infected person became sick and died, while another three children showed awareness that HIV/AIDS also increased the likelihood of contracting tuberculosis. Though the symptoms described mirror those of the BIDPA study, the sources of their knowledge differed. Pupils' drawings and statements indicated that 79 out of 167 pupils had seen people suffering from AIDS, in the hospital, the community, the neighbourhood or in the family. Table 6.2 presents the number of pupils who had seen AIDS sufferers first hand and how many people they had seen.
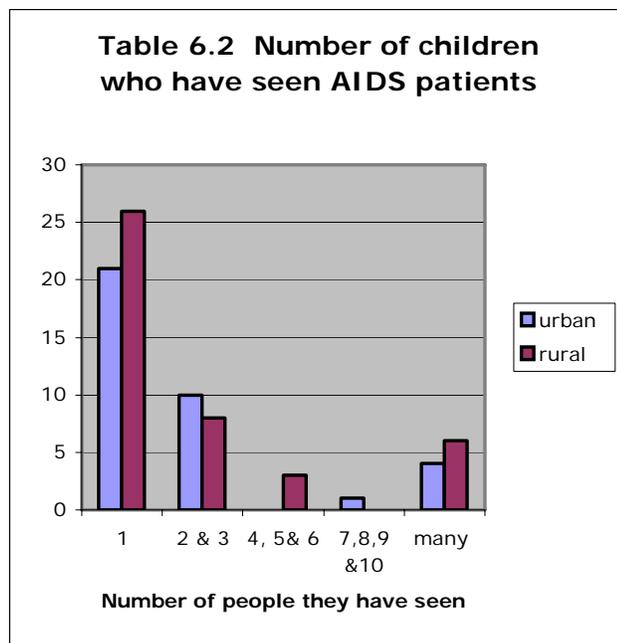
Table 6.2 Number of children who have seen AIDS patients

The majority of children in the urban areas mentioned that they had seen AIDS sufferers in the hospital, whereas the majority of their rural counterparts had seen HIV-infected people in their extended families, neighbourhood and community. Table 6.3 presents the different contexts where pupils had seen HIV/AIDS infected people. Very few children mentioned that they had seen people taking anti-retroviral drugs (ARV).

Table 6.3 Where pupils had seen HIV/AIDS infected People
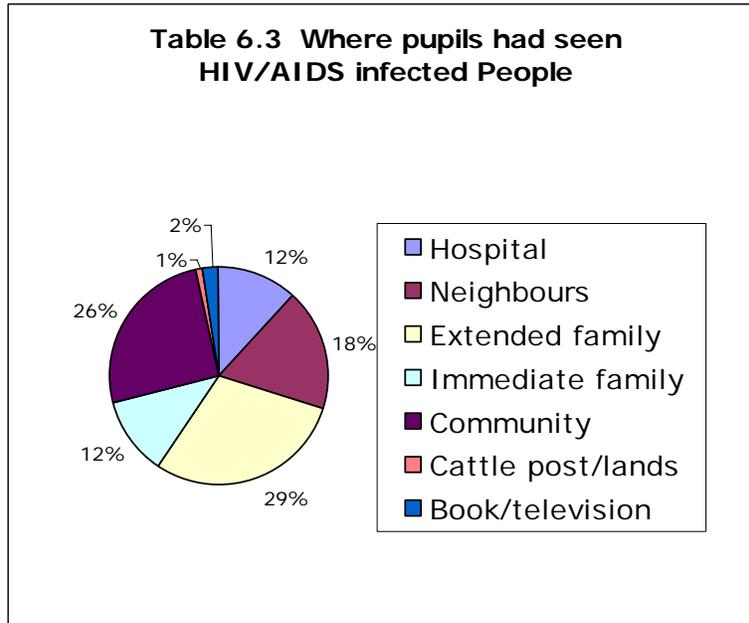
Though there was a clear difference in knowledge of symptoms between urban and rural schools, pupils in the urban Kanye school showed greater awareness of the symptoms than their urban Selebi Phikwe counterparts, even though the region of Selebi Phikwe has a much higher HIV/AIDS prevalence than Kanye. Though this may suggest that pupils' knowledge of AIDS is more related to teachers and school effect than to the HIV/AIDS prevalence in the community, interviews with teachers in the school in Kanye, revealed that the majority of teachers were HIV-positive and were sick. Hence the knowledge may also be attributed to the visibility of AIDS in the school community. Vissers' (2004) findings in Mozambique indicated that teachers who have close or personal experience of AIDS were more likely to actively and comfortably teach about AIDS, and one may therefore draw the conclusion that these teachers were more comfortable teaching about AIDS. Teachers within the school in Kanye only felt comfortable being interviewed as a group, where two teachers were spokespeople. Hence, the greater knowledge about AIDS may be a result of both the greater visibility of AIDS in the community and in the school and to some degree teachers' direct knowledge of AIDS.

Though both studies indicated that the majority of pupils have knowledge of some of the symptoms of the later stages of AIDS, it is worrying to note that the ABT impact study (ABT, 2002) found that two thirds of pupils thought that it was possible to detect by sight if somebody was HIV-positive. When very few pupils show awareness that the incubation period can be up to ten years, during which time people show some, but limited, symptoms of the disease, and when this finding is coupled with the small numbers of pupils who had an awareness that ARV treatment only hides the symptoms rather than cures the disease, it is clear that such an understanding may put children at greater risk, as they perceive people around them as infection free.

6.1.1.2   *Pupils' knowledge of HIV/AIDS transmission*
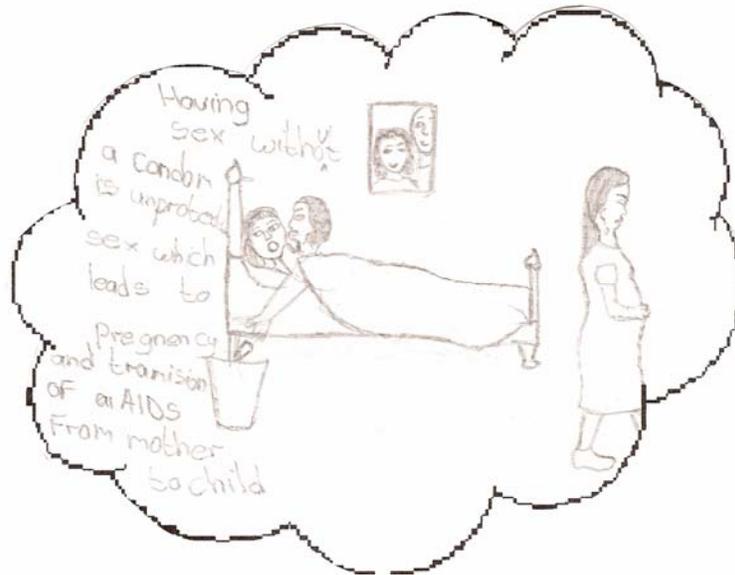
Illustration 6:3 (1/6/9)

Forty-six pupils chose to draw ways in which HIV is transmitted. Many of these drawings and statements also described pressures they were facing that increased the risk of becoming infected. Though the majority of these modes were correct there were also a number of misconceptions. The accuracy, correct use of vocabulary and the breadth of pupils' knowledge of modes of transmission differed between the schools, and increased

with the age of the pupils and the more urban the school. The majority of pupils described at least one mode of transmission.

Though most of the pupils described unprotected sex as the main mode of transmission, pupils' drawings and statements of modes ranged from unprotected sex, injections, blood transfusions, MTCT, coughing, and kissing, to sharing baths, beds, blankets, toothbrushes, toilets, razors and plates. More year four pupils in the urban areas and year four and five pupils in the rural areas described the sharing of food, baths, toilets, razors, blankets and coughing as the main mode of transmission rather than unprotected sex. However, the few children who described unprotected sex as the main mode of transmission referred to it as "sharing blankets". The younger children's lack of correct knowledge of AIDS may indicate that many teachers do not feel that it is appropriate to talk about sex with them, as mentioned by a few respondents at different levels. Of the few children who mentioned MTCT, only year six pupils described how they became infected at the time of birth and through breastfeeding. Though the global HIV/AIDS campaign message ABC (Abstain, be faithful and use condom) is very common and posted on billboards around the country, only a few year five and six children mentioned that having multiple partners and being unfaithful would increase the risk of infection.

However, an analysis of the statements describing unfaithfulness and multiple partners as increasing the risk of infection indicated that boys and men are perceived as being more unfaithful and having more multiple partners than girls and women, as suggested by these statements: "This man is sleeping with many women" (3/5/12); "this girl loves this man, but he sleeps with other girls" (4/6/4); and "I know many who have AIDS. They get HIV from Husband" (6/6/4). This notion is substantiated by the BIDPA study, which found that "boys were described as taking pride in having as many girls as they can, while girls find opportunities to have an extra boy friend just in case the main one dumps her" (BDIPA, 2003, p. 63). Though both these statements seem to indicate that boyfriends and girlfriends are perceived as accessories to enhance own identity, status and acceptance within the community rather than relationships in their own right, they may also be anchored within cultural gender norms and gender identities as suggested by Tlou

(1996) and SAfAIDS (2003). Tlou (1996) points out that in Botswana motherhood is regarded as a passport to womanhood and the only way in which women can prove that she is fertile. Sexuality and fertility are thus perceived as synonymous and closely tied to woman's status in society. SAfAIDS (2003, p. 11) explains that

> "boys grow up expecting to have a lot of sex. Many men and women think that is natural for men to have more partners or that a man's sexual drive is so strong that it cannot be controlled. So boys grow up believing that they have the right to have sex whenever they want it and girls grow up believing that it is their duty to satisfy men."

Drawing on Hofstede's analysis of masculine and feminine culture effect on gender identities, SAfAIDS and Tlou's gender description would indicate more masculine values, where boys should assert themselves and girls should learn to please and be pleased, even though Botswana traditionally and more generally adheres to more feminine values, where both boys and girls are socialised to be modest and seek consensus.

Both studies revealed that pupils held a number of misconceptions about HIV/AIDS transmission. Pupils' pictures and statements described how AIDS was transmitted through sharing beds, blankets, eating from the same plate or somebody's food, through coughing, touching animals or being bitten by a mosquito, getting blood on the shoe or walking in water which had been contaminated by a HIV-infected person's urine, and through witchcraft. Some pupils in the BIDPA study also thought that AIDS was airborne. The description of witchcraft as a source of infection was particularly prevalent in schools in the Southern district, as well as in one rural school in the Selebi Phikwe area. Though some of these misconceptions are based on ignorance, the incorrect use of vocabulary, such as using the term "sharing blankets" for sexual intercourse and "socks" for condoms, is linked to cultural taboos and AIDS-related stigma. However, both types of misconception can put children at greater risk of infection and lead to greater levels of unnecessary fears. For instance, one mother described how her ten year old daughter,

who normally shares a bed with the younger sister, got up one morning in the height of summer wearing tights. When the mother asked her why she was wearing tights when it was so warm, she replied that her teacher had told her that they would have to wear socks when sharing blankets with somebody. Otherwise they would get AIDS. "Please don't share blankets" (3/5/6), warns a year five girl in a rural school. Some older children may understand the meaning behind these words, but it can easily lead to confusion for younger children.

6.1.1.3 Pressures pupils are facing which may enhance the risk of becoming infected

Illustration 6:4 (6/6/8)

Many of the children who drew pictures of transmission of HIV also drew and described pressures and activities that would increase the risk of infection. Though there were no significant numerical differences between girls' and boys' knowledge of transmission, there were obvious gender differences between the perceived pressures. Though pupils' pictures and statements portray pressures such as using alcohol and drugs, rape, pressures to engage in sex or having sex in exchange for money, having multiple partners and fighting, stereotypically, more boys described pressures involving alcohol, drugs and fighting, while a high number of girls, and particularly those in the urban areas, described

rape as a major factor of becoming HIV-infected. Though the majority of girls had heard about rape through television, radio or school, quite a few described how they knew of somebody who had been raped. Either way, their fear of rape was very strong. One year four girl in an urban area described how a nine year old girl had been raped and how she now was so scared that it could happen to her. Two other girls described how they would take a longer way home from school to avoid going past a house where one girl had been raped, and the bar, as there were lots of older boys and men around. "Maybe he will grab me and give me AIDS" (1/4/29), one said.

Being pressured into having unprotected sex, either in connection with alcohol, money or losing a boy's or man's love was also described by a number of girls, such as this one who drew a picture of a girl in senior secondary school uniform who meets her boss as she walks pass the bar:

> "This girl comes from the shops. She doesn't want to have sex. She is
> too young. The man takes out money. The girl takes out a condom, but
> the man rapes her. She gets pregnant" (6/6/8).

Pupils' and particularly the girls' fears and stories about pressures of having to engage in unprotected sex were substantiated by the BIDPA study's findings that indicated that the majority of the 10% of primary school pupils who were sexually active were pressured into having sex, often in exchange for money. One year six girl in an urban area described how her sixteen year old friend had been pressured into having sex, and how when she got pregnant the boy left her. Through focus-group discussions the BIDPA study found that most pupils thought that it was the responsibility of both partners to ensure safe sex, except in the capital and the Southern district where it was perceived to be the responsibility of the girl. In this study it was mainly girls who described their inability to negotiate safe sex, while pressures to engage in sex were only described as coming from boys or men. In addition to the physiological differences, these pressures and the girls' inability to negotiate safe sex may account for the discrepancies that the BIDPA study mentioned: that girls' higher knowledge of AIDS and AIDS prevention

does not tally with evidence from previous studies indicates that more women are infected than men. The BIDPA study draws the conclusion that pupils need to develop greater skills in negotiating safe sex. However, as indicated by one girl who thought that it was incorrect for boys to believe that they can do what they want, as "everybody should have the right to choose for themselves" (1/6/8), this difference may suggest that cultural gender perceptions may inhibit these girls from developing a voice and having their views and needs sufficiently respected. Hence, these findings not only substantiate the literature reviews' argument that there is a link between gender inequality and the increase of AIDS, but also confirm the notion that knowledge alone does not lead automatically to safe behaviour. There is therefore a paramount need not only to develop skills in negotiation of safe sex, as argued by BIDPA, but to nurture a strong sense of self-worth and gender identity based on equality and moral integrity, personal goals and the ability to make judgements against these goals, since the girls valued the short-term gain of money over their own long-term health.

A few year six girls also recognised how staying out late, getting drunk and getting lifts with strangers may put them in risky situations and reduce their ability to protect themselves, while a year five boy in an urban area described the link between drinking alcohol and reduced ability to negotiate protected sex, and infection. Their drawings portray people who after drinking are arguing and how they are unable to stand up for their rights. One year six boy in a rural school described how the combination of drinking alcohol, fighting and having sex was like "digging your own grave" (3/6/10). A few boys also described how fighting may lead to transmission through open wounds.

These findings indicate that values about self and others, and cultural perceptions of self and gender identities, play an active part in translating knowledge into safe actions. Moreover, the accuracy of this knowledge is vital, as incorrect knowledge leads to unnecessary confusion, worries and fears, as shown. Though there were clear gender issues in relation to pupils' perceived pressures and threats of becoming infected, there were also community differences. For instance, the threat of rape and being pressured

into having sex were predominately described by urban girls, which may indicate that respect for children and particularly girls is lower in the urban areas.

6.1.1.4 Pupils' feelings and thoughts about AIDS

Illustration 6:5 (2/6/19)

In contrast to most studies, which have primarily focused on AIDS impact on vulnerable children and orphans (VCO), pupils' drawings and statements indicate that the context of AIDS influences all pupils' emotional and psychosocial well-being and that worries and fears about HIV are in the forefront of an overwhelming number of children's minds. Though 53 children in this study did not volunteer information or feel comfortable talking about how they felt about AIDS, and five children said that they were not worried at all, the remaining 111 children described how they were either very scared or really worried about HIV/AIDS. Only one child mentioned that he was angry. His anger was directed towards a friend who had passed away, because she had not told her parents that she had AIDS nor asked for help or support from the clinics in fear of AIDS-related stigma. Those who said that they were not scared at all described how this was based on the belief that "that they will find a cure for AIDS" (6/5/18), or that it could not happen to them or their family. One boy described how he was not scared, as he would not have sex with somebody who was HIV-positive. However, he also said that when he got sick, the medication would make him well again.

Pupils' fears and worries about AIDS were related to becoming infected themselves, losing parents, becoming orphans, general worries about AIDS, testing positive, stigma, death, and not having somebody to talk to. One child also expressed a fear of infecting others. A large group of pupils also expressed fears and worries about the future. Many children described more than one worry or fear in relation to AIDS. Though there were community, gender and age differences, in terms of the types of fears expressed, there were also differences in relation to pupils' personal experiences of AIDS and their fears. Children in the urban areas displayed greater levels of fear towards becoming infected, and particularly girls in urban areas displayed a greater fear of becoming infected through rape or being pressured into having sex.

Children in the urban areas and those living with both parents also expressed a higher level of fear of losing a parent and becoming an orphan, even though they had less first and second hand experience of orphanhood. "I feel so sad because one day my mother will get AIDS. She will die. I am so scared she will die. Then my father will also die" (4/5/11), says a girl who lives with both parents. These children also described more horrific stories than their rural counterparts of what happened to children when they became orphans. Urban children's fears may partially be fuelled by regular television advertisements and programmes featuring different AIDS scenarios and by the lack of first and second hand experiences of what happens. Without people to talk to, voice their concerns and get clarification of their thoughts and imagination, their fears may become exaggerated. However, the differences may also be attributed to the differences in family constellations in the two community types. Though more children in the rural areas lived with one parent, more rural children described the extended family as their family, while more children in the urban areas described the nuclear family as their family. Hence the fear of being left alone may be greater in a smaller family with fewer relatives around. More pupils in the rural areas had also seen with their own eyes how classmates and neighbouring children who had lost parents were being cared for by relatives. Hence both the level of personal experience of AIDS and the family constellation may influence

pupils' and children's feelings and fears of AIDS. However, as noted, pupils' fears and worries are often exaggerated when they feel that there is no one they can talk to.

Quite a few children described concern and worry that they had no one to talk to. "I feel scared, because when I grow up I will have AIDS. I haven't talked to my parents. I feel scared talking to my mother about it" (1/4/22). Many of these children wished that they could talk to somebody about the disease and how it is affecting them, as this year five boy in a rural area described:

> "We are twelve in my family. Two are sick and one has died. I didn't talk to them about the sickness. I wanted to talk about it. I can't talk to anybody." (5/5/15)

There were however a few children who described how their parents had told them about their status, as this boy describes: "My father is sick. He went for testing. He told me he had AIDS. I am so scared of AIDS" (4/5/5). Although the majority of those who expressed a need to talk to somebody felt that they didn't have anyone to talk to, there were clear differences between pupils in the rural communities and those in the urban areas. More pupils in the rural schools felt uncomfortable talking about AIDS, and shared their perceptions and worries in soft and whispering voices. Many of them also felt that they could not talk to their parents about AIDS, while their urban counterparts spoke more freely about it. This was particularly evident in the urban Kanye school, where pupils of all ages spoke very openly about AIDS, its impact and their fears and worries. However, more pupils in the urban schools in Selebi Phikwe, and particularly those living with both their parents, said that they were comfortable talking to their parents about AIDS, as this girl describes: "I have told my parents that I am scared. I have told them to take care of themselves" (1/5/12). However, the older they were, in both types of communities, the less comfortable they felt talking to their parents. Some year six pupils mentioned that they felt more comfortable talking to their peers.

Though there were many children who felt that they couldn't talk to any adults about their fears, there were a few pupils, in both rural and urban schools, who had gone against the cultural norms and had tried to warn and teach their parents about the risks of infection. Some parents would listen to the pupils, but it was more common for pupils' warnings to be rejected, as this boy described: "When I told them that they should use a condom or they will get AIDS, she told me that I should not talk about HIV, as I was still young" (4/5/11). Hence pupils are beginning to develop confidence in opening up and speaking about AIDS, but cultural taboos and stigma are often making it difficult to open up a dialogue with those who they most need to talk to, namely the parents. Fox (2001) found that children in Zimbabwe and Tanzania displayed similar fears as those expressed in this study, and like these children many struggled to talk about their experiences and worries.

Pupils also described their fears about HIV/AIDS-related stigma, particularly in connection with being tested and receiving treatment, but also in relation to caring for the sick and orphans. One year five child mentioned how one of her older friends would not get tested and receive treatment, "because people would know what disease she had" (1/5/13). "People don't say that they have HIV. They think that people will laugh at them" (1/6/3). One child drew a picture of a lady who had hanged herself when she found out that she was HIV-positive, while another described how her three friends, who were now orphans, were no longer welcome at their grandparents house because one of them has AIDS. In contrast to the BIDPA findings, which indicated that there was more AIDS-related stigma in the remote and rural areas, the majority of the pupils who described scary effects of stigma were urban. Hence stigma may not always be directly related to ignorance, but also related to how people relate, know and care for each other in the different types of communities. Although pupils' drawings and statements portrayed fear of AIDS-related stigma, many also showed courage, empathy and compassion with those who suffered. For instance, one year five girl in an urban area, who had only seen HIV on television and described how some people don't want to live with, care for or talk to people who have AIDS, said, "I want to care for them. I want to give them so much love.

I feel so sorry for them" (1/5/18). Another girl described similar concern and worry for a HIV-positive girl in Form Two:

> "She is so quiet. She is not free. She is still afraid of what can happen to her. I talk to her. I haven't talked to her about AIDS. I am afraid that if I talk to her, she doesn't want to talk about it because she is so ashamed. She is very lonely." (1/6/7)

Though children have a high level of empathy with those who are suffering and are eager to provide help and support, many lack the skills, confidence and correct knowledge to provide such support and reach out to those who suffer. Hence it is not only vital that these feelings of empathy and care are nurtured and captured, but also that the children develop the necessary skills and a forum to reach out and provide this support. The ability to support and take part in the mitigation process not only helps children develop capabilities and feelings of competence, but also provides a forum for expressing and working with their fears and worries. Without this forum, pupils are likely to develop a greater feeling of powerlessness in the face of AIDS.

6.1.1.5 Summary and discussion

In conclusion, pupils' drawings and statements regarding symptoms, transmission and feelings regarding AIDS, indicate that incorrect knowledge and misuse of vocabulary related to both symptoms and modes of transmission increase pupils' worries and fears, both of contracting AIDS themselves and of losing loved ones. As suggested by one of the Regional Educational Officers (REO), HIV/AIDS has become an umbrella name for all other diseases and as a result many pupils may become unnecessarily worried when they see themselves, friends and loved ones displaying any symptoms at all, such as those caused by common colds, stomach bugs and chickenpox, which are similar to the symptoms wrongly described by a number of pupils. This is supported by one of the teachers who noted that many children whose parents were sick were "scared and worried that it might be AIDS" (T1/6/3) even though they might not be suffering from AIDS. Similar effects of children's misconceptions have also been noted in other Sub-Saharan

African countries. Fox (2001), for instance, described how a young orphaned girl in Tanzania who was unclear about AIDS transmission thought that she would die as she had a cough similar to her mother, who had died of AIDS. Moreover, as mentioned earlier, practices such as sharing a bed with younger siblings may also increase the level of fear, or as this boy described: "I saw my mother and father kissing and I cry… I am worried because my mother might get sick" (2/5/7). When pupils who have incorrect knowledge coupled with their imagination of what might happen do not have an opportunity to voice their worries, get confirmation, clarification or be corrected, they are likely to experience greater fears and worries, as evident with pupils in the urban areas.

Though many strategies of HIV prevention are based on instilling a level of fear of AIDS in pupils, without accompanying skills, values, attitudes and understandings this fear can lead to higher levels of anxiety, and as a result the strategy may backfire. Unexpressed fears and worries may not only influence their emotional well-being, but also lead to behaviours which may increase the risk of infection. Maslow's (1987) and Hofstede's (2001) findings of people's reactions to living with high uncertainties and fears indicate that people will even take greater risks in order to feel a sense of control and to create an anxiety buffer. This may consequently support the notion that people are less likely to make decisions based on logic, values and knowledge when feeling scared, as described by one of the respondents, unless these values have become introjected, as argued by Deci and Ryan (1995). As a result pupils may be more susceptible to external pressures and may actively seek comfort in early relationships or with older men to generate a sense of stability and security. It is possible that this may underpin the increasing phenomena of 'Sugar Daddies' described in many studies, as love relationships may provide such buffers. One head teacher, for instance, noticed how when girls in year seven fell in love or began to have boyfriends, they forgot all that they had learnt about HIV/AIDS prevention, while MoE-7 described how the younger generation "are hungry for love, they will take it wherever they can find it", even if "this affects their ability to make decisions" (MoE-7) in the face of AIDS. This not only suggests a need for pupils to develop a value base that nurtures the development of intrinsic self-esteem and perception of self, which according to Deci and Ryan support the development of value-

based decisions, but combined with pupils' descriptions of threats increasing the risk of infections also raises issues related to perceptions of gender identities. It would be important to explore the extent to which pupils' descriptions of gender in relation to pressures to engage in sex, or as noted by BIDPA, the reasons behind multiple partners, are based on a belief about the nature of men, as suggested by Tlou (1996) and SAfAIDS (2003), or are related to behaviour. If these behaviours are based on beliefs about the nature of men, it is likely that people are not able to visualise how behaviour patterns can change, whereas if they are based on beliefs about behaviour rather than nature, people may more easily recognise how these behaviours can be changed and more equal relationships develop. Consequently, people's perceptions of gender identities and roles would be vital to ascertain, unpack and discuss in developing any programme related to AIDS prevention and the development of gender equality.

In addition to raising issues about perception of identity and gender, the pupils' knowledge, thoughts and feelings about AIDS not only highlighted a number of numerical community-type differences, but also revealed how factors and differences within the communities may influence the way in which AIDS impacts on pupils' fears and anxieties. Whilst AIDS and the impact of AIDS were more visible in the rural areas in lower AIDS prevalence areas pupils' levels of fear were greater in the urban area of Selebi Phikwe, which also has Botswana's highest AIDS prevalence – an average of 49% of the population. Though one may initially attribute this higher level of fear to the AIDS prevalence in the community, pupils' description and perceptions may suggest that factors such as closeness and social cohesion, family constellations, and collective responsibility for children within the community may also play an active part. For instance, it was predominately urban children who described threats such as rape and violence towards children, while there were more rural children who described links between alcohol and staying out late. As will be explored further in the next section, urban children's perceptions and fears about losing parents and becoming orphans were also greater, which may, as discussed earlier, be linked to their perceptions of family and safety networks, but can also indicate that they perceive a lower level of trust in the community's ability to show care for children in general, and also towards Orphans and

Vulnerable Children (OVC). In rural communities the collective value of ownership, responsibility and commitment towards raising all children may instil a greater level of safety, whereas in more individualistic communities where loyalties lie closer to the individual and the immediate family, the care for children predominately lies within the nuclear family. Whilst these may be perceived as community-type differences, they may also, drawing on the literature review and my argument in Chapter 3 of the need to explore the tension between modernity vs. tradition, be reflections of changing cultural values as a result of economic growth, the increase in materialistic values and the phenomena of 'new-rich' mentalities. Hence the inextricable link, in this case, between the context of community, culture and SES may not only have a combined effect on the extent to which pupils experience and perceive AIDS, but also, as will be seen in the following section, have an effect upon how AIDS impacts on family life.

6.1.2 HIV/AIDS' impact on children's immediate and extended family

Illustration 6:6 (6/5/18)

In contrast to most studies that have sought to explore the impact of AIDS on children and have thus focused on orphans and vulnerable children, this study focused on both OVC and non-OVC's perception of the impact of AIDS on the family. The following sections will explore the changing patterns on family constellations, children's

perceptions and experience of AIDS within the family and what happens to children who become orphans.

Whilst AIDS prevalence statistics may not have a direct impact on pupils' knowledge, thoughts and feelings about AIDS, as noted in the previous section, there may be a closer relationship between AIDS sentinel statistics and the likelihood that parents may be HIV-positive. AIDS prevalence figures indicate that in the highest prevalence age group of 25-39, an average of 40% Batswana women are HIV-positive (UNAIDS, 2006) and that within this age group AIDS is still on the rise (Seipone, 2006). This would suggest that a high proportion of pupils' parents may be HIV-positive or are beginning to display symptoms of AIDS. These figures vary between districts and places, and whereas the mining town of Selebi Phikwe had an estimated 46.5%, the figures are much lower in the area of Kanye, where an estimated 28.2 % are HIV-positive (second generation HIV/AIDS surveillance, 2005). The impact that this may have on children may differ depending on children's living conditions and family constellations.

Traditionally, Batswana children were brought up in extended families, and grandparents were perceived as insurance for the children's continual well-being, should anything happen to the parents. However, only eight children (4%) mentioned that they lived in extended families. When pupils in the urban areas described their family, the majority talked about the nuclear family, while the majority of the rural children also incorporated the extended family into their concept. Many of the rural children and those in Kanye lived closer to their extended families. Though the majority of children mentioned that both their parents were alive, only just over one third (39%) of the children in this study mentioned that they lived with both parents and the majority of these lived in the urban areas and particularly in Selebi Phikwe. Though Bennell (2005b) found that this figure was much lower compared to countries such as Malawi and Uganda, Henderson (2004) noticed that many of the poorer children in South Africa were used to living with relatives while their parents lived and worked in the town. Many of the children in this study mentioned that their absent parent lived in larger villages or towns. Sixty-three children (39%) lived in one-parent households, while 14 children lived with grandparents

and 17 lived with uncles and aunts. Although one head teacher in a rural school noted that many pupils lived with older siblings in the village while the parents lived and worked at the lands, only two children described siblings as their main guardian. Hence a much higher proportion of children in Botswana grow up in single-parent households or with relatives compared to Malawi, Uganda or Tanzania, even though both parents are alive (Bennell, 2005b). While this phenomenon may be related to SES and the ability of both partners to work in the same region, as suggested by Henderson (2004), or to national policies of promotion within the civil service sector which transfers people when they get promoted, one respondent at the ministerial level attributed this to the sexual liberation in the 1960s, "when many young people had children before marriage. When they then wanted to get married they often left the child behind with grandparents" (MoE-7). She suggested that this had not only caused friction between children and parents, but also affected those children emotionally, "as they have no close relationship with their parents. They are not able to connect and commit"(MoE-7). One head teacher and a few teachers who supported this notion noted that many of the children had no role models of healthy and lasting relationships at home, as many come from single-parent households. They also noted that this type of family constellation not only influenced the way that children understood and developed relationships, but it made the impact that AIDS may have on the child when a parent gets sick or dies more severe.

6.1.2.1 Symptoms of AIDS in the immediate and extended family

Illustration 6:7 (1/5/15)

Out of the 79 children who mentioned that they knew people or had seen people suffering from AIDS, 38 children said they had AIDS in the extended or immediate family. Though the majority of children mentioned that they only had one or two sick family members and these were mostly in the extended family, a few children said , "In my family there are five who are sick" (5/6/7) and a number of children mentioned that one or two of their parents were sick. Though research and statistics indicate that there are more HIV/AIDS-positive women, more pupils mentioned that their father rather than their mother was sick. Bennell (2005) also found that pupils had more fathers who were either sick or had died. Drawing on earlier discussion of gender perceptions and expectations, this may support BIDPA's findings that boys and men are more likely to take greater risks. A few children also mentioned that they had teenage siblings and cousins living with them who were either HIV-positive or sick with AIDS. One year six pupil, for instance, mentioned how her seventeen year old cousin had AIDS and received ART, while a year four boy described how his ten year old cousin, who had got AIDS from his now deceased mother, was so sick that he couldn't play or go to school. "He is scared. I am also scared," he said (6/4/26). A few children told how their younger siblings

were HIV-positive and had become infected through birth. One boy, whose little sister was HIV-positive and took ARV three times a day, said that he was worried that he would become infected when he cared for her. Another year five boy had recently lost his eight year old brother, who had been sick for a very long time.

As noted in the literature review, Coombe (2000) projected that with the increase of sickness in the immediate and extended family, the household would become entrenched with sadness and worry. Many of the children's drawings portray children and parents crying by the bedside of their sick loved ones, as described by this year six girl: "My mother, my father are crying because my uncle is sick" (2/4/23). However, both teachers and children observed how this sadness and worry increases when it is the child's own parents, as these children described: "Many children are suffering when their parents have AIDS" (2/4/23); "If the parents have AIDS, the children will just cry" (1/6/2). These findings were substantiated by a few teachers who noted that it was very hard to get information from children who had sick parents. "The children are scared of telling the truth about the parents. The girls will just start crying, but after a while they will start talking" (T2/2/1), said a year two teacher, while a year one teacher found that "the younger children can't express themselves" (T6/1/1). Though the way of expressing their fears and sorrow differed between the age groups, many teachers found that the level of children's suffering when a parent was sick was almost as severe as when the parents had died. One head teacher in a rural school noticed how children who had sick parents at home behaved differently both in school and with their peers. Their faces were often blank and depressed, as they thought of their mother: "A cheerful child becomes quiet" (HT-3). "Many of them won't even tell their friends" (T2/2/1). "They feel that there is nowhere they can go when they are scared" (T1.7/2). While two teachers indicated that "they are scared that they will be stigmatised" (T2/2/1), as they feel "they are not accepted by society" (T4/4/1), their quietness may also be caused by grief. Though most people would associate grief with the death of a loved one, the process of grieving can begin when the loved one is sick, that their bodies can no longer express their love, care and support, as before. Hence, they may be experiencing both fears and worries about uncertainties for the future, and the early stages of grief.

Most of the children's descriptions focused on children whose mothers were sick. This may substantiate one head teacher's observation that the impact is not only more severe when it is the mother who is sick, as he suggested that "in our culture children are closer to their mothers and more free with their mother", but it is further compounded when so many of the mothers are the sole caregiver (HT-3). While many of the children who had sick family members at home displayed great sadness and worry, some teachers also noted that many of the children were worried that their parents would get AIDS and die.

In addition to home and children being burdened by sadness and worry, two boys also noted that having sick family members and people dying also affected the family economy due to health and funeral costs, thus substantiating the link between the effect of AIDS and the contextual variable of SES. Having sick loved ones at home not only affects children's emotional well-being, but also affects their priorities, time and friendships. Though most children are expected to take an active role in the home by caring for younger siblings and helping out with cooking and cleaning, with sick family members, and particularly sick mothers, this responsibility often falls fully on the children. Many of the children, and particularly girls who mentioned that they had sick family members at home, described how they looked after their parents. "I take care of my mother" (4/4/25), said a year four girl whose mother is sick, while a year five girl who had lost her father described how she helped her mother look after her sick uncle who lived with them. While Guest (2001) and Matshalaga (2004) found that many children in Zimbabwe and Zambia, and particularly girls who had sick mothers at home, had to leave school to care for the sick or to supplement the family income, the majority of the children in this study mentioned that those who they knew had sick family members continued schooling, even though the work load at home had increased. One girl described how her thirteen year old cousin who had lost her mother two years ago had to look after her sick father. "She buys food for him and cooks for him. She still goes to school, but I am helping her with her homework. She is so scared because her father can die" (2/6/6). Only one boy mentioned how he knew of a few boys who had to look for work to support the family. A few children also mentioned how parents looked after

orphan relatives and neighbours. "My uncle is dead. My mother looks after the children" (4/4/24). Both teachers and head teachers noted that most children continued to go to school when parents were sick, and even though their attendance became more irregular, once the children were well cared for by relatives attendance began to improve.

These findings suggest that the effect of losing a loved one does not start at the time of death, but rather when children begin to notice that parents are sick. Pupils' descriptions of fears, worries, uncertainties about the future and experiences during the later stages of parents' or loved ones' illness support Siegel's et al. (1996) findings which suggest that the pre-death period is often filled with higher levels of depression and anxiety than the post-death period. However, as noted by both pupils and teachers, both periods affect pupils' psychosocial well-being, their thoughts, priorities, time and hopes, even though the symptoms may differ in the two stages. The following section will describe children's perception of what happens to pupils who have lost a parent and become orphans.

6.1.2.2 Orphanhood

Illustration 6:8 (1/5/16)

With the increase of AIDS in most parts of the world, the plight of the ever-increasing number of orphans has been recognised as one of its gravest outcomes. Early estimated figures predicted that every second 10-14 year old child in Botswana would be an orphan by 2010 (ABT Associates, 2001), compared to 25% of Zimbabwean and 19% of Zambian children (Kelly 199b). However, interviews with children, teachers and head teachers indicate that these figures are currently much lower. Twelve urban and eleven rural children mentioned that they had lost one parent, and three children mentioned that they had lost both. Whereas a total of 11% of children interviewed mentioned that they had lost at least one parent, orphan rates in the school varied from 1% in the urban school in Selebi Phikwe, 10-11% in the two rural schools in the same district, to 18 % in the rural school outside Kanye, where the head teacher noted that most children lived in one-parent households. One of the urban schools did not keep any records. The orphan ratio was thus lowest in the large town school where the majority of the children mentioned that they lived with both parents, and highest in the rural school where the head teacher and teachers noted that most of the children come from single-parent households. There might, therefore, be grounds to believe that family constellation is an important SES factor when predicting and measuring AIDS impact on orphan ratio and on children's well-being. However, as noted by one year six girl in a rural area, if one parent dies within a two-parent family, it is likely that the other parent may be HIV-positive as well. "I feel so sad," she said. "I fear that one day my mother will get HIV. I am scared that she will die. If she dies, my father will get AIDS too" (4/6/11). This was verified by a few children who had lost a parent. They mentioned that they too had sick family members at home.

Orphanhood in Africa is a relatively new concept, as children were brought up in the extended families and upon a parents' death the child was cared for by the remaining adults in the household such as aunts or grandparents. Meintjes (2004) suggests that the life of an AIDS orphan may not differ much from children from poor families where parents are working away to support the family. While this view was supported by one of the REOs, who perceived that AIDS orphans were not worse off than "destitute children", i.e. children from families living way below the poverty level or children with

uneducated parents, two head teachers and a few teachers noted a difference between orphans who lived with relatives and children who lived with relatives even though the parents were alive.

> "Children who live with an aunt or an uncle know that their mother might come on the holiday or the weekend. They know that they are there and that they care. But when the parents are dead, they surrender. They feel that they will never see their parents again." (HT/3)

Though only 26 children mentioned that they were orphans, 31 other children's drawings of what they have seen happen to children who become orphans support the head teachers' observations. Most of them portray children who are sad, crying, scared and worried about their future. "She is crying because her father is dead" (1/4/21), "they are crying because they have no money for school uniforms" (2/6/2). Some children also mentioned that "children's work [in school] will be poor, because they are thinking of their mother" (6/6/10), while others were scared of how they would be treated in the community. Of the single orphans, 18 children mentioned that they had lost their father and only 8 had lost their mother. However, the majoirty of children's descriptions focused on children who had lost their mother. Both teachers and head teachers noted that pupils were particularly affected when they lost a mother and that their behaviour often changed as a result. One teacher described a boy: "He used to be quiet after his mother passed away. Now he is not the same any more. He doesn't care any more" (T6/3/2). Another teacher mentioned that some of the orphans had said that they didn't see a future for themseselves any more, while another teacher said that the orphans feel powerless. All the children in this study who said that they were orphans spoke softly about their parents, as if they didn't want anybody to know, and some did not feel comfortable talking about it at all. Some children noticed how some of those who were orphans did not feel free, were often quiet and sometimes kept to themselves.

Children's statements and descriptions suggest that the traditional automatic incorporation of orphan children into the extended family may no longer be as smooth as

previously suggested. One year five girl recounted what had happened to her two friends, who had lost their mother.

> "The father told them that they could not live with him. The aunt took
> them and started to look after them. The aunt was not kind to them, she
> told me. The aunt started to treat them like they were not nephews and
> nieces. The grandmother took them when she saw that the aunt was not
> looking after them well. The grandmother was looking after six other
> children." (1/5/19)

One year six girl, who drew a picture of a girl crying, said that "some people are laughing at her because she doesn't have a uniform". Although her aunt is looking after her, "her family is not helping. They say that she must be looked after by the council" (1/5/15). Of the 18 children who had lost their father, the majority stayed with their mother, while of the five who had lost their mother only one stayed with the father. Two children stayed with older siblings, while the other two stayed with an aunt or grandparents. The three double orphans all lived with their grandparents. These patterns of care are similar to Bennell's (2005b) data on double orphans and paternal orphans, while he found that maternal orphans in Botswana and Uganda were more likely to stay with the father alone than with the grandparent or extended family.While research indicates that child-headed families are on the increase in both Zambia and Zimbabwe, both Bennell and this study showed that within the school community in Botswana child-headed families are rare.

As described in the literature review and noted by respondents at different levels, the treatment of orphans differed. One head teacher noted how

> "some are discriminated against, some are mistreated in their new homes
> and are not treated like the rest of the children in the family. Others are
> treated like precious glass. They are not allowed to do anything, as if
> they break. We should not pity them. They are not sick. But we need to

understand them. They need to be brought up like other children, learn to take care of the household like the other children in the family."(HT-3)

She also noted how some of those who stayed with their grandparents sometimes lacked things they needed for school. One year six girl suggested that there might be a difference in the way children are cared for by rich relatives who live in the town and those who are poor and live in the villages. She insinuated that those who are rich don't take care of orphans, and that as orphans receive benefits from the government they should look after themselves. This view was also supported by one of the teachers:

> "In the past we used to support the orphans and we could depend on our relatives. But now some are becoming hostile to children. Now children are worse off than they used to be, when we lived in extended families. Now they only care for their own." (T4/4/1)

These observations may suggest that there is a changing status in Hofstede's collective and individualistic tensions between urban and rural communties, and that with a growing focus on materialistic values in the urban areas, the collective values are increasingly being seen as a hindrance to personal aspirations. This was noted by one the inspectors, who suggested that the younger generation no longer appreciate and adhere to collective values and the extended family. Whilst these values may be stronger in the older generation, with the increase of children being brought up by grandparents the collective values may continue to prevail.

A few teachers and one head teacher suggested that the way in which children are cared for after the parent's passing has a direct impact on how well they recuperate after the loss. A few teachers noted that once children were well cared for they slowly began to return to their normal selves. Others also observed how some who were not well cared for began to change their behaviour and became more defensive, lost focus, care and purpose. One teacher described how one boy who had lost both parents began to bully other children. Though most of the gloomy descriptions of orphanhood were connected

to living with aunts and uncles, a few children, such as this year five boy in an urban area, observed how his cousins now lived with their aunt who looked after them well. "They are happy now, because she takes good care of them" (2/5/11). One year six girl recounted how her neighbour had started to get sick in 2003 and had passed away in 2004 leaving two children as orphans. "The grandparents take care of them and they still go to school. Now they are feeling better, but I am not feeling better," she said. "I want them to stay with their mother" (3/6/3).

While the majority of children described how the children in the end were well cared for in their new homes, their communities were not always as welcoming, as illustration 6.8 indicates. Many AIDS orphans also suffer from AIDS-related stigma. "People were saying that he wasn't looking after his parents" (1/5/15). "Every day the orphans are worried that people will be shouting at them. I think they want others to know that those children's mother have died of AIDS" (6/6/9). One child, who drew a picture of an orphan being teased (illustration 6:8), explained, "This is an orphan and the children are laughing at him. He is crying. They are laughing as if he was not a person. They don't laugh at school, but on the streets" (1/5/16). Though a number of children explained that children who were orphans were teased and stigmatised, many children's stories indicated that the school was a safe haven and a place of support. Another child mentioned that when there was a problem, or if orphans were not cared for well, the teachers would help. Hence, remaining in school may provide a great support to those children who suffer loss and are grieving. This is not only because of the support that they can receive from the school, but because within the school environment OVC are allowed to be and feel like all the other children and for the moment forget their worries and sorrows, a few teachers suggested.

The majority of pupils' descriptions indicated that most children who they knew had lost one parent or both continue going to school, either in their current school or in a new one. A few children described how those who lived with their grandparents often had to change school. Only a few children said that they knew of children who had to drop out of school. However, as one year five girl's drawing of her old friend portayed, if the

grandparents live out on the lands, the child may end up dropping out of school. A few children, who described that they were really worried that the parent would die, mentioned that they would go and live with their grandparents if they became orphans. However, as one year five boy mentioned that his mother, cousins and grandmother all had AIDS, and another mentioned that "the grandparents are also dying" (6/6/6), the children's perception that the grandparents will always be there for them as 'well-being insurance' may not always be sustainable. Moreover, children's perception of grandparents as their back-up plan would support Kelly's (2000a) findings that many of the orphan children are being sent back to the villages or to the rural areas where many of the grandparents reside. Hence the number of orphans in the long term is likely to slowly increase in the rural areas, affecting not only the contextual level of AIDS and the visibility of AIDS in the rural areas, but also the SES, as the number of dependent children per income-generating adult is increasing.

6.1.2.3 Summary and discussion

In conclusion, while the orphan ratio is currently much lower than ABT (2002) estimates, 18% in a small school in a low AIDS-prevalent area is still rather high. And though the urban school in Selebi Phikwe, a high-prevalent area, only had an orphan ratio of1%, Bennell (2005b) found an average orphan ratio of 18.6% in high AIDS-prevalent areas in Botswana, a figure that is substantially lower than Malawi's 41.4% and Uganda's 35.5% (Bennell, 2005b). This would suggest that Botswana's record high national AIDS prevalence figures have not led to equally high orphan ratios. This may suggest either that Botswana's AIDS pandemic has not yet peaked or that an increasing number of parents are now beginning to access the government's provision of free ART. Nevertheless, as noted earlier, the differences between the two schools would support the analysis that SES status in the form of family constellations may play a vital part in AIDS orphan statistics and AIDS impact on children. Based on BIDPA's analysis of female teachers' reasons for multiple partners, which argues that it enhances their chances of getting married, similar thoughts may also underpin the high orphan ratio in the rural school where a high percentage of pupils came from single-parent households. This also supports the notion that socio-cultural norms and changes are influential factors in the

AIDS pandemic. While having children out of wedlock was traditionally frowned upon and the father's family was expected to pay damages, quite a few respondents in my earlier study in Botswana mentioned that women now felt that they were expected to prove that they could have children before they got married, and that having a child was perceived as a sign of maturity and independence for women. A few respondents in this study also mentioned that it had become so common for young teenagers to be pregnant that no one really makes an issue out of it any more. These findings further support the need for pupils to develop an understanding of healthy relationships, as mentioned by a few teachers, and also the need to develop a forum where pupils can verbalise, explore and analyse their beliefs about relationships and gender roles and discuss the potential implications for themselves, their health and their future in order to make a value basis for decision about relationships and possibly begin to change those practices that are creating greater risks for infection.

In addition and similar to the effect of AIDS on pupils' knowledge, thoughts and feelings, pupils' drawings and descriptions indicate that the AIDS impact on the family affects all children, though the impact differed according to their closeness to AIDS as well as according to community type. Many children, who have seen the effect on friends, cousins and neighbours, are increasingly becoming worried that it could happen to them or some of their loved ones. Though more children who lived in the urban areas and who had less knowledge of AIDS first hand described greater fears of becoming orphans and more horror stories of what happens to children when a parent dies, this may indicate that these children have seen less evidence that life continues even when you lose a parent, even though it may never be the same again. It may also indicate that children in the rural areas live closer to and have closer bonds with their extended family and grandparents. However, as insinuated by some teachers and pupils in both rural and urban schools, more affluent relatives and those in the urban areas are less interested in caring for their relatives' offspring and this may support the analysis that not only may the impact on OVC differ between urban and rural communities, but it may also explain the different levels of fear expressed by pupils in the different schools. While most studies that have tried to predict orphan ratios and the impact of AIDS on children have

focused on high prevalent areas, these findings may suggest that there is a need to explore a combination of factors related to SES, culture and community-type contextual variables in order to understand, measure and begin to anticipate their effect on the well-being of children and on pupil level variables regarded as influencing academic and social outcomes.

As the visibility of AIDS in the community is increasing and pupils are beginning to see the effect on their friends', neighbours' and family members' lives, AIDS is increasingly in the forefront of pupils' minds. Their concerns are not only for themselves but also for other children, as this girl describes: "My aunt is sick with AIDS. I am worried about her child. She has one child" (2/5/14). Nevertheless, the impact and the fears expressed by the majority of children are different from those children who have experienced sickness and death within their immediate family.

The worry and fear involved in having sick family members at home who might be close to death not only affects their social-emotional well-being and the available time spent on learning, socialising, building friendships and relationships, play and quality time with family members, but also influences pupils' priorities, the importance and focus of particular aspects of life, as well as how they see options and opportunities, long-term thinking and planning. The instability of the patterns of people near death makes the children and the close family members live in the moment, as their lives, their time, thoughts, options and activities are often, directly or indirectly, directed by the needs and state of those who are sick. People may feel that they are losing control over their own lives, decisions and directions, as observed by a few teachers who noted that the children who have sick family members at home or have recently become orphaned "feel powerless even though they have the knowledge of AIDS. They are scared and they are unable to talk about it" (T6/3/2). "Some orphans have said that they don't see a good future. 'I don't see how I can get a good education,' they say" (T3/7/2). Hence, the impact of losing a parent or having sick relatives at home may not only affect their psychosocial well-being and their ability to focus on learning in school, but also their perception of self, their hopes, aspirations and perceived possibilities for the future,

which in turn would influence their decision-making strength, as suggested by Deci and Ryan (1995). The following section will present and discuss pupils' perception of the future and their own role in the mitigation process.

6.1.3 HIV/AIDS' impact on pupils' perception of self and their future

As suggested by the findings in previous sections, different forms of knowledge about AIDS and its impact does not automatically lead to healthy decisions and safe behaviours. As proposed in the literature review, healthy decision-making and behaviour change is influenced by factors such as intrinsic self-esteem, firm value base and perception of self, ability to understand the past and present and to develop tangible and positive personal visions for the future. Moreover, a positive vision of the future has been recognised as a strong motivational factor for behaviour change on both the individual and the organisational levels. While children whose lives had been affected by close experience of AIDS-related sickness and death within their family often lost hope and struggled to see a positive future for themselves and the people around, children's drawings and writings show that HIV/AIDS features strongly in a vast majority of children's perception of the future. Pupils' drawings also provide an interesting insight into how they see their own role in society, how they can protect themselves and what they think they can do to help turn the trend around. The following section will therefore present pupils' perception of themselves and their future, ways in which they see that they can protect themselves against AIDS, the role they can take in the mitigation process, and the impact that HIV is having on these perceptions.

6.1.3.1 Children's perception of the future
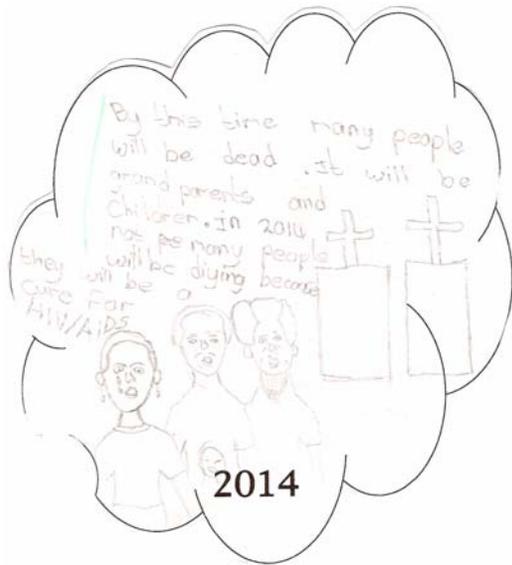
Illustration 6:9 (5/6/9)   Illustration 6:10 (1/5/6)

The development of a vision based on a set of values and beliefs, as described in the literature review, not only serves as a motivating factor for behaviour and an anxiety buffer when faced with fear or loss, but sets standards, provides direction and hope, and supports in delaying gratification. Moreover, as argued by Deci and Ryan (1995), this combination also serves as contributing factors in the development from extrinsic to intrinsic self-esteem and motivation. Without comparative data, it is not possible to show to what extent AIDS influenced children's perception of the future before the pandemic. However, pupils' drawings and statements show that HIV/AIDS features strongly in all but a handful of children's perceptions of the future, regardless of whether it is a positive or a negative view. Children's descriptions of the future range from: "Botswana will be a beautiful country with big cities and houses with electricity," to "Botswana will be finished because of this killer disease" (1/4/26). Twenty-four children did not express their thoughts about the future, as they were unsure or had not thought about it. Many of these children were in year four. There were slightly more rural than urban children in this group. The remaining 143 children's visions can be divided into four major categories, namely: a positive vision (31%) where AIDS had been eradicated, a

doomsday vision (36%) where most people would have died, a wishful future (16%) where children wished that AIDS will have been eradicated, and a dual vision of the future (16%) where the positive vision was dependent on people's behaviour and the discovery of a cure for AIDS. In all four categories there were some interesting differences between the different schools, age groups and types of experience and knowledge of AIDS. It is interesting to note that in a study carried out in the United Kingdom on the same age groups' perceptions of the future, a much smaller percentage of pupils had a doomsday vision of their future (Holden, 2006).

6.1.3.1.1 An optimistic perception of the future
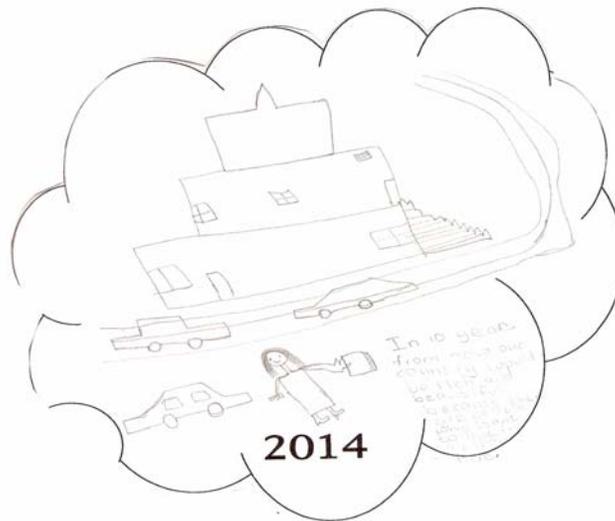
Illustration 5:11 (6/6/6)

Of the 45 children who described a positive future, two thirds lived in the urban areas. The majority of these children were year six pupils, while in the rural areas more year four pupils described a positive future. The absence of AIDS was the predominant reason for the positive future. Hence, HIV/AIDS was a major factor in all but two of the children's positive perceptions of the future. Their drawings and statements centred around material development of their community or country, the health and the well-being of people, themselves, their families and neighbours, environmental development and the development of human virtues and social cohesion. In contrast to the British

study, only a few children's vision focused purely on themselves and their family, while the majority of pupils' descriptions focused on Botswana as a whole.

Most of the children who described the material development of their village, town or country lived in the urban areas, while the remaining descriptions came from year six pupils in rural areas. In their eyes, Botswana would be a rich and beautiful place, "like other countries, with big cities" (5/6/3), with many tall buildings. One boy in a rural areas described how his village would have street lighting and cars and a good police band, while two urban boys thought "schools will be bigger and decorated nicely" (1/5/11) and the towns "will have many shops" (1/4/23). One year six boy, in an urban area, described how Botswana would be a rich and beautiful country because "there would be people who would like to live a clean life" (6/6/5), while a year five boy wrote, "I think that in this year every Motswana will have medicine that will stop AIDS" (1/5/12). A few children described their own personal and material well-being, rather than the community. "I will stay with my wife and children. My children will go to Madtiba JCSS" (5/5/17); "I will be married. I will have a daughter. I will have employment. I will be driving a 'carolla' car" (1/4/25). Although 21 children's drawings focused on material development, the majority of descriptions focused on the absence of AIDS. A few of the younger children and particularly girls drew pictures of and described how their families and neighbours would be free from AIDS symptoms. A year five girl in a rural area, who feared her parents would get AIDS, for instance wrote, "My mother and father is not sick of AIDS. My family is not sick of AIDS" (5/5/13), while a year four boy who had many family members suffering from AIDS drew them healthy and well in the future.

The way in which children described how AIDS would be eradicated varied. While a few children described how AIDS would be eradicated because people would display a more responsible behaviour and be tested regularly, thus linking AIDS to behaviour change in all people, including themselves, the majority of strategies showed a greater dependency on external factors and people, rather than their own involvement. One year six boy, for instance, suggested that AIDS would be eradicated as a result of the work of the President and the Vice-president, while a year five girl suggested that teachers and AIDS clubs

would help the cause. However, the largest group suggested that there would be a cure for AIDS and people would get medication from the clinics and the hospitals: "Botswana will be a nice country because that time there might be medicine" (1/6/2); "Botswana will be very peaceful, because HIV will have a cure and there will be no more crime" (1/6/7); "There will be a cure so the disease will be uncommon" (1/6/10), and

> "I wish that in 2014 people who are suffering from HIV/AIDS in
> Botswana will be OK. Doctors will help people who are suffering. I
> think that our population will increase rather than decrease. I hope that
> my neighbours will have a good/ happy life, because many years ago
> they were suffering from HIV/AIDS and TB." (2/6/1)

Many of the children's statements, particularly those in urban areas or year six pupils in rural areas, indicate that there is a strong belief in the medical profession's ability to mitigate the impact and turn the trend around. This strong belief and dependency on external factors such as clinics, hospitals and the government,' were also shared by a number of students who through their high grades had received scholarships to the University of Botswana. They described how by the time they got sick, there would be a cure and the government would look after them, hence there was no need for them to worry about AIDS or changing any behaviour (Torstensson, 2000). When there is currently no cure and the only hope of turning the trend around is extensive behaviour change, it is worrisome to note these attitudes from both children and well-educated youth.

A few children also described how the environment would be improved and preserved, as people would cut down fewer trees, and how domestic and wild animals would be protected and cared for. Though Botswana has a long-term vision which originated from a nationwide consultation, only one child mentioned Vision 2016. She described how Botswana would be a clean country and no people would be sick with AIDS. Only three children stated that the future would be good as a direct result of their support and work for the country.

6.1.3.1.2 A wishful perception of the future

Illustration 5:12 (6/6/5)

Rather than describing what they believed would happen in the future, 23 children (16 %) wrote what they wished for in the future. All but one of these descriptions featured AIDS as a strong fear and part of their lives even in the future. In contrast to the children who believed in a positive future, many of the wishes focused on a collective behaviour change of people rather than the finding of a cure. Children described how they hoped more people would receive ART, would go for testing regularly, would use condoms when having sex, would treat people with AIDS with respect and care, and that people would marry before having sex. Only a few children's wishes also went beyond processes or the eradication of AIDS "so that they could work and children go to school" (2/6/5), and "I want Botswana to have more people who are educated" (2/5/15). A few children hoped that there would be more clinics and hospitals as there would be a population increase, while a year six girl hoped that the government would provide medication free of charge as, she suggested, many of those who suffered were poor and would not be able to afford medication.

Interestingly, those children who described their wishes for the future, rather than their beliefs, showed a greater understanding of the current situation and the factors involved in protection and mitigation. Moreover, in comparison to the group of children who believed in a positive future, more children in this group described how they wished that they would take an active part in the development of the future, by talking to people about AIDS, becoming doctors and helping those who are ill. Hence, these children's statement may support Nunn's (2006) arguments that an understanding of the integral parts influencing the past and present may support not only the development of a positive future, but also increase the personal motivation to get there.

6.1.3.1.3 A pessimistic perception of the future

Illustration 5:13 (6/6/7)

A hopeful and positive vision of the future, as noted earlier, is often portrayed as one of the strongest motivating factors in bringing about change. However, a staggering 52 children's descriptions (37%), the largest of the four groups, portrayed a gloomy and almost apocalyptic picture of the future. This figure is much higher compared to the British study. Pupils' visions show how HIV/AIDS has destroyed families, communities and Botswana as a whole, leaving only a few children behind to fend for themselves, as these statements show: "People in Botswana will be finished by 2014. Many people will

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have died of AIDS" (4/5/20), and "many will be sick because they didn't use condoms" (6/5/12). "Botswana will be a damaged country" (3/4/25), and "it will be like the land when they started life" (3/4/25). Though there were no significant gender differences, nor numerical community-type difference, there were some differences between ages, as well as in community type in terms of the severity and the negative focus. Similar to the findings regarding children's fear of the impact of AIDS, more urban children's statements focused on the welfare of the children left behind. Almost double the number of year five pupils portrayed real doomsday scenarios, compared to years four and six.

In addition to describing how people would be dead and suffering from AIDS, children thought "many people would have problems" (4/4/24) and that though a few also thought that "the children will be dead" (5/5/19), others thought that only children would remain HIV-negative. "In 2014 my parents will be dead and we will have to care for our brothers and sisters" (1/6/8), says a year six girl in a rural area, while a year six girl in an urban area describes how children will have to fend for themselves:

> "But they too will die of this disease and of hunger. They will get food
> in the dustbins. They will run to have children. Their children will die,
> because there will be no one to remind them. They will grow fatherless
> and motherless because their parents will be dead." (1/6/3)

A number of children, and particularly children from the urban areas, described how surviving children will be poor, with no one to look after them and guide them. This is similar to Henderson's (2004) findings in South Africa, where children who had lost parents expressed that the two things they missed most were their parents' love and guidance. However, one year five girl in an urban area thought that the children would be sharing and looking after each other. Many children also described how children and families would be sad all the time, "they will be crying for their mothers" (6/5/12), while two boys thought that the children would be afraid all the time, and one boy thought that people would be so unhappy and scared when they had AIDS that they would hang themselves. Interestingly, and similar to the findings on children's fears of becoming

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orphans, more urban children living with both parents and with less close experience of orphanhood described worries about children and their future. Hence there seems to be a link between children's experience of family and community life and the way in which they perceive the impact of AIDS. In more urban communities, where small nuclear families live more independent and individualistic lives with lower levels of collective loyalty, children may not feel the same level of security, have the same level of involvement, contribution and connection, thus mitigating the impact. As a result they may feel more powerless and scared and feel less trust in the goodness of others should anything happen to them. This is an interpretation which would support both Erikson's (1985) and Albert's (1989) theories that suggest that in order to develop confidence in their own capabilities, children need to feel connected and that they can contribute and develop their innate creative energies.

A few children also drew links between the increased level of sickness and death in the family, and community development, the environment and the economy. Two year five pupils in a rural school, for instance, described how "there won't be anybody working" (3/5/18), while another wrote, "I think there will be no development, because people will be dying" 1/5/14). A few children also described how there wouldn't be any one to look after the livestock. These effects on the community were not only noted by some of the pupils, but became increasingly apparent when driving around the country and in Southern Africa, where a number of fields had not been ploughed or prepared for sowing. While many of the children with a positive vision of the future displayed great faith in the medical profession's ability to eradicate AIDS, one year five girl in the rural area described how even the doctors would die, as they too would get AIDS. Hence many of these children do not believe that taking precautions and protecting themselves against AIDS will have any effect.

As hope in one's personal future and the sustainability of society has not only been recognised as a motivating and empowering factor for change and development, but also a factor contributing to people's general health and well-being, it is possible that such a pessimistic view of the future may impact on these children's level of motivation and

commitment towards themselves, their own health now and in the future, and their perceived role in turning the trend around. This may suggest that AIDS within the family not only reduces children's hope in the future, as noted in earlier sections, but also increases the likelihood that children feel that no matter what people do, they can still get AIDS through no fault of their own. Hence the purpose of actively protecting themselves against AIDS may seem less important, which is an attitude that can easily lead to self-fulfilling prophecies. It is therefore not surprising that very few children who had a pessimistic view of the future, described how they could protect themselves and contribute to mitigating the impact of AIDS. This was particularly so with children whose pessimistic views were coupled with personal experience of AIDS in their immediate or extended family.

6.1.3.1.4 A dual perception of the future

Twenty-three children (16%) described two alternative futures: an optimistic view where AIDS had been eradicated, and a pessimistic future where AIDS was still widespread and most people had died. Less than half of these children were unsure which one they thought was more likely and the remaining children described how the different futures were dependent on the eradication of AIDS, as these two children describe:

> "Botswana will be a wonderful country when I am 23 years old. I will
> have a good wife and children, if we can only stop HIV/AIDS. If it
> continues, it will be much worse, because people will be raping
> children. Some will be going to the bottle stores, looking for a girl and
> forcing her to sleep with them." (1/6/1)

> "By this time many will be dead. It will be grandparents and children.
> In 2014 not many people will be dying because there will be a cure for
> AIDS." (1/6/9)

Most children who portrayed dual views of the future described the discovery of a cure for AIDS and an increased number of clinics and doctors as determining factors of the

two different outcomes. Only a few children described how it was dependent on people's behaviour. One girl in year six in an urban school described how girls would need to learn to say no to men who offer them money for sex and how people would need to go for regular HIV tests. Others described how they would need to care for each other, use condoms, think of their future before making decisions, care more for their own lives, drink less beer and stop hanging out at bottle stores, as this would reduce their ability to protect themselves.

More rural children described external factors such as cure and vaccine, while more of the urban children described the need for behaviour change. The ability to build up vision and explore different options and the effect of actions are important skills in decision-making and behaviour change. Some of these children have only begun to see that there may be two possible futures, which is an initial step in the development of the understanding that the path that one is currently taking may not be the only one and not always the most beneficial for oneself, others and the future. A second step in this development process would be to analyse personal and others' behaviour and their likely outcomes. Interestingly, of the four different perceptions of the future, proportionally there were more children in the dual vision group, followed by the wishful future, who described more than one strategy to protect themselves and perceived that they had an active role to play in the mitigation process.

In conclusion, and as noted in the previous section, children with close experience of AIDS may not see how they may have a bright future. However, it was worrying to note that so many other children, who had a good knowledge of AIDS, perceived that their own future and that of Botswana would be apocalyptic. While I do not have comparative data from before the AIDS pandemic, I would suggest that it is likely that the increase of AIDS has led to a higher level of pessimism and to children's and youth's lack of hope, as AIDS featured so strongly in most children's vision of the future and the number of children who do not see a sustainable future was much higher than in the British study. This is worrying not only because the learning of thrift, which leads to the ability to delay gratification, as described by Hofstede (2001), is dependent on the ability to visualise a

positive future or make personal long-term goals and recognise how forgoing something in the present may lead to a brighter future or achievement of these goals, but also because negative perceptions of the future more often leads to more short-term thinking. Skills are affected which are vital in order for pupils to delay having sex until they have developed the necessary understanding of equality and relationships, as well as the mutual responsibility and appreciation for protecting themselves against AIDS. However, although a positive vision is vital, and has been described as one of the strongest motivating factors for behaviour change, findings indicate that it may not only be the vision itself that leads to empowerment and change, but the ability to create a vision that is based on an accurate analysis of the present and the past, as suggested by Nunn (2006). As findings showed, those who were able to create or perceive more than one possible future not only had more accurate knowledge of AIDS, but also saw how they could play an active role in the mitigation process.

While the majority of children chose to describe the future of Botswana as a nation, and this may suggest that they have a strong affinity and a sense of belonging in the country, it is a concern that so many of the pupils' positive, wishful or dual visions were dependent on finding a cure of AIDS rather than changing behaviour, and on external factors and people rather than on how they themselves could take an active role, as currently the only hope to turn the trend around lies within individual and collective behaviour change. Hence it would be vital for pupils to develop a sense of ownership and commitment towards the development and the mitigation process, as well as developing an understanding of the interdependent relationships between themselves, society and the future well-being of all. Such understandings lay the foundations not only for healthy relationships, but also for moral reasoning, both of which are important capabilities for personal and collective protection against AIDS.

As noted before, being able to build up a vision is a vital component of developing the capabilities needed to turn the trend around. However, to what extent pupils' visions would serve as a "beacon in the fog" (Maurer, 1996, p.54), an anxiety buffer when faced with fear and mortality (Greenberg et al., 1985) or a support in delaying gratification and

a motivational stimulus (Laszlo, 1989), may, as noted by pupils' responses, also be dependent on their perceptions of their own capabilities and values of self – the degree to which their vision is linked to their understanding of the interdependence of people and their perceived and expected role in society, both as children and as future adults. The following section will present and discuss pupils' perceptions of their capability to protect themselves and take an active part in the mitigation process.

6.1.3.2 Pupils' perception of their role in the mitigation process

As indicated by the literature review, factors influencing motivation, behaviour and actions are many. These may not only differ between individuals and cultures, but also gradually change from more extrinsic motivation and regulation of behaviour, through introjected behaviour as children begin to reflect and adopt values and virtues, to intrinsically motivated and self-regulated behaviour as values, virtues and beliefs become internalised and central to the individual's perception of self. However, like Kolhberg's (1987) moral reasoning stages, these are not dependent on age, but rather on the opportunity and encouragement to explore and use values and virtues as part of their decision-making, choices, and goal-setting. Moreover, as described in the literature review, knowledge also needs to be coupled with a willingness to act towards the desired goal and the belief that their actions will have an effect. However, as noted in the previous section, children's perceptions of the future revealed that a large proportion of pupils believed that changes for the better were dependent on external factors such as the discovery of a cure, other people's behaviour and an increased number of clinics and hospitals, rather than in their own interventions and capabilities.

The children's drawings and statements indicated that all children knew of the AIDS disease, either through direct contact in the family or community or through school or media. However, of the 167 children who participated in the study, 11 children did not mention any way in which they could protect themselves against AIDS. A further 34 children's suggested strategies would not protect them against contracting the virus. While 73% of pupils knew of at least one correct strategy to protect themselves, only 35% of pupils described how they would take an active part in the mitigation process

beyond protecting themselves. Interestingly, children who held a positive vision of the future proportionally described more incorrect preventative strategies, which support the assumption that a positive vision of the future that is not based on an accurate understanding of the past and the present, as suggested by Nunn (2006), does not lead to empowerment. This was closely followed by the children with a pessimistic vision of the future. As mentioned earlier, children with a dual perception of the future, followed by those with a wishful future, proportionally described multiple ways of protection, as well as an active part in the mitigation process. The following sections will firstly present and discuss pupils' knowledge and secondly their perceived role in the mitigation process.

6.1.3.3 Pupils' perception of how they could protect themselves from contracting the HIV virus

Nine out of the eleven children who didn't have any strategy to protect themselves against AIDS were boys in year four, while the remaining ones were in year five. All but one had experienced AIDS in their family either through sickness or death. As noted with children with a pessimistic view of the future, these findings may thus validate the interpretation that some OVC, who have lost hope in the future, struggle to see the importance of learning about AIDS and strategies to protect themselves. Of the 34 children who described incorrect strategies, 26 described strategies such as bathing in warm water, eating roots, fruits and vegetables and taking medication and injections, while eight children described testing as the only means of protection. Though being tested is important in itself, it provides no means of personal protection. In contrast to BIDPA's findings, there were many more girls than boys who described incorrect strategies, while supporting BIDPA's findings, a clear majority of incorrect statements came from children living in rural areas.

There were marginally more girls than boys, more urban than rural and more year five and six pupils compared to year four, who described at least one correct strategy. Similar to the BIDPA findings, using condoms was by far the most common strategy. This was followed by abstinence, testing and being faithful to one's partner or having one partner. Hence, the importance of the ABC strategy (Abstinence, be faithful & use condom)

seems to be reversed. BIDPA found that 60% of primary school children did not believe that being faithful and having one partner would decrease the risk of infection. Though this may suggest that teachers feel uncomfortable teaching something they themselves do not practise, as mentioned by many teachers in Mozambique (Visser, 2004), some teachers and a few REOs expressed a concern about teaching younger children in years four and five about sex and AIDS, as this may entice them to engage in sexual relationships earlier. Similarly, when considering children's descriptions of pressures to engage in sex, only one third of children who described abstinence and being faithful to one's partner were boys. Only one boy said that he would not only abstain from sex until he was married, but also be faithful and use a condom. He stated that the only way to stay protected was if both he and his partner did the same. Hence, this boy had begun to understand the interdependence of people's decisions, as well as the need for partners to take equal responsibility for their own and each other's lives.

Though the majority of pupils in the BIDPA study indicated that the responsibility for protection lay equally between boys and girls, a high proportion of children, and in particularly in the capital and in the Southern district, still thought that it was the responsibility of the girls. Both studies indicated that many girls may not have the cultural backing to stand up against pressure from boys, nor, as noted in earlier sections, may they have the value base to translate their knowledge of AIDS prevention into healthy decisions in the face of short-term goals such as the promise of money, security, emotional well-being and acceptance. There is therefore a risk that this perception of responsibility will lead to greater infection rates. The BIDPA study, for instance, found that even though secondary students were aware of preventative strategies and had access to condoms, pupils "often engaged in reckless sexual behaviour" (BIDPA, 2003, p. 60). Although the majority of children were able to describe at least one correct HIV/AIDS prevention strategy, whilst not yet seeing how they could take an active part in the mitigation process, very few described this with conviction and strength.

Drawing on Deci and Ryan's (1995) model of introjection of values into behaviour, these findings suggest that though both primary and junior secondary aged children are

beginning to know what they ought to do, they have not yet internalised this knowledge, nor have they internalised the values that accompany this knowledge. Hence they are not able to act according to these values when presented with short term lucrative goals and wants. Nor have many, as supported by the findings of children's perception of the future, begun to explore their personal goals, which according to the literature review would support them in developing both intrinsic self-esteem and internally regulated behaviour and decision-making. It would therefore be vital that values connected with the mitigation process become an explicit part of AIDS programmes and integrated into all year groups in the primary school, as Hofstede (2001) and Erikson (1985) argue that values that form the basis for decision-making are formed by the age of ten.

6.1.3.4 Pupils' perception of their own ability to take an active part in the HIV/AIDS mitigation process

Of the 122 pupils (73%) who were able to recognise at least one correct strategy to protect themselves, only 58 pupils (35%) perceived that they themselves would play an active part in the mitigation process beyond personal protection. Sixteen children described how they would become change agents in the future by becoming doctors or nurses, while 26 pupils described how they would need to develop personal qualities within themselves now, in order to support the mitigation process later. Fourteen children described how they, already now, were talking and would talk to others in the future to teach people about AIDS. Hence some of these children had begun to develop personal goals and explore some of the qualities needed to reach these goals, while the latter group perceived themselves as already capable of supporting the mitigation process.

Children who saw themselves as future doctors or nurses described how they would be able to support and care for those who suffered from AIDS, how they would encourage people to get tested, take ARV and eat healthy food, while some suggested that they would invent a cure for AIDS. One year six boy from a rural area described how when he was a doctor "the people of my village will be treated nicely. No matter if you infected or normal, you must be respected nicely. Whenever there is a problem they will be looking

for my help" (3/6/10). Another girl described how she in the future, as a nurse, would like to go to schools and talk to the children about AIDS.

All but three of the 14 children who described how they would talk to people about AIDS were from the same urban school in Selebi Phikwe; eleven of them were girls, and all of them either had an positive, wishful or dual view of the future. Teachers in this particular school saw talking about AIDS as the most important strategy to help prevention, compared to other schools where teachers described skills and qualities that children needed to develop. One year six girl, described how she continually advised people around her to use condoms when they had sex, take ARV medication and get tested so that they would know their status. Though part of Botswana's AIDS prevention strategy is to educate children about AIDS so that they can educate their parents, this is not an easy task in a culture where children are expected to listen to adults, rather than the other way around. It requires courage, passion and a willingness to break with cultural practices. Other children described how they would advise friends and people around them to think about their future, respect themselves, their bodies and their lives in the future and thus abstain from sex until they were older and married and stay faithful. Some also described how they would advise people to use condoms and to encourage those who were sick to seek help, get tested and get treatments, as well as tell the children about the dangers and the impact of AIDS.

Twenty-six pupils described how they would need to develop qualities and virtues within themselves, such as courage, sharing, obedience to parents, caring for others, detachment to some of their immediate wants, choosing right from wrong, patience, or happiness, so that they would be able to look after orphans, care for those who were sick, and help children make decisions: "I will help them see that money is not everything and that they will make their money in their own time" (1/6/17). This suggests that children would need to acquire skills in long-term planning, develop a positive view of and faith in their own future to use as a values base for decisions. Likewise, suggestions such as, "I will avoid getting involved with friends who are capable of doing bad things" (1/5/7), suggest a need to develop a values base, moral reasoning and strengths to stand up for one's own

values, even under pressure. A few children also described how they would be cheerful and encourage others to be happy. While one year six boy, who had not yet seen what role he would play, wrote that "Botswana will be changed because I will make this country change" (1/4/29), another year six boy wrote, "I am going to share what I have with my people, because they are my family all in the country" (2/6/6). Three children described how they would need to educate themselves more to help find the cause of AIDS and why it was affecting Botswana so severely.

6.1.3.5 Summary and discussion

In conclusion, HIV/AIDS features strongly in an overwhelming majority of children's perceptions of the future, whether they have close or limited experience of AIDS and regardless of whether their perceptions of the future were positive, negative, wishful or dual. While a positive vision of the future has been described by many as influencing motivation, behaviour change and empowerment, these findings indicated that it may not be that vision in itself, but rather the ability to explore different options, routes and visions of the future that are, as suggested by Nunn (2006), anchored within an understanding of the past and present, that leads to greater empowerment and motivation to change. Proportionally there were more children who expressed a dual and wishful future, who also perceived that they had a role to play in the mitigation process, as well as describing more than one strategy to protect themselves. It was worrying to note that the largest group of children had such a pessimistic view of their own and their country's future. This was particularly concerning, as within this group very few saw how they could take an active part in the mitigation process. This group also had the fewest strategies to protect themselves against AIDS, even though many of them had good knowledge of both the symptoms and the transmission of AIDS. While there seem to be limited links between positive visions of the future and empowerment, these findings lead me to believe that there may be a link between negative visions of the future, disempowerment and perceptions of one's own capabilities. Wishing for a better future or perceiving two different options involves the analysis of current situations and their long-term effect, and their realization may require elements of creativity and flexibility as vital aspects of the vision building process, as well as in nurturing empowerment.

Moreover, the majority of children who had closely experienced AIDS within the family either through parental or sibling sickness or death had either a doomsday or a positive vision of the future. These groups of children also had the fewest strategies, or none, to protect themselves and very few saw how they could take an active part in the mitigation process. Hence the impact of close experience of AIDS may affect pupils' perception of their own capabilities, which was noted by two teachers who observed how vulnerable children often felt very scared and powerless and were often unable to talk about it. Another teacher also noted how hard it was to get information from children who had sick family members at home, as they were often quiet, held their feelings within themselves, and when asked often started to cry. Though he suggested that "they were scared of telling the truth about their parents" (T2/2/1) based on fear of stigma, this may also indicate that these children are still in the early stages of grieving, which often leads to hopelessness, disempowerment, reduced level of self-esteem and identity confusion. Siegal et al. (1996) and Siegal et al. (1992) for instance observed how children with terminally ill parents experienced higher levels of distress and anxiety, as well as reduced self-esteem and social involvement in the period leading up to the death than during the post-death period.

The combination of close experience of AIDS and a doomsday future may support the interpretation made in a previous section: that close experience with AIDS leads to higher levels of worry and uncertainty and may reduce children's hope in the future. They may perceive that there is no way of protecting themselves against AIDS since their parents and siblings have contracted the virus.

The latter combination, of close experience of AIDS and a positive future coupled with limited or no strategies to protect themselves or take an active part in the mitigation process, leads me to believe that these children have not connected their experiences within the home with what has been taught in the school about AIDS. A few children in the rural areas, who had family members with symptoms of AIDS, described in soft voices that they didn't have AIDS but that their long-term sickness was caused by other

diseases and by witchcraft. As they have not made the link between their parent's death and AIDS, they may not see the relevance of learning about AIDS and strategies to protect themselves. One orphanage carer, who found similar responses from children who had been told that their parents had died of witchcraft and of diseases other than AIDS, drew the same conclusion. Hence it would be vital for children who have close experience of AIDS within the home, not only to have the opportunity to understand and link these experiences with their knowledge of AIDS, as this may lead to greater motivation to protect themselves against it, but also to help them develop and explore different strategies and goals.

In reviewing research on children grieving and adjustment to parental death, Tremblay and Israel (1998) found that it was important for pre-teens to have an opportunity to talk about their feelings when they felt a need to, while at the same time maintaining normality and structure to daily routines. They also discovered that it was important for these children to be reassured that though they experienced pain, they had the capability to deal with their pain, overcome it and draw strength from their experiences, in order for them to feel acceptance of their grief, empowered to move on and take ownership of their future.

While there was clearly a difference between children who had close experience of AIDS compared to those who had less experience of AIDS in pupils' perception of self and their own role in the process, it was interesting to note that though there were children who focused on their personal and families' future, an overwhelming number of children chose to describe the future of Botswana as a nation. This may indicate that most children have a strong sense of pride, loyalty, and affinity with Botswana as a nation, which may initially contradict the general perception and concern that Batswana children and youth have limited national pride and understanding of active citizenship (Preece and Mosweunyane, 2004; Gaolathe et al., 1997). However, a closer analysis reveals that a high proportion of pupils' views are based on a one-way relationship, where they are at the receiving end of the government's and doctors' provision and ability to solve the problems. Very few children described how the future would be dependent on their own

actions, decisions and development. These findings thus confirm the dependency phenomenon mentioned and explored in Preece and Mosweunyane (2004), Torstensson (2000) and Gaolathe et al. (1997). The respondents in my previous study (Torstensson, 2000), attributed this to the education system during the post-protectorate era. The respondents in my previous study and those in Preece and Mosweunyane's (2004) and Koma's (1974) study described how people had to adapt and take on board another culture, language and set of values in order to get a good start in life, as the curriculum and the education system was and continues to be influenced and developed to a large extent by foreign advisors and organisations. Koma argues that these curricula are built on individualistic values where the accumulation of wealth is a measure of success, rather than the traditional Botswana collective values where the development of the whole and caring for others are measures of strength. Moreover, as active citizenship from a communitarian perspective, which Preece and Mosweunyane, (2004), suggest is most closely related to the Botswana values, are developed through informal and traditional methods, these values and development points were therefore never incorporated into the education system. Rather, the curriculum focused on helping pupils develop an understanding of civic and governmental roles, which in itself, they argue, are built on contradicting Botswana values of consensus. Drawing on Shaw (1990) they point out that there is therefore a tension between the traditional values of self-reliance, participation and consensus building in traditional governance, and the government's expectations and goals of compliance and submissiveness on one hand and opposition on the other, which may foster these attitudes of dependency. Hence traditional values of self-reliance, as described by Gaolathe et al. (1997), have slowly diminished. In addition, one REO and one MoE officer also mentioned that this dependency was also exaggerated through teachers' methodology of whole class discussion and lecturing, rather than allowing pupils to analyse factors, values and impact and to create and explore strategies to solve problems. They argue that the former method would reinforce the one-way process of focus on receiving. As discussed in Chapters 3 and 4, not only can the mismatch between traditional and western values be perceived as creating identity diffusion, but the spread of AIDS further questions the values that have developed in response to this mismatch Drawing on theories of historical identity development, I would argue that the link

between pupils' and people's perception of self, and their world views, values and cultural expectations in relation to society, as suggested in Chapter 4, and the value base and expectations of society and the education system, also affect the extent to which people perceive that they have a role to play. It is vital that pupils are encouraged to develop an understanding of society that is built on the concepts of interdependence and system analysis, linked to both the traditional communitarian system and the civic system of governance, not only on the governmental level, but on all levels including nature, personal, relationship and family, community, national and global, in the present and in the future. Moreover, it would be important for the cultural communitarian values and virtues to be encouraged and nurtured within the schools, so that the traditional values of community and self-reliance become part of what is important for progress and getting a good start in life.

While pupils' perception of self and their role in society, as noted, is linked to culture, society and world-views, and has an impact on the way in which they see their own role in the mitigation process, the children's descriptions, as well as findings from BIDPA, suggest that gender identities and expectations, which have permeated most of the pupil level's sections above, also play an active role in translating pupils' knowledge of AIDS into healthy decisions. However, as discussed earlier, these gender perceptions are also rooted in values about self, others and relationships, as well as the values of material wealth. Drawing on Dow (2001) who points out that, though women have equal rights in law, they have not been involved in formulating and interpreting the laws and procedures of human rights, democracy and what it means to be an active citizen, which, Preece and Mosweunyane, (2004) suggest, may be underpinning their unequal status in practice. However, Preece and Mosweunyane also point out that the rapidly developing economy of Botswana and the increased influence of the global market, which supports the notion of consumerism and ascribes values to people based on what they have rather than what they are, have also contributed to youth's struggle with changed gender roles.

6.1.4 Summary and discussion of the impact of AIDS at the pupil level

Most studies on assessing the impact of AIDS on children and pupils have focused on OVC. However, findings from the pupils' level indicate that HIV/AIDS affects all pupils' thoughts, perceptions, aspirations, hopes and faith in the sustainability of society in the future, with the impact varying dependent on their level of experience of AIDS.

All children in this study had heard about AIDS, while 53% had seen people suffering from AIDS in hospitals, the community, at the cattle-post, in the neighbourhood or in their extended and immediate family. Twenty-eight children expressed that they had sick family members in the immediate or extended family living with them with AIDS and 11 children mentioned that they had seen or knew of more than seven people who were sick. Forty-nine children also knew of at least one person who had died of AIDS and ten of them mentioned that they knew of more than six who had died. Twenty-eight children had lost one or more parents and the orphan ratios within the school varied between 1% in the urban school in Selebi Phikwe to 18% in the rural school in Kanye. Whilst the orphan ratio in the latter school corresponds with Bennell's (2005b) findings in high prevalence areas in Botswana, it is substantially lower compared to high prevalence areas in Uganda and Malawi, which proportionally have a lower national AIDS prevalence than Botswana.

Pupils in this study had fairly good knowledge of AIDS, its symptoms and transmission, even though it was not as high as in BIDPA's study, which made use of prompted tick sheets. It was, however, worrisome that very few children showed awareness of the long asymptomatic incubation period, particularly as ABT Associated found that one third of pupils believed that it was possible to detect by sight if somebody was HIV-positive. Data from both studies indicate that pupils' knowledge increased with age and the more urban the school. In the BIDPA study this high knowledge of AIDS did not lead to change in behaviour, and in this study findings showed that though 73% had at least one correct strategy to protect themselves only 35 % of pupils saw how they themselves could take an active role in the mitigation process beyond personal protection. Pupils' protection strategies show a reversal of the national prevention message of ABC

(Abstinence, be faithful and use a condom). Children with incorrect knowledge, or knowledge derived from secondary sources, and who also had limited ability to express and talk to somebody about their thoughts and feelings about AIDS, had greater anxieties and fears about AIDS. Of those children who had no strategies to protect themselves, all but one had close family members who had either died of AIDS or were currently sick. Only seven children who had close experience of AIDS saw how they could take an active role in the mitigation process.

One hundred and eleven children said that they were either very scared or very worried about AIDS. Their concerns and fears were related to becoming infected, to their parents having AIDS and dying, and to becoming an orphan. Both teachers and head teachers noted that since many of the symptoms of AIDS were similar to simple children's diseases and common colds, pupils displayed a high level of fears as soon as they noticed any of their friends or family members displaying these symptoms. Many girls also expressed fears about contracting AIDS through being pressured into having sex or being raped, while more boys described fears related to contracting AIDS through fights and engaging in risky behaviour as a result of drinking alcohol. Though there was no significant gender difference in pupils' knowledge of AIDS, there were differences in pupils' fears, which suggest that there are gender inequalities, as well as issues related to pupils' perceptions of self and relationships, that hamper particularly girls from translating their knowledge of AIDS into safe behaviour.

Whilst respondents noted that some pupils with close experience of AIDS often give up hope, surrender, or feel powerless, and that many of them had a doomsday vision of the future, it is disconcerting that such a high proportion of pupils who did not have such close experience of AIDS also had an apocalyptic perception of their own and their country's future. This is particularly worrying since the findings indicated that this group proportionally also had the fewest strategies to protect themselves and very few of them saw that they themselves could take an active role in the mitigation process. It was also disconcerting to see that such a high percentage of pupils perceived that the possibility of

a positive future was dependent upon finding a cure, rather than behaviour change, and on external factors rather than personal actions.

The data show that statistically the effect of AIDS, in terms of OVC ratios, are even in the highest areas not as severe at this stage as originally predicted in various impact studies and projection papers (ABT, 2002: Kelly 2000; Coombe, 2001). Nevertheless, the data show that the effect of AIDS impacts on all the pupil level factors described in Caroll (1968) and Crammers SER models as contributing to high academic achievements. The impact of AIDS on the family constellation, relationships, economy and atmosphere affects pupils' background. Not only do the findings suggest that single-parent households are more likely to contract the virus, but the impact on pupils from these families is likely to be greater. While only two children mentioned that they knew of children who had to leave school in order to supplement the family income, studies in Zambia and Zimbabwe, where schooling is not free, showed that leaving school was more common. Consequently it is more likely that the impact of AIDS in neighbouring countries will reduce the educational level of the next generation of parents and therefore have a long-term effect on pupils' background. In addition, SER studies show that pupils' level of motivation and aptitude correlates with high academic scores. However, as noted, at this level close experience of AIDS seems to reduce pupils' hopes, feeling of purposefulness and priorities, which would have an impact on their motivation to learn, not only about AIDS but also in general, as noted by teachers and pupils. Moreover, as there seems to be a link between pupils' negative vision of the future and their perceived role in the mitigation process, the impact of AIDS thus seems to impede their motivation beyond their own close experience of AIDS. While there is no evidence to suggest that AIDS has any impact on pupils' aptitudes, their responses seem to suggest that close experience of AIDS can lead to reduced self-esteem and perceptions of their own capabilities, which would affect the extent to which they would trust their own ability to learn new skills.

In addition, SER models also suggest that the time pupils are willing to spend on learning determines their academic scores. While in many parts in the West this is often a question

of willingness, in the context of AIDS it is more a question of opportunity. As described by a few pupils, children with close experience of AIDS bear most of the responsibility of the household work, and in many cases the older girls are affected the most. Pupils also noted that those with close experience of AIDS struggle to concentrate during their learning time, as they are often thinking about the sick or dead parent. As noted, this also affected pupils' priorities. In many of the neighbouring countries, where schooling is not free, many children have had to leave school when parents are sick or have died. While this is not the case in Botswana, both pupils and teachers noted how it affected punctuality, attendance, readiness to learn and completion of work.

However, AIDS has an impact not only on pupil level factors deemed to influence academic results, but also on factors that were identified in the literature as influencing pupils' type and level of self-esteem and their perceptions of self, others and the world around them. These have not statistically been proven to contribute to academic achievements. However, they arguably contribute to important long-term outcomes beyond the schooling years, such as the ability to make healthy decisions, long-term thinking, goal setting and vision-building skills and the learning of thrift. These also influence pupils' ability to analyse their own values and their implications for self and others in the present and the future, and the development of healthy friendships and relationships, self-reliance and community development and participation –all of which would be vital in the context of AIDS.

The impact of AIDS, as indicated by this data, supports the argument that AIDS is no longer merely a health problem. The fact that AIDS affects not only children's psychosocial well-being and factors described as contributing to effective learning for both academic and social goals, beyond pupils' own close experience of the illness, can arguably indicate that AIDS must be regarded as a contextual variable in its own right. Moreover, the data also indicates that like many other contextual variables, the context of AIDS influences and reacts to other contextual variables. This will be discussed in the last section of this chapter: "A portrait of AIDS at the contextual level". Whilst SER studies have found that contextual variables have influenced the selection and

interpretation of effective process variables, which will be discussed at the classroom level, no contextual variables have yet necessitated a shift in the goal and role of education. The breath and depth of these findings strongly supports my argument that the context of AIDS necessitates just such a shift. Hence the definition of quality of education in the context of AIDS cannot only include high academic scores and the processes that contribute to these, but must ensure output and processes that ensure the long-term outcome of survival, so that pupils can live long enough to contribute to society and take an active role in turning the trend around and further developing the nation.

In the light of these findings, and drawing on the literature review, UNESCO's goal of Education for All (EFA) and their four pillars of education, the following section will discuss the capabilities, understanding, attitudes and skills that pupils would need to develop in order to not only protect themselves against AIDS, but also to take an active role in the mitigation process.

6.1.4.1 Redefining the goals of education in the light of HIV/AIDS' impact at the pupil level

The School Effectiveness Research paradigm has since its inception focused on educational outcomes in the form of test results in subjects such as language and maths, and the critique against the paradigm points out how this has led to a very narrow definition of effective education. This narrow focus has in many places led to marginalisation of the wider curriculum in favour of improving test scores in these subjects. However, the impact of AIDS on the pupil level, and the skills pupils would need to develop in the short term to make healthy life decisions and protect themselves against becoming infected and in the long term live long enough to contribute back to society, are not only found in the wider curriculum, but also in affective goals that are often left to the family, community and society to develop. Whilst Bernstein (1996) argues that schools cannot compensate for the family and the society, the increasingly escalating infections and orphan rates; the limited number of pupils who perceived that they could take an active role beyond their own protection; the cultural taboos that

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prevent parents from teaching their children about safe behaviour (Tloe, 1996); and the incongruence between the values and perceptions underpinning the education system and that of the societal culture, which is perceived to create a dependency rather than an action-oriented approach, support UNESCO's guiding principles of education in the twenty-first century (Delors et al., 1996). They propose that schools need to place equal values on educational goals from the domains of "Learning to Know and Learn", "Learning to Do", "Learning to Be" and "Learning to Live Together".

Goals within "Learning to Know and Learn" incorporate common subject-related educational outcomes, as well as the skills to seek out, access and use knowledge throughout life in a variety of contexts. "Learning to Do" focuses on learning capabilities that are not specific for particular jobs, but can be transferred to different settings and needs. These domains need to be accompanied with a strong sense of identity and personal responsibility towards the common good, which are goals within the domain "Learning to Be". Hence, individual talents and strengths need to be developed in order for individuals to confidently play their part in societal and global development. Delors et al. (1996) greatly emphasise the importance of the domain "Learning to Live Together", as their analysis of global and local trends indicates that though there is an increasing trend towards globalisation and interdependence, collaboration is not yet based on a deep understanding of equality, cooperation and collective loyalty. In the domain "Learning to Live Together" they therefore emphasise the need for people to develop an understanding and appreciation of the differences and similarities of these roles that people play in the development of attitudes and skills that would allow people and nations to analyse and seek collective and peaceful solutions on the local, national and international levels.

While there are goals that are specific to each of these domains, some of the goals within the domains are dependent on each other. Hence it would be vital to recognise their inextricable links when designing and implementing developing programmes. However, for the purpose of clarity and the ability to construct particular educational goals, educational goals needed in the context of AIDS will be presented under the four domains. In order to minimise the risk of defusing the different goals' co-dependence, as

warned against by Moore et al. (2004), links will be made between each of the goals. Moreover, drawing on the Educational Indicator Research paradigm, rather than SER, as many of the goals needed are affective and may not be realised within the primary phase of schooling, these goals will be divided into both long-term outcomes and outputs at the end of the primary phase.

6.1.4.1.1 Learning to Know and Learn

Most current and common educational goals fall within the domain of learning to learn and to know, which could be seen as goals in their own right as well as a means for learning in the other domains. Delors et al. (1996) point out that the increasing availability of information means that it is impossible to know and learn everything about particular area. Though it is important that pupils acquire a broad understanding of knowledge so that they are able to draw conceptual links between areas of learning, they also highlight the importance of the need for pupils to have the opportunity to study and research some areas and topics in greater depth. They therefore propose that there should be a balance between the acquiring of knowledge and the developing of skills related to the learning process itself, as the ability to acquire and process knowledge is more likely to lead to independence and life-long learning. From an analysis of the data it appears that it would be vital that pupils not only gain accurate knowledge about AIDS, its transmission, its symptoms in the four stages of the disease, and multiple strategies for protection, but also that this knowledge is firmly connected to what they see in the community and in the family. Data suggest that inaccurate knowledge leads to unnecessary fears, and the lack of connection with what they see in the communities seems to influence the relative importance of knowledge in the eyes of the pupils. In analysing respondents' suggestions an important outcome would be that pupils continually search and analyse both practical and theoretical knowledge and information and integrate this knowledge into their choices, behaviour and actions, so that they will live long enough to contribute towards societal development. Since many of the values and habits underpinning behaviour patterns are formed in the early and primary years of a child's life, it would be vital that pupils have developed the following three capabilities at the end of the primary phase, in addition to common subjects such as language, maths,

science, social studies, etc. However, for the following outputs to lead to the outcome, it is vital that these capabilities have become habitual in all four domains.

At the end of the primary phase pupils would need to develop confident skills and habits in:

- *Seeking out, questioning, and comparing both practical and theoretical knowledge from a variety of sources using a variety of tools.* Some respondents described how pupils need to develop a culture of book learning and a desire to search for more knowledge in order to learn more about AIDS. They would need to "ask questions about why and how" and recognise if things are right and how they fit into their lives (MoE-7). Pupils need to be able to form their own opinions, share their own views and those of others, and explore the accuracy of their knowledge.

- *Lateral thinking and analysing related concepts and factors across subject areas.* As noted by the reversal of the ABC strategy and respondents' suggestions, pupils need to be able to analyse the many factors "from different perspectives" (MoE-7) that are involved in both AIDS transmission and AIDS prevention, such as behaviour, cultural values, norms and traditions, societal and group goals on the personal and the group level.

- *Strategic thinking, short and long term planning and vision building.* Drawing on their knowledge and analysis, they would need to be able to creatively begin to explore different solutions to the problems they have identified and analysed. As suggested by the findings, it may not be the vision itself, but the ability to recognise different options, solutions and vision, that enhance pupils' ability to recognise their own role in the mitigation process. Moreover, these and Nuns' (2006) findings support the notion that pupils' knowledge needs to be firmly anchored in an understanding of the past, present and the future. Hence pupils would need to be able to draw on their analysis when planning short- and long-

term actions. Pupils would need to be able to plan and set both long- and short-term goals for their learning and for their development and evaluate their outcomes. These solutions and strategies would also need to be explored and analysed in relation to their "impact on other people and factors both now and in the future" (MoE-7), as AIDS, due to its transmission forms, cannot be treated as an individual disease.

Though pupils would need to be able to use these skills when acquiring learning in different subjects, they would need to develop the habits of using these skills within all the domains, as this may support the long-term outcome of healthy decision-making. The ability to use these skills within the domain "Learning to Do" would be particularly important in reversing the trend of dependency described by Preece and Mosweunyane (2004).

6.1.4.1.2   Learning to Do

This domain is about developing and using the skills learnt in the previous domain into capabilities that can be used for the betterment of themselves, others and the world around them. Hence, it involves not only the application of situations skills in particular areas, but the ability to independently and in cooperation with others transfer these skills into different areas, problems and needs in the real world. The goals within this domain are thus aimed at supporting the development of active citizenship. However, similar to the findings within SER, that schools in different stages of development may use different processes to become effective, Preece and Moswenyane (2004) propose that different stages of national development may require different perspectives of active citizenship and skills in order to develop. Active citizenship in many developed countries in the West may require people to develop skills in complying and contributing to the governance system through actively voting and debating. Within the context of Botswana, active citizenship skills and attitudes would require children to take an active part in analysing needs within the community, developing entrepreneurial skills that can generate an income as described by Vision 2016, and caring for those who are sick or suffering. However, in order for these skills to be translated into capabilities that will be

used for community development, they need to be accompanied by a number of attitudes. In analysing findings at the pupil level, an important outcome within this domain would be that people take an active part in mitigating the impact of AIDS at the community level and see themselves as active change agents in turning the trend around.

At the end of the primary phase pupils would need to have:

- *An understanding of system and patterns in science, nature, community, traditional and modern governance and of the world*. Pupils would need to understand how systems are interconnected and how the effect on one may influence another, as well as how different systems complement each other. They would need to be able to use their skills of seeking out and analysing knowledge from the community, to identify development needs and to explore different outcomes and consequences on different aspects of the system. Pupils would need to be able to recognise how they can contribute in different ways to the different systems. The ability to seek knowledge from the community would not only contribute towards closer and more natural ties with facilities within the community, such as testing centres, community AIDS support groups and the Kgotla, but might contribute towards the reduction of the stigma that surrounds AIDS.

- *An understanding of the interdependence of the people of the world.* Drawing on Laszlo's argument that our cognitive maps of the world affect the extent to which people perceive that things are possible for themselves and others, it would be vital that pupils develop a system that enables them to understand the world where they see themselves and others, regardless of age, race, SES, gender and capabilities, as equal integral parts of the system, having both responsibilities towards and receiving benefits from people within the system. As suggested by one pupil, the eradication of AIDS can only happen when people begin to recognise the mutual responsibility towards each others' well-being. They would need to be able to use their analytical skills to recognise and predict how their

own decisions, actions and behaviour may have an impact on others and the environment around them both now and in the future, as well as begin to see how they are already able to contribute towards changing the culture that surrounds AIDS.

- *An ability to consult and work closely and effectively within a team as well as taking a leadership role in community development.* Delors et al. (1997) predict that in the 21st century there will be an increasing need for people who are able to work in teams to complete a task or project, rather than people who are trained for particular jobs. Pupils will need to learn to recognise, appreciate and draw on each others' strengths to complete a project, using their skills to seek out knowledge and perceptions from the community, analyse the different perspectives, views, attitudes, norms and begin to identify what perspectives, attitudes and beliefs about AIDS may serve them and the community now and in the future. They would, therefore, need to have skills in consultation, developing their own views, sharing views and recognising and synthesising their own and other peoples' views and suggestions. Pupils should be able to work in groups to design simple plays or projects to teach their peers or those in the community about transmission, habits, behaviour and pressures related to AIDS, AIDS-related stigma, and other community development aspects such as environment, sports teams, and growing healthy food.

- *An understanding of and practice in first aid and safe health care*. As a number of children described how they look after and care for those who are sick at home, it would be vital for pupils to have developed a correct understanding of the risk of becoming infected when caring for those who are sick. They would also need to learn basic health care, such as generating clean water, cleaning wounds, cooking nutritious food, dealing with infectious waste, and where they can access clean gloves.

Drawing on Erikson's theories, the development of capabilities would not only support pupils in developing skills and attitudes to mitigate the impact of AIDS, but would also contribute towards developing their intrinsic self-esteem, which is vital for standing up for their own rights, beliefs and long-term health. Moreover, by having a forum where they can contribute towards the mitigation process, pupils' fears and feeling of helplessness may be reduced as they develop a greater sense of capability to act.

6.1.4.1.3 Learning to Be

Whilst the first two domains are more commonly found in education systems around the world, the following two are often perceived as secondary outcomes or the responsibility of the family and the community. Delors et al. (1996) argue that schools must contribute to the all-round development of each individual. Schools must not only stimulate and nurture pupils' minds but also their bodies, their spirits, their sensitivity, aesthetic senses, personal responsibilities, moral reasoning and their spiritual values. This, they argue, would support children to develop their critical thinking and form their own judgements of what they should do in different situations and feel a sense of control over their own lives, while at the same time feeling a sense of responsibility for the collective well-being.

 However, in analysing responses, the goals within the domain "Learning to Be" seem to underpin and play a vital role in the translation of skills into active capabilities within all the other domains. Hence, similarly to the goals within the domain "Learning to Know and Learn", these goals can be seen as goals in their own right as well as means for other development. The long-term outcome within this domain would be for pupils to make healthy long- and short-term decisions for themselves and others.

At the end of the primary phase pupils would need to have developed:

- *A strong sense of self that is based on the understanding that they themselves have the power to influence their own continual development and sense of well-being.* A strong sense of identity of who you are has been described by many

respondents as underpinning the many factors contributing to pupils' well-being and their abilities to protect themselves against AIDS and to take an active part in turning the trend around. MoE-4 points out that

> "When children don't feel that they belong, or they don't feel good about who they are, they become vulnerable. They start to copy what others do. If you have a stable identity, believe in yourself and have a clear vision, you don't feel scared. You will have the courage to say what you think and feel and say no when that is right"

This will imply that children would first need to develop a strong sense of who they are and what they stand for, as well as recognise how their values and beliefs contribute to their own and others' well-being. Rather than ascribing to any one of the different theories of identity formation, this study proposes that it would be vital for pupils to understand that all of those factors influence the way they perceive themselves, but that ultimately they have the power and responsibility to influence the direction and the outcome, which is dependent on how they use and develop their innate qualities and characteristics. It is thus important that children have developed an understanding that one's identity is something that is continually evolving, that uncertainties and so-called identity crises are opportunities for growth and development rather than just crises. They will need to understand that their perception of identity and self-worth is based on inner qualities and virtues that they themselves have the power to nurture and develop rather than on external factors such as wealth, gender, colour, accessories, SES and nationality that they often have less influence over. They will also need to develop a strong appreciation for their own uniqueness and that of others, and recognise how these contribute to and complement each other in the development of the greater whole. Hence a sense of belonging needs to be derived from developing inner strengths and qualities that complement others, rather than on sameness.

- *A firm set of values and virtues that they draw on when making decisions.*
  Drawing on respondents' statements, analysis of the impact of AIDS, and the
  Botswana cultural values, it appears that pupils need to appreciate and strive
  towards developing virtues such as "self-control and courage" (T1/7/2), respect
  for self and others, assertiveness, justice and compassion to stand up for what is
  right for them and for others and "against peer pressure" (MoE-7). They will need
  to develop their creativity and flexibility in order to understand different points of
  view, analyse problems, and begin to come up with different types of possible
  solutions. Moreover, they will need to develop a strong sense of compassion,
  caring, sharing, sense of service, gentleness and generosity of self in order to
  support those who are in need and who may not be able to stand up for their own
  rights, and those who are sick. One boy's statement, "I am going to share what I
  have with my people, because they are my family, all in the country" (2/6/6),
  would suggest that these virtues would need to be built on a sense of loyalty
  towards the well-being of all. Pupils would need be able to visualise and explore
  what these virtues would look like in action in different situations and for
  different people, as well as develop the habit of drawing on their virtues and
  values when making day-to-day decisions, evaluating needs and possible
  outcomes. Whilst the development of virtues are universal and are nurtured
  through the many factors contributing towards the identity development process,
  values are culturally contingent. Pupils would need to begin to use their
  analytical skills to begin to recognise how values may form different norms in
  different cultures and at different times and begin to make decisions about which
  values serve them in the context of AIDS. However, while some values may need
  to be emphasised, norms that are based on those values may need to be changed.
  For instance, traditional values of family and relationships may still be important,
  but current norms related to proving fertility put people at greater risk.

- *A strong and secure sense of gender identity.* As described in earlier sections,
  children's perceptions of gender identities and gender roles seem to hamper their

ability to translate their knowledge into safe behaviour. Pupils therefore would need to develop a strong appreciation for the benefits for all of gender equality and a secure sense of gender identity. While many studies and programmes have focused on the girl child, MoE-7 expressed a real concern about the gender identity of boys.

> "The girl child is growing up much stronger, but the boys' identity is not focused on. Men are marrying younger girls so that they can control them, while the girls are thinking that they will upgrade later. Most educated women are not married because men can't cope with strong women. Too many men perceive that as a threat."

While it was mostly girls who described pressures of having to engage in sex against their will, Tlou (2004) found in her study that even young boys experienced great pressures, particularly from older friends, cousins and brothers to become sexually active early, as this was perceived as an achievement. Although findings indicate that there is a strong affiliation with national identity, drawing on Erikson's observation of threatened identities, data indicate that traditional and current gender identities are being weakened and as a result these types of pressure are a means to reaffirm and exert these identities, even though the forms may not serve them in the context of AIDS. "They would need to be able to see what is good in their own culture. The culture of yesterday may not be the culture that is good in the future. They would need to be able to analyse what would be beneficial" (MoE-7). There is, therefore, a need for both boys and girls to be able to analyse and redefine traditional and cultural gender roles and norms and recognise what factors are influenced by nature and what are behaviour and norms that can be changed. Moreover, drawing on the virtues, it would be vital for pupils to begin to explore what masculinity, femininity and equality would look like in their lives and visualise what it would need to look like in the context of AIDS.

- *Emerging intrinsic self-esteem.* By beginning to recognise and appreciate these virtues within self and others as part of their identity, and draw strength from them when making decisions, faced with problems, evaluating their own progress or recognising steps to develop or change, these virtues and values may become introjected and begin to form part of pupils' perception of self. According to Verplanken and Holand (2002), if values and virtues become part of pupils' perceptions of self they are likely to be permanently activated and thus actively support pupils in decision-making, even when faced with fear, loss or need for belonging. By acting on drawing on the virtues and values in daily decision-making, they would, as suggested by Deci and Ryan (1995) and Verplanken and Holand (2002), support the development of intrinsic self-esteem, which is important in protecting themselves against AIDS. Moreover, these values and virtues are also closely linked to the concept of Botho and cultural values in Botswana. Hence the incorporation of these goals into the education system may not only support pupils in protecting themselves against AIDS, but may also support the development of a common perspective of active citizenship described by Peerce and Mosweunyane (2004), and thus contribute towards the goals within the domain "Learning to Do".

- *The quality of thrift.* Pupils would need to develop patience, detachment from immediate wants, self-discipline, purposefulness and patience with their own and others' personal and academic development and learning, with receiving and achieving short- and long-term goals and wants in order to develop thrift. They will need to be able to forgo short-term wants for long-term goals of survival, health, happiness and stable relationships. They would then be able to see "that money is not everything and they will make their own money in their own time" (1/6/7).

- *The ability to develop a personal vision for their own future and goals for their development, learning for actualising their vision.* MoE-4 suggested that not only do pupils need to develop a strong sense of self and belonging, but they also need to have a clear vision of the future, as a strong vision supports the development of thrift.

> "Children need to develop love and pride in themselves in order to make healthy decisions. They would need to see a vision for their own lives. If they would like a future they would need to plan for it in their daily lives. They would need strategic thinking and understanding of outcomes. They would also need to know that they are not only responsible for themselves, but also for others. They would need to know that they are responsible for their country and the future." (MoE-6)

Moreover, as suggested by Greenberg et al.(1985), a positive view of the future can serve as an anxiety buffer, which is particularly important when people are faced with their own and others' mortality. However, the vision itself may not only be the motivating factors, but also the recognition that different behaviours and attitudes may lead to different outcomes and that they are choosing these outcomes by their behaviour, whether they do it actively or avoid making active decisions. "They would need to become self-reflective and take responsibility for their own lives" (MoE-4). Pupils would need to be able to use their understanding of patterns and systems to analyse the impact of the outcomes of their own behaviour patterns and attitudes and begin to make changes that would be in line with their personal goals.

While reviewing one's own behaviour patterns can sometimes lead to unhealthy blaming of self and low self-esteem, it is important that pupils begin to recognise the small steps that they have taken, as well as the small steps they can take the next day, to change or develop healthy habits or attitudes. However, as suggested

by both Laszlo (1989) and Nunn (2006), it is vital that this vision and development steps are based on an accurate understanding of the past and the present, as when people's world-view no longer corresponds with what is happening around them they easily lose their sense of belonging, and feel displaced and anxious, which Laszlo (1989) argues can decrease the value and importance of socially acceptable norms and rules at both the individual and the societal level. Hence it is important that these world-views are built on an understanding of continually evolving society, but also are closely linked to the development of moral reasoning and moral integrity.

- *Kohlberg's conventional level of moral reasoning.* As the spread of AIDS is related to the values, respect and responsibilities that one holds of self and the relative value one places on others and the outcome of the greater whole in relation to others, the spread of AIDS is also related to moral reasoning and integrity. In order for pupils to act in such a way as to protect themselves and others, they would have to have developed beyond Kohlberg's (1987) first two stages of moral reasoning. In the first stage people act to avoid breaking rules or laws in fear of punishment, while in the second stage they act because others do, or because it is to their immediate advantage. In the third stage people live up to goals and behaviour because being good is important to them, or to be accepted by others and it is important to maintain rules and live up to agreements. In the fourth stage people recognise the importance of the interdependent system and act because of the social obligations this places on them, while in stage five people act because they are aware of the implication that their actions may have on their own long-term well-being and that of others and vice versa. In the early stages of the AIDS pandemic, doctors would not tell the patients that they had AIDS for fear that they would actively give it to others, thus suggesting that people operate on Kohlberg's level two: "because I got it they need to have it too". In discussing this with respondents, many felt that people had changed and were now more responsible with the virus. However, as mentioned by one of the respondents, with more people feeling symptom-free after receiving ART they begin to live

normal lives and may not take the same level of precaution any more. While operating in the third stage may protect them, it is also likely that when operating in this stage pupils will forgo their values about self in order to feel a sense of belonging, maintain stereotypical roles. Hence pupils' moral reasoning needs to be accompanied by a strong set of values. Not only would it be important for pupils to develop a higher level of moral reasoning, as this may influence their relationship to others, but as suggested by the literature review, this may support pupils in the ability to analyse their own cultural values and norms.

6.1.4.1.4 Learning to Live Together

Although the world is increasingly becoming globalised and interdependent, inequalities between rich and poor, men and women, cultures and nations and the lack of understanding of the different and similarities that bind us together, continue to exist and are hampering the development of both developed and developing countries. Although there are increasing forums of international exchange and communication in a range of areas, Delors et al. (1996) point out that this is not enough. Without a thorough and deep-rooted understanding of the oneness of humanity and equality, these competitive forums and organisations can heighten these inequalities. They therefore propose that schools must, in addition to nurturing a deep understanding of equality, teach children skills to recognise the similarities between people, cultures and nations, and to be able to find denominators that allow them to develop consensus, agreements, and shared purposes in order for them to work cooperatively for common goals. However, as noted in the section "Learning to Be", it is only when people have a strong sense of self, group and collective identity that they feel secure to give of themselves, change and recognise differences as enrichments rather than threats. Hence the goals within the domain "Learning to Be" are inextricably linked to the outcome of developing lasting friendships and relationships built on mutual respect and equality. The long-term outcome of this domain would be the capability to develop healthy and lasting relationships based on equality and mutual respect, as well as the actions that contribute towards the care, health and well-being of people around them.

At the end of the primary phase pupils would need to have developed:

- *An understanding of and an ability to develop healthy friendships.* Pupils would need to develop appreciation for and nurture virtues such as faithfulness, love, responsibility, trustworthiness, reliability, honesty, frankness, loyalty and unity in order to develop healthy friendships and relationships. Children would need to develop friendships that are not built on pressure to conform to the group, but rather those that respect and appreciate individual differences.

- *Deep understanding of equality of all people regardless of gender, race, nationality.* A few teachers and a MoE-Officer described a real need for children to develop a real understanding of gender equality. However, as suggested by MoE-7, "they would need to like themselves" (MoE-7) and have a strong sense of self, so that they are able to give of themselves.

    > "Men would need to develop leadership skills to listen to others…
    > boys need to open up and allow girls to express their feelings as
    > much as possible… girls and women need to develop assertiveness. I
    > think we all need to become gender sensitive and bring up the status
    > of girls" (MoE-6).

- *The ability to consult, resolve problems and conflicts and work co-operatively for a common goal.* Pupils would need to be able to form their own opinions and present their views in both small and large groups of people with different views and standpoints. They would need to be able to work in groups towards common goals, consult and draw on each others' strengths without feeling that their own views are threatened, and work towards common goals, feeling a sense of collective ownership of the outcomes rather than personal gain.

- *An understanding of factors contributing towards lasting relationships and family life.* A few teachers, REO and officer at the ministerial level described how children would need to develop a greater understanding of relationships and what good family life is about, and which values are important in order to bring up children and mould their character. Children would need to develop an appreciation and consideration for family bonds, so that the rights, responsibilities and prerogatives of each individual member of the family are preserved whilst at the same time maintaining unity. They would thus need to learn to consult, present and listen to each others' views and feelings, compromise for the greater good and find new solutions. Two teachers also described how children would need to know "that before marrying they should not have sex" (T3/2/1). As many parents do not feel comfortable to speak to their children about sex and relationships, it would be vital that pupils understand about sex and are able to comfortably talk about it.

In conclusion, whilst SER studies have found that contextual variables have influenced the selection and interpretation of effective process variables, to my knowledge no contextual variable has of yet necessitated a shift in the goal and role of education, as I propose the context of AIDS does. Whilst affective goals such as attendance, attitudes, behaviour and self-esteem have been explored, these have often been in relation to learning rather than long-term outcomes beyond the schooling years. These findings thus support Fitz-Gibbons' (1991) call that outcomes need to be sensitive to the needs of the 21st century. The context of AIDS thus calls for a shift in the relative value of the goals of education and in the definition of quality and effective education. I therefore propose that these goals would need to be incorporated into SER studies. By focusing away from the narrow goals of language and maths, it is hoped that SER can overcome the side-effects that such a narrow focus has created. This would make it less likely that subjects will become marginalised and that pupils are perceived to be objectified, as more pupils' talents would fall inside the valued and measured goals of education. However, in order to create such a shift, these goals would need to be translated into affective indicators that can be measured. This will be discussed further at the end of the section on the school

level. However, before that, the impact of AIDS at the classroom level will be explored. This will be followed by a discussion of how these proposed goals may influence effective process variables.

6.2   A portrait of HIV/AIDS at the classroom level

Findings from SER studies show that pupils' attainment at the classroom level is, in addition to pupil level factors, influenced by teacher behaviour and quality of teaching. These are translated into factors such as effective use of grouping, resources, curriculum, structure and assessment, as well as teachers' ability to create an orderly environment with high expectations, clearly structured and sequentially developed lessons, and the ability to observe, evaluate and give clear and corrective feedback about pupils' learning. As will be presented here, findings indicate that the impact of AIDS on teachers' health, family and well-being hampers their ability to effectively apply these factors. Consequently pupils' learning and attainment is not only hampered by the impact of AIDS on their own lives and on pupil level factors, as this spills over to the classroom level, but also by its impact on teachers and classroom level factors. The following sections will explore teachers' perceptions and knowledge of AIDS, AIDS related stigma and ART and their consequent effect on teacher behaviour and teaching about AIDS; HIV/AIDS' impact on teachers' lives and the cumulative effect of the impact of AIDS in pupils' and teachers' lives on pupil's learning and attainment. The first section, 'Teachers' knowledge and perception of Aids' draws on data from the BIDPA (2003) study, as this large scale nation wide quantitative study provides valuable complementary information about teachers' knowledge and perceptions of AIDS, at all levels of the Botswana education system. This data has been included as teachers' knowledge of AIDS is closely related to their understanding of the impact and teaching about AIDS at the classroom level. The remaining sections draw primarily on data from interviews with teachers, head teachers, REOs and officers at the ministerial level, as well as, findings from the pupil level. Together, these complementary studies provide a comprehensive and fuller picture of the impact of Aids at the classroom level. This data is triangulated against findings from relevant studies within the region. In support of Jamieson and Wikely's (2001) critique of the universality of process variables for different subjects, this will be followed by a discussion exploring potential process variables that may prove to be effective in the context of AIDS and the proposed goals and outcomes of schooling, described at the pupil level.

6.2.1 Teachers' knowledge and perceptions of AIDS

As discussed in the literature review, Coombe and Kelly (2000) likened AIDS mitigation on the education system to advice given when there is a drop in air cabin pressure, suggesting that schools must first ensure that they are able to continue to provide sustainable quality and effective education for all pupils before ensuring pupil's health. A major strategy is thus to ensure that teachers have sufficient knowledge of AIDS and that this knowledge leads firstly to safe behaviour among teachers and secondly to correct and effective education. In countries like Botswana where ART is free, a major strategy would also be to ensure that infected teachers receive treatment.   In neighbouring countries, early impact studies indicated that teachers had limited knowledge of AIDS, whilst the BIDPA (2003) study in Botswana found that primary school teachers had good knowledge of AIDS transmission and prevention strategies.

Data from the BIDPA study in Botswana indicate that though 97% of teachers knew that infection could spread through unprotected sex, 68% knew that having multiple partners and sharing needles and 67 % knew that blood transfusions could lead to infection and 65% thought that HIV could be prevented by ART, only half of primary school teachers believed that being faithful to one partner reduced the infection risk. Although the majority of teachers said that they only had one partner, 33% mentioned that they had multiple partners. However, there were grade-phase differences and teachers who taught primary had less risky behaviour than those teaching junior secondary. It is generally known that teachers at the junior or senior secondary levels have often received higher grades in secondary school and have thus been able to enter university and teacher training colleges to be trained as secondary teachers, whereas those with lower grades are more often accepted at the primary educational teacher colleges. This data may therefore suggest that higher grades and higher educational levels correlate with more risky behaviour. While early global studies indicated links between high HIV/AIDS prevalence, poverty and lower levels of education (Information System Directorate, 2000), early data in South Africa showed a correlation between high levels of education and high HIV/AIDS prevalence. Hargreaves and Glynn (2000) explained that these people became infected before HIV was commonly known and as people became more

informed this trend reversed in South Africa. The BIDPA study indicated a higher mortality rate amongst primary school teachers in Botswana. However, the data also reveals that secondary teachers continue to display riskier behaviour. Hence the trend observed in South Africa is not yet happening in Botswana. Based on this evidence and AIDS' long incubation period, it is likely that the grade-phase difference between primary and secondary teacher mortality rates will reverse in the future.

At the pupil level the data indicated that there were no significant gender disparities in pupils' knowledge of AIDS. However, BIDPA (2003) data indicates that among teachers there are serious gender disparities in terms of knowledge of modes of transmission and prevention, as well as in behaviour. For instance, of the 97% of teachers who knew AIDS could transmit through unprotected sex, 78% were female and 22% were male, and of the 68% who knew that having several partners increased the infection risks, 68% were female and 32% were male. Of the 5% of teachers who thought that AIDS could be transmitted through sharing baths, 98% were male and 2% were female (BIDPA, 2003). However, as at the pupil level, the female teachers' higher level of correct knowledge about AIDS did not translate into less risky behaviour; the BIDPA (2003) data indicate that women take greater risks. The BIDPA study explains that these high levels of risky behaviour in female teachers is linked to the belief that it would increase the chance of getting married, while in "male teachers sexual behaviour may be rooted in the culture they grow up in. Boys grow up believing that it is natural for men to have frequent sex and that having many partners is a sign of virility" (BIDPA, 2003, p.147). Respondents in this study suggested that in addition to inequalities and cultural beliefs about gender, fear of knowing their status, losing their loved ones and their status in the community are also factors that are leading to risky behaviour and delays in being tested and seeking ART.

Botswana is the first country in Africa to providing free ART to all citizens. However, the government has been concerned at the small number of teachers accessing the treatment which could prolong their lives for at least ten years and thus avoid leaving children parentless and whole classes teacherless. The BIDPA study indicated that a number of teachers thought that ART could prevent HIV infection. Though this may

suggest a confusion between HIV and AIDS, as ART can delay the latter, it may also indicate that teachers are beginning to see how previously ill people are becoming symptom-free and consequently believe that they have been cured. In contrast to the BIDPA study, all teachers interviewed had very good knowledge of ART. However, few had seen the impact with their own eyes, even though many of them had friends and family members who had AIDS. Teachers described how the process, from fearing that one might be HIV-positive and going for testing, to knowing their status and receiving ART, was lengthy, filled with worries, anxieties and fears, and could sometimes take up to six months. "Once you have been tested positive you have to be put on a waiting list before you can begin to receive the treatment. Some people die before they get the treatment" (T1/2/1). Teachers also mentioned that you had to wait until the viral count was sufficiently low to receive treatment. Others described how it was vital to live a healthy life in order for the treatment to have an effect. Though ART is available free of charge, teachers' statements described how fear was the greatest determining factor in delaying the process. One teacher described what had happened to her sister who had tested positive earlier in the year:

> "She was really sick. Before she got the treatment her husband left her.
> He didn't care. He had had an affair with another woman. We as her
> own family members had to come and get her and take her home. We
> are the ones that give care and protection. We told her to take the
> treatment, while her husband just chased her away. Now she is back to
> normal." (T5/7/1)

Another teacher described how her husband had encouraged her to be tested, but "I am afraid of knowing my status. I will go next month. I am afraid that my younger child may also be infected" (T5/1/1). The same teacher also described how "people don't think about the options. They don't think that if they don't take the treatment they will be leaving their children as orphans" (T5/1/1). Hence the fear of knowing their status may interfere with their rational long-term thinking, goals and decision-making power, as suggested by MoE-6. However, it may also be related to the fear of HIV-related stigma

and losing the love and respect of loved ones, family and the community. The fear of losing their partner was also one of the strongest factors preventing female student teachers in Zimbabwe from seeking help, talking to their partners about AIDS and refusing unsafe sex with the partner even though they knew he had been unfaithful (Chifunyise, 2002). One MoE described how her daughters' friend had disowned the mother when she found out that the mother was HIV-positive. A few teachers, and particularly the male teachers, attributed the delay in seeking treatment to AIDS-related stigma. Hence there may be gender issues in relation to perceived level and type of AIDS-related stigma. This would need to be studied further.

6.2.1.1 Teachers' perceptions of AIDS-related stigma

Stigma has been recognised in many studies as one the strongest factors preventing people with AIDS from being tested, seeking treatment, talking about it and teaching children about AIDS. While pupils thought there were limited stigma, among teachers the perceptions were divided. A few teachers felt that there was hardly any stigma any more, as "only a few people treat people with AIDS differently. They laugh and say that you will die soon" (T1/7/2). Some were "not sure if there is any stigma" (T2/2/1), as they had not personally heard of any who had been treated differently. Some teachers, however, described that "there was still a lot of stigma" even though it had decreased (CT3/4/3). As at the pupil level, teachers felt that though there was stigma in the community, there was now no stigma within the school. Two head teachers described how they had worked hard to eradicate stigma within their school. "In the beginning, people were getting away from those who were sick. They didn't want to come near them" (HT-5). However, one teacher still felt that there was stigma within the school. "Some are compassionate, others laugh behind your back" (T3/2/1). Teachers who perceived that there was significant stigma described how it stopped people from being tested and seeking help. "We are so scared that we wait until it is too late" (T2/2/1). "They think that they will not be accepted by their neighbours" (CT1/4/3).

Similar to the pupil level, a few teachers had observed that the stigma and its roots differed between the community types. Findings at both levels suggests that stigma is not only related to ignorance and misperceptions, which psychological and cognitive theorists (Herek, Capitanio and Widaman, 2002) and BIDPA (2003) suggest, but also to cultural beliefs and values and the way in which people relate to each other in the different communities. This supports Castro and Farmer's (2005) argument for the need to draw on anthropology when seeking to understand stigma. A few teachers mentioned that people have more correct knowledge of AIDS in towns. However, greater knowledge of AIDS in the urban areas did not seem to lead to lower levels of stigma. Rather, a few teachers mentioned that "people have less empathy and people don't care about each other the same way as they do in villages" (T1/7/3). In the urban areas they say that "you have been careless with sex" (T3/7/2) or "that you are a prostitute" (T3/2/1). Drawing on the findings at the pupil level which suggest that cultural values in the urban areas are more individualistic than those of the rural areas, teachers' experience confirms Kegeles et al.'s (1989) assumptions that in more individualistic communities HIV/AIDS is perceived to be a personal responsibility and consequently individuals are blamed for becoming infected. Teachers' descriptions suggest that the stigma in the villages is more closely linked to ignorance, misunderstanding and cultural beliefs. One teacher in a rural area outside Kanye suggested that in the villages "most people don't believe that AIDS exists. They say it's witchcraft" (T5/2/3). Though this may be linked to community type, in the case of Botswana it may also be linked to particular regions of the country, where traditional belief in witchcraft is stronger. "In the South there is a strong belief in witchcraft. People think that they can be bewitched at any time (MoE-7). In the North, "they believe that if they have done something wrong they can be bewitched…There are a lot of emergent churches that teaches people that they have been bewitched. They are teaching them that they are not in control of themselves" (MoE-7). Hence the findings in the rural areas support Warwick et al.'s (1998) observations that stigma is linked to religion and local cultural beliefs. Though Panos' (1990) argument, that in more collective societies HIV/AIDS-related stigma is linked to bringing shame on the family and the community, was true a few years ago, teachers' descriptions suggest that the collective values in the villages in Botswana now, when AIDS has become more

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common, serve as a safety network rather than exclusion. The majority of teachers noted that there had been a change in the stigma over the last few years. This was particularly evident in the schools I had visited a few years earlier, where there was now a more open atmosphere about AIDS. Though this substantiates the argument in the literature review, that the level of stigma may be reduced as the disease becomes more common, the findings indicate that there are also community-type differences in the speed stigma is reduced once AIDS becomes more common. One teacher, for instance, mentioned that in her home village, Muchudi, there had initially been a lot of stigma, but as AIDS became more common the stigma had been reduced. However, she thought that the same was not happening in the towns, such as Selbi Phikwe, where there is more stigma. Another teacher described similar experiences, comparing her home village to Botswana's second largest town, Francistown, where she worked before.

As the evidence suggests that the roots of the stigma and the speed by which it was reduced differed among the various community types, strategies to reduce and eradicate the stigma may consequently also need to differ. Botswana's current strategy to reduce and eradicate stigma in schools and in the younger generation has been launched in the form of television-based weekly Teacher Capacity Developing (TCB) programmes, aimed at providing teachers with greater knowledge.

6.2.1.2 Teachers' knowledge of AIDS' impact on behaviour and teaching about AIDS

Many AIDS mitigation strategies are based on the assumption that knowledge automatically leads to changes in behaviour and teaching of this knowledge to the pupils. The TCB programme, which was initiated as a direct response to the ABT (2001) and BIDPA (2003) findings, was initially also based on this assumption. It was hoped that through increasing teachers' knowledge of AIDS this information would automatically filter into the classrooms and influence both teachers' and pupils' behaviour. However, "they found that this was not the case. Most teachers continued to teach in their old-fashioned way" (MoE-7), nor did it change behaviour. Similarly, Visser (2004) found that increased knowledge of AIDS among Mozambican teachers failed to correlate

positively with willingness and likelihood to teach pupils about AIDS. Hence the second aim of the programme, reintroducing more interactive teaching methods, became the main focus of TCB. It was hoped that "there would be a change in methodology so that we could reach the behaviour of the pupils… [so that they] would develop skills in communication, hearing other people's views, consultation, self-esteem and standing up for their own views" (MoE-7). Whilst the initial feedback indicated that teachers lacked interest in the programme, those head teachers whose schools had electricity and thus could see the programmes noted that TCB enhanced teachers' knowledge of AIDS and had improved their attitudes towards people with AIDS. Some described how in the beginning teachers didn't believe that there was something called AIDS and didn't take it seriously. One head teacher said, "We had to force them to go and listen to the programmes. Now they are beginning to value the topics covered" (HT-3). A teacher described how the teachers in her school didn't know much in the beginning and the things they knew weren't necessarily correct. "We have learnt a lot since it started. We now feel that we can approach a child who has AIDS" (T2/2/1). "In the beginning we were tired of hearing about AIDS, but now we believe it is a real problem" (T6/1/1). Teachers also described how it had taught them to care and show love for those who are infected and affected and to urge pupils to abstain. Whilst one head teacher noted that some of the younger teachers had stopped going out drinking and dancing late at night, another head teacher and two REOs still felt that there was not enough change in behaviour in the younger teachers.

Though teachers felt that they had learnt a lot about AIDS, they did not feel that it had provided sufficient ideas of what to do in the classroom; many felt inadequate teaching about AIDS and meeting the new needs of the learners. This also became evident in the interviews, as most of the teachers had not thought about what kinds of skills, beyond basic knowledge of AIDS transmission and prevention, pupils would need to develop in order to protect themselves from AIDS and take an active role in the mitigation process. "Many of the teachers are still shy and don't feel comfortable [teaching about AIDS], so they don't do it. But some are really doing a good job" (REO-2). A number of teachers mentioned how they felt uncomfortable teaching about AIDS. "In our culture it is not

easy to teach about HIV/AIDS" (T2/2/1). "We don't feel that we can talk about sex openly" (T6/1/1). Unlike Visser's (2004) findings in Mozambique that indicated that many teachers did not perceive that it was their role to teach children about AIDS, most of the teachers interviewed saw themselves as role models and thought that it was vital that they taught pupils about the dangers of AIDS. Only one teacher thought that it shouldn't be done. "The problem with teaching about sex is that whatever you tell them, they want to do. If they don't know they won't try" (T6/1/1). One year seven teacher wasn't sure how useful it was to teach pupils about AIDS, as he found that "when the girls fall in love, they forget everything they know about AIDS. One girl is pregnant in my class" (T4/7/3). Visser (2004) found that though there were some cultural factors that hampered teachers teaching about AIDS, close personal experience of AIDS, for instance in the form of sick relative or loved one, was the factor that most strongly correlated with an increased willingness to talk and teach pupils about AIDS. Hence the level of personal importance that teachers place on AIDS influences the likelihood that they will teach pupils about AIDS. AIDS programmes and methodologies thus need to be linked to motivational factors, as well as to personal and community visions of the future. It is also important that these challenges draw on cultural beliefs and values, as well as increase teachers' ability to analyse and connect this knowledge with what they see in the communities around them. Though Laszlo (1986) argues that young children's behaviour and attitudes are changed through a combination of rewards and consequences, while adult behaviour is primarily modified through personal visions and intrinsic motivation, these findings suggest that teachers are motivated both through external factors such as fear of losing respect and loved ones, as well as intrinsic motivations to support the next generation.

6.2.1.3 Summary and discussion

In conclusion, though BIDPA data suggests that teachers in Botswana had a high level of knowledge of AIDS, both head teachers and teachers perceived that before the launch of the TCB programme in 2004, teachers had very limited and often incorrect knowledge of both AIDS transmission and AIDS prevention. In analysing the responses at the pupil level with the BIDPA data, an interesting link between the misconceptions held by pupils

and those held by 4% of Botswana's primary school teachers emerge, where teachers' misconceptions mirror those of the pupils – such as that AIDS can be spread through utensils, toothbrushes, baths, shaking hands and kissing. Unlike the pupil level, there were great gender disparities in teachers' knowledge, with male teachers having less correct knowledge. This may suggest, as noted by one teacher, that though there are great gender inequalities among the older generation, teachers are still able to instil a greater level of gender equality among the children than they themselves experience. Interviews confirmed that a few teachers in the schools where most misconceptions were held advised pupils not to share plates, utensils, and baths with siblings, as this could lead to AIDS. Some teachers explained that they felt that it was inappropriate to teach the younger children about sex and as a result they taught them about the risk of sharing baths, utensils and plates. Whilst Visser's (2004) study in Mozambique indicated that many teachers didn't feel that it was their job to teach pupils about AIDS, limited or incorrect knowledge of AIDS didn't stop these teachers from teaching pupils about it, even though many felt that it was difficult. While there is no evidence to suggest that personal knowledge of AIDS leads to a greater willingness to talk to pupils about AIDS, as found by Visser (2004), teachers who had close experience of people taking ART had greater knowledge of it and felt more positive about taking it if needed.

Though as a result of TCB teachers felt more confident in their knowledge, REOs and MoE advisers still perceived that teachers had inadequate knowledge about AIDS and mitigation strategies. Teachers' limited reflection on these issues support REOs' and MoE officers' suggestions that teachers would need to develop skills in analysing the many factors connected with the spread of AIDS and the mitigation process, as well as strategies to support the new and changing needs of the learners. Three MoE officers also felt that it was vital that teachers begin to understand and critically explore their own culture, and begin to modify and break those cultural barriers that inhibit them from teaching freely about AIDS, relationships, values and reproduction. "This cultural change is needed at all levels" (MoE-4), not only at the classroom level. One REO suggested that teachers are really trying their best, whilst two REOs felt that teachers had inadequate knowledge and skills to develop open classroom atmospheres where pupils could raise

questions, explore issues and express their thoughts and feelings. Moreover, teachers "would need to develop greater classroom management skills in order to accommodate the diverse needs of the children" (MoE-4). This would mean that they "would need to develop greater communication skills and more interactive teaching methods" (MoE-4), so that pupils developed skills and confidence in standing up for their thoughts and views. One REO thought that "teachers are really trying and are willing to probe into children's lives to help them. They are really doing their best. They try to figure out from the children what is happening and why the children are behaving the way they are" (REO-4), but the other three REOs thought that teachers had inadequate skills in recognising the signs, finding out what was wrong and provide support to affected children. Both REOs and MoE officers felt that teachers would need to develop greater skills in counselling in order to support OVC.

Although it is vital for teachers to develop greater skills in supporting the pupils, drawing on Coombe and Kelly's (2002) analysis of the oxygen mask in the air cabin, it would also be paramount that teachers themselves develop skills, qualities and attitudes in order to protect themselves, serve as role models for the pupils and continue to be effective teachers in the classroom. They would thus need to develop a strong sense of identity and gender perception, equality, understanding of healthy relationships, ability to talk openly about AIDS and begin to explore the many cultural issues and factors that influence their decisions and the spread of AIDS. Moreover, though all teachers felt that the level of stigma had been reduced, teachers' descriptions still portrayed how stigma stopped people from seeking help. Consequently, they would also need to develop skills to further reduce the level of stigma both within the school and within the community. Similarly to how schools in different contexts have used different strategies to be effective, strategies to reduce stigma may also need to differ between the community types, as the source and type of stigma differ. Castro and Farmer (2005) suggest that in communities where stigma is rooted in ignorance and misconceptions, strategies need to seek to improve HIV knowledge, and enhance sensitivity and empathy. However, drawing on anthropological theories, interventions to reduce stigma need to even out unequal power distribution and gender inequalities, and eradicate practices such as categorising, distinguishing,

discriminating and labelling people according to external features. Hence there is a need for teachers to begin to develop a culture in the schools where everyone is perceived as equal, where the identity and value of individuals are determined by internal qualities and virtues, rather than external factors.

Though teachers had good knowledge of AIDS it is worrisome to note that the BIDPA study and many of the respondents observed that this knowledge had not led to sufficient change in behaviour. Moreover, the fear of knowing their status stopped them from seeking help. Unlike Visser's (2004) findings that showed that teachers' fear stopped them from supporting colleagues and friends who had AIDS, a few teachers in Botswana described how they went to the homes of those who were sick and helped them with whatever needed to be done. Though many AIDS prevention programmes are built on the assumption that knowledge automatically leads to healthy behaviour and teaching of AIDS, these studies have shown that this is not the case. Rather, the translation of knowledge into action seems to be influenced by factors such as culture and beliefs, source of the knowledge, gender and identity perceptions, fears, stigma and cultural values.

Though teachers' knowledge is a vital factor contributing to correct and effective teaching, not only of AIDS but also of all other subjects, teacher behaviour is another factor described by SER models as influencing pupils' outcomes. The following section will explore how AIDS impacts on the many factors influencing teacher behaviour.

6.2.2 The impact of AIDS on teachers

In Chapter 3 it was postulated that at the classroom level pupils' learning and attainment would not only be hampered by the impact of AIDS on their own lives and those of their families, but also by its impact on teachers. While the data indicated that the stigma that surrounds AIDS is being reduced at various rates in different community types, the presence of AIDS in teachers' lives, the community and in the school community is increasing. The unanimous view held by school inspectors at their annual conference three years earlier, that HIV/AIDS would have no impact on the quality of education, has

now proved a fallacy. The impact of AIDS on teachers' lives is filtering into the classrooms and affecting their teaching. The following sections will present and discuss HIV/AIDS' impact on teacher death and sickness rates, health, family life and psychosocial well-being, and the consequent impact on learning.

The literature review suggested that primary school teachers are at higher risk of infection than the general population, as the majority of them fall within the high prevalence age group, are single, female and mobile. In the absence of any statistical data on teachers' health and infection rates, quantitative measures of AIDS are based on general death rates.

Table 6.4 Teacher mortality rates in Botswana between 2000-2006

	2000	2001	2002	2003	2004	2005	2006	Total
Primary	91	81	89	74	72	107	110	624
Secondary	47	41	60	27	28	94	85	382
Total	141	125	153	104	101	202	196	1006

Although the teacher death rates figure has increased since 2000 as shown in Table 6.4 the current death rates are still much lower than estimated numbers (ABT, 2002). However, interviews with teachers and head teachers revealed that in one of the schools two teachers had died the previous year, and in another school one had died earlier this year. At least one or two teachers in each of the six schools visited had displayed AIDS symptoms in the previous year. In the school in Kanye teachers mentioned that most teachers were sick, and in the other five schools one or two teachers were known to have AIDS. In addition, there were one or two other teachers whose absenteeism led the head teacher to believe that they also suffered from AIDS. Though the number of teachers who are sick in each school is still lower than the estimated figures, the level of absenteeism for teachers in the later stages of the disease are quite severe. Two head teachers thought that this had now become such a problem that it impacted on pupils' learning. "Most teachers are at least sick one day every month. Some are ill for a week at a time. Those who are HIV-positive are absent for at least one week every month" (HT-3). Another head teacher noted that two of her teachers were sick for at least one to two days per

week, while a third teacher was sick one to two weeks at the time. Absentee records of a few teachers in the later stages of the illness indicated that in a period of three and a half months, a teacher was absent for a total of 61 days. She was initially absent for five days. Eighteen days later, she was absent for sixteen days. Again, a month later she was absent for a month and a half. Another teachers' absentee records showed that the teacher was absent for two periods of sixteen days each during a three-month period.

The high level of absenteeism was not only related to teachers' own sickness, but also to the illness and death of family members, as noted by one head teacher. "Every two weeks somebody would take two days off to go for a funeral" (HT-3). Unlike many of Bennell's (2005a) respondents, quite a few teachers had begun to see the current level of absenteeism as a real problem. "These days teachers are on and off" (T6/1/1), pupils are affected by the inconsistency in teaching and "a lot of teaching is not done effectively" (T6/3/2).

While Bennell (2005a) suggests that teacher absenteeism as a result of AIDS is still relatively low, Das et al. (2004) found that a similar level of absenteeism in Zambia led to a 20-30% decline in learning gain over a year. This was the equivalent of approximately three months worth of learning. The impact was particularly high in rural areas, for children with less stable family situations, and when pupils were taught by sick teachers year after year. As noted by respondents and data from both Bennell (2005a) and Das et al. (2004), pupils' learning is not only affected by teacher absentee levels. Since many sick teachers continue to teach for as long as they can, even though they may be struggling to cope, teacher preparedness, planning, assessment and the effectiveness of teaching is also affected to various degrees during the sickness patterns.

A review of respondents' statements about the impact of AIDS on infected teachers reveals three distinct phases in the process: from fear of being tested and waiting for the results, to receiving treatment or dying. Teachers and head teachers described how the weeks leading up to receiving the results were filled with fear, anxiety and worry, and some already withdrew when they thought that they were positive. One teacher described

how "people are so scared of hearing the results that they don't even go to collect them" (T1/6/3), while a head teacher described how she had to support one of her teachers by going with him to get the results. She commented: "Last week he was sick again. He was not in school. I went to his house and his mother said that he had tried to do suicide. They are now on their way to Francistown for treatment" (HT-3). "They don't want to accept that they might be sick. They need to be told that it is not the end of the world and that they are not the only people who are suffering" (CT3/4/3). In the second phase, a number of teachers and head teachers noted how those who knew that they were HIV-positive often withdrew, became depressed and lost hope in life. One head teacher noted how some teachers who have AIDS "have given up, as they know that they will die" (HT-5). He described what had happened to one of his good teachers in a previous school when she found out that she was positive.

> "When she came back she was changed. She could stay for days without teaching. Just being in the classroom or walking around the school like some kind of lunatic. She had lost all hope and willingness to live. She was admitted to the hospital regularly. She lost interest in teaching. The pupils' results dropped. Before she used to be a very good teacher. Now she is having no impact on the pupils' learning." (HT-5)

Another head teacher felt that "they needed a lot of counselling" (HT-3). As noted by a few teachers, the process from being registered on the ART list to actually receiving treatment can take up to six months. During this time many are very tired and sick and display many of the symptoms described by the pupils. Some might pass away, as mentioned by one of the teachers. In the third phase, when teachers are beginning to receive treatment, their lives begin to change for the better even though they "get worse to begin with" (T2/6/2) as a reaction to the treatment. Teachers described how teachers who had been so thin that you could see their bones began to put on weight and people who could hardly walk were able to function normally again. Though the teachers claimed that once they were receiving ART for a period of three months "they are back to normal" (T1/2/1), one head teacher noted how "those who are on ARV are always tired.

It changes the way that they feel about themselves" (HT-3). However, one teacher mentioned the unfortunate downside of being symptom-free. "Now when people are feeling better, they don't do all the things that they are told to do. They take the treatment but they are spreading AIDS around" (T6/1/1).

Although teachers described the impact of AIDS as greatest for those who were sick and HIV-positive, similar to the pupil level, they mentioned how it affected all of them, as "many teachers have sick people at home" (T5/7/1). Many have lost friends, loved ones, and extended family members to AIDS. A few teachers also mentioned that they had taken in and were caring for relatives' orphans. Teachers described how caring for sick family members at home "causes depression. Both teachers and children feel unsettled. You are always thinking of him and her, when your sister, brother, husband are sick" (T5/3/1). Teacher also described how years ago funerals used to be held on Saturdays, but lately there have also been funerals during the week. Another teacher mentioned how she often has to take time off from work to take one of the orphans she cares for to the hospital, as the child is HIV-positive. Visser (2004) found that teachers in Mozambique had similar experiences.

Teachers "are worried about their own health and the health of their loved ones" (T4/4/3). As a result, "a lot of teaching is not done effectively" (T6/3/2). "AIDS make teachers be not effective because the teachers are not thinking about they are doing in the classroom" (T4/7/3) because they are worried about their loved ones. This has become so noticeable that "parents are complaining that teaching is weak" (T6/3/2). Children's learning is thus affected by their own experience of AIDS and their teachers' health, psychosocial well-being and absenteeism and by the effect that this is having on teacher behaviour, described by SER models as correlating positively with pupils' outcomes.

6.2.2.1 HIV/AIDS' impact on the effective use of the curriculum

Respondents' descriptions suggest that the reduced energy level, the effect of the sick leave cover arrangement, and the lack of hope had the greatest impact on teacher behaviour and effectiveness of teaching. Teachers were divided in regard to what extent

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HIV had affected the delivery of the curriculum. A small number of teachers "had seen no impact on the normal curriculum" (T2/2/3), while the majority though that it had "impacted a lot" (T1/7/2). Some thought that the organisation of cover created the greatest difficulties, two respondents mentioned that the teachers' health had an impact on their ability to effectively teach the curriculum, while a few thought that the curriculum didn't match the new needs of the learners. Those who were concerned about meeting these new needs described how many of "the children had lots of questions" (T2/2/1) and worries, but that the pressures of the normal curriculum did not allow time for their questions, or to develop a more open atmosphere where pupils felt comfortable talking. "Some children are not comfortable talking in the class about AIDS. It is perceived not to be a good subject to talk about. But when you are teaching them about it they will answer" (T2/2/1). A few teachers also mentioned how some of the children bring their taboos into the classroom and that they found it hard to help those children understand. "When a child says, 'I can't come to school because I have been bewitched', there is nothing I can do about it. People only believe what they want to believe" (T6/1/1). Hence a few teachers felt that it was important to spend time in developing an atmosphere where all pupils felt comfortable expressing their worries and concerns and where they could help pupils develop correct understandings and beliefs. One respondent in the department of curriculum development in the MoE described how the familylife skill subject had now been reduced to basic knowledge of AIDS symptoms, transmission and prevention, rather than the all important skills of family life, relationship and values education. One REO and one head teacher also noted that "many teachers are still shy and don't feel comfortable [teaching about AIDS], so they don't do it" (REO-2). Interviews with teachers in Ghana and discussions during the ECOWAS Ministerial Conference of HIV/AIDS and Education in 2004 showed that this response was also common in many of the West African countries.

The cumulative effect of ill health and its impact on teachers' psychosocial well-being, coupled with the negative impact of cover arrangement for absent teachers, were described by head teachers, REO and MoE officers as having the greatest impact on teachers' ability to provide a broad and balanced curriculum. One head teacher and one

REO described how many teachers who were HIV-positive or received ART were no longer fit and often avoided teaching subjects that required more energetic work, such as physical education, agriculture and practical home economics. "For those subjects you need to be physically well. But teachers are not strong any more. They don't have the time or the energy to teach it any more" (REO-2). These subjects are not often measured against pupil's outcomes within SER studies, and as a result the extent to which they may be contributing to pupils' academic outcomes is not often explored. In the context of AIDS, where the ultimate goal of education is pupils' survival and ability to contribute to their own and their countries development and well-being, these subjects are vital. They allow pupils to develop healthy habits and skills to cope more effectively with the increasing burden of running the household when parents are sick. Cover arrangements were also described by many respondents as a real problem, impacting on teachers' ability to teach the broad curriculum and complete topics and concepts in time. The practice of double-up classes meant that teachers often had to change methodologies. Subjects that lend themselves to whole class teaching and lecturing methodologies were favoured over subjects that required greater interaction, group work and explorative learning. However, as the arrangement of cover is related to management and is thus a school level factor, the extent to which this has an impact on pupils' learning and achievement will be discussed at greater length in section 6.3: "A portrait of AIDS at the school level".

6.2.2.2 Summary and discussion

In conclusion, a minority of teachers did not perceive that AIDS had an impact on the effectiveness of teaching, as the mortality and sickness levels were still relatively low. However, most adult respondents are beginning to see how it is beginning to cause serious problems. Evidence of the impact of AIDS on teacher mortality and absenteeism support Bennell's (2005a) finding that these rates are lower than initially predicted in ABT (2002) impact studies. Unlike Bennell's (20005a, p. 462) conclusion that this is not likely to be catastrophic, as he argues that "schooling systems have the ability to cope with the higher (AIDS related) mortality rates among teaching staff", the data indicate

that not only does the impact of AIDS pose a serious threat to teachers' physical health and life, but similar to the pupil level it also has a serious impact on teachers' psychosocial well-being. This in turn has a detrimental effect on teachers' ability to teach effectively, as their ill health and high levels of absenteeism lead to inconsistency in teaching and less energy to prepare lessons effectively. Increased levels of anxiety and worry about their own and loved ones' health hamper teachers' ability to focus during the lessons. The practice of doubling up classes has reduced teachers' ability to use appropriate methodologies for the task. Hence the impact of AIDS on teachers is seriously hampering teacher level factors deemed to correlate positively with high academic outcomes. As a result, the impact of AIDS reduces the effectiveness of teacher level factors and thus impedes the overall learning of pupils.

Moreover, teachers' ill health and the doubling up of classes means that some subjects that would be vital for pupils' well-being and ability to take an active part in the mitigation process are no longer taught effectively or at all. In Chapter 2 the SER paradigm was criticised for its narrow focus on language and maths and how this detracted attention away from the broader curriculum. In the context of AIDS, where the impact of AIDS on teacher behaviour and effective use of the curriculum is already detracting attention away from the broader curriculum, the use of a SER model in its current form to monitor the effectiveness of teaching and learning may further marginalise these important subjects.

6.2.3 The cumulative impact of HIV/AIDS on pupils' and teachers well-being and on the learning and achievements of pupils

As in Creemer's (1994) model, where pupil level factors influence learning and attainment at the classroom level, the impact of AIDS on pupil level factors spills over into the classroom and impedes pupils' learning and attainment. While most teachers and head teachers had observed how some children, and particularly OVC, showed signs of hopelessness, anxiety, lack of concentration, depression and fear, two teachers felt that AIDS had no impact on pupils' learning or attainment, nor that there was a difference in behaviour between non-affected children and OVC. There could be a number of

explanations for this. Firstly, as observed by teachers, head teachers and pupils, unlike in the communities where "people were laughing at them" (1/6/2), schools were perceived by many children as havens where "many are supportive and study hard and help those who are struggling with school" (HT-3). They thus suggest that OVC forget their sorrows while they are in school, gaining a sense of normality and belonging by having a normal life like all the other children. This explanation thus supports the argument in the literature review, that maintaining a positive self-image is a strong motivating factor for behaviour decisions. Secondly, it may also be a reflection, as suggested by two REOs, that teachers have limited ability to observe and understand the needs of the pupils. Thirdly, it may indicate that teachers do not have sufficient skills in creating a supportive classroom environment where children feel free to express their thoughts, worries and fears. Consequently, symptoms of distress become harder to detect as children keep their feelings and emotions to themselves in fear of being labelled or disappointed when their needs are not met.

Although not all children who are affected by AIDS actively showed symptoms of distress within the classroom environment, the majority of teachers and head teachers had observed how AIDS was affecting pupils' learning and attainment. In reviewing these respondents' observations a pattern of three stages began to emerge. In the first stage, when the child's parents are sick, teachers described how pupils begun to withdraw, became quite scared and depressed, changed behaviour in relation to learning and peers, and displayed a heightened sensitivity to issues related to family and home. However, there seem to be some grade-level differences. For instance, one year seven teacher observed that when they taught something about AIDS or the family, some of the vulnerable children would bring up things from home, while she could see in other children's faces that they were very scared. A year two teacher noted that some vulnerable children begun to cry when they talked about families in social studies. This had also become apparent to a number of children, who mentioned that those with sick parents at home struggle in school, as this boy in year six described:

> "If your parents have AIDS the children will just cry. They will not listen
> to the teachers. They will only be thinking about their parents. I have seen
> it in school. They might be thinking about killing themselves. They think
> that bad people will laugh at them." (1/6/2)

A year five girl in the same school described what happened to her cousin:

> "She had difficulties concentrating in school. The friends were laughing at
> her. They said that they wouldn't come near her because they could also
> get AIDS." (1/5/19)

The majority of teachers reported that many of the vulnerable children were often absent from school. One year six teacher, for instance, described how the absenteeism of one girl drastically increased when the mother was sick, while a year one teacher described how one boy in her class was often absent, or would leave after the break to check up on his mother. When he was in school he often cried. The relatives explained that the boy often ended up staying with his mother in the hospital, as he refused to leave her bedside. Though Das et al. (2004) discovered similar results in Zambia, they also noted how the OVC absenteeism level increased drastically in classes taught by teachers with high level of absenteeism. Hence there was an interplay between teacher and pupil absenteeism which had a direct impact on the time spent on learning. Teachers also explained how pupils' preparedness, focus and concentration on learning and attainment were reduced, as "they have no one to encourage them at home" (T4/7/3). This support and encouragement was described by a number of children in South Africa as a real loss affecting their lives and aspirations for their future (Henderson, 2004).

In the second stage, when the child's parents had just passed away, all but the two teachers who had seen no impact of AIDS on pupils' learning and attainment observed how children's behaviour changed and their ability to focus on learning was reduced. As a result their grades dropped drastically. They described how most orphan "children were absent-minded" (T5/7/1). "They don't listen any more" (T3/2/1) and they become more

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quiet, agitated, easily upset and struggling to concentrate. Some teachers and head teachers observed how many orphans failed to hand in their assignments. One guidance and counselling teacher described how a boy she had counselled struggled:

> "One of the orphans I have is not listening. He is always thinking of something else. The counselling doesn't help. I have called the aunt, but the aunt doesn't come. Maybe it is the sister of the aunt. The boy doesn't say. He is not angry, but he is not happy. The mother passed away a year ago and the sister passed away this year. He feels so lonely. He is the only one left. His grades have gone down. He has gone from being an average to way below average." (CT3/4/3)

Although one REO did not see how orphans' grades differed from those of children from destitute families or with uneducated parents, the majority of teachers noted similar patterns in terms of OVC grades. Grades began to go down when the parents were sick; once the parents died they dropped drastically. Some children's grades dropped from well above average to average, from average to well below average, from an 'A' before the parents showed symptoms to a 'C' when the parents died. The reduction in grades was particularly noticeable and drastic when it was the mother who was sick or had passed away.

In the third stage, when the children had been incorporated into the extended family and had begun to settle into their new homes, teachers observed how some children gradually began to return to their normal selves after 1.5-2 terms. As a result the grades began to go back up after five to eight months. However, this was dependent upon the level of care and support they were given in their new homes. Teachers observed how it took longer time for some children to settle and refocus on learning. Only a limited number of orphans continued to struggle and feel displaced, similarly to children in Henderson's study (2004) in South Africa. Although she found that there were some similarities with AIDS orphans and children from very poor families, as they often had to live with

grandparents or relatives, interviews with AIDS orphans showed that quite a few of them continue to feel displaced.

Taking the above evidence of the reduction of at least one to two grades as a result of approximate 5-8 months of ineffective learning because of close experience of AIDS in the family, together with the reduction of effectiveness of teaching estimated to be approximately 3 months as a result of sick teachers in the later stages of the disease, OVC taught in classes with sick teachers would have a considerable loss in learning. However, as noted at the pupil level, this is affecting not only their academic grades, but also their perceptions of self, aspirations, hopes and beliefs in the future, which are factors that will continue to impede their ability to learn and gain sufficiently good grades to continue into secondary education. The impact of AIDS is obviously more severe for OVC taught in classes with unhealthy teachers. The impact on teachers, coupled with the effect of the cover arrangements, shows that all pupils are affected. Moreover, the increasing levels of absenteeism among both teachers and pupils meant that some children (and particularly OVC) were not able to follow the normal curriculum. Teachers had to reduce the speed of teaching and prepare remedial work for an increasing number of pupils. "Children's work is going down. Now when there are so many that are struggling we have to give remedial work" (CT5/7/1). Children's fears, worries and questions were also often expressed in different aspects of the curriculum, which distracted the class away from the original topic. In order to still pupils' concerns time was taken up. The evidence at the classroom level indicates that the increase of AIDS within the home and school community has a similar impact on pupils' learning as the contextual variables of SES. Hence, a SER study where the context of AIDS is measured may very well provide similar results. Though the orphan ratio in each class never rose above eight per class, the orphan ratio varied from 1% in the urban school in Selebi Phikwe to 18% in the rural school outside Kanye. Moreover, children's fears and worries were exaggerated by the closeness to peers who suffered from AIDS. Though most HIV/AIDS predictions suggest that primary school children are HIV-negative, in the six schools studied four pupils were reported to be suffering from AIDS. It was assumed that these children were infected at birth. Only three of them received ART. The parent of the fourth child refused to acknowledge that

her child was sick and for fear of stigma did not take the child to the hospital, nor would she talk to the teachers. Instead, the grandmother liaised with the school and supported the child. However, without the parent's permission the child could not receive treatment. Statements from a few children and teachers indicated that all children were affected by the context of AIDS. Pupils were worried and scared and were "wondering if it could happen to them and their parents" (T4/7/3), as noted by a few teachers:

> "Many children are not happy. They are always thinking of death. They feel lost. They have seen it on television. They have heard from people talking. They are thinking that they will be dead in the future. They don't see a future for themselves. They are worried. They are thinking, I will have it too. Many children are confused." (T2/2/1).

Pupils' motivation, learning and attainment are also affected by the impact that AIDS is having on teachers' psychosocial well-being – their worry, tiredness, loss of motivation and absenteeism, and by reaction to substitute teachers and the effect that this is having on the breadth and depth of the curriculum. Moreover, one head teacher also noticed how "teachers begin to feel discouraged when they see that pupils have a lot of problems and are suffering from AIDS" (HT-5).

6.2.4 Summary and discussion of the impact of AIDS at the classroom level

Findings from the classroom level indicate that the numerical impact of AIDS is less than estimated in ABT's (2002) impact study. Though there has been a steady increase in teacher mortality over the last few years, these figures are still lower than the estimated 230 teacher mortality in the best case scenario where teachers were accessing ART treatment or 780 without ART (ABT, 2002). It was estimated that in a non-ARV scenario approximately 50% of teachers would be HIV-positive, though these teachers might not yet display any symptoms. Respondents' observations indicated that except for the school in Kanye where the majority of teachers were ill, only 2-4 teachers in each school were either known to have AIDS or displayed AIDS-related sickness patterns. It is however likely that more teachers were HIV-positive but were not yet suffering from AIDS.

Although the number of teachers absent was lower than expected, the levels of absenteeism for teachers who were ill were high within the expected range. Respondents reported that sick teachers in the later stages of the illness were absent up to 61 days in a period of 3.5 months, compared to the estimated 30-120 days of sick leave in the final year of illness (ABT, 2002). The orphan ration of 1-18% compared to the estimated 50% by 2010 (ABT, 2002) was also lower. These figures thus support Bennell's (2005a) observations that the impact of AIDS is lower than originally predicted.

Nevertheless, the qualitative impact of AIDS on teachers and their teaching and consequently on pupils' learning and attainments is severe. The analysis indicates that the impact of AIDS on teachers is similar to that described at the pupil level. Evidence indicated that the impact on pupils spilled over into the classroom level and affected their ability to concentrate and sustain focus on learning, their available time spent on learning and their ability to keep up with the regular curriculum. Evidence of the impact of AIDS on teachers showed that AIDS reduced their preparedness and their ability to effectively deliver the wider curriculum, to maintain effective teaching and use effective methods, to keep up with assessment and focus on high expectations. The impact of AIDS thus affects most pupil and classroom level factors that have in SER models been found to contribute towards academic attainment. AIDS also impacts on factors described in Chapter 4 as influencing decision-making and important long-term affective outcomes that would be necessary in turning the trend around. I therefore draw the conclusion that the impact of AIDS is likely to have a gradual long-term effect on pupils' learning both within and outside school, as well as on their ability to stay safe and free from HIV. There is therefore an urgent need to redefine not only the content of education but, as described by some respondents, also the methodology, as the data on these two levels indicate that knowledge alone is not sufficiently having an impact on teacher and pupil behaviour. It is therefore important to identify the types of methodologies that may contribute to the proposed educational outcomes.

In the light of these findings, and drawing on the literature review, UNESCO's Goal of Education for All (EFA) and its four domains of education; the Virtues Project; and

suggestions from respondents at the different levels, the following section will discuss educational processes at the classroom level that may enhance not only academic outcomes but also those described in the four domains.

6.2.4.1 Effective process variables in the light of the redefined goals of education in the context of AIDS

In Chapter 2 it was suggested that the search for universal effective process variables that would yield consistently similar results has been the focal point of the SER paradigm. This aim was contested, as both the introduction of contextual variables, which showed that schools in different contexts have used different process variables or interpreted variables differently to be effective, and the critique of the SER paradigm, propose that process variables may need to differ between different subjects. The evidence at the pupil and classroom level supports both these arguments. Firstly, knowledge alone has proved insufficient to support the necessary behaviour change and the development of healthy decision-making processes. As suggested by a number of respondents, there is a need to change the style of teaching in order to reach the motivational factors that influence behaviour. Secondly, as the impact of AIDS on pupils clearly necessitates a shift in the goal of education, there is a need to explore processes that are most effective in achieving these goals. Thirdly, the changing needs of learners as their parents become sick and die, and they are incorporated into a new family, may not only require greater teacher knowledge and understanding of the process and symptoms of, for instance, child grieving, trauma, depression and fear, but also skills in how to support these children. Some effectiveness variables measured in international SER studies may also contribute to these important goals within the context of AIDS, though the impact of HIV on teachers may hamper their effective use. The following section will present process variables that may support the goals within the four domains.

6.2.4.1.1 The domain "Learning to Know and Learn"

At the pupil level it was found that in addition to general subjects, educational goals such as lateral thinking, strategic thinking, long- and short-term planning, and seeking out and

analysing information on both practical and theoretical knowledge were described as vital in the context of AIDS. The following processes may contribute to the development of these goals:

- *Rounds of questioning.* While a number of studies have explored the use of challenging questions as an effectiveness variable (Brophy and Good, 1986), the provision of a forum where pupils are encouraged to raise rounds of in-depth questions regarding new topics of studies can form a basis for group projects, setting own and group learning targets and taking ownership of learning. This may encourage pupils to develop habits of asking questions, seeking out new knowledge and taking ownership of learning, which was described by one of the MoE officers as vital in the context of AIDS.

- *Remedial support* for pupils who have missed school or are not able to keep up with the normal curriculum. A number of teachers noted that they now had to prepare remedial work for increasing numbers of pupils in order for them to catch up. One head teacher described how the remedial work prepared by the teachers over the weekends had really supported the pupils' learning. Hence, both extra classes as well as work may support OVC learning.

- *Clearly understood learning intentions* were found effective by Mortimore et al. (1988). However, in the context of AIDS it would be vital that these are not only linked to the learning of the subject in the school, but also to its practical use both now and in the future in the local context. This may thus bridge the gap between Western and African values and the perceived lack of relevancy of the curriculum described by Preece and Mosweunyane (2003) as hampering active citizenship.

- *High and explicit expectation of pupils' learning, achievement and behaviour both now and in the future* was found effective by Teddlie and Stringfield (1993). This may support the development of long-term thinking and long-term

goal-setting. Though it is important to have an understanding of the needs of OVC, it would be vital for teachers to continue to have high expectations of their abilities and achievements in order for them to recover and maximise their chances of catching up and achieving sufficient grades to continue schooling.

- *Focus on higher order thinking*, found effective by Levine and Lezotte (1990), would according to cognitive development theorists support the development of system thinking, the development of values and moral reasoning.

- *Group discussions.* Preece and Mosweunyane (2003) found that youth and junior youth felt that there was a need for pupils to discuss how theoretical knowledge connected with practical learning, how foreign knowledge connected with local knowledge and how the different types of knowledge could be merged. This would allow pupils to develop closer links between home and school learning and reduce the tension between traditional and modern, Western and local knowledge described by Preece and Mosweunyane (2003) and Riggs (1964).

- *A positive climate within the class*, as described by Mortimore et al. (1988) and a few REOs as vital in order for pupils to feel free to ask questions, share their thoughts, feelings and worries, without fear of stigma. In such an environment, fewer children may hide their difficulties and the teacher may be able to recognise and respond to the needs of the pupils earlier.

6.2.4.1.2 The domain "Learning to Do"

In the domain "Learning to Do" it was discussed that in order for pupils to develop active citizenship, mitigate the impact of AIDS and take an active part in turning the trend around, they would need to develop an understanding of system thinking, interdependence and skills in consultation, first aid and health care, in addition to practical subjects such as home economics, agriculture, and physical education.

Though the basic process variables discussed above are likely to be effective even in this domain, factors such as the following may also prove to be important in generating these skills.

- *Curriculum integration at the conceptual level.* Rather than linking subjects together at the topic level, I suggest that a conceptual coherence between subjects may encourage pupils to recognise how similar concepts are operating across subject areas. As a result pupils can begin to see the world as one larger interdependent system rather than independent systems and pockets of knowledge.

- *Project and research work* carried out in the community. Delors et al. (1996) argue that project work takes pupil out of the normal routines, puts conflicts and normal group dynamics in the background and allows pupils to develop a new group identity. It highlights what people have in common and allows pupils to derive strengths from the differences. Moreover, by linking research projects to organisations, voluntary groups within the community, pupils also have a chance to develop trust and engagement with organisations that are there to support them when they need them.

- *School clubs and service projects* related to social, economic or environmental development. Reynolds et al. (1976, 1979), Reynolds and Murgatroyd (1977) and Rutter et al. (1979) suggest that this may create a chance for pupils to acquire school values and commitment towards school goals. Moreover, Preece and Mosweunyane (2003) found that through clubs and involvement in voluntary community projects, pupils develop the appreciation of doing something worthwhile and beneficial for others. They also have a chance to develop leadership, decision-making, perseverance, understanding of other peoples' situations, 'botho' and a willingness to contribute towards the development of the community and the country. Through these projects youth began to make links between old and new knowledge and the needs of the community.

- *Emphasis on group learning*, described as effective by Hargreaves and Glynn (2000) and Reynolds et al. (1976, 1979), may support the development of consultation skills, standing up for one's own and other people's rights, listening and taking into consideration other people's views, opinions and learning needs. A lot of focus has been placed on individual pupils' development and learning. However, in a collective culture it is important that processes are linked and support the development of the collective values. Hence, the use of group research and learning projects may support active citizenship. Preece and Mosweunyane (2003) also suggested that group work would help to reduce the individual competitiveness that often led to jealousy.

- *High level of pupil involvement in the school*, as described by Teddlie and Stringfield (1993), Reynolds et al. (1976,1979) and Rutter (1979) as effective, would allow pupils to develop leadership skills, take responsibility, work in cooperation with a number of different people and begin to link real-life problems with practical solutions. This would thus contribute towards active citizenship and contribute towards a greater sense of their own capability.

- *School-based Kgotla*. In the context of Botswana, a school-based Kgotla system (local traditional governmental system) based on gender equality and linked to both community groups and the local Kgotla system may encourage pupils to engage with the local system of governance, to feel connected and take ownership for development within the school as well as for development outside.

- *Meaningful links between past, present and future*. This was described by Preece and Mosweunyane (2003) and Nunn (2006) as a paramount component in developing active citizenship in a developing society and the ability to change behaviour and habits. Deci and Ryan (1995) and Nunn (2006) found that the ability to analyse and understand the past and the present is a vital component in developing motivation and mobilisation for change in the future. Hence learning

intentions and lessons would need to allow pupils to make these links on a regular basis.

6.2.4.1.3 The domain "Learning to Be"

In analysing the goals within this domain, it is evident that goals such as a strong sense of self, intrinsic self-esteem, a firm set of values and virtues, decision-making skills, a strong sense of gender identity, the quality and skills of thrift, and a conventional level of moral reasoning may require a different set of process variables from those correlated positively against maths and language scores. While there have been SER studies that have measured self-esteem and self-concept, as described in Chapter 1, these have primarily focused on self-esteem in relation to learning, rather than to the long-term outcome of making healthy long- and short-term decisions within the context of AIDS. The Virtues Project is described by an international advisor on HIV/AIDS and education as a programme that has the potential to develop attitudes, skills and qualities that would allow pupils to make healthy life choices and take an active role in turning the trend around. In analysing this programme, which supports Erikson's (1985) argument that virtues are universal, Kavelin and Popov (1998, 1992) argue that virtues are innate and universal. They therefore serve as a lower denominator than values, in that they allow people of different generations, religions, cultures and countries to find similarities, unity and cohesion, as described by Delors et al. (1996) as vital educational goals in the 21st century. Kavelin and Popov (1998) propose a number of processes that are in line with Ryan, Mims and Koester' (1983) and Kesser and Ryan's (1993) findings that correlated to high intrinsic self-esteem and motivation and the development of permanently activated values. Furthermore, they suggest a whole-school integrated approach to nurturing the virtues within. This approach explores a new virtue on a weekly basis through defining the parameters of the virtue, analysing its impact, developing personal and group visions and setting targets, using the language of the virtues and giving feedback and reflecting on own progress. Drawing on interviews with respondents and teachers in two schools in Southern Africa, as well as my own experience of working with the programme in different countries and continents, the following section will

present processes that may prove to correlate positively with the goals within this domain.

- *Defining the parameters of the virtues and values in different contexts*. Preece and Mosweunayne (2003) found that many younger youth felt that there was a need for them to explore the use and form of traditional values and virtues in contemporary society in order for them to feel connected with both the values of the parent generation as well as the changing needs of society. This process would thus relate to stage two in Deci and Ryan's model of developing intrinsic self esteem and motivation, described in Chapter 4, and would allow pupils to begin to form their own values rather than just adopting other people's thinking. However, it is vital that this is done through discussions and explorations in small or large groups rather than through lectures.

- *Analysing the impact of the virtues.* Kavelin and Popov (1998) describe the importance for pupils to begin to recognise and analyse how the virtues can help them in different situations, and how the virtues relate to own and other peoples' beliefs and perception of identity. Through this process pupils may begin to recognise their similarities rather than their differences, as well as begin to predict outcomes, cause and effect, which are vital in decision-making. By analysing the impact of the virtues on themselves and others they would also be contributing towards developing moral reasoning.

- *Vision-building on the individual, group and class level.* Regular opportunities to explore and build personal or group visions of the impact of applying the virtues in their own, school or family lives would allow pupils to explore different possibilities, which would contribute towards intrinsic motivation and generate hope. A few teachers in the two schools described how this process helped pupils to recognise and appreciate the virtues within them and motivated them to develop them further. One parent also described how this helped to reduce

negative peer pressure. It could also help pupils to recognise how their choices have an impact on their own and others' future.

- *Individual and group goal- and target-setting for both personal development and academic outcomes.* As described in Chapter 4, Kesser and Ryan (1993) found that goals related to personal development were related to intrinsic self-esteem and motivation, while materialistic goals were related to contingent self-esteem and motivation. Hence, regular opportunity to set personal or group goals, defining strategies to get there and working towards developing and nurturing the virtues related to their vision, would contribute not only to intrinsic self-esteem and motivation, but also to the development of thrift, strategic thinking, and the exploration of cause and effect.

- *Virtues feedback.* Drawing on the findings of Deci and Ryan and the theories of Erikson (1985), it would be important that the feedback connects to effort towards personal goals rather than external materialistic goals. Kavelin and Popov (1998) emphasise the importance of recognising and acknowledging pupils' emergent efforts and striving to use the virtues, rather than only recognising achievements. One teacher also described how pupils had been helped to develop a more positive outlook on themselves and their own ability when they were recognised for their striving to apply the virtues in their interactions and work.

- *Self-reflection.* Ryan, Mims and Koester (1983) found that pupil participation in evaluating their own outcomes leads to greater curiosity and independence, and a higher level of intrinsic self-esteem. As part of the Virtues Project, pupils are encouraged through questioning and guidance to reflect on how they are developing the virtues against the goals they have set and to explore what processes they may need to develop further. Hence teachers may need to develop skills in providing reflection questions. It is however important that this process does not go into self-blame and negativity, but rather explores what they can do or which virtues are important for reaching their goals.

- *Role-play and plays.* One head teacher and a few teachers in one school described how children who had participated in role-play and plays had developed a greater awareness of their own strengths and gained confidence in standing up for their own rights and beliefs as a result of participating in such activities related to AIDS and peer pressures. This would also allow pupils to begin to internalise their values and translate them into actions and behaviour. Kohlberg (1987) argues that through role-play and role-taking children develop empathy and an understanding of actions in situations, which support the development of moral reasoning and the internalisation of moral values.

6.2.4.1.4 The domain "Learning to Live Together"

Similarly to the processes described above, goals such as developing healthy friendships, a deep understanding and appreciation of equality and factors contributing to lasting family life, and the skills of consultation, conflict resolution and working cooperatively with different people may also require different process variables from those correlated to high scores in standardised tests in maths and language. However, in analysing the Virtues Project against theories in the literature review and findings from teachers in the two schools using the Virtues Project, it appears that many of the processes involved in this project would also support the goals in this domain. Teachers described how these processes and the programme itself had influenced pupils' relationships with each other, as it encouraged pupils: to recognise and nurture the virtues within themselves and people around them; to develop an emotional language which they used to solve conflict, express their thoughts and feelings and negotiate ideas; and to provide a framework for finding common goals. Hence the goal in the domain "Learning to Be" can also be regarded as a means to develop goals in other domains. In addition to factors described in the previous domain, it is likely that factors such as those listed below may contribute towards the effective learning of these goals.

- *Drama and theatre clubs*. A number of teachers in one of the schools had observed how pupils who had participated in the drama group had developed assertiveness and greater knowledge about AIDS, and felt more comfortable standing up for their thoughts after working with and performing the play to the school and the community. Through these activities pupils also have the opportunity to negotiate ideas, listen and respect each other's views.

- *School and class responsibilities*. A few teachers described how pupils learned respect and understanding of others through opportunities to take a leading role and responsibility for the well-being of others. This may also support the development of skills in finding solutions that will benefit all.

- *Group project or service projects in the community.* As described earlier, this might highlight similarities rather than differences. It would also raise pupils' awareness of the needs of other groups of people in society. Service projects within the school such as helping younger children in the playground or with learning may also contribute to greater understanding of responsibility towards others and how to care for children.

- *Opportunities to make amends.* Kavelin and Popov (1998) describe the importance for pupils of having the opportunity to make amends in order to develop social capital.

In reflecting on the evidence at the classroom level, I draw the conclusion that in addition to the above-mentioned variables, enhanced teacher knowledge in areas such as child development, learning processes, symptoms of distress, analysis of cultural factors influencing the spread of AIDS, and counselling are vital in order for any of these processes to contribute towards the development of the outputs described in each domain. The identified need for teacher development, the ability to effectively manage the increasing absentee levels and the effective use and deployment of the school curriculum,

as well as the need to monitor the impact of AIDS on pupils' learning are all related to management at the school level.

Moreover, as discussed earlier, in order for these processes to be implemented they need to connect with their values and beliefs, as well as their motivation factors. In support of Green's (2004) and Fitz-Gibbons' (1996) argument that what is valued is measured and what is measured gets done, Ministers of Education at the ECOWAS Conference on Education and HIV in 2004 discussed the need for HIV education to be examinable in order to ensure that the subject was taught. While conventional exams may examine pupils' knowledge of AIDS, they may not support the necessary change in behaviour. I therefore support Fitz-Gibbons' argument that effective goals are best measured through different forms of the self-reports and affective outcome measures described in Chapter 4. These may be administered at the classroom level. But the system of measuring affective outcomes in order to support the pupils' progress towards these goals would be regarded as a school-level factor. This will be analysed in the next section.

6.3   A portrait of AIDS at the school level

The majority of school effectiveness studies have primarily used the school level as unit of analysis, as it is argued that this has the greatest influence on whole-school change and long-term outcomes, even though it is evident that classroom level factors have greater influence on pupils' learning. However, according to Creemers' (1994) SER model most of the school level factors are related to the classroom level factors of quality of instruction, time spent on learning and opportunities to learn. These factors are at the school level translated into policies related to classroom instruction, curriculum, grouping, organisation, continuation and progression from one grade to another, policies and systems related to monitoring and organisation of pupil and teacher absenteeism, progress and development, as well as leadership and the managing the school culture and an orderly learning environment. Many of these factors, which are regarded as school level factors in schools with high levels of autonomy, are in highly centralised and hierarchical systems such as that in Botswana regarded as regional or national level factors. In these types of systems, schools may have the power to influence the level, quality and time of the execution of national policies, but they may not have the power to create and change these to best suit the individual schools' needs. Consequently, school level factors in highly centralised systems are closely linked to national and contextual variables, which may suggest that even school level factors in these systems may be hard to detect. Nevertheless, the evidence at this level indicates that not only are these factors influencing pupils' learning, but also that the context of AIDS is influencing factors at this level. It was suggested in the literature that the impact of HIV/AIDS would have a bearing on the management and leadership of the school, the organisation, time, content and form of the curriculum delivery; that it would deplete resources and erode the educational culture, in addition to causing a general decline in enrolment and available teaching staff. While there is limited to no statistical data or system to monitor this impact, respondents' perceptions, observations and experiences show that there is a very visual qualitative link between HIV/AIDS and the management of teaching and learning at the school level. However, though the evidence suggests that AIDS is influencing these school level factors, the effectiveness level of these factors and their dependence on national and regional levels is hampering the schools' ability to effectively mitigate the

impact of AIDS at the school level. This in turn is having a greater impact on a larger number of pupils' learning and attainment. The Government of Botswana and the MoE is however making great strides in developing strategies to begin to monitor both the impact as well as teachers' knowledge of AIDS, as will be shown.

The first section of this element of the thesis will present and analyse the impact of AIDS on the management of teaching and learning, its inextricable links with national level factors and the imminent need for a monitoring system, while the second section will deal with the impact of AIDS on the school culture and its links with societal culture. The third section will discuss HIV impact on teacher development, and further development needs in order for schools to take an active and effective role in mitigating the impact. Data in these sections derive from semi-structured interviews with teachers, head teachers, REOs and officers at the ministerial level, as well as, documents from the regional and ministerial level. Finally, this will be followed by a discussion of how the EIR and the SER paradigms can play a vital role in turning the trend around.

6.3.1 HIV/AIDS' impact on the management of teaching and learning

 The management structure in schools in Botswana is built on the British model of senior and middle management, and most of the head teacher management training has been sponsored by the United Kingdom's Department for International Development (DfID). Consequently, many school level factors that have through SER studies proved to be effective in Britain are transplanted into the Botswana education system. There is evidence of many such factors such as school-based vision and mission statements, school-based staff development, monitoring of pupils' attainments and positive school culture and effective leadership. While some have provided a close fit, others are not effectively used as they have not been sufficiently modified and are not flexible enough to suit the local and cultural context, or have not been introduced in such a way that people recognise their values and potential contribution and take ownership of the implementation. The management structure in the six schools visited was for instance very similar to schools in Britain, where in the two smaller schools with a pupil population of 264 and 370 respectively, the senior management team (SMT) consisted of

the head teacher, deputy head teacher, and upper and lower heads of department. In the four large schools with a student population of 964, 775, 611 and 797 respectively, the school was divided into upper, middle and lower departments and all three department heads where part of the SMT. In all six schools, the guidance and counsellor teachers (GCT), who had the greatest overview and insight into the impact of AIDS on both pupils and teachers and who handled all the information about OVC, were only part of the middle management together with other subject leaders. While there are a number of similarities between structure and models, schools' relative autonomy and culture differ substantially between the two countries. As will be presented in the next few sections, the management of the impact of AIDS on teaching and learning is hampered by factors such as loosely coupled or disjointed monitoring systems and organisational structures, low level of autonomy within the school, limited whole-school approach, and limited cooperation and understanding of the impact. However, the greatest factor, which has a direct impact on pupils' learning, is the organisation of sick-leave cover.

6.3.1.1 HIV/AIDS impact and the organisation of sick leave cover

The most immediate and visual impact of AIDS on school level factors, which has a direct impact on pupils' learning, is the organisation of sick leave cover. Ineffective monitoring of teacher absenteeism and lack of knowledge about and slowness of compliance with procedures further hamper the impact on pupils' learning, as suggested by some officers at the regional and national levels. While organisation of sick leave cover would be a pure school level factor in most countries where schools have a level of autonomy, in Botswana it involves actors at the school, regional and national level.

6.3.1.1.1 Monitoring of teacher absenteeism

The monitoring of teacher absenteeism is done by the head teacher through the log book, which is a running record of all aspects of the school including teacher absenteeism, repairs done to the school building, INSETS and training, external visits to the schools, and so on. Head teachers are expected to send termly reports to the REO regarding teacher absenteeism together with doctors' sick notes. This information is then transferred to the national level and the Botswana Education Service (BES), which

monitors and analyses teachers' absenteeism and mortalities, and deals with hiring of teachers, transfers, promotions and long-term sick leaves. However, head teachers, REOs and officers at the national level described how this system is plagued with problems of inaccuracy, tardiness and inaccessibility and by people's limited knowledge of procedures, which cause severe delays in support to schools when teachers are sick. Two REOs mentioned that

> "some head teachers do not send the records to me so I don't always get the evidence. I normally get it from the log book. But that information is not always accurate. Sometimes it is filled in long after the teachers have come back to school." (REO-4)

Consequently, none of the head teachers had any available accurate statistical information of their teachers' sick leaves of their teachers. This is not characteristic only of Botswana, however. Bennell (2005a) found similar difficulties in obtaining accurate absentee rates in Malawi and Uganda.

At the regional level, none of the REOs had any statistical overview of absentee figures in their respected schools. However, two REOs were able to find a number of sick notes from different teachers in order to provide information about sick leave in some of the schools. One REO describe how he only collated information of teacher absenteeism and "looked at those records when we discuss transfer of teachers to other schools. We might transfer somebody to get closer to hospital and treatment" (REO-4).

The speed at which schools can get support in terms of supply cover when teachers are on long-term sick leave, or replacement teachers when teachers are terminally ill, is dependent on the accuracy and speed of head teachers' ability to monitor, analyse and respond to teacher sickness. Hence it would be vital to have a system that is easily accessible.

6.3.1.1.2 The organisation of sick leave cover

The national and regional policy of sickness cover stipulates that once there is sufficient evidence that a teacher is terminally ill, the procedures for locating a replacement can begin. This process is handled at the national level by the Botswana Teacher Service (BTS), who normally would transfer a teacher from another school. As this process is rather lengthy, REOs and officers within the MoE described how teachers are often not replaced until after the sick teacher has passed away. For shorter-term illnesses and absenteeism, the REO has the authority to hire a teacher aid to take over the class if the teacher is absent for more than two weeks. Though three of the REOs were aware of this and mentioned that it was within their remit, they seldom used it, as the speed with which the doctor's certificate reached the REOs was often so slow that teachers had come back long before the REOs had any opportunity provide support. Moreover, as noted at the classroom level, most of the sick leaves were shorter than two weeks at a time and would therefore fall outside the REO remit of providing support. Consequently, cover for both short- and long-term illness was often organised within the schools.

Although the REOs indicated that the head teachers were the first call on covering when teachers were sick, the majority of the teachers mentioned that the most common cover arrangement was to divide the class between the remaining classes in the same grade level. This would mean that in a large three to four form entry school, the teacher-pupil ratio would increase from 30-35 to 45-48. In a small two-form entry school, teachers would have to teach classes of up to 70 pupils when a teacher is sick. While Bennell (2005a) maintains that the sickness level is still relatively low, the impact of both teacher sickness and organisation of cover has a substantial impact on pupils' learning. It impedes not only the class with the sick teacher, but all the children in the same grade level. With the sickness pattern described by one of the REOs, pupils in two-form entry schools would be taught in classes of 70 pupils for a total period of two months in a three month term, as sick periods did not always last beyond two weeks at the time. In one of the four-form entry schools, the whole grade level would be affected. Hence 140 pupils would be taught in classes with a pupil-teacher ratio of up to 48:1 for the same period of time. In Zambia, where the average pupil-teacher ratio is 40:1 (Jishnu et al. 2004), the

impact would be even worse in a small school. They found that pupils who had been taught by sick teachers lost an average of three months worth of learning, due to sickness cover arrangements and the reduced time spent on planning and monitoring pupils' progress.

The majority of respondents noted how the effectiveness of teaching was reduced when classes were doubled. "Many learners will not receive what they are suppose to" (REO-4), and "many children will get nothing from those days" (HT-3). This was not only due to the sheer number of pupils in the class, but also by the way in which children reacted to supply cover and the changes in methodology that occurred as a result. While one teacher felt that pupils behaved the same when classes were doubled, because the pupils were used to this and respected all teachers, other teachers described how the behaviour changed. "My own class tried to be stubborn" (T3/2/2), and pupils' "work is too slow when you have two classes" (T4/2/2). Another teacher noted how the less able pupils were particularly affected. "Some children don't understand. The slower learners don't listen and the naughty ones are always whispering and don't write" (T3/2/1). A number of teachers and head teachers had observed how the high pupil-teacher ratio meant that teachers returned to methodologies such as lecturing, copy-work and pure whole class instruction, rather than more interactive teaching methods which have been reintroduced through the TCB project. Consequently, during these periods teachers were no longer using methods such as group discussions and group work, explorative learning, or debates, which would allow pupils to develop valuable skills to help protect themselves and take an active part in the mitigation process. In support of Jamieson and Wikely's (2001) critique of the universality of SER process variables regardless of subject area, a few teachers also found that pupils and whole classes "get behind in the curriculum. Some subjects really suffer" (T4/2/2), as some subjects that did not easily lend itself to whole class teaching and lecturing were either ineffectively taught or not taught at all.

Though teachers and head teachers noted that the methodology, the curriculum coverage and pupils' learning were affected and reduced when classes were doubled up, two REOs

observed that the impact was greater in classes with weak teachers, as is made evident in this teacher's account:

> "Sharing classes really affects my teaching. I can't manage. We are having so many children in the class – more than thirty. I cannot control the situation. Sometimes when I talk to them they will not listen or obey. I only teach at the blackboard. They don't concentrate at all because the other class are above or below the objectives of my class. It is very painful for me because it delays my teaching of my pupils. At the end, my objectives are not covered and I have all the problems. There is too much noise. I feel very frustrated." (T1/1/4)

In addition to some teachers struggling more than others, one REO also felt that "those teachers who were not very effective teachers before, some are now using HIV as a scapegoat. They say 'I don't feel well', and the doctors just write them a sick note even when the people have not been tested" (REO-2). This not only affects the children in this class but also has a bearing on the school culture, as levels of trust and cooperation may be undermined when "teachers are saying that the head teachers are not sympathetic" (REO-2).

The depth and breadth of the evidence indicates that national and regional policies and procedures in relation to arrangement of sick leave cover in the context of AIDS have an impact not only on OVC and pupils in classes taught by sick teachers, but on all pupils' time and access to the wider curriculum. To what extent this influences pupils' learning and attainment, however, is dependent on a number of school level factors and the management of teaching and learning:

– Firstly, by the extent to which the head teachers take an active role in covering classes and thus reduce the frequency of doubled classes.

– Secondly, by the swiftness with which the head teacher recognises and monitors symptoms and sickness absentee patterns in teachers, and by the speed with which he or she is able to communicate these to the REO in order to arrange for long-term cover.

– Thirdly, it may also be affected by class allocation, as the impact on pupils' attainment would drastically cumulate if they are taught by sick teachers year after year. The impact that this policy has on pupils' learning is also dependent on the size of the school, as in a three to four form entry school the increase in class sizes would be more manageable. One REO also recognised that the impact may also be influenced by community type. While teachers in the urban areas may only need to take one day off to go the hospital, get treatment and medication, teachers in the rural areas may need two or three days off to travel to the hospital. Though this may initially suggest that the impact will be less in urban schools, the long-term implication may be reversed. As teachers who are sick often get transferred to urban schools to be able to receive treatment, the number of teachers who are sick or receiving ART will increase in urban schools. Consequently, in the long term it is more likely that pupils in the urban schools will have a level of HIV/AIDS-related ineffective teaching year after year.

In addition to impeding pupils' learning and attainment, reducing the curriculum coverage, changing the effectiveness of teaching and increasing teachers' workload, the policies and procedures related to organisation of sick leave cover have a ripple effect on the leadership and management of the development of the school. The following section will explore the impact of AIDS on the head teachers' role.

6.3.1.2 HIV/AIDS' impact on the head teachers and their responsibilities
Many of the studies seem to overlook the likely impact on HIV/AIDS on the head-teachers themselves. While most teachers fall within the high HIV/AIDS-prevalence age group of 25-39, the majority of head teachers are currently above or the upper end of this age group. Head teachers are therefore often perceived to be HIV/AIDS-free, which may explain why most studies exploring the impact of AIDS on the school have disregarded how AIDS affects head teachers. However, as the generation of head teachers becomes

older and retires, the generation that now falls within the high-prevalence age group may become promoted to head teachers if they have been accessing ART in time. Hence the characteristic of the head teacher force within the country is likely to change. AIDS-related symptoms such as the chronic fatigue, depression, anxiety or hopelessness described by the teachers, and their consequent impact on the leadership and management of the school, may thus become visible in years to come. Also, present-day head teachers have sick family members at home and relatives who are dying, and they look after relatives' orphans. Hence, the worries and anxieties related to having sick family members, as described by teachers, are also experienced by the head teachers. Moreover, as respected members of the community they are often also expected to attend a number of funerals. In school four, the head teacher was absent for two days due to a funeral, and in a visit to a few schools three years earlier two head teachers were absent on Thursday and Friday two weeks in a row for the same reason. However, the leadership and the management of teaching and learning is not only affected by the impact of AIDS on the head teachers' own lives, but also by the additional work related to the impact of AIDS on pupils and teachers.

According to the head teacher code of conduct, the head teacher has ultimate responsibility for the quality of teaching and learning in all the classes; for the planning of the educational programme; for the organisation of timetables and allocation of classes; for the supervision, guidance and training of teachers; for the monitoring of teacher absenteeism; and for the development of a positive and effective school culture. This would mean that head teachers are also responsible for monitoring the impact of AIDS on the learners and for adjusting the educational programme to ensure that teachers continue to provide an effective educational programme that is meaningful to the changing needs of the pupils. However, the lack of an effective monitoring system at the school level, limited overview of the impact on the school, contextual factors and head teacher and teacher expertise, hamper their ability to effectively mitigate the impact of AIDS.

Although the head teacher in school one and the deputy in school four didn't think that AIDS had any impact on the leadership and management of education, as they seldom covered any classes, and head teacher in school six did not feel comfortable being interviewed at all, head teachers in schools three and five felt that their role had changed substantially. They now had to take responsibility for covering teacher sick leave, counsel sick and worried teachers and pupils, follow up on OVC who were not sufficiently cared for, and actively work to reduce negative attitudes towards AIDS within the school. While the most common sick leave cover practice was doubling classes, one head teacher described how he would cover classes: "If I don't have much to do in the office, I take the class" (HT-3). However, "if the head teacher is taking the classes, the admin job will suffer" (HT-1) and most of the head teachers delegated the responsibility to teachers in the same grade level.

Two head teachers described how they now had to spend a lot of time providing pastoral care and counselling for both teachers and pupils who were not well or were worried about their health. "I have to do a lot of counselling with both teachers and pupils. There is a lot of time taken up by counselling teachers" (HT-3). She mentioned how she had counselled one of the teachers and encouraged him to go for testing, and in the end took him to the hospital herself.

> "Last week he was sick again. He was not in school. I went to his house
> and his mother said that he had tried to do suicide. They are now on their
> way to Francistown to get treatment." (HT-3)

The way in which head teachers dealt with the increasing needs of teachers differed between the schools, as well as the needs of the teachers. "If a teacher is troubled, I send for somebody to talk to them. I don't talk to them myself. Sometimes, teachers don't want the head teacher to know. They fear about their job" (HT-3). This fear was also noted by one of the REOs, who mentioned that "some teachers still feel that if they tell the head teacher everybody will know" (REO-2). She described how she came across one case,

"where a teacher had been diagnosed positive. She was so afraid to tell the head teacher as it was a male head teacher. She withdrew inside herself and didn't come to school for over a month. She tried to take her life. Then she got some counselling and confided in one teacher. The inspector talked to her and after a while she felt confident to tell the head teacher and the matter stayed between them. She is now back in school and has begun her ARV treatment." (REO-2)

Where some, like the head teacher in school three, had taken on the role themselves, others had delegated the role to the guidance and counsellor teachers (GCT). However, not all GCT felt that it was their role to counsel teachers and one of them felt that she had inadequate skills to counsel them.

Two head teachers also described how they and some of their teachers now had to reach out to the community to support the pupils in their care. One described how she feels

"so discouraged when I see teachers and pupils struggling and the results are dropping. I have to see why pupils are not coming to school. Sometimes, I have to go to the community development committee to ask them to help with particular children who are not well cared for." (HT-5)

Another head teacher described how he was so concerned about pupils who dropped out of school that he would go to the lands, where some children were staying with grandparents, to find out what had happened and to encourage them to send the children to school. The extended role of the head teachers is not specific to schools in Botswana and the context of AIDS. Two REOs noted how the increasing and more regular levels of absenteeism, together with the changing roles and the increased workload of head teachers, meant that head teachers were also falling behind in monitoring the effectiveness of teaching and pupils' progress and attainment.

6.3.1.2.1 Monitoring pupils' learning and attainment and the impact of AIDS on pupils and teachers

Responsibility for monitoring pupils' progress and attainment falls on the head teacher. However, the educational monitoring system at the school and national level has long been hampered by lack of consistency between the school and national systems, limited standardised formats of recording, limited communication between people who hold information and who have the capacity to analyse and use data at the school level.

Pupils' progress and attainment are measured at the school level through continuous assessment in the form of recorded grades at the end of each term by the class teacher. However, there is currently no system to moderate the accuracy of these grades between classes, grade levels or schools. Though schools are expected to keep data of pupils' progress over the years in primary school, the format in which this is done does not allow for easy overview of individual pupils and classes, or a school's progress over the year. "There are no records to see how a child's life [grades] is changing from year to year or to follow up on those who are struggling" (REO-4). Nor are they connected to the pupils' or teachers' absentee levels. Many of these records were not up to date and one REO suggested that this was due to the increased workload caused by HIV/AIDS' impact on teachers and head teachers.

Pupils' attainments at the end of year four and year seven are monitored at the national level through standardised tests by the Educational Research Teaching Division (ERTD). While the year seven results give a national end-of-primary score analysed by gender, and provides information to progression into junior secondary school (JSS), the year four exam results are currently not linked to the year seven results. None of the information gathered from these tests is analysed over time, by district or school. Nor is information fed back or linked to the schools' continuous assessment to provide information for school or regional advisors' development plans.

In all six schools, the monitoring of OVC was done solely by the Guidance and Counsellors Teacher. They kept information regarding the number and status of OVC as

well as records of counselling sessions that they had had with these pupils. No standardised system was used; each GCT recorded what he or she felt was important. Few teachers were aware of the support given by GCT, nor did the GCTs know anything about the grades of OVC in other classes than their own. Only two of the head teachers worked closely with the GCT and consequently had an overview and were aware of the number of OVC in the school and how AIDS affected their lives. Interestingly, they were also the only two who took an active part in the mitigation process and were able to discuss what would be important strategies to help turn the trend around. In schools one and six there was limited communication between Senior Management Team (SMT) and the middle management team where the GCT belonged, and much of the monitoring of both teachers and pupils had been delegated to heads of departments. The head teacher had limited knowledge of the impact of AIDS on teachers' and pupils' lives, on the effectiveness of teaching and on pupils' attainment. They perceived that AIDS would not have any impact on management of education, nor did they take an active part in the mitigation.

Though the current format of the educational monitoring system and the management of the monitoring system make it difficult to monitor the impact of AIDS on pupils' psychosocial well-being and academic attainments, a few initiatives are currently being developed to rectify some of these problems.

The national curriculum of Botswana is currently undergoing a review, where continuous assessment at the school level and year seven exams will become criteria similar to the South African outcome-based curriculum and the British level descriptors. This development, once fully operational, would allow the two systems to be linked. However, there are no plans yet to link the year four exams to this system, and as mentioned by one MoE officer and one REO, there is a need to moderate the continuous assessment against these criteria across the country to yield accurate results. Moreover, they also suggested that head teachers would need to take greater interest in monitoring teachers' responsibility of keeping records up to date.

Moreover, in response to the HIV/AIDS impact study in 2002 (ABT, 2002), the National AIDS Co-ordination Agency (NACA) has begun to develop a quantitative indicator system to monitor the impact of AIDS on the education system. The Botswana Response HIV/AIDS Information Monitoring System (BRHIMS) was designed only to monitor the impact of AIDS on teachers at the school level. As this system was limited in its scope and was slow to develop, the MoE begun to develop its own system. The DART system is being designed for the classroom, school, regional and national level to monitor the rate of and reasons for teachers' and pupils' absenteeism and pupil drop-out. This data could then be analysed by age, gender, year of service, academic background, grade level, school, regions and over time. Head teachers would be responsible for completing the monthly data collection and sending it to the regional level, where some of the data will be analysed and sent back to the school. However, most of the data analysis will be done at the national level.

Though these two quantitative systems are still under development, there are currently no plans to link these with the ERTD's data on pupils' attainment or proposed continuous assessment system at the school level. Nor are there any plans to link these to national and international child well-being indicator systems or to incorporate any affective indicators. As these systems are not linked, do not monitor affective outcomes and are not moderated for accuracy, it will take a long time before they can begin to show any statistical significant impact of AIDS on pupils' learning and attainments. Hence there are still a number of design issues before the monitoring systems can begin to be used to support and become a springboard for decision-making, planning and development of appropriate and early interventions to mitigate the impact of AIDS and continue to provide quality of education for all. There are also still issues related to the need for training in order for these systems to become operational and effectively serve their purpose. While strategies of intervention and the need for an effective monitoring system will be discussed in the following two sections, the need for training will be analysed and discussed in the section "Professional capacity development vs. professional brain drain".

6.3.1.2.2 Mitigating the impact of AIDS on the school

In Chapter 4 it was argued that an effective monitoring system serves not only to inform decision-making and planning, but also as a tool to steer development in the desired direction, as suggested by Fitz-Gibbon and Green. As what is being measured most often gets done, Green (2004) argues that the only way to choose the direction of development is by "choosing what to care about enough to measure, measure it and edging towards the desired outcome" (Fitz-Gibbon, 1996, p.42). Although indicators and monitoring tools point out what is, rather than why things are the way they are, head teachers who had an overview of the impact of AIDS on the various levels of the school not only recognised the importance of early interventions but also took an active role in the mitigation process. The opposite was also true for those who had limited overview of the impact. Those head teachers with overview described how they took an active part in supporting and counselling teachers and pupils affected by or worried about AIDS. They often talked to all the pupils about AIDS in assemblies, and encouraged drama and plays as a means for pupils to develop greater understanding of the impact of AIDS and the different challenges they would face in protecting themselves. They encouraged teachers to learn more about AIDS, facilitated discussions about AIDS, covered classes to limit the impact on pupils' learning, actively worked to create an open school culture and worked closely with the community to support pupils affected by AIDS. Two head teachers also put great effort into encouraging teachers to participate in the TCB programme and had organised weekly follow-up sessions where they discussed thoughts, feelings and questions regarding AIDS and its impact on pupils, as well as strategies to support pupils. These efforts at the school level seem to have had an impact on teachers' attitudes towards teaching about AIDS, as well as towards the methodologies used at both the classroom and the school level. In school six, where the head teacher had taken a more subservient role in the mitigation process, the GCT had encouraged teachers to participate in the TCB programmes and ran workshops for teachers to increase their knowledge. As a result teachers were more open and felt more comfortable teaching about AIDS.

Although head teachers who had limited overview of the impact of AIDS on the different levels did not think that AIDS influenced pupils' learning and attainment, evidence from

those schools indicated that their teachers and pupils were not spared. Evidence within these schools thus seems to indicate that there is a link between having an overview of the impact, and the perceived importance of AIDS interventions, and head teachers' level of participation in the mitigation process. Hence in order for both head teachers and the leadership team to develop a whole-school mitigation strategy and systems that allow them to respond quickly to the needs, it would be vital that they have a greater overview and an in-depth understanding of HIV/AID impacts.

The evidence in this section indicates that having an overview and in-depth understanding of the impact of AIDS on the pupils' lives and learning played a major part in head teachers' and teachers' ability to take an active part in the mitigation process. Not only did this information allow them to recognise and identify skills that might be needed by the pupils in order to protect themselves, but it also allowed them to develop a number of different strategies to help pupils to develop these skills. In addition, it allowed them to recognise the importance of these interventions, which in turn increased their motivation and determination to solve the problems caused by AIDS. This knowledge was however mostly based on their own perceptions and observations, together with pieces of data derived from individual postholders. In the light of this and the evidence on the previous levels, I strongly suggest that it is insufficient to have a few people with fragmented knowledge and information about the impact and effective mitigation strategies. Rather, it would be paramount to develop an in-school monitoring system that on one level forms the basis for whole-school consultation and on another speedily supports the use of available resources to reduce the impact on pupils' learning. This view was supported by two head teachers who described a need for a simple monitoring system to support them in the mitigation process, and was strongly supported by officers at the regional and national level. The following section will present and discuss school level strategies and potential components that would need to be included in such a monitoring system.

6.3.1.3 Important school level factors and strategies to support the mitigation process

While most school level factors can be directly related to pupil level factors such as time or opportunity to learn and quality of instruction, there are some, such as ensuring well-being of teachers, or electricity, which are more indirectly related, and some that are not related at all such as free school meals. This was identified by REO-2, who noted how some siblings took turns to go to school during the day so that they could care for younger siblings and receive a cooked meal. While some of the following factors may correspond with factors identified by SER studies, they may not always be interpreted or need to be developed similarly in order to increase effectiveness in the context of AIDS.

An integral overview of the impact of AIDS at the different levels within the school
As noted, those head teachers who had greater knowledge of the impact of AIDS also took a more active role in the mitigation process. It would therefore be vital that head teachers and all staff members have a collective and shared knowledge base of the qualitative and quantitative impact of AIDS on pupils' lives, perceptions of self, and factors that contribute towards effective learning. Head teachers would in addition need to have similar overview of the impact on teachers.

A qualitative monitoring system of the impact of AIDS on teaching and learning and the mitigation process
In order for head teachers to be able to respond more quickly to the increasing teacher absenteeism and the changing needs of teachers and pupils, it would be vital for schools to have a monitoring system which could begin to show early warning signs, to support swift action. Such as system would need to:

- *Monitor both the qualitative and quantitative impact of AIDS.* While it is vital to begin to monitor the impact of AIDS on pupils' attainments, early signs of impact can be observed in pupils' behaviour, emotional well-being, attitudes, concentration and approaches to learning, hence in order to identify early interventions it would be important to monitor qualitative impacts, as well as those included in the DART system.

- *Focus on pupil, classroom, and the school levels as units of analysis for the school, as well as the regional and national levels for the national analysis.* The pupil and the classroom levels would be the most important to monitor, as early signs are first shown at these levels. However, it would important for the regional and national levels to begin to recognise how contextual factors may influence different areas, and how schools are affected in different areas, in order to provide greater and more targeted support. This will be explored further in section 6.4, "A portrait of AIDS at the contextual level".

- *Be easily analysable at the school level by teachers and head teachers.* The format in which data are collected need to be easy to analyse without complicated statistical programmes, so that teachers and head teachers will be able to recognise changes, consult about interventions and begin to monitor their impact. Hence there is a need for standardised paper-form systems to support this. However, these need to be easily fed into statistical programmes at the regional and national level, thus supporting Fitz-Gibbons (1992) proposition for a two-step process to ensure easy access and transparency.

- *Have standardised, yet semi-open formats to be used by GCT to record impact on OVC.* As noted earlier, formats to record the impact and support provided for GCT did not follow any standard format, nor were they easily analysable to recognise changes or development. Formats therefore need to be more standardised, yet allow for open observation and consultation. They also need to be linked to or monitored against attainments to ensure that they provide support to pupils' learning and attainments in all domains. It is however important that these carry a high level of confidentiality.

- *Be linked to the monitoring of pupils' progress and attainments and the mitigation process.* The impact of AIDS on teachers and on pupils would need to be able to be linked to attainment of individual pupils, as well as on classes, in both

academic subjects as well as goals in the four domains – not only to explore the link, but also to ensure that focus is made on factors that they can influence and progress can be recognised, shared and celebrated. As discussed at the previous levels, it would be important that pupils take an active part in the evaluation of own progress against skills, so that they begin to take ownership of their own progress and personal goals.

- *Be able to track change in pupils, classes, and school progress year over year.* While the current system of analysing pupils' attainments in standardised exams allows for tracking the nation's progress over the year, attainments and progress at the school level also need to begin to track progress over several years so that individual pupils, classes, schools or clusters of schools can be monitored and changes recognised. This would allow schools to provide support for pupils, as well as support both the allocation of teachers to classes within the schools and the allocation of teachers to particular schools to support the school's development.

In-school available supply teachers to cover teacher absenteeism and close links between schools and regional offices

The availability of non-classroom-based staff who could act as supply teachers, either attached to one school or to a cluster of schools, would be vital to mitigate the negative impact of doubling classes. Consequently there may be a call for NQT to double-teach with experienced teachers during their first year so that the experienced teacher could also support other classes if needed. It would also be important for there to be swift and close communication between the two levels.

A regular consultative approach to information finding and decision-making

In those schools which described that there were closer cooperation between the staff members, where they meet regularly to discuss pupils' well-being and learning, and cooperatively tried to solve problems and support each other, both head teachers and teachers took a more active part in the mitigation process and teachers spoke more openly

about the impact of AIDS on themselves and the community. Hence TCB sessions, if aired after school, can also become sessions for exploration of particular aspects of AIDS impact and for the sharing of ideas and successful strategies used to meet the changing needs of pupils.

Regular supportive discussion meeting about AIDS and the mitigation process

The TCB and TBS were perceived by quite a few teachers as supportive, as these provided a forum for airing feelings, thoughts, fears and questions about AIDS. They therefore need to focus not only on knowledge about AIDS, but also on skills that will help teachers take a more active part to support pupils and also each other.

Individual counselling sessions or peer support network

Head teachers described how there was now a need for teachers to have somebody within the school to turn to for support and counselling. This might not only increase teachers' psycho-social well-being, but might also encourage them to be tested and seek treatment before it is too late. As suggested by one GCT, there might be a case for having a social service outreach person located on the school premises to provide counselling to both staff and pupils and to speed up the process of support for OVC.

Whole-school activities related to the mitigation process

Whole-school processes, where pupils, staff and possible members of the community work together, can not only influence the school culture, but also help develop a stronger feeling of capacity to turn the trend around, as well as hope and skills needed in the process. There might be a call not only for a direct focus on factors related to AIDS, but also on the development of the community in general, as that would help develop pupils' feeling of ownership, leadership skills and sense of own role in societal development.

Close relationship and collaborative work with the greater community

As described at the classroom level, some teachers noted that it was difficult to teach children who didn't believe AIDS existed. Likewise, the orphan worker noted how limited links between parental death and AIDS reduced pupils' interest in learning about

AIDS and developing strategies to protect themselves. It would therefore be vital that both teachers and head teachers take an active part in educating the community about values and virtues that are important.

Though school-based learning, clear and open procedures, head teacher skills and a positive culture would also be paramount in an effective mitigation process, these will be discussed in the next two sections.

6.3.2 HIV/AIDS' impact on the school culture

National and international SER studies have shown that a positive school that is focused on learning and built on a strong shared ownership of its vision and mission, coupled with consistency of rules and application of policies, correlates positively with pupils' academic outcomes. This allows pupils to feel security and continuity in their learning, to know and feel connected to what is expected of them and what is important, and to develop a sense of trust towards teachers and staff members as they work as a united whole. The school culture in Botswana has been described as authoritarian and conformist (Harber and Davies, 1997), with a high level of dependency on directives from the MoE, competitive (Torstensson, 2000) and with a low level of morale (Bennell 2005; MoE, 2000). While the effectiveness of the school culture is already perceived to be hampered the above factors, emanating from a perceived mismatch between societal cultural values and highly bureaucratic structures, Kelly (1999b) predicted that its effectiveness would be further eroded by the impact of AIDS. He posits that as AIDS-related stigma increases and begins to pervade the societal culture, fear, denial, mistrust, secrecy, isolation, hopelessness and fatigue may permeate the school culture. The reduction of AIDS-related stigma thus plays a major role in developing an effective culture that will contribute towards pupils' attainments, support the mitigation of AIDS and help turn the trend around. This section therefore focuses on the impact of AIDS on the school culture, and strategies at the school and national level to create a more effective school culture in the context of AIDS.

Whereas respondents described numerous cases where individual staff members have displayed the symptoms described by Kelly (1999b), the school culture in the two schools that I had visited two years earlier had become more open, supportive and collaborative. Teachers, head teachers and three of the REOs also noted how the atmosphere in their schools and the schools in their district had also become more open. One head teacher described how "in the beginning, people were getting away from those who were sick. They didn't want to be near them" (HT-5), while another described how even parents didn't want their children to be taught by HIV-positive teachers. "Before the Talk Back sessions teachers didn't feel comfortable speaking with pupils about HIV, but now they are more open" (HT-1). These kinds of reactions were also found among teachers in Mozambique (Visser, 2004).

In reviewing respondents' statements, these changes can be attributed to two strategies: one led at the national level through the television-based Teacher Capacity Building (TCB) programme and its Talk Back Session (TBS), and the other by head teachers at the school level. Head teachers in schools with electricity described how the TCB's greatest impact had been the creation of a weekly forum where all staff could come together to listen and learn together. In these sessions head teachers, teachers and staff shared their thoughts, fears and questions about AIDS and discussed the content of the programme and its implications for classroom practice. Another head teacher also used these sessions to discuss the well-being of the children, teaching methodologies, and other professional development issues. Hence these sessions had helped develop a greater focus on professional development and the learning and well-being of pupils.

In the two schools who had not participated in the TCB programme, due to lack of electricity, the changes in school culture were dependent on the head teachers' efforts and the collaboration with the guidance and counsellor teacher (GCT).

> "We have worked really hard together to try to solve the problems. The
> SMT is particularly close. Teachers meet twice a month to see how they
> can support the pupils and help solve problems. If there is something that

needs immediate attention we all meet here and now and try to solve it

together" (HT-5).

One of the GCT in a non-electrified school described how much of the training about AIDS and ways to eradicate stigma fell on her shoulders, as she had received external training. One head teacher noted how her role and commitment, as well as the TCB, had led to an increase in teacher commitment.

"Teachers are really committed. So committed, that they stay after school

to help those who are struggling. Many of them also come in to work on

the weekends to prepare work for pupils." (HT-3)

Both GCT and the head teachers in the third school mentioned how they were also involved in the community's AIDS committee. Other teachers felt helpless against the beliefs and perceptions about AIDS held by the community. Both MoE-6 and the above-mentioned head teacher and GCT felt that there is a real "need to strengthen the link between the school and the parents, so that parents have the same views… as perception of identity is formed in the family, in the school and the community" (MoE-6), and many of the issues related to stigma and overcoming stigma, as discussed in previous levels, are related to perception of self, cultural values and beliefs.

Teachers described how the TCB and the TBS had helped them feel more comfortable talking about AIDS and related issues, and teachers now showed greater care for each other and those who were affected. "Teachers really care. If a teacher is sick we go and care for them. They really appreciate it. Somebody helps with the cooking, another with the cleaning if there is nobody at home" (T1/6/3). "Those who are HIV-positive feel more comfortable now. A lot of us are saying that we are HIV-positive. Some of the staff really care for us, but not all. Some give support individually" (T6/1/1). This was particularly evident in school six where teachers openly said that most of the teachers were HIV-positive. However, as stated earlier there were a number of respondents who did not feel comfortable talking about AIDS. Although there are still a number of AIDS-

related taboos hampering openness, as noted at the classroom level, a few pupils' descriptions of the school showed that they saw it as a haven away from the stigma and rejection perceived in the communities. Schools were places they knew they could turn to and receive help if they needed it.

However, though most respondents had seen a real shift to the better in the school culture and the eradication of the stigma within the school, not all teachers felt that this went beyond the TCB and the TBS. One teacher mentioned how "we only talk about things like this in the workshops" (T3/2/1). A few other statements from both teachers and REOs showed that though the school culture had become more open there were still underlying concerns and fears that hampered the relationships between the teaching staff and the head teachers and the REO. One head teacher described how "sometimes teachers don't want the head teacher to know. They fear for their jobs" (HT-3), while one REO mentioned that "teachers are saying that the head teachers are not sympathetic" (REO-2). This REO also felt that some teachers "use HIV as a scapegoat" and "fake sickness to have a day off" (REO-2). One teacher felt that "some are compassionate. Others laugh behind your back" (T3/2/1). These statements and perceptions indicate there is still a high level of mistrust between the different levels within the school. The fear of being tested would also indicate that there is not yet sufficient support and encouragement for teachers to ensure early interventions, though both head teachers and the TCB programme have made major strides in the right direction.

6.3.2.1 Summary and discussion

Similar to the relationship between the pupil level and the classroom level, where the impact of AIDS influenced pupils' ability to learn, data indicate that the impact on teachers' health, family life and psychosocial well-being impact on the school culture. This is supported by Bennell's (2005a) findings, which indicated that the impact of teachers' personal life influenced the school culture more than the level of AIDS within the school. While Kelly predicted that AIDS would lead to greater levels of secrecy and less collaboration, findings from the two schools visited earlier indicates the contrary. Instead, teachers were more open, seemed more supportive, and worked more closely

together to support the pupils. There also seemed to be a greater focus on the well-being of the children. While this may be connected to the general reduction of AIDS-related stigma in the communities, it may also suggest that as AIDS is very closely connected to societal culture and peoples' home and family life, societal cultural norms and values are increasingly being incorporated into the school and organisational culture. The use of television-based training sessions may not increase knowledge of AIDS, but these sessions have bypassed the hierarchical structure and created an opportunity for all to learn together through consultation, thus further incorporating societal cultural values into the prismatic organisational culture. However, as mentioned by a few teachers and REOs, there is still a level of stigma within the schools, affecting the way in which they see themselves, relations between different levels within the education system and teacher behaviour within the classroom. Consequently, I would argue that there continues to be a need to further develop the school culture's capacity to not only create a supportive environment for pupils to continue learning in the context of AIDS, but also to encourage early access to treatment to reduce the impact on teachers' lives and pupils' learning.

One of the more important elements of this process would be to further reduce the gap between societal cultural values and those of the organisation. While there was evidence that there are emerging cultural differences between the community types, which would support the argument in favour of studying the tension between tradition and modernity, the traditional qualities of societal culture in Botswana of self-reliance, strong focus on consultation, consensus, inclusiveness and care, are not only traits of an effective school culture, but also vital in creating a more supportive culture in the mitigation process. The adoption of the Virtues Project, as described at the classroom level, could play a vital role in achieving this goal. By incorporating the discussion of the fortnightly virtue into the weekly sessions established by the TCB programme, staff could begin to consult and identify ways in which the current expression of traditional values and virtues may need to change, and could recognise and strengthen these virtues within. This may not only create a culture of virtues within the school, but also influence pupils' learning and attainment, as it would encourage closer links between the community and the school as

more people relate and adhere to the school cultural values. This had been the effect in the two schools where the Virtues Project had been modified and incorporated into the school and the local culture, as it had been perceived as building on the own culture rather than an add-on programme.

Another important factor would to further reduce the level of stigma. However, as stigma in the rural areas was more closely related to ignorance and traditional beliefs, while in the urban communities it was rooted in perceptions about individual responsibilities and bringing shame to the family, it was suggested on the classroom level that reducing stigma would need to take different forms in different communities. Consequently, the pure transplant of strategies from one culture or country to another may not support the eradication of stigma, nor develop the school culture, but may rather distance the organisational culture from that of the societal culture further. In light of these findings, and drawing on Herek, Capitanio and Widaman, (2002) and Castro and Farmer (2005) discussed in the pupil level, and on proposed strategies using the Virtues Project, I would suggest that, similar to the capabilities required by the pupils, it would be important that teachers and head teachers work together and begin to explore to what extent cultural practices do or do not serve societal development in the context of AIDS. According to Castro and Farmer (2005) it would also be important to begin to analyse structures and actors of power, dominance, inequalities and people's perceptions of the nature of children, within which stigma is rooted. They would need to explore how these operate under pressure or when their identities are challenged, in order to begin to visualise how it could be different and how they would need to work together to develop different structures.

A third strategy would be to begin to discuss and clarify procedures in relation to supporting OVC and developing a support network for teachers. Interviews revealed that a number of teachers were unsure of procedures and who to turn to for support. As the speed at which teachers identified and reported their concern had a real effect on possible early interventions, it would be vital that these chains of command were clear and effectively used. It is vital that schools continue to take ownership of the TCB and TBS

and begin to use them not only to develop greater knowledge of AIDS, which would help eradicate stigma based on ignorance, but also as a forum for consultation about strategies and procedures to support the children, the values underpinning the stigma and how they support each other, and how they can support the pupils in developing healthy attitudes and beliefs about self and others.

Although some of these characteristics are part of effective school cultures identified by SER studies (which would support the notion that these variables are therefore universal and transferable beyond cultural boundaries), the process by which they are developed would have an important impact on the degree to which they are internalised and people take ownership. As will be discussed in the next section, some of the training and effective variables transferred have been adopted only in name, and have neither been anchored within the cultural values system nor linked to people own beliefs or vision about what is important. Hence the process of capacity development plays a paramount role in developing a positive culture capable of supporting the mitigation process.

6.3.3 Professional capacity development vs. professional brain drain

With the decline in effectiveness noted by head teachers, teachers and REOs in teachers who have AIDS or are receiving ART, and the limited change in behaviour in students at the teacher training colleges (TTC) noted by BIDPA (2003), Coombe's (2001) prediction that AIDS will contribute towards a relentless loss of skills, as the pool of experienced and effective teachers who can mentor newly qualified teachers (NQT) will decline, may well come true. In a speech in 1998, President Mogae regarded AIDS as the

> "greatest treat to everything we have achieved so far as a nation, and
> could undermine our effort to build a secure future for Botswana."
> (30/9/98)

In response the Government of Botswana has, in addition to providing free ART to all its citizens, launched a new strategy to reach out to all its teachers and schools to enhance and develop the teaching profession. Through this new strategy it is hoped that previous

difficulties can be counteracted, such as: limited human resources; top-down approaches; segmentation of the system; inadequate timeliness, strategies and monitoring systems; and strong reliance on external initiatives which are inadequately rooted in Botswana's culture, which have all been identified as hampering policy implementation and development. Previous strategies, such as the well-known top-down cascade method, where the initial participants may have had the opportunity to explore and connect with underlying values and vision, has proved less effective in Botswana, as little more remains than the pragmatic and rigid presentation of particular methods cascading down the system. People have not connected to the values, taken ownership, or been able to adjust the programme and initiatives to their contexts. Hence in Botswana this method has led to greater rigidity, information power-holders and top-down approaches. As a result, teachers and MoE officers described how this induced initiative fatigue, and how foreign programmes serve as inoculations against any form of development and change. Through the Teacher Capacity Building Programme (TCB) and its interactive part, the Talk Back sessions (TBS), it was hoped that these difficulties would be overcome through direct access to all the schools via television. Although all secondary schools have electricity and television, early viewer figures indicated that only 4% of secondary teachers were watching the programmes, whilst in the 50% of primary schools that have electricity and television, 75% of teachers were watching the programmes (MoE-7). Although the programmes were initially met with resistance, as AIDS became more viable teachers began to recognise their benefit.

In school with high levels of autonomy whole-school-based professional development is often seen as an effective school level process. While most of the influence of the teacher capacity development programmes on teachers is attributed to the national level rather than the school level, as discussed in previous sections, the involvement and role of the head teacher determined the degree to which the knowledge and skills were translated into practice at the classroom and school level.

Though this programmes has great potential in providing a forum for teacher and head teacher continuous development, both in relation to general education and methodology,

as well as in the mitigation of AIDS, the project is currently plagued by a number of teething problems that would need to be resolved in order for it to have a real effect on whole-school capacity development. Firstly, secondary teachers and some primary school teachers are often not participating in the sessions, as these sessions are broadcast during lesson time and teachers would therefore need to leave children unattended in their classes while they view the programmes. While MoE-7 suggests that this may not be a big problem for primary school teachers, as they can easily catch up, for secondary teachers this would mean that pupils would have missed that subject for the week. Hence there would be a need to look at the time these sessions are broadcast. Secondly, only half of all primary aged pupils may benefit from these initiatives at this stage, due to lack of electricity in the schools. Though the Ministry of Local Government and Land (MoLGL) has been instructed to ensure that all schools are electrified, this has yet to become a reality. Thirdly, there is a lack of communication and shared values and vision between the sponsors, the scriptwriter and the director. MoE-7 described how the aims were outlined in the programme, but these were not followed for the programmes, hence there was no sequential and coherent development of skills within and between each session.

> "They are not looking at the skills that need to be projected through the programme. As a result, the skills are random and there is no clear progression. Many of the skills are only talked about in the programme, but not shown in action. The scriptwriters are not willing to listen and cooperate with the MoE" (MoE-7).

 Fourthly has been the limited capacity of people involved in the programme development.

> "Those who were hired had only experience with HIV/AIDS, but not education. The person who is hired to train people has knowledge of AIDS but is not confident in training and asks for support all the time. I feel that there is a lot of money spent but it is not spent in the right

direction. For instance the Talk Back sessions are not looking at the cultural aspect of analysis or listening to people's cultural beliefs. They are just telling people what to do. They are not dealing with people's fears." (MoE-7)

Although conceptually this method of providing in-service training has great potential in reaching all teachers directly, the success of the programme is at the school level dependent on the involvement of leadership and the availability of electricity, while at the national level it is dependent on the cooperation and collaboration between the different stakeholders, as well as capacity development within the department itself. Though the programme has a built-in viewer monitor, there are now strategies to monitor the impact that the project is having on teachers and in the classroom (MoE-6). It would be important to view these problems as opportunities for growth and development, while at the same time recognising the great and very important impact it has already had on teachers' willingness to teach about AIDS and their knowledge about AIDS and treatment, as well as the effect it has had on the school culture. However, in reviewing the statements of teachers, head teachers, REOs and MoE officers about the skills, attitudes, understandings and qualities that pupils, teachers and inspectors would need to have in order to more effectively support the mitigation process, there are a number of points that would need to be developed to support that process. The following section will discuss the perceived need for development of head teachers in order for these programmes to become effective and for head teachers to take an active role in leading the HIV/AIDS mitigation process in their schools.

6.3.3.1 Summary and discussion

In many countries head teachers are chosen because they are good at teaching. This does not necessarily mean that they are good at management and leadership at the school level. Harber and Davies (1997) argue that if head teacher training is to be provided in developing countries, it needs to be grounded in research into the reality of their work. Hence the mere transplanting of school effectiveness variables may not only be irrelevant but may have an adverse effect. While Coombe (2001) suggested that AIDS will result in

a relentless loss of qualified teaching staff, the urgent call for training has resulted in developments and processes that could be used not only for AIDS-related training, but in general for continuous professional development of both head teachers and teachers. In reviewing those strategies that were effective, as well as respondents' suggestions and emerging development needs in relation to the development of a monitoring system, it appears that head teachers would need to develop the following skills:

- *Facilitation, training and capacity-building skills*, so that they can encourage and facilitate regular meetings in a culture of learning, where all are engaged in a process of learning on equal terms in an atmosphere of openness, trust and collaboration, to discuss and analyse AIDS, cultural values and virtues, well-being of children, mitigation strategies and approaches.

- *Appreciation for the importance of, and skills in, collecting, analysing and presenting qualitative and quantitative data*, so that they will be able to use the data to gain a greater overview of the impact of AIDS and pupils' development, detect patterns to alert them to the need to seek early support, and discuss strategies to help turn the trend around.

- *Develop transparent procedures, yet establish a culture of confidentiality and trust*, so that teachers feel comfortable to share their concerns, seek support and treatment and feel confident in engaging in learning.

- *Strategic planning skills*, so that they can prioritise, become less reactive, monitor and respond to the changing needs with greater speed and together with staff build their own vision and define important goals.

- *Orderliness and timeliness*, to ensure that monitoring is kept up to date and that data and important information are delivered in order to support early interventions.

- *Delegation of responsibility while maintaining an overview and direction of development.* This would also need to involve the ability to create a shared overview of the impact of AIDS and a knowledge base of effective strategies to mitigate the impact.

- *To nurture the growth of capacity in others***,** so that there is a continual growth of capacity within the schools.

- *Community liaison skills***.** It would be vital that head teachers not only develop skills in understanding and liaison with the greater community, but also in building and developing its support for the development of the pupils.

- *Analysing underlying cultural values and beliefs*, so as to begin to separate current norms from important values that can play a vital role in the mitigation process. They would need to do this in such a way that people feel comfortable and can connect with the values, while at the same time critically questioning and exploring old, current and new norms. It would therefore be important that they begin to bring some of these new norms based on cultural values into the school culture and school processes.

To conclude, the Government of Botswana, MoE and people at all levels of the education system have made great strides in enhancing teachers' knowledge of AIDS, reducing the stigma and developing systems to monitor the impact. Though these have had a real effect, which may explain to some degree why the attitudes, efforts and commitments that people are showing seem to be more open than shown in studies in neighbouring countries, there are still serious steps to be taken in order to begin to curb the impact and turn the trend around. Amongst such steps, I argue, would be firstly to develop an effective monitoring and indicator system that can monitor the qualitative and quantitative impact of AIDS and development towards the goals proposed in the four domains. Secondly, through systematic research identify and explore to what extent the proposed goals would lead to the long-term outcome of children living long enough to

actively contribute to societal development and the reversal of this horrific trend, and the identification of processes and methodologies that would support such goals. The following section will explore how the School Effectiveness Research paradigm and the Educational Indicator Research paradigm can support such development through the use of the findings from this study.

6.3.4 Summary and discussion of the impact of AIDS at the school level

Ideas and programmes from NGOs, charities, individuals and groups have played an important role in spreading the message about AIDS and educating people about its transmission and forms of prevention. In reviewing the findings of the impact of AIDS on the different levels of education from this study, as well as, others that have become available during the course of the research, I have come to the conclusion that it is now high time to begin to look deeper and through research develop outcomes and processes that would need to be integrated into early years and primary education, outcomes and processes that would not only help turn the trend around but stamp out the infection on a long-term basis. Although both the School Effectiveness Research paradigm and the Educational Indicator Research paradigm have been used to monitor education and hold schools accountable for their outcomes, their design and well as their founding assumptions, methodologies and intended outcomes clearly differ. This, I argue, determines their suitability and usefulness in different contexts and at different stages of development. Hence, rather than seeing these two paradigms as possibly interchangeable in the context of AIDS, I argue that they need firstly to be used one after the other, before they could be used at the same time or, as I propose, together.

In light of the findings from this study of the impact of AIDS on the different levels of schooling in Botswana, and the consequent need for a shift in the role of education, its goals and methodology, and the current stage of developing effective strategies and methodologies of interventions and prevention at the different levels, I argue that a pure SER study, as it stands today and at this stage of the mitigation process, is neither desirable nor possible for a number of reasons.

1. At the level of principle, the context of AIDS challenges the underlying assumptions and goals of universality at the pragmatic level of the current SER paradigms, as it has shown that that process may not be stable over time, nor may it yield similar results in the context of AIDS. Moreover, a system that regards equity and sameness on the pragmatic level rather than on the level of the equality and value of humanity can, as suggested by Slee and Weiner (198), Bollen (1996), and Rea and Weiner (1998), easily lead to a culture where people feel objectified and marginalised, which in the context of AIDS would further reduce children's perceived capability to take an active role. Within this context it would be vital that equality is based on acceptance of diversity rather than sameness.

2. Though a number of proven effectiveness variables may correlate positively with educational outcomes in the domains concerning learning to learn, know and do, the impact of AIDS on the different levels has reduced the effectiveness of most variables that have proven to be effective in other studies. Hence it is likely that these variables at this stage of development will correlate insignificantly with pupils' outcomes.

3. The focus on limited educational goals in standardised testing in maths and language is likely to define the goals of education too narrowly and thus further marginalise the important goals and subjects that are vital in the mitigation process. Some of these subjects are already marginalised due to the ill health and low energy levels of teachers and through the practice of doubling up classes to cover absenteeism.

4. As the development of effective process variables to mitigate the impact is in its early stages and many schools and teachers have yet to identify and implement methodologies that will lead to long-term outcomes, a SER study in its current form is unlikely to support the identification of processes that are effective for these goals, as it is argued that methodologies may need to differ for different subjects as well as educational outcomes.

5. Although this study suggests a number of possible processes that may prove to support the development of the different educational outputs and outcomes in the four domains, the development of these has not yet come to a level where they

would show any positive correlations. It would therefore be more valuable at this stage to develop these effective strategies first, through experimental processes and research, as suggested by Fitz-Gibbon (1996), before they are measured through a SER study.

6. Leadership and some school level factors have been shown to play a vital role in schools' ability to understand the impact and take an active role in the mitigation process. However, in this highly centralised system many of the school level factors are connected with regional and national factors. Consequently many of the school level variables may show limited statistical significance, as the variance between the schools may be too low.

7. As will be presented and discussed in greater depth in section 6.4, 'A portrait of AIDS at the contextual level', the context of AIDS in Botswana challenges both the definition of other contextual variables as well as their methods of measurement. In support of Rea and Weiner (1998), rather than trying to control for the context of AIDS it would be vital to try to understand how it operates and its various influences over educational processes. Moreover, as has been shown at previous levels, the contextual variables of both culture and community change over time, which may suggest that even the methods of measurement may need to change with these developments. In addition, the impact of the context of AIDS differs not only in different communities and SES, but also at the different levels of education. Without a system that monitors both the qualitative and quantitative impact of AIDS at the different levels of education, it would be difficult to measure or for that matter control for the contextual variable of AIDS, in order to identify effective process variables.

This is not, however, to say that the SER paradigm cannot have any function within the context of AIDS in the developing world. Rather, as intimated in the introductory chapter, the context of AIDS poses a developmental challenge to the current form and use of the research paradigm, that I suggest can partially be resolved through the use of the Educational Indicator Research paradigm. While proposed SER modification will be

presented at the end of this discussion, the following section will present how the EIR can provide an important complementary role.

Where the current form of the SER paradigm falls short within this context, the EIR paradigm can play a vital role as a monitoring tool, generating both quantitative and qualitative data about the impact of AIDS at the different levels of the education system as well as monitoring development towards the proposed outcomes. Although one of the critiques against both the paradigms is their influence on the direction and value of educational goals, in the context of AIDS, I argue however that there is a need for such a shift: its direction needs to purposefully support the reversal of the AIDS trend. Rather than focusing on narrow educational outcomes, the EIR paradigm focuses on what has been identified as important enough to be measured. Consequently such a model allows for the development of contextually sensitive academic and affective outcomes, as well as output measures. Although SER studies have begun to measure over time, most studies continue to measure the magnitude at one point of time. EIR on the other hand is designed to collect data on important indicators on a regular basis, thus allowing for the study of changing trends in the impact of AIDS on children and processes of schooling, as well as monitoring the progress of defined outcomes. The indicator system can thus serve as a gauge to show to what extent already defined problems influence processes of learning and outcomes. Although indicators identify what is, rather than why, they can provide valuable information about the impact of AIDS that can support the decision-making. Through consultation this information can serve as a springboard to identify intervention strategies or processes. An indicator system can thus support the identification of early intervention strategies, if reported on a regular basis. In the context of AIDS, some indicators related to pupils and teachers may need to be reported on a termly basis, while others related to the context on an annual basis. At the pupil and the classroom level, it is therefore important that indicators that measure the impact of AIDS are linked to processes and interventions that can easily be identified and used to support the children, classes and teachers. Hence, monitoring AIDS impact on pupils' perception of own capability, both in relation to schooling as well as in relation to the mitigation process and societal development, can be linked to educational processes that support

related outputs at a particular level. In order to support the decision-making and intervention process, it is important that the flow of specific information is directed towards the units of decision-making power at the different levels.

While the problem location indicator system may be most appropriate for monitoring the impact of AIDS, as it can report on already identified problems such as continual or regular failure to hand in assignments, change in behaviour in the classroom, or absenteeism, the system modelling approach may be more valuable in monitoring progress towards the goals, as this provides a greater scope for development and the use of positive indicators. Rather than actually designing a two-tier indicator system that uses both types, the impact on AIDS can be measured as a contextual impact on factors affecting pupils' learning in both affective and academic outputs and long-term outcomes.

However, the development of an indicator system is not an easy task. As indicators are not value free, but rather measure what is valued, it is paramount that the selection and development of indicators is based on a thorough understanding of the system, so that a balance between both affective and academic outcomes is included and does not detract valuable attention away from other important goals. I therefore propose that the goals identified in the different domains are firstly integrated into the greater whole of the curriculum; and secondly that level descriptors that identify stages of development towards these goals are developed in line with the newly developed curriculum. A balance of educational outcomes that would need to be developed into indicators can thus be identified. Process indicators can be developed that are linked not only to the particular goals but also to different stages of these goals. These could be developed through consultation at individual schools, or in clusters of schools through consultation at the regional levels. Hence part of the indicator systems could be used purely at the school level. While indicators may more readily migrate across national borders, the analysis of the impact of contextual factors such as culture and community may suggest that the tools to monitor these indicators may need to be contextually and culturally sensitive.

Pupils' statements from this study, I propose, would play a vital part when developing monitoring tools such as attitude, perception, feeling and locus of control rating and agreements scales, self and relationship reports, to monitor pupils' reaction and perceptions about AIDS, as well as, progress towards some of the goals. As mentioned earlier in discussing this level, it would be important to develop standardised formats to monitor not only findings identified by GCT, but also observational schedules to be used by teachers. Some indicators, such as measuring the development of children's moral reasoning, or their ability to identify and solve problems in real life, could for instance be included in standardised tests and administered in conjunction with these. The development of such tools would not only carry a high level of face validity, but would also need to be tried and tested before the system could be rolled out. Consequently, further research into the development of the goals, the processes and the monitoring tools is needed.

The ability both to gather data as well as analyse it requires the development of skills that might not be readily available within the school community. I therefore propose that in collaboration with the University of Botswana a particular unit of a certificate, diploma or degree be developed that focuses on developing, administering, collecting, analysing and using data. Part of this course could include visits to the different schools to administer the tools and analyse the data. This would not only allow students to play a vital role in administering and analysing the data at the school level every year, but would continually ensure that teachers begin to develop these skills and that an increasing pool of data-skilled teachers enters the schools.

However, alongside the development of an indicators system it would be important to begin, through experimental action research and evaluation, to develop and implement the proposed goals and processes, and begin to evaluate to what extent these processes can in fact contribute towards these goals and how they may need to be modified to help pupils develop the necessary capabilities.

The Educational Indicator Research system can thus play a vital part in the process of both monitoring the qualitative and quantitative impact of AIDS as well as pupils' progress towards proposed educational goals. By developing a system that monitors not only primarily academic outcomes, but also vital affective outcomes contributing towards helping pupils to make healthy long-term decisions and take an active part in turning the trend around, I propose that EIR can serve as a tool to identify effective processes against these outcomes, through a multileveled SER study. The use of EIR thus allows for the measurement of a balance of important outcomes, as well as for the development of tools to monitor its progress. In addition, by developing these within the schools through a process of experimental action and research, it may be possible to identify the statistical significance of these processes in certain schools. Consequently it may be possible to identify and measure not only contextually sensitive, but also outcome sensitive effectiveness variables. By merging the two paradigms, and valuing not only narrow goals but also goals that are at the core of every individual, the negative side-effects of SER such as the marginalisation of subjects and of people whose strengths do not lie within the language/maths spectrum may be minimised, as these goals may be a closer fit to cultural values and beliefs. Though such a merger would probably spark a storm of critique, it may also resolve some of the critique identified in Chapter 2.

While SER has been used to compare the effectiveness of educational systems across national borders, as stated in earlier chapters, this study proposes that the real strength of SER and the study of contextual variables lies not in international comparisons by controlling for the context of AIDS, but rather in the development of a greater understanding of how this context influences pupils, teachers, and head teachers, and the processes involved in effective schooling within this particular context. Nevertheless, in order to begin to understand how the context of AIDS impacts on other contextual factors' influence on processes of learning and at the different levels, it may be important to begin to monitor and measure these. The following section will provide a short overview of the inextricable link between the context of AIDS and other commonly studied contextual variables, as identified through this study.

6. 4   A portrait of AIDS at the contextual level

There are still researchers who contest the existence of the compositional effect of different contexts on pupils' outcomes. As argued before, there is no doubt that AIDS can no longer be seen as a heath issue alone, but rather as a context in its own right that influences all aspects of schooling. Though this study has not statistically measured or controlled for the compositional effect of AIDS, in reviewing the evidence there is no doubt that the context of AIDS influences pupils' learning and attainment. There is, however, a need to develop suitable tools to measure the context of AIDS before it is possible to verify this claim. Like other contextual variables, AIDS has been shown to change over time and this influences the selection of process variables and other contextual variables. However, unlike the most commonly contextual variables mentioned in this study, the context of AIDS also challenges the School Effectiveness Research paradigm's underlying assumptions of universality. It necessitates a shift in the goal and role of education, and proposes a need to reassess the measurements of other contextual variables. As will be presented in the different sections, the evidence also suggests that the context of AIDS' influence on the different levels of the education system varies. While the study of contextual or compositional variables within the SER paradigm has primarily focused on controlling the context to identify universal effectiveness variables and to measure their magnitude, in the light of these findings I strongly support Rea and Weiner's (1998) argument that the real benefits of the study of context is to understand how it operates, how it contributes to or impedes teaching and learning, as well as the cumulative effect on other contextual variables that have been found to influence pupils' outcomes. Though I propose that it would be possible and potentially beneficial to conduct a modified SER study within the context of AIDS, with the use of EIR to measure the changing form of context of AIDS and with the proposed redefined educational outputs, in order to do so it would be important to understand how AIDS influences other contextual variables and how these may need to be measured. Drawing on data and analysis from the pupil, classroom and school level, the following sections presents an amalgamated analysis of the inextricable link between AIDS and other contextual variables. These sections thus explore the link between the embedded case study of AIDS' impact on the different levels of schooling and the local context that

this study is situated within. They highlight both how AIDS may influence other contextual variables and how these may influence the impact of AIDS' effect on schooling. It will suggest factors that would need to be taken into consideration when defining, measuring, monitoring and controlling for the commonly used contextual variables.

6.4.1 AIDS and the context of socio-economic status (SES)

The context of SES is in many countries in the West measured through the proportion of pupils receiving free school meals. A high percentage has thus been found to have a negative effect on pupils' attainment. In the context of AIDS, free school meals have been shown to increase regularity of attendance and support concentration, but in Botswana it would be neither an appropriate nor possible measure, since all children receive free school meals. Rather, this study has shown that factors such as those listed below may influence to what extent AIDS will impact on pupils' lives, well-being and learning.

- Proportion of orphans who receive food baskets from the government
- Proportion of children who come from destitute families
- Number of children dependent on income-generating adults
- Number of children dependent on grandparents.
- Family constellation and extended family support close by
- Number of siblings within the family

The last item's importance stems from the fact that pupils who have lost parents may still receive emotional support and a sense of belonging from siblings. Children from one-child households may feel tremendously displaced and lonely, as shown by the boy who had lost both parents and an older sister to AIDS.

The highest percentage of orphans were found in the school where a large proportion of pupils came from single-parent households. These teachers also reported the greatest

drops in grades and negative impacts on pupils' psychosocial well-being. The head teacher also described how part of the children's education was disrupted when they had to move to be cared for by relatives. A few children and teachers also mentioned how AIDS influenced the family economy, with the increasing cost of funerals, caring for orphans and sick family members.

6.4.2 AIDS and the context of culture

The study of culture within SER studies is uncommon other than as a tool to interpret findings. However, as this study has shown, cultural beliefs, values and practices influence the way in which pupils learn, relate to AIDS, stigma and the spread of AIDS. Factors such as gender identities and values about families, relationships and community have also been shown to be influential. Though I have found no study to date that researches into Hofstede's tensions in Botswana, the limited focus on rituals, the high level of inclusion, and a relaxed society may indicate that Botswana has a low level of anxiety avoidance (UAL). Nevertheless, the majority of pupils displayed high levels of fear and anxiety about AIDS, while few pupils had strategies to protect themselves and help turn the trend around. Many pupils felt that hope in the future was dependent on external factors, rather than through their own volition. Though this may contradict Hofstede's argument that people with low UAL feel more in control of their lives, Hofstede has not taken into account prismatic societies and the tension between modern and traditional in former colonies, and the mismatch between them described by Preece and Mosweunyane (2003). Moreover, though Hofstede suggests that cultural values are stable over time, findings at both the pupil and classroom level indicated that the level of collective values differed between community types. In order to study the context of culture I propose that the following factors be researched, as these have been shown to impact on the degree to which AIDS influences pupils' lives and learning.

- People's perception of self and the nature and roles of gender
- Masculine and feminine values
- Traditional vs. modern values and beliefs

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- Collective vs. individualistic societies and their respective definition of socialisation and maturity

- The culture's descriptions of children and upbringing and their role in society

- Cultural provisions for personal growth

- Cultural and religious beliefs about life and death, the purpose of life, and the source and purpose of difficulties and tests, would also influence the way people react to AIDS

- The type and impact of stigma

6.4.3 AIDS and the context of community

Though the six schools could be categorised according to whether they are rural or more urban schools, a closer look at the community constellation would reveal that each community has its own characteristics. School effectiveness studies have primarily compared urban, rural, and suburban community types. In Botswana communities may need to be divided into longstanding historical larger villages, smaller villages, mining towns, suburban mining towns, and towns along the main tar road and railway line, as the impact differed between these community types for a number of reasons. Findings also showed that the impact of community type on children differed from that of adults. Not only did the community type influence the way in which children experienced fears about AIDS and about how OVC were cared for, but it also influenced the number of days that teachers may need to be absent to seek treatment, the number of teachers on ART, and the type and speed by which stigma was reduced. Hence the exploration of community type may need to take into account its impact on different levels within the educational system and its links with culture. Moreover, the community type influence also seemed to be less stable over time, as sick teachers were transferred to towns for treatment, while children were sent to the villages to be cared for by grandparents. This trend was later reversed, as people were unable to work and moved back to the relatives to be cared for. Consequently it would be important to take the following factors into consideration, as these have been shown to be influential in determining the extent of the impact of AIDS in different locations.

- People's connections and relationship within and to the community

- History of the town: to what extent do people have a long commitment towards the development of the community and the well-being of the people?

- Family constellations within the community

- The visibility of AIDS within the community

- Work opportunities for both parents within the community, or are partners encouraged to live apart because of work.

- Closeness to hospitals and medical facilities

- Stability of people living within the community: are people living there permanently or temporarily?

- Facilities and closeness to main tar road, electricity and railway lines

6.4.4 AIDS and the context of governing structure

The study of governing structure within SER has mainly tried to ascertain the different effects of different types of management such as government, church or independent school. Levels of autonomy and cohesion with the community have been explored as contributing factors. As shown in this study, centralisation, level of autonomy and the head teacher's expertise play an important role particularly at the school level. This had a ripple effect on the classroom level and to what extent AIDS impacted on pupils' learning and attainment. While this has been shown to increase the effect that AIDS is having on pupils' learning, the high level of centralisation and the link with the national level may make it hard to detect any statistical impact of the compositional effect of governing type. However, in order to understand this effect the following factors may be important to monitor.

- Type of management within the school: collegial, top down

- Ownership and knowledge of strategies, policies, procedures and monitoring systems

- Level of autonomy

- Educational level of the head teacher and his/her ability to be flexible to meet the changing needs

- Head teacher's and school's relationship with the regional and national level

- Policies in relation to hiring and firing teachers, promotion (some policies encourage people to be transferred in order to be promoted)
- Social cohesion and links between the school and families, groups, agencies, service in community

6.4.5 AIDS and the context of grade-phase

The study of grade-phase within SER has primarily focused on pupils. Findings showed that knowledge of AIDS and the impact of AIDS in the family affected pupils in the lower end of the primary school differently from those at the upper end. However, unlike other studies, findings showed a difference at the teacher level, as teacher mortality and attitudes towards risky behaviour differed between teachers in the different grade-phases. Hence the following factors may need to be explored when understanding and measuring the grade-phase effect in the context of AIDS.

- Children's level of empowerment, moral reasoning stages, and stages of intrinsic self-esteem and regulating behaviour
- Stages in grieving processes
- Ways in which children react to AIDS in the family at different grade-levels
- Children's knowledge and understanding of AIDS
- Children's ability to understand and express their feelings and reactions
- Educational background of teachers within the grade-phase
- Attitudes towards relationships and gender roles.
- Family constellation of teachers in the different grade-phases

6.4.6 Summary and discussion of the impact of AIDS at the contextual level

The study of the compositional effect of different types of context has variably contributed towards a greater understanding of the relationship between the world around the school and the impact that schools may have on pupils' learning and attainment. While a pure SER study at this point in time might show limited magnitude of the context of AIDS on pupils' attainments, the evidence from all levels clearly that AIDS' impact on

all factors influences learning and attainment in both academic and affective outcomes. Moreover, as shown at this level, the context of AIDS also challenges both the definition of other contextual variables and the ways in which these needs to be measured and controlled. While AIDS itself has been shown to have the greatest impact on pupils' learning, the combination of AIDS, community type, SES and culture may be the most important to study when trying to identify processes that can effectively contribute towards the long-term outcome of survival beyond the schooling years. However, AIDS makes these variables rather unstable over time, which suggests that even the methods of measurement may need to change according to these developments. To complicate it further, these data also suggest that some of these contexts have a differential effect on pupils and teachers, which means that not only will there be a direct effect on pupils, but also an indirect effect via the impact on the teachers. However, without a system that monitors the qualitative and quantitative impact of AIDS at the different levels of education, it would be difficult to measure the magnitude, or for that matter control for the contextual variable of AIDS, in order to identify effective process variables.

While it may be possible to do this through the use of an indicators system, the value of understanding the context of AIDS and its inextricable links, with other contexts, to pupils' learning and attainments, lies in finding strategies to help turn this horrific trend around. I therefore propose that these findings pose a real challenge to the SER search for universality at the pragmatic level in its current form, and subsequently endorse Bahá'u'lláh's (1986, p.213) words spoken in the late nineteenth century, that

> "every age has its own problems, … the remedy the world needeth in its present day affliction can never be the same as a subsequent age may require."

7

EDUCATION – CREATING A WINDOW OF HOPE FOR THE FUTURE

"Every child is potentially the light of the world . . ."
'Abdu'l-Bahá (1978, p. 130)

At the first inception of this study in the late 1990s, when none of Botswana's school inspectors predicted how AIDS could have any impact on the provision of Quality of Education, few Ministers of Health and Education in Southern Africa regarded education as a paramount instrument to mitigate the impact of AIDS on children and the nation. Only a handful of studies had begun to predict how AIDS would influence education and some governments were beginning to commission quantitative AIDS impact studies of the education system. Since then research projects, publications and AIDS mitigation projects have mushroomed, exploring the impact of AIDS on children, teachers and education from different theoretical perspectives and using different methodological paradigms.

However, the design and outcome of this study continues to be of great consequence to the emerging field of AIDS and education. From an interdisciplinary and through a multileveled approach, this study has presented and analysed children's, teachers', head teachers', and regional and ministerial officers' perceptions of AIDS and its impact on their lives, learning, teaching and the management of education. It has merged this data and analysed it, together with findings from other studies exploring singular factors in this field, thus providing a tapestry of the impact of AIDS on the different levels of education, which is not only relevant to Botswana but possibly also applicable to other countries.

By framing the research within the School Effectiveness Research paradigm, it has, in addition, provided an overview of the many ways in which AIDS influences and reduces pupil, classroom, school and contextual level factors that have proved, through the SER paradigm, to correlate positively with pupils' outcomes as well as learning towards life-long goals. Through its overview and strong focus on pupils' voices, it has provided a much needed complementary angle to the bulk of quantitative and narrow, yet in-depth, studies that this embryonic field has produced thus far. However, this study has not only contributed to the field of AIDS and education, but also poses development challenges to the SER and the EIR paradigms, as it proposes a merger between the two separate paradigms in order to monitor the impact of AIDS and to play a vital role in identifying effective process variables within the context of AIDS.

Through exploring AIDS as a contextual variable, it challenges the SER paradigm's search and claim for universality, once contextual variables have been controlled, both now and in the future, as AIDS causes a shift in the relative values of educational goals. It challenges the definition, interpretation and the measurement of contextual variables in different countries, and suggests a need to identify new methods of studying school level factors in highly centralised systems, where school level factors are inextricably linked to national level factors and variations between schools are too low and thus hard to statistically detect.

The following sections will present key findings and conclusions to each of the three main research questions. This will be followed by an evaluation of the research design and implications for further research.

7.1   Research question 1: What impact does AIDS have on the education system in severely affected areas?

The impact of AIDS on the management of teaching and learning in primary schools in Botswana leaves us in no doubt that AIDS is no longer just a health problem. Its effect stretches across all strata of society and influences all levels of the education system,

family constellations, community life and people's hopes and aspirations for the future. It challenges long-held cultural values and modern norms as well as prevailing quick-fix mentalities and power relations within and between societies and nations. It forces us to examine our perceptions of identity, our perceptions of the nature of people and children, prevailing organisational structures, goals and roles and the effectiveness of current practices, in not only education but also leadership at the individual, community, national and global levels. It affects not only those who are directly infected by the virus or affected through AIDS within the family, as many studies would have us believe, but as this study has shown, it influences all children and adults within the education system to various degrees and in different forms.

Although the current orphan ratio in the schools studies are lower than the 50% among 10-15 year olds predicted for 2010, in a lower AIDS prevalence area with a high proportion of single-parent households 18% of pupils were orphans, compared to the 1-11% in the high prevalence area. While most studies have focused primarily on orphans, data showed that pupils are severely affected from the time they begin to suspect that their parents are ill. Children's behaviour begins to change. They begin to withdraw, become quiet, depressed, listless, often tearful and scared or unable to express what is happening to them and how they are feeling. The anxiety and sadness involved in having sick family members at home affected pupils' perceptions of self, their hopes, aspirations and available options for the future. It reduced their focus and available time for learning, socialising and building friendships. Many of them also described fewer strategies to protect themselves, and did not see how they could play a role in the mitigation process or create a better future for themselves. Although orphanhood is a relative new concept in Africa, and many children still live with extended family members while parents work away, children's descriptions of what happens when you become an orphan indicate that the incorporation into a new family is not as smooth as previously perceived. The fears of becoming an orphan, being teased and shunned by the community and sometimes also by relatives were strong among many children. This was particularly evident with children from nuclear families and those in the urban communities, where pupils perceived that children were less cared for by the community. However, in comparison to Zambia which

has a growing number of child-headed families, only two pupils in this study had not effectively been incorporated into the extended family in the end.

Although orphans and vulnerable children are most affected, the evidence strongly indicates that AIDS impacts on all children's lives, learning and attainment. AIDS-related fears and anxieties of becoming infected, parents being sick, losing loved ones and becoming an orphan, are in the forefront of an overwhelming majority of children's minds most of the time, regardless whether they have heard about AIDS from television or teachers or experienced it first hand in the family and community. It influences the way in which children interpret what they see, hear and experience, their decisions, their hopes and aspirations and how they see themselves in the future. AIDS also featured strongly in the majority of children's perceptions of the future. Though it is not possible to say from this study to what extent AIDS has changed pupils' perception of the future, as no baseline study has been made, it was distressing to see that such a large percentage of pupils perceive such apocalyptic futures for themselves and Botswana. This is particularly disturbing, since hopes of a positive and hopeful future, based on an understanding of the present, play a vital role in the development of thrift, delayed gratification, patience, and long-term thinking, all crucial skills in protecting oneself against AIDS and taking an active part in turning the trend around. Findings showed that pupils with apocalyptic perceptions of the future had proportionally fewer strategies to protect themselves and did not see how they could participate in turning the trend around or having an impact on their own future. Nor did they have any strong hopes in the people around them and their ability to support them.

AIDS not only impacts on all pupils' family life and psychosocial and economic well-being, but it is also impeding all factors that have been identified by the SER paradigm as correlating positively with high academic outcomes. Hence all pupils' ability to learn in school is severely hampered by the impact of AIDS. Moreover, this impact also inhibits the development of long-term outcomes that would allow pupils to develop healthy relationships, contribute actively to societal development and live fulfilling lives. However, pupils' ability to learn and attain are not only affected by the AIDS impact on

their own lives, but also by the impact on their teachers and factors at the school, regional and national level.

Although the majority of children did not perceive how they could play a vital role in the mitigation process, many of them displayed great compassion and willingness to support those who were ill and those who had become orphaned. Likewise, and in contrast to studies in Mozambique, many teachers felt that they had a grave responsibility to teach pupils about AIDS and take an active role in the mitigation process, even though they themselves felt uncomfortable talking about AIDS.

Fears and anxieties about becoming infected or being HIV-positive, losing loved ones or their love, are not only relevant to pupils but also to teachers and head teachers. It stops them from being tested and from seeking much needed help in time, openly talking about how they are feeling and thinking rationally about their options. They too feel the stigma of the communities. In addition, they feel the financial strain and worry about taking in relatives' orphans and caring for sick family members.

Teachers who suffer from AIDS often lose hope in the future, withdraw, become depressed, feel exhausted and unwell, and display many of the symptoms described by the pupils, and as a result are regularly absent from work. Even those who are receiving ART are often tired and not feeling themselves and have to take time off from work to receive treatment. The evidence clearly indicates that this not only affects their lives, but it also impedes most of the factors that have been identified by SER studies at the classroom level as contributing to pupils' attainment. Hence the effectiveness of teacher preparedness, planning, assessment, methodology, and teacher behaviour is being reduced for all pupils in all subjects taught either by a sick teacher or in a parallel class to one that is sick. While other studies in Botswana suggest that teacher absenteeism is still relatively low, teachers and head teachers perceive it as a real problem. It affects not only those pupils whose teacher is sick, but all pupils in the same grade-level because classes are doubled up, as national and regional policies stipulate that sick leave cover can only be arranged when a teacher is absent for over two weeks. Pupils are thus taught

in classes of up to 60 pupils in a small two-form entry school. Consequently, methodologies are changed. Effective teaching is often reduced to whole-class lecturing and copy work. Subjects that do not lend themselves to whole-class teaching are suffering, as they are often not taught during these periods. Other important subjects that are vital for the mitigation process are also becoming less frequent as these are perceived as too energy consuming for many unwell teachers. As suggested by Creemers'(1994) SER model, factors at one level impact on the next. In the case of Botswana and in the context of AIDS, the impact of AIDS at the pupil level, general ineffectiveness at the school level and the impact of AIDS on teachers are all hampering pupils' learning and attainment.

The studies exploring AIDS' impact on education have concluded that AIDS does not pose a real threat to the education system or pupils' learning, because the system has the capacity to train enough teachers to replace those that have died. However, this study has shown that the cumulative impact of AIDS on pupils' and teachers' lives, as well as the effect on school, regional and national level factors, and on teaching, learning and attainment is acute for both academic learning and for the learning needed to turn the trend around. Teachers and head teachers noted how grades were beginning to go down for pupils who were suffering from AIDS or who were being taught by teachers who were sick. Though more teachers may have access to treatment that will enable them to live longer and thus continue teaching, their effectiveness, as suggested by this study, continues to be reduced. Moreover, though most head teachers are perceived to be HIV-negative as many of them fall outside the high-prevalence age bracket, within a few years when new and younger head teachers are replacing these head teachers it is possible that more head teachers will be HIV-positive and be receiving ART. Not only is AIDS currently impeding all factors at all levels that have been shown to correlate positively with pupils' attainments, the effect is likely to change a number of times as the epidemic evolves.

While remaining in school and gaining high grades has been regarded by some studies as the answer to keeping children safe, data indicates that the current school system with its

goals and processes is not sufficient to curb infection rates, as indicated by the proportion of pupils who have, through their top grades, received scholarships to universities overseas but have returned home in coffins or medical chartered planes.

7.2   Research Question 2: What educational components would enhance pupils' ability to develop capabilities that would allow them to make healthy and proactive choices about behaviour now and in the future and take an active role in turning the trend around?

While the School Effectiveness Research paradigm has taken the comfortable position of accepting traditional goals of education as de facto, the impact of AIDS on pupils' lives and their learning leaves me to draw no other conclusion than that we can no longer avoid the important debate of the goal of education and what role and direction it must serve in different societal development, as well as in global development. As has been shown in this study, knowledge of AIDS transmission, symptoms and prevention does not automatically lead to attitudes and behaviours that lead to safe practice, neither in pupils nor in adults. Nor does it lead to a secure feeling of having the power to prevent infection, or becoming an active change agent for turning the trend around. Instead the data and analysis have proved that factors such as self-esteem, perception of the nature and role of gender identities, perception of relationships, values of self, the ability to stand up for own rights and the right of others, moral reasoning, perceptions about one's role in society and cultural taboos, norms and beliefs, play a role in translating knowledge into behaviour and the development of preventive strategies. There is also evidence to suggest that having the ability to understand and recognise how AIDS influences the family and the community, as well as the ability to explore different possibilities and options, may be important factors helping pupils to recognise their own capacity to act and identify their role in turning the trend around. Consequently, I draw the conclusion that the key to real AIDS prevention strategies lies not in simple and superficial information programmes about AIDS transmission and prevention strategies and easy access to condoms, which have been the major focus of many international aid

programmes and prevention schemes (though this remains important), but rather in a more deep-rooted process involving the redefinition of the quality of education.

I therefore propose that a greater balance is made between more affective goals in the domains "Learning to Be" and "Learning to Live Together", and the more traditional goals within the domains "Learning to Know and Learn" and "Learning to Do", although it would be important that pupils begin to explore how skills, attitudes, concepts are transferable between the two. Consequently pupils would need to develop lateral and strategic thinking and long-term planning, vision-building and problem-solving, based on an understanding of interdependence and system thinking in relation to all domains. Pupils would also need to develop practical skills in safe health care and first aid, consultation and leadership skills. They would need to develop a strong sense of self, an emerging intrinsic self-esteem and the ability to analyse, explore and challenge traditional and modern values, cultural norms and perceived gender identities and roles. They would need to begin to develop their own values and virtues about self and others, a strong sense of equality, the ability to develop personal plans and visions to support their decision-making, the development of thrift, moral reasoning, and healthy friendships and perceptions of relationships. This however requires capabilities and understanding that do not come purely from systematic and linear development of skills in basic subjects such as maths, language and science, though these are of great importance, but rather through an interdisciplinary and conceptually coherent approach.

In support of Jamieson and Wikely's (2001) critique against the SER paradigm, the findings from this study confirm that educational goals and subjects such as these require different methodologies.

However, rather than applying and transferring existing and well-tested effectiveness variables to the context of AIDS in Botswana in order to identify educational process practices that will support the mitigation process and correlate positively with these goals, the extensive interdisciplinary literature review and findings from this study confirmed that such an approach would not provide valid results or useful information at

this stage in the development of the mitigation process, as neither the suggested methods nor the above-mentioned goals have had a chance to be tried and developed. Drawing on respondents' suggestions, psychological theories, the Virtues Project, processes linked to local communitarian citizen development and findings from SER, I propose that strategies such as the following are likely to support the development of the many affective outcomes of schooling proposed: curriculum integration at the conceptual level; community-based projects, research work and service projects; school clubs; emphasis on group learning, group and individual targets setting, planning and evaluation; high expectations of both academic outcomes and personal long-term goals; focus on higher order thinking and moral reasoning; school-based Kgotla that is linked to the traditional Kgotla; meaningful links between past, present and the future; analysis of values, virtues and concepts and their parameters and implications for self, others and systems; vision-building, self-reflection of personal and academic goals; role-play and school-based responsibilities; these are more likely to support the development of the many affective outcomes of schooling. While the use of the Virtues Project, as suggested by one international HIV/AIDS and education advisor, has been shown in other schools to assist pupils to develop many of these skills, creating an effective school culture, this and other suggested processes, I propose, will need to be developed and tried through a process of consultation, experimental action and research, as suggested by Fitz-Gibbon (1996), before a SER study will show any statistical significance against the proposed goals.

Though the free ART and the TCB programmes have contributed substantially to the mitigation process, these efforts are not enough. More urgent measures are needed to tackle the root of the problem. And in order for these to be implemented swiftly and used effectively to support the mitigation process, these efforts will need to be monitored, as argued by Green (2004), Fitz-Gibbon (1996) and MoE-1, as what gets measured is more likely to get done first.

7.3   Research Question 3: What management strategies and system would enhance the education sector's ability to provide quality primary education for all in the light of the impact of AIDS?

Although Botswana as a nation was initially slow to realise the paramount role of the education system's role in the mitigation process, it has since made great strides in developing quantitative measures to monitor AIDS, in offering free regular food baskets and free secondary education for registered orphans and free ART for all citizens, and the introduction of new in-service teacher training strategies to educate teachers about AIDS. Though these have shown an impact on teacher's knowledge of AIDS transmission, symptoms, and prevention strategies and have produced a more open school culture, this knowledge did not seem to have led to greater sufficient action at any of the levels. An in-depth understanding and overview of AIDS' implications for children, families, the community and the school, and the recognition of options seemed for all respondents to be linked to perceived empowerment, to action and the ability to develop multiple strategies of prevention and processes to reverse the trend. There is therefore a paramount need for actors at all levels to become more aware of the impact, as well as of their own progress towards the goals within the mitigation process and the reversal of the trend. While the development of monitoring and indicator systems, as has been discussed in the literature review, can have negative side-effects (such as: causing a shift in the values of education, incorrectly used to hold people accountable without sufficient autonomy; short-term thinking and narrow strategies; superficial interpretations and teaching and working purely toward indicators), the alternative would imply a willingness to leave the mitigation process and the future of the next generation to chance. Just as AIDS itself opens up the body to infections, leaving the AIDS pandemic's impact on education to chance would allow intervention strategies to be led by the whims of the growing international AIDS market, tax-cut aid donor projects and numerous charities, and all their respective agendas. Consequently, the mitigation of AIDS would most likely remain fragmented and focused on superficial intervention strategies which yield quick returns in organisations' indicators systems.

The SER paradigm has been used to identify effectiveness processes and as a tool to monitor effectiveness of education. However, in the light of AIDS' impact at the different levels of schooling in Botswana and the consequent need for a shift in the goals, role and methodology of education, and also in the light of the current stage of development of effective mitigation strategies and methodologies, I propose that a pure school effectiveness study, as things stand today at this stage of the mitigation, is neither desirable nor possible. This is despite Reynolds and Teddlie's (2000) proposal that there is a need to study different stages of school development in order for SER to support the identification processes that are effective at different stages of a school's development. Rather, by drawing on the Educational Indicators Research paradigm, I propose the urgent development of a two-tiered multileveled qualitative and quantitative indicators system, which monitors the impact of AIDS through a problem location model, and the mitigation process through a system location model. Both would be linked to continuous assessment of pupils' learning and national standardised tests at the end of years four and seven and forms two and five, as well as to national child well-being indicators. They would use tools such as rating scales, self-reports, observations, drawings, questionnaires and incorporation of questions into standardised tests. Not only is it important that the educational outcomes and outputs at the end of different levels are divided up into level descriptors linked to the outcome based curriculum, but the development of the system and the mitigation process would also need to be developed into short-term measurable goals in order for important steps to be developed and implemented. Without this, these are likely to be developed last, or not at all, as suggested by MoE-1.

As mentioned in the introduction to this thesis, this research has served as an initial phase in the long-term mitigation process by beginning to identify the many qualitative factors that are influenced by the impact of AIDS on pupils, teachers, and head teachers and the processes involved in schooling. In order to develop an effective monitoring system, which I propose is a component of the second phase in this process, I propose that the following steps would need to be taken.

1. The development of qualitative attitude, perception and experience rating and agreement scales based on the list of statements from pupils.

2. A large-scale qualitative and quantitative study using rating scales as well as pupils' drawings to open up a forum for pupils' own voices to be heard and understood.

3. Through a consultative process, develop level descriptors for the proposed goals to match the new outcome skill-based curriculum.

4. Identify and develop tools such as rating scales, self-reports, and integrated problem-solving questions to be integrated into standardised exams, to begin to measure affective outcomes.

5. Design the multilevel indicator system, so that it is linked to continual assessment, standardised tests, and national child well-being indicators. Ensure that this system can be easily analysed at the school level in cooperation with teachers, as well as allowing pupils to become more aware of their own progress and development.

6. Through action research in a few schools in different community types begin to explore and use goals and processes and evaluate results and impact against level descriptors with the use of piloted tools.

7. Integrate a research course into educational degrees and diplomas at the University of Botswana, where students take an active part in administering these tools within the schools in Botswana and moderating teachers' assessments. Students can thus become familiar with research and monitoring tools, moderation standards and procedures, can develop proficiency in analysing and drawing conclusions from data at the classroom and school level, and can use the data to consult about development and intervention strategies. Consequently, an increasing number of teachers within the field would become proficient in collecting, analysing and using data and monitoring tools.

8. Change sick leave cover policy and develop a pool of available teachers who can quickly support the sick leave cover once a pattern of sickness has been detected in a school.

9. Allow for newly qualified teachers to team teach for their first year, to gain greater experience. This would also free experienced teachers to cover classes when teachers are sick, thus providing for greater consistency and reducing the number of pupils who are affected.

I propose that by developing a monitoring system that measures the quantitative and qualitative impact on pupils' lives and learning, as well as their development towards the proposed educational goals in the four domains, in addition to basic skills in common subjects, it would be possible to use these tools to carry out a school effectiveness study within the context of AIDS. However, rather than controlling for the context of AIDS in international studies, SER could be used to begin to identify process variables that correlate positively with these outcomes, as well as outcomes in subjects such as maths and language. With such a focus, the risk that SER will marginalise important subjects and children whose interests and strengths fall outside maths and language, leading to objectification of people and demotivation, short-term thinking and teaching to exams, which have been some of the major critiques against the SER paradigm, would be reduced.

The identification and development of a monitoring system that will provide information to support people in identifying effective mitigation processes at the different levels is urgently needed. The need for continuous training and capacity development at all levels is also paramount. Though the TCB programmes have encountered teething problems, like most other initiatives, they have proven a valuable tool to counteract pragmatic policy implementations and innovations resulting from the commonly used cascade method, as they allow all staff to learn together. They have thus contributed to a more collegial organisational culture that is more closely linked to the societal culture, where staff feel more encouraged to contribute and learn from each other. The success of this intervention strategy, however, lies in the head teachers' hands and their encouragement and use of this tool. Consequently, it would be important to develop this tool, not only to introduce debates and consultations at the school level regarding the underlying values within the mitigation process, the educational goals and their outputs at different levels,

but also to encourage methodologies that will support the development of these goals. Moreover, this tool can be helpful in supporting schools in developing skills in collecting and monitoring the impact of AIDS on pupils' learning, in developing greater skills for the leadership team, and in supporting the national moderation process of the new curriculum by portraying standards and encouraging school-based debates and sharing of good practice.

In reviewing the influence of AIDS not only on factors involved in effective schooling, but also on contextual variables that influence schooling, I support Teddlie, Stringfield and Reynolds' (2000) proposition for the development of country-specific contextual variables. In the context of Botswana and neighbouring countries, I propose that AIDS, community type, culture and SES would be among the most important contextual factors to study – not only as factors to control, but to understand how and to what degree they influence the different levels of the education system and pupils' learning and attainments.

7.4   Effective use of research tools and implications for further research

Though this study is framed within the School Effectiveness Research paradigm, which provides valuable insights into the many processes that influence pupils' attainment, the use of statistical methods based on assumptions from other studies would not have allowed for an in-depth qualitative analysis of the impact of AIDS on the different levels. Rather, as it was uncharted research territory, the multilevel qualitative case study approach best served to elicit valuable insights into respondents' perceptions of the impact of AIDS. The use of drawings, coupled with unstructured interviews to explore how children perceived AIDS' impact on themselves, their family and their community, allowed pupils to feel at ease when dealing with very sensitive and personal experiences, which are often hidden beneath layers of taboo. It also allowed pupils to feel capable, as even those with limited ability in English were able to share their experiences through their drawings and simple statements. Hence it allowed for pupils' voices to come through clearly, unrestrained by language, previous assumptions and structured questions. However, a few structured questions allowed me to place pupils' experiences in the

context of other quantitative studies. The semi-structured questions in the multileveled design not only provided opportunities to verify and gain further insight into observations and statements from different levels, but showed how different levels impacted on each other.

However, in order to verify to what extent findings from this study are particular to these six schools or applicable to many schools in similar community types in Botswana, I propose that a large-scale quantitative and qualitative study be conducted, which draws on data from this study by using pupils' statements to design attitude, perception and experience rating and agreement scales. Though the use of drawing and unstructured interviews proved to elicit valued information about pupils' perceptions, these may be too time-consuming to administer and analyse on a large scale without an extensive research pool.

To conclude, while Bernstein (1968) argues that school cannot compensate for society, in the context of AIDS, I ask, who will? This study calls upon us all to reflect on the values and beliefs that underpin our lives and their implication for our own lives and the people around us, both now and in the future. It proposes that by recognising the need to begin to redefine goals, roles and processes in education, schools can become the most important instrument in the mitigation process. We can thus avoid the trap of short-term strategies that plague the development field and the field of AIDS, and begin to develop long-term strategies to reverse the trend so that education can provide a window of hope for the future, for the potential lights of the world.

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Research Tools-Pupil level

Introduction

My name is Gabriella Torstensson and I am studying at a university in England. Before that I use to live in Gaborone and Mahalapye. I work as a teacher in a primary school and am doing research into what children know about HIV and what they see the effect has on themselves, their family, learning and community. I am also studying how we teachers and schools can support pupils in developing all the skills, attitudes, knowledge and understanding that pupils need to need for the future.

To find out how HIV effects children I would like you to draw in the thinking bubble what HIV / AIDS looks like to you and what impact you have seen.

You do not need to put your name on the paper and what you say and draw will not be shown to any of the teachers. No one will know that what is drawn and said comes from you. The number at the top help me to know which school and class you come from. All the information will be combined and written in a thesis (a very long assignment), that will be seen by my supervisor and by officers in the Ministry of Education. You do not have to participate. If you do not feel comfortable participating, you can sit and wait in the room so you can go back together with your class. If you would like to help out and participate that would be great, but if at any point you do not feel comfortable answering you do not have to.

As you are drawing I will ask you a few questions and ask you to talk about and explain your drawing. If you don't feel comfortable answering you don't have to. Just nod and I will know that you don't want to answer.

Prompting Questions: (If children are struggling with what to draw.)
1. How you see HIV/AIDS affects yourself
2. What you think how HIV/Affect people and society/ village/ world around you.
3. What have you seen happen/ or think happens to people who have AIDS?
4. Where have you seen /hear about AIDS?

1. Tell me what you have drawn.
2. what is happening in the picture?
3. (if drawn people) What are they doing?
4. –"- how are they feeling?
5. How do you / they feel about HIV/AIDS? (depending what they have drawn)
6. How do the children feel
7. what happens to the children?
8. What happens to their school work and learning?

Could you write one sentence what HIV/AIDS in the speech bubble.
At the top right corner space for the children's code can be seen. The initial number will signify the school, the second the year group and the third the child
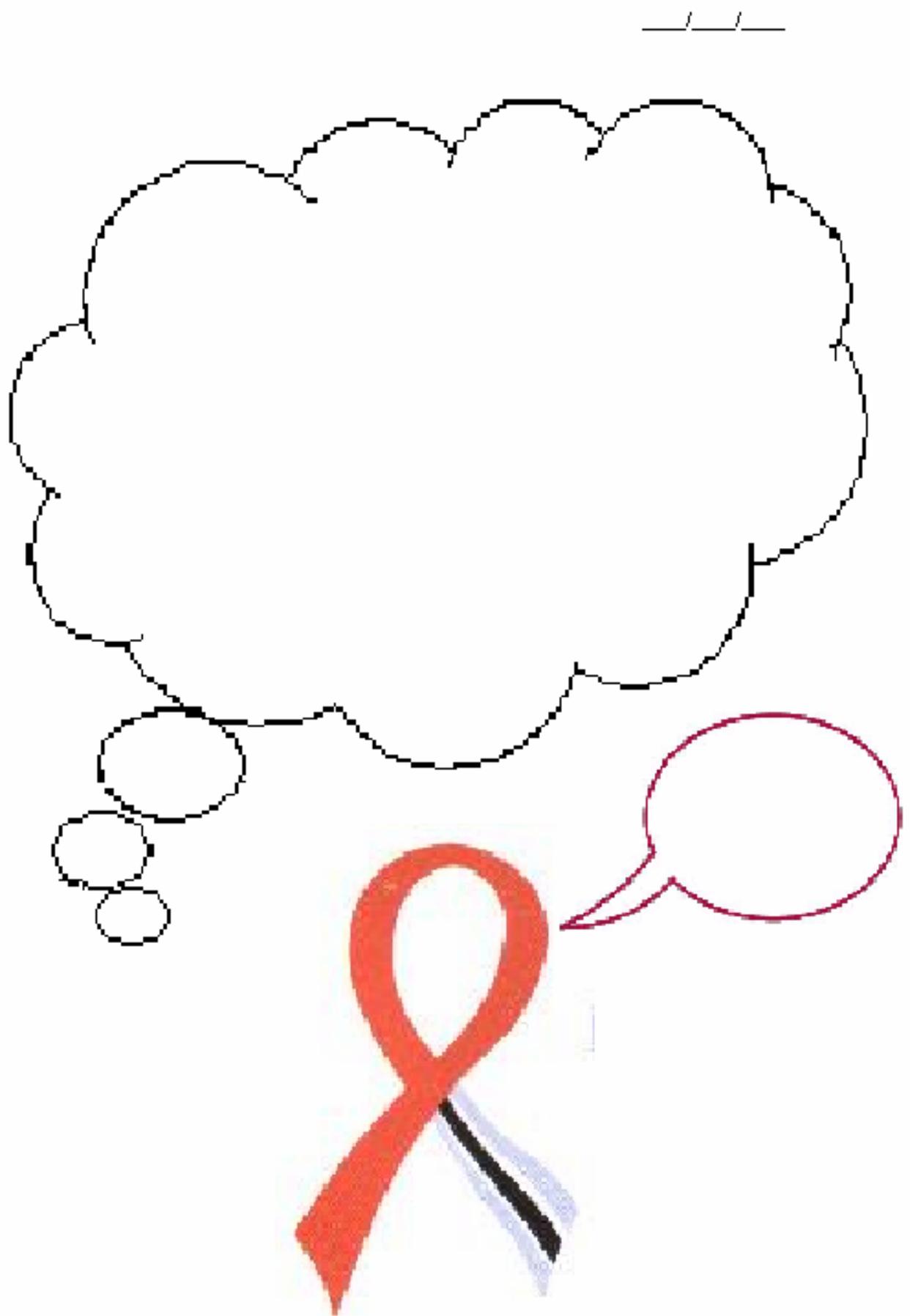
<u>Introduction</u>

I would like you to draw or write:

What you think your life will be like in 2014.

Again you do not need to put your name on the paper and what you say and draw will not be shown to any of the teachers. No one will know that what is drawn and said comes from you. If you at any point do not feel comfortable answering you do not have to.

As you are drawing I will ask you a few questions and ask you to talk about and explain your drawing. If you don't feel comfortable answering you don't have to. Just nod and I will know that you don't want to answer.

<u>Prompting questions:</u>
<u>1. What will it look like in 2014?</u>
2. What do you think you will be doing?
3. What is that you are drawing?
4. What is happening in your picture?
5. What do you think you would need to do or learn to do that?
6. What would be very important to know to do that?
7. What might stop you from doing that?
8. What could you do to overcome it?
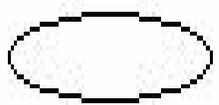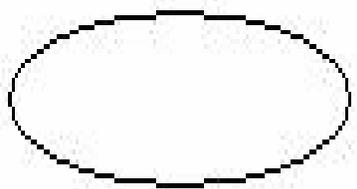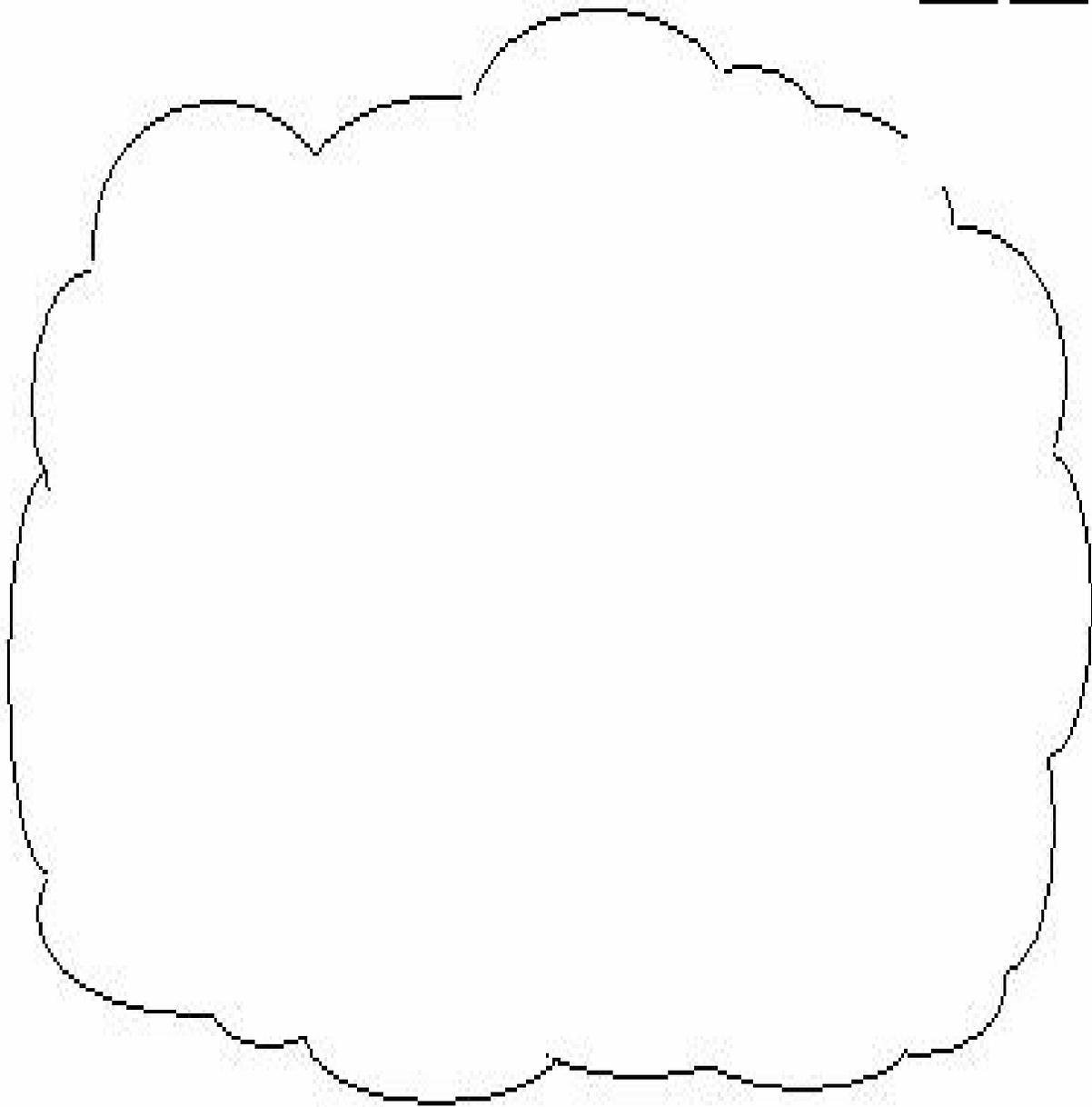
2014

Parental Consent Form

Dear Parents

During the month of June, July and August this year, your child's school will participating in a research project aimed at: Identifying the impact that HIV has on teaching and learning in primary schools. It is hoped that the findings will assist teachers, the school management, parents and the school community to empower the children to make healthy choices about their lives now and in the future.

Pupils in year four, five and six will be invited to share their thoughts and experiences about how they see HIV/AIDS, through drawing, writing and interviews. I am, therefore, writing to you as the parent or the guardian, to ask if you would allow your child to participate in the research. As part of participating in the research, your child may begin to think more deeply about the threat of HIV and the role he or she has in protecting her/himself from infection. It may also provide opportunity for your child to share fears and concern that she or he might have about HIV and its impact.

The research is being carried out and analyzed by myself, a former resident of Botswana, now studying for a Doctoral degree in Educational Management at the University of Leicester, United Kingdom. The findings will be published as part of my doctoral thesis and copies could be found in the Botswana National Library and the library at UB upon my graduation.

I can assure your child's confidentiality as:
• Your child will NOT be required to write his or her name. His or her name will not be mentioned or referred to in the thesis. Each child would be represented by a number.
• Your child's response or picture will NOT be shared or shown to any teacher, head teacher or other member of the school community.
• The school will NOT be mentioned in the report.
• Your child may refuse to answer any questions that he or she does not feel confident to answer.
• You or your child can choose to withdraw from the research at any time.

Thank you very much for your support and concern.
Best regards,
Gabriella Torstensson
Researcher.

If you do not give permission for your child to participate in the research please fill in this slip and return it to the school, before____/_____/_____

I _____ the parents/ guardian DO NOT GIVE permission for my son / daughter _____ to participate in the above mentioned research.

Signed: _____ Date: _____

Interview Schedule Classroom level

HIV/AIDS Impact on Education in Botswana

Name of Respondent: Date:
Position: TEACHERS

Three years ago I was researching into vision 2016, focusing on how schools could assist in the process of bringing about the vision. At that time the greatest hampering factor to the actualisation of the vision would be the rapid increase of HIV. Since then, the epidemic has spread to all places and most people have heard of and know somebody who has died of the disease. The disease is no longer only affecting the health system but all aspects of society in one way or another. The focus on my research is to identify how it is currently affecting teaching and learning in schools and how all members of the school community can be part of the solution. The research is part of my doctoral thesis, but will also be shared with the Ministry of Education

Before embarking on the interview you I would like to ensure you of anonymity. Neither your name nor school will be mentioned in any report or paper. If you do not feel comfortable answering any of the questions do not have to.

Basic information about the class : Grade:
No of Pupils: Boys: Girls:
Age range:
No of vulnerable children (will ask later): Registered vs. not yet registered?

Question 1
How has HIV/AIDS affected your role as a teacher?

Prompts:
1. How has HIV change the curriculum and the delivery of the curriculum?
2. What are the thoughts, questions or comments that you have heard?
3. What support have you received teach the new information?

Probes:
1. How is that affecting the delivery in the other subjects?
2. How do you feel about teaching the new aspects?

Question 2 (1b)
How is HIV/AIDS affecting pupils' ability to learn? Have you noted any differences from before and how are these shown?

Prompts:
1. Pupils' attendance?
2. Concentration and focus in school?
3. Ability to do home work?
4. Coping with the work load?
5. What has happened to those children who has sick relatives, how do they show their distress?
6. Relationships with peers?
7. What are the pupils' questions, thoughts and fears about HIV/AIDS?
8. How do you think the disease impacts on their hopes about the future?

Probes:
1. How is that affecting the rest of the class room?
2. How is it affecting your ability to teach?
3. Could you give me some examples?
4. How are they feeling when that happen?

Question 3-
What are the stigmatisms about HIV AIDS? What have you seen? What impact is it having on teachers?

Question- 4- Introduction

"Botswana has become the first African country to adopt a policy to ultimately make anti-retroviral drugs available to all citizen who needs them. However, comparatively few people (approx 2000) are currently benefiting from this commitment" (UNASIDS/WHO December 2002b,p.18) why do you think not more people benefiting, what is stopping them?

What do you know about Anti Retro-Viral drugs (ARV)?

Prompt:
1. What effect can it have on life?
2. What effect have you seen/ heard of?
3. What would you need to do to be able to receive ARV treatment?
4. Why do you think people might not want to access the treatment?

Probe:
1. How do you see that effect the fear of being tested?
2. Why do you think people might not go to get treated?
3. What are people's perception about the treatment?
4. What might help people access the treatment

Question 5- Introduction

As there is no cure for HIV/AIDS and many children are suffering indirectly through sickness and death of family members and loved one. Children are going to need to develop skills and attitudes that are different from those they are now developing to be able to cope with the impact and turn the trend around?

What are the skills, attitudes, qualities and understanding pupils will need to develop to protect themselves against AIDS and become active change agents in turning the trends around?

Prompts:
1. What skills do pupils need to develop to be able to cope and turn around these trends?
2. What qualities would pupils need to develop?

3. What attitudes would they need to have?
4. What knowledge and understanding
5. What values would they need to subscribe to?

<u>Probes:</u>
1. How do you think they would need to develop these?
2. What methodologies would support such skills and understandings?
3. How do they differ from boys to girls?

Interview Schedule School Level

HIV/AIDS Impact on Education in Botswana

Name of Respondent: Date:
Position: HEAD TEACHER

Three years ago I was researching into vision 2016, focusing on how schools could assist in the process of bringing about the vision. At that time the greatest hampering factor to the actualisation of the vision would be the rapid increase of HIV. Since then, the epidemic has spread to all places and most people have heard of and know somebody who has died of the disease. The disease is no longer only affecting the health system but all aspects of society in one way or another. The focus on my research is to identify how it is currently affecting schools and how schools can be part of the solution.

Before embarking on the interview you I would like to ensure you of anonymity. Neither your name nor school will be mentioned in any report or paper.

Basic information about the school:
No of Pupils: Boys: Girls:
No of teachers: Male: Female:
Qualified teachers: Male: female:
Age range:
No of vulnerable children (will ask later):

Management structure (drawing)

SMT:
PTA:

Introduction Question 1:
The spread of HIV is beginning to affect everybody who is working within education everywhere. The effect may vary from place to place, from school to school, and people may experience and deal with it differently?

Question 1. (1a)
**What effect / impact have you seen that
HIV/AIDS is having on your school?**

Prompts:
A, How has it affected teacher attendance (sickness, funeral visits, caring for relatives etc.)?
B, How has it affected the attitudes, perception and feelings of staff and pupils?
C, How many of the children have lost a parents?
D, How is HIV/AIDS affecting pupils' ability to learn. What if any differences have you noted?

Probes:
A, How have […] these been shown?
B, What might the underlying reasons be?
C, How have you been monitoring this?
C, How is/might this […] affect(ing) their commitment to teaching and learning?

Introduction Question 2.
Both the current picture […] and the future […] picture you are presenting must have quite an impact in school life and the school community.

Question 2 (1c)
How are these […] issues affecting the management of the school?

Prompts: How is it impacting on your role as a head teacher and what difficulties does it pose on the school?
A, How is it impacting on your way of managing, guiding and supporting teachers?
B, How is it impacting on the ability to provide qualified teachers for all the pupils?
C, How has it impacted on the training needs of teachers?
D, What difficulties does this pose on the delivery and content of the curriculum?
E, How do you manage absentees in the school?

Probe:
A, What have you found particularly difficult and why?
B, How do you think this[...] will change in the future?
C, How do you feel that teachers' commitment to the school's development have or may change when the number of vulnerable children and sick teachers increases?
D, What future difficulties can you foresee and how would monitor them?
E, How have you / the school coped/dealt with these difficulties so far?

As the pandemic worsens and more children lose their parents, child headed families increases and more teachers becomes become sick.

Question 3 (2a,b, c,e,f)
How do you see that the management and the structure of the school would need to develop to ensure that pupils can continue to be educated?

Prompts:
A, What are the strengths in the school or in the culture that could assist the school in coping with these […] problems?
B, What skills, knowledge and understanding do you see yourself and members of the SMT or teacher needing to develop?
C, How might the structure of the day change to accommodate these children, how could this be dealt with?
F, What support could be found outside the school, in the community?

Probes:
A, How do you foresee these being introduced and developed?
B, How do these skills, attitudes and knowledge connect with traditional, local cultures and perception of people?

Introduction to Question 4.
As there currently is no cure for HIV/AIDS, the only thing that can hamper the spread of HIV/AIDS and protect young people from becoming infected is their own perception about the decease and their own behaviour.

Question 4 (3 a-c)
What skills, attitudes and knowledge do you see that the pupils need to develop to become proactive and be able to protect themselves from becoming infected by HIV/AIDS?

Prompts:
A, What threat of infection are the pupils encountered with and what skills, attitudes and knowledge would they need to be able to cope with these threats?
B, How could they assist in reducing these threat and what skills, attitudes and knowledge would they need to have to do this?
C, What perceptions would they need to have about themselves, their own life and the future?
D, What skills, attitudes and knowledge would they need to have to support each other?

Probes:
A, how does these […] connect with the current youth culture?
B, how do you see that the pupils develop these, in what way, what methods need to be used?
C, Is there a difference of needs for girls and boys? How and why?
D, How do you see your school helping the pupils develop these?

Closing:
Is there anything else that you feel you would like to contribute or thoughts you may have regarding how you, in the role of the head teacher, could be part in reducing the spread of HIV AIDS and the impact it is having?

Interview Schedule Regional level

HIV/AIDS Impact on Education in Botswana

Name of Respondent: Date:
Position: Regional Educational Officer
Number of schools in the area:

Three years ago I was researching into vision 2016, focusing on how schools could assist in the process of bringing about the vision. At that time the greatest hampering factor to the actualisation of the vision would be the rapid increase of HIV. Since then, the epidemic has spread to all places and most people have heard of and know somebody who has died of the decease. The disease is no longer only affecting the health system but all aspects of society in one way or another. The focus on my research is to identify how it is currently affecting schools and how schools can be part of the solution.

         Before embarking on the interview you I would like to ensure you of anonymity. Neither your name nor school will be mentioned in any report or paper.

1. **What impact have you noticed that HIV is having on teaching, learning and management in the schools in your area?**

Prompts:
On pupils learning
    A. Attendance
    B. Pupils focus
    C. Pupils preparedness
    D. Homework done
    E. Peer interactions
    F. Trust and openness
    G. Pupils loosing parents
    H. Missing continuity in lessons
On teachers:
    A. Absenteeism
    B. Preparedness
    C. Trust & communication
    D. Coverage of curriculum
    E. Other aspects outside the curriculum
       is taking up time
    F. Teacher mortality (This year/ last
       year)
School Culture:
    A. Openness

B. co-operation and support

Probes:
    A. Do you have any examples of that?
    B. How did this effect the learning
    C. How was it perceived within in the
        school/ by teachers?

2. **What tools do you have available to monitor the impact that HIV/AIDS have on primary education?**

Prompts:
    A. Comparing grades
    B. Covering of the curriculum
    C. Pupils grades
    D. Orphan records

Probes:
    A. How are these collected?
    B. What are the difficulties collecting
        them?
    C. How are you analysing them?
    D. How are the head teachers using the
        data?
    E. What tools do you feel is needed to be
        able to monitor the impact
        effectively?

3. **What sub-cultures and behaviours increase the risk of HIV/AIDS?**

Prompts:
    A. What behaviours are you seeing
        among the students that may
        increase the risk of HIV/AIDS?
    B. How prevalent is in the school?

Probes:
    A. How is that impacting on their
        learning?
    B. How is this impacting their ability to
        make healthy choices?
    C. What do you think is the back
        ground of the cause of this?

4. **What virtues do you feel really represent Botswana values?**

<u>Closing:</u>
Is there anything else that you feel you would like to contribute or thoughts you may have regarding how you, in the role of the head teacher, could be part in reducing the spread of HIV AIDS and the impact it is having?

Interview Schedule Ministerial Level

HIV/AIDS Impact on Education in Botswana

Name of Respondent: Date:
Position: Director of Department

Three years ago I was researching into vision 2016, focusing on how schools could assist in the process of bringing about the vision. At that time the greatest hampering factor to the actualisation of the vision would be the rapid increase of HIV. Since then, the epidemic has spread to all places and most people have heard of and know somebody who has died of the decease. The disease is no longer only affecting the health system but all aspects of society in one way or another. The focus on my research is to identify how it is currently affecting schools and how schools can be part of the solution.

Before embarking on the interview you I would like to ensure you of anonymity. Neither your name nor school will be mentioned in any report or paper

Research question 1-Introduction
Since we spoke a few years ago people are becoming more aware of HIV/AIDS and recognising that it will have and is beginning to have an impact on education, pupils' learning, teachers' ability to teach and managers' ability to manage quality education in light of the impact.

What kind of data is coming in about the impact of HIV on the education system?

Prompts?
- A. What kind of data is available?
- B. What impact is HIV/AIDS having on the education system.
- C. What impact is it having on the management at the national level within MoE? (human and financial resources, allocation, effectiveness, focus?
- D. What impact is it having on the regional level?
- E. What impact is it having on the HT and SMT ability to manage and sustain the provision of quality education for all pupils?
- F. What impact is it having on the teachers and their ability to teach and

ability to comply and complete the
curriculum?

G. What impact is it having on pupils and
their ability to learn?

Probes:

A. How is this affecting the school's
ability to manage teaching and
learning?

Research question 2-Introduction:
In many places and countries researchers describe their difficulties they have had into
gathering information about the impact of HIV/AIDS due to the stigma, denial, secrecy
and silence that surrounds the disease.

**How would you describe the Botswana HIV/ AIDS research climate and the
possibility to elicit accurate, honest and frank qualitative and quantitative data
about the impact?**

Prompt:

A. How are people feeling about sharing
their experiences or observations
about the impact and HIV/AIDS?

B. How has the climate changed since
MoE impact report in 2001?

C. What are the difficulties in accessing
data?

D. What are the possibility to accessing
data such as teacher absenteeism?

E. How has the data collection about the
impact changed and developed?

Probes:

A. What strategies are used to overcome
these difficulties?

B. What effect does it have on the
accuracy of the data?

C. What other data is needed to gain a
fuller picture?

D. What strategies would be most
effective in gather evidence?

E. What research areas are needed?

Research question 3- Introduction
During the last few year the MoE in conjunction with various NGO's has established and produced various intervention programmes, such as the TCB, integration of HIV/AIDS into various subjects, produced materials, etc.

How would you describe the effectiveness of these projects?

Prompts:
 A. What research was carried out before and how were they developed?
 B. What are the difficulties that these project are facing?
 C. What strategies are used to collect information about its impact?
 D. How are these projects meeting the needs?

Probes:
 A. How do you see these projects could be improved?
 B. What would the risk be that people are getting information fatigue and are beginning to be inoculated against more information about HIV/AIDS?

Research question 4-introduction
Looking at the programmes within the TCB, teachers are encourages to be aware of early symptoms and begin to monitoring the impact at the local level?

What research tools are available to monitoring the impact?

Prompts:
 A. What tools are available at the local level for SMT and REO to monitor the impact?
 B. What local tools would school and REO need to develop in order to monitor the impact at the local level?
 C. What data would need to be in these tools in order that they can easily me connected with national data?
 D. What data would be needed monitor the impact in order for schools to

make early interventions at local
levels?

Probes:
   A. What difficulties would you perceive
      in establish such tools?
   B. What difficulties do you perceive that
      the monitoring of such tools would
      be?
   C. What skills do teachers have in
      creating tools and analysing tools at
      the local level?

Interview Schedule Ministerial Level

HIV/AIDS Impact on Education in Botswana

Name of Respondent: Date:
Position: Director of Department

Three years ago I was researching into vision 2016, focusing on how schools could assist in the process of bringing about the vision. At that time the greatest hampering factor to the actualisation of the vision would be the rapid increase of HIV. Since then, the epidemic has spread to all places and most people have heard of and know somebody who has died of the disease. The disease is no longer only affecting the health system but all aspects of society in one way or another. The focus on my research is to identify how it is currently affecting teaching and learning in schools and how all members of the school community can be part of the solution.

        Before embarking on the interview you I would like to ensure you of anonymity. Your name will not be mentioned in any report or papers written as part of my thesis.

Question 1.
How would you describe your role as the HIV/AIDS co-ordinator within the MoE?

Question 2.
How has HIV/Aid impacted Quality Primary Education for all in Botswana?

Prompts;
A. How has it affected the school qualitatively?
B. Their ability to comply with the curriculum?
C. How does it effect pupils' learning, concentration, completion of homework, feeling part of the group and accepted within the class?
D. How does it affect the teacher?
E. How does it affect the Head teachers' ability to ensure that there is continuation and progression between the grades and during the year?

Probes:
A. How is this information collected?
B. What tools are available to collect qualitative / quantitative data?
C. What other data would you need to be able to gain a fuller picture of how it affects pupils, teachers?

Question 3:
How would you describe your identity?

Prompts
A. How would you describe who you are?
B. What is identity?
C. How would you describe Botswana identity?
D.What are the characteristics of Botswana identity formation?

Probes:
A. How does perception of identity effect how you make long term decisions?
B. How would that decision making process be altered if you are scared?
C. How is the Botswana identity developed,
D. Which are the most important factors contributing?

Question 5:
What kind of perception of identity do you see would improve the ability to make personal changes and take ownership of that change?

Prompts:
A. What kind of perception of identity would allow a person to make long term decisions and stay firm even under threat and in fear?

Question 6
In the light of the impact on pupils' learning, what capabilities do you believe children needs to develop to cope with the impact?

Prompts
A. What kind of understanding would they
need to have?
B. What kind of attitudes and qualities
would they need?
C. What skills would they need to develop?

Probes:
A. How would these capabilities connect
with Botswana culture and identity
development?
B. How would the elderly, young and the
community connect with these capabilities?

Question 7
What impact has the Teacher Capacity Building (TCB) programme had on teachers' ability to support pupils affected directly or indirectly by HIV/AIDS?

Prompts:
A. How are the teachers feeling about the
programme?
B. How are they feeling about talking/
teaching about HIV/AIDS?
C. What impact has been measured in pupils
knowledge about HIV and strategies to
change behaviour?

Probes
A. How has the programme affected the
way teachers are sharing their new
knowledge with pupils?
B. Has it had any impact on number of
teachers who are receiving ART?

Interview Schedule Ministerial Level

HIV/AIDS Impact on Education in Botswana

Name of Respondent: Date:
Position: Director of Department

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      Before embarking on the interview you I would like to ensure you of anonymity. Your name will be mentioned in any report or paper

Question One-Introduction
The Teacher Capacity Building (TCB) programme was developed to support teacher and develop teachers' capacities to take an active role in mitigating the impact of HIV/AIDS.

1. What were the skills, attitudes, understandings and qualities other than imparting knowledge about the transmission of HIV/AIDS which were seen as vital that teachers have in order to take an active role in turning the trend around?

Prompts:
    A. What change do you see needed in the school culture to allow schools to take an active part in the mitigation?
    B. Who were the Programmes primarily developed for? (lower, middle, upper primary, JSS, Senior secondary teachers?)

Probes:
    A. How do you feel that these skills, attitudes and qualities are coming through in the TCB project?
    B. What are the cultural barriers that these attitudes would have to face and teachers would have to work against?
    C. What are the teaching culture/ methodology shift that needs to take place to enable active change?

D. Have similar principles been introduced before and how have they been met and been integrated?

Question 2- Introduction

The TCB programme initially intended to develop the capacities in the teachers in order for them to develop the capacities in the pupils.

2. What capabilities (Skills, Attitudes, qualities& understanding) do you see that pupils would need to have to be able to protect themselves and make healthy life long choices for themselves and other?

Prompts:
A. What understandings and perceptions of self and others would they need to develop?
B. What attitudes towards life, people, future, world would they need to develop?
C. What personal virtues or qualities would they need to develop to support these attitudes?
D. What skills would they need to develop in order to put these attitudes, perceptions, virtues and understandings would they need to develop in order to actively use these to make healthy life long choices?

Question three- Introduction
Peoples' perception of identity often plays a part in how people make both long an short terms decisions. How they interact with others and with the world around?

3.What role do you see that perception of identity have in long term/ short term decision making?

Prompts:
    A. How do you feel that different perception of identity might influence what choices, options and rights people might see they have? decision making differently?

<u>Probes:</u>
    A. How would these influence people when making decisions?
    B. How would it influence people when they make decision under threat or fear?

<u>Question 4-</u> **Introduction**
Culture is not something that is static, it evolved. Sometimes cultural norms help society, sometimes it hampers our development. All of these cultural changes that are currently happening in Botswana has been described as also affecting the way people see themselves and their identity

4. How would you describe the Botswana identity?

<u>Prompts:</u>
    A. How do the Batswana perceive themselves?
    B. How was it formed?
    C. How is it formed today?
    D. What influences the formation of identity?
    E. What values and virtues underlie the Botswana identity?

<u>Probes:</u>
    A. How has the perception of self changed from traditionally to now?

B. How does it influence how people make decisions?
C. What are the belief that influences decision making?
D. What influences the changes in the cultural identity?
E. How do you see that HIV/AIDS influences their perception of the future and their role in the future?
F. What kind of perception of identity do you think would enhance the ability to take ownership and responsibility make healthy life long decisions for self and others?

Interview Schedule International Level
Leadership strategies for enabling effective education in the light of the HIV/AIDS Impact on Education

Name of Respondent: Date:
Position: International HIV/AIDS and Education Ministerial Advisor

<u>Preamble:</u>
I would first like to thank you for taking the time to see me.

As I mentioned to you in the letter, I am doing this research for my thesis for a Doctorate in Educational Management at the University of Leicester. My interest in this area was spurred by the findings of my dissertation. Although I haven't lived in Southern Africa since 1994, it still feels very much like home here and am keeping in contact with the development in Botswana both on a national level, as well as, on the education side. In 2000, when I completed my dissertation, no real connection had been established between the MoH and the MoE in regards to joining forces in the fight against HIV/AIDS, nor did Educational Advisers at the district and local level see it as a threat to Quality Education for All (QEFA). As I was very excited by Botswana's Vision 2016, having personally followed its development from its inception, I felt I wanted to continue researching into the greatest threat to the actualisation of that vision, i.e. HIV.

My research, which takes a cross-sectional approach of the Botswana Primary Education System, addresses the following three main questions:
1, What impact does HIV/AIDS have on the primary education in severly infected areas?
2, What educational programmes and components would assist pupils to develop capabilities which allows them to make healthy long term choices and become change agents for reversing the current trend.
3.What management strategies and system could enhance the education sectors ability to provide Quality Primary Education for All in the light of the impact caused by HIV/AIDS.

Somehow, I would hope that my research could not only be useful personally in gaining experience and a degree, but also be useful in contributing to the research needs within the area, as well as, for the fight against AIDS. So any suggestions and wisdom you might have to allow my research to be useful, would be most welcome.

Introduction to question 1
The picture both you and Prof. Kelly has painted of the impact of HIV on the education system and within the school seems very grim, with increasingly more children and teachers suffering from trauma and randomness in attendance; stigmatism; diminishing guidance and support from parents and the community, both in terms of human resources as well as financial support; children needing to seek work to support themselves and siblings; difficulties with delivering the educational programme, the need to adapt the content to meet the new needs, and struggle to provide high standards of education for all.

Question 1. (2a,b,c,d,f)
What components and strategies do you suggest schools need to take/ develop to cope with the impact that HIV is causing on the management of schools?

Prompts:
A, You and Prof. Kelly both refer to community based education as one solution, what are the components (structure, culture, style, linkage) within these schools, how were they established, how are they managed, and how are they meeting the additional needs cased by HIV?
B, Both of you refer to the need to become more creative and flexible in how education is managed and provided, how do you see these aspect developed and introduced?
C, What qualities or capabilities would enhance head teachers ability to cope with the impact?

Probes:
A, Are there any management theories or styles that adhere to or are closely related to the aspects and components you describe […]?
B, how do you see the components […] relate to current educational management styles and practices in the schools?
C, How could you foresee the transition from current management styles to the ones you describe? Taking into account, ownership, implementation, transmission of values and idea?
D, What are the current strengths and weakness in the system and the local culture and how could these be utilised or addressed?

Introduction to question 2
In our battle with HIV/AIDS, the key components to reversing the current trend seems to be Behaviour Change. When working with empowering people to change behaviour, in my view, we automatically need to, not only address and impart facts and knowledge, but connect with people's perceptions and cognitive maps about self, own skills, world view, own role in the world and how oneself and other people's interactions effects oneself and others, now and in the future.

Question no 2 (3a-c)
What capabilities (knowledge, skills, understandings and attitudes) do you see pupils need to develop, to cope with the effects caused by the pandemic, to protect themselves from infection and to become active change agents in reversing the trend?

Prompts:
A, How do you see vision building and the ability to create positive, practical, personal visions, could assist pupils in the fight against HIV?
B, How do you see strategic planning and the ability to plan, prioritise, make informed choices and embrace delayed gratifications, could allow pupils to protect themselves against HIV. What would allow them to take ownership of this process?
C, In one of your papers you refer to a "value based approach to AIDS awareness in primary schools in Botswana" which has resulted in behaviour change. Could you please describe the approach and the values it is based on. What are the core components (methodology +content) within that programme, which stimulated the behaviour change, how did pupils change?

Probes:
A, How do these capabilities connect with pupils' current capabilities- what are the missing links?
B, Why might it not be working?
C, How do you see these could be integrated into the primary educational programmes (methodology and content)

D, How might the needs for these capabilities, skills, knowledge, understandings and attitudes differ between boys and girls?

E, There is a great emphasis on girls' education, both on the international arena through UNESCO's and NEPAD's programme for Education For All (EFA) as well as in national policies. To enable girls to develop to their fullest, there is an equal important role of educating boys to understand and subscribe to the notion of Gender Equality . Without it, boys and men, may feel that their traditional position and identity is being threatened by the emancipation women. What focus would you place on boys education?

Introduction Question 3
During the last few years a number of research papers are emerging indifferent areas within the field of HIV and Education. Many of these focuses on the quantitative impact of HIV on Education and educational management, the role of education in mitigating the effect, HIV impact on children and the right of the child and orphan needs, national policy and strategy development.

Question 3 (methodology-research field)
What are the strengths in current research areas, what are the gaps in research area?

Prompts:
A, What research are you aware of that is currently being undertaken into these areas: 1, HIV impact on education; 2, Strategies to promote behaviour change; 3, educational management strategies to cope with the impact?

B, what are the gaps in educational programmes that facilitate behaviour change?

C, What are the gaps in research in Educational Management on the school level?
D, What are the gaps in research in Educational Management System?
E, What are the gaps in research in Educational Management Coping Strategies?

Probes:
A, What do you see being the priorities for immediate research?
B, What do you see being the priorities for long term research which need to be introduced and implemented urgently to have a lasting effect?
C, How do you see that my research could fit in, or / and contribute to the research gap, how could it be altered or added components to, to be more useful?
C, Are there any methodological or ethical aspects that you have discovered that would be useful for me to think about and incorporate into my research?