



# **Challenges faced by educators in disseminating HIV/AIDS information to intellectually challenged learners**

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## **DECLARATION**

I declare that:

**THE CHALLENGES FACED BY EDUCATORS IN DISSEMINATING HIV/AIDS INFORMATION TO INTELLECTUALLY CHALLENGED LEARNERS** is my own work, and that all sources used or quoted have been indicated or acknowledged by means of complete references.

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SIGNATURE

**B. M. KEIPEILE**

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DATE

## **DEDICATION**

This work is dedicated to the following:

- My beloved and affectionate husband, Mr. Kegomotsegile Keipeile.
- My parents
- All the family members
- All fellow worshippers who supported me through prayers
- The Mighty God (Psalms 65:5 & 106:1).

## **ACKNOWLEDGEMENTS**

While there are many people who contributed to the successful completion of this work, only a few will receive special mention. I feel indebted to express my heartfelt gratitude and appreciation to the following:

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The Botswana Ministry of Education and Skill Development which allowed me to carry out the research in the country.

My husband, Mr. Kegomotsegile Keipeile for his financial, technical, material, and moral support. Without him, this study would not have been possible.

The five primary school heads and teachers who allowed me to carry out the study in their schools and provided all the information I asked for.

## **ABSTRACT**

In this study, the researcher's aim was to explore the challenges faced by educators when disseminating HIV and AIDS information to learners who are intellectually challenged and then make recommendations to address these challenges. To achieve this, both quantitative and qualitative approaches were used to collect data. As such, the research instruments included self-administered questionnaires as well as interviews. Fifty teachers and twenty five learners participated in the study. They were drawn from the five primary schools selected for the study.

The main findings of the study include: Restrictive cultural norms as a great challenge, supported by 58 % of the respondents - this, to some extent, might be attributed to the fact that in some cultures, talking about HIV and AIDS is considered bad character and unacceptable behaviour; lack of communication skills; lack of formal training in teaching HIV/AIDS agreed by (48%) of the teachers, communication difficulties since the medium of instruction used to teach learners in Botswana schools is mostly English language while the learners would preferably understand better in their mother-tongue especially at primary level. This is further worsened by intellectual challenge presented by the participating learners.

The study revealed the following solutions to mitigate challenges encountered while disseminating HIV and AIDS information: establishment of language-appropriate HIV prevention programmes, providing HIV information tailored for intellectually challenged learners, supplementing the available methods of disseminating HIV and AIDS information with other practical methods including the use of drama, and training a few intellectually challenged learners about HIV and AIDS for purposes of peer learning.

The findings of the study suggest the following recommendations, among others; training teachers, especially on various ways of communicating with learners who are intellectually challenged; teachers need to be thinking about communication when preparing a lesson plan; and collaboration of the Department of Education with relevant stakeholders towards promoting policies that may help intellectually challenged learners to understand HIV and AIDS issues. To some extent, the findings advocate for special schools alongside inclusive education to provide special learning materials for learners who are intellectually challenged. This would embrace such learners who might not have fitted in mainstream schools/classrooms.

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## **LIST OF ACRONYMS**

HIV/AIDS: Human Immune Virus/ Acquired Immune Deficiency Syndrome

NGO: Non Governmental Organizations

RNPE: Revised National Policy on Education

SPSS: Statistical Package for Social Sciences

NCE: National Commission on Education

NCBDDD: National Center on Birth Defects and Developmental Disabilities

ID: Intellectual Disabilities

IQ: Intelligence Quotient

SIB: Self Injurious Behaviours

UNESCO: United Nations Educational Scientific Cultural Organization

GCE: Global Campaign for Education

KNUT: Kenya National Union of Teachers

IDEIA: Individual with Disabilities Education Improvement Act

NCLB: No Child Left Behind

IEC: Inclusive Educational Curriculum

HIV/STI: Human Immune Deficiency Virus and Sexually Transmitted Infections

PBS: Positive BehaviourSupport

UNICEF: United Nation International Children's Education Fund

INSET: In-service Education for Teachers

ILO: International Labour Organization

PSI: Population Services International

IEP: Individualised Educational Programme

CBI: Critical Behavioral Interviewing

SAS: Statical Analysis System

MR: Mental Retardation

CRC: Central Resource Center

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## **CHAPTER ONE: INTRODUCTION AND BACKGROUND**

### **1.1 INTRODUCTION**

Individuals who are intellectually challenged are inadequate in their intellectual development with concurrent deficit in areas of adaptive skills (Culatta, Tompkins and Werts, 2003:72) Diagnosis of intellectual disability tells that the individual is inadequate in his or her intellectual development and ability at the present. According to the American Association of Intellectual and Developmental Disabilities (AAIDD) (2016), Intellectual disability is a disability characterized by significant limitations in both intellectual functioning and in adaptive behaviour, which covers many everyday social and practical skills. Furthermore Vaugh, Bos and Schumm (2003:127) indicated that it is a developmental disability that can impair the person's functioning in language, learning, mobility, self-care and other important areas of living and ranges from mild to severe. This clearly illustrates the difficulty which learners, who are intellectually challenged, encounter in their life time. Taking characteristics of learners into consideration and how the Human Immune Virus/ Acquired Immune Deficiency Syndrome (HIV/ AIDS) affect the entire world, it is very important that society and educators consider how they disseminate HIV/AIDS information to those learners. The information could be given in such a way that it will be easy for them to understand despite their condition; more so that the condition is pervasive throughout the person's life.

This chapter starts by outlining the background of the study, followed by Statement of the Problem, research questions and objectives, significance of the study, research design in brief, definition of terms and chapter's organization and conclusion.

Currently learners, who are intellectually challenged in Botswana, are enrolled in primary schools. They are both in mainstream schools and special schools owned by Non-Governmental Organizations (NGOs). This integration is in response to the recommendations of Botswana's policy on education (The Revised National Policy on Education of 1994: RNPE, 1994). It is worth noting that their enrolment in mainstream does not consider teacher's experiences/ qualification even the degree of the impairment of the learner. Learners are just mixed in the classroom or units that are attached to the schools (RNPE, 1994).

One of the findings of the Revised National Policy on Education (1994) was that the majority of

teachers in regular primary schools are not qualified to teach learners with diverse needs. Therefore they do not possess the skills and expertise when it comes to disseminating information as well as teaching learners who are intellectually challenged. This then implies that understanding information about HIV/AIDS may be a serious dilemma to learners with intellectual disability due to teachers sometimes lacking appropriate qualifications as well as knowledge about characteristics of learners with intellectual disability. The term intellectual disability endeavors to convey a broad based concept that places under it deficits in varied cognitive and adaptive ability areas (Smith, Polloway, Patton & Dowdy, 2012: 102).

Learners with intellectual disability can be classified as mild, moderate, severe and profound, (Smith et al, 2012: 102). The characteristics of these learners vary as it depends on the category in which they belong. This may indicate that educators are faced with a huge task when disseminating HIV/AIDS information, more so that learners are not grouped or placed according to their degree of disability.

Vaugh, Bos and Schumm, (2003: 229) states that, “An alternative approach to classification is not derived from level of deficit, but rather from needed supports. These are the resources and strategies that aim to promote the development, education, interests, and personal wellbeing of a person and enhance individual functioning.” This helps educators in disseminating HIV/ AIDS information to intellectually challenged learners.

## **1.2 STATEMENT OF THE PROBLEM**

The education policy in Botswana clearly stipulates that learners with diverse needs including those with intellectual disability be integrated in mainstream schools (RNPE, 1994). Though learners are to be integrated, the majority of educators are not qualified to teach learners with diverse needs (Botswana Education Report, 1993), which on its own brings with it some problems when it comes to dissemination of information on HIV/AIDS. Access to information and comprehending it is a serious dilemma to learners who are intellectually challenged due to problems associated with mental retardation or being intellectually challenged in both intellectual functioning and adaptive behaviour. The AAIDD (2016) defines intellectual functioning as the general mental capacity, such as learning, reasoning and problem solving. Adaptive behaviour is the collection of conceptual, social, and practical skills that are learned and performed by people in their everyday lives (AAIDD, 2016). The problem associated with

intellectual disability as indicated earlier, is that it impairs the person's functioning in language, learning, mobility, self-care or other important areas of living such as adaptive skills and intellectual functioning (Vaugh, Bos, & Schumm 2013: 127). These aspects are either not fully developed or not developed at all. Therefore, learners who are intellectually challenged have limited intellectual functioning, which affects their learning. They have slower rate of learning and are particularly challenged by complex and abstract tasks/issues. Consequently the inability of intellectually challenged learners to access information easily on HIV/AIDS as well as comprehending it due to learner's characteristics, can expose them to some risks and this is a serious challenge to educators. They are to come up with appropriate ways of disseminating such information to learners in a way that will be easy for them to comprehend as well as put what they have learnt into practice.

Furthermore, according to the Report on Education of 1993, the majority of educators are not qualified to teach learners who are intellectually challenged. It is against this background that the researcher intends to undertake the study on challenges faced by educators when disseminating HIV/AIDS information to learners who are intellectually challenged.

### **1.3 PURPOSE/AIM AND OBJECTIVES OF THE STUDY**

#### **1.3.1 Aim of the study**

The aim of this research is to explore the challenges faced by educators when disseminating HIV/AIDS information to learners who are intellectually challenged as well as draw some recommendations to the challenges.

#### **1.3.2 Research objectives**

In order to achieve the aim, the study focused on the following research objectives:

- To identify the strategies employed by educators in disseminating HIV/AIDS information to learners who are intellectually challenged.
- To establish the challenges encountered by educators in dissemination of HIV/AIDS information to learners who are intellectually challenged.
- Drawing from the findings of the study recommendations to challenges encountered

by educators when disseminating HIV/AIDS information to learners who are intellectually challenged will be made.

#### **1.4 RESEARCH QUESTIONS**

The study therefore attempted to answer the following research questions:

- What are the strategies used by educators in disseminating HIV/AIDS information to learners who are intellectually challenged?
- What are the challenges encountered by educators in the dissemination of HIV/AIDS information to primary school learners who are intellectually challenged?
- What would be the recommendations to counteract the problems encountered by educators when disseminating HIV/AIDS information to learners who are intellectually challenged?

#### **1.5 SIGNIFICANCE OF THE STUDY**

The findings of the study may be of benefit to both the educators who teach learners who are intellectually challenged as well as the learners. Teaching learners who are intellectually challenged requires a great deal of expertise because the learners cannot understand information presented to them easily and much of the information may be lost during the process. Educators may benefit because the study will inform them of the challenges they encounter in dissemination of information as well as ways of overcoming those challenges. The skills and knowledge may enable educators to easily disseminate information to learners, hence benefiting learners. This may lead to educators accomplishing their mission or goal. As for learners, once the information reaches them in such a way that they are able to understand it, this may empower them in a way as they may be in position to know the effects and impact of HIV/AIDS hence take appropriate measures.

#### **1.6 ETHICAL CONSIDERATIONS**

In research issues are pervasive and complex. No researcher can just gain access to an institution, an organization or to materials. Permission to carry out the study must always be sought at an

early stage (Bell, 2005:122). In this research permission was sought from school heads and Principal Education Officers. During the visits, after permission was granted, the researcher explained the aim and the significance of the study to the educators so that they understood the importance of the study. The respondents were requested not to write their names on the questionnaire, since confidentiality encourages people to respond freely. For this reason, all participants selected agreed to participate in the study. The administration and collection of the instrument was done by the researcher.

The intellectually challenged learners were approached with great care and rapport, convinced with the help of their teachers. Each learner was interviewed at a time, in a motherly way. The reason they were interviewed individually was to make them feel protected, promote openness and to keep the interview private and confidential.

#### **1.6.1 Gaining access**

The researcher sought a letter of permission from the Faculty of Education, North West University in South Africa to gain access to selected schools. Creswell (2007:113 – 114) stated that researchers require permission to collect data from individuals and sites. The letter from the university was accompanied by a consent form from the acting Director Regional Operations (Kweneng Region) for the gate keepers, teaching and head teachers to verify that the research is authentic and for only academic purposes. The letter from the university served as an introductory letter.

#### **1.6.2 Measures to ensure trustworthiness**

Before preparing the final instrument, the questionnaire was first tried out with a small group. The researcher used twenty respondents for the pilot study. The pretesting of the instrument is very important as deficiencies were uncovered (Bell, 2005: 122). The results of the pilot study assisted by helping in identifying ambiguities, useless and inadequate questions and additional items were suggested. This helped in improving the reliability and validity of the instrument.

### **1.7 RESEARCH DESIGN AND METHODS**

According to Demscombe (2003: 22) research design constitutes the plan and structure of investigation used to obtain evidence in order to answer research questions. In addition

Schumacher (2001: 166) explains that research design shows which individuals will be studied, when, where and under which circumstances they will be studied. In the following section, the research design, population and sampling procedures and data analysis are presented.

### **1.7.1 RESEARCH DESIGN**

The study used both qualitative and quantitative research approaches. Once used together they will complement each other. These two methods were necessary to be used because of the tools which were used to collect research information. Both the questionnaires and interviews had areas which could be statistically analysed as well as drawing thematic conclusions from the qualitative information.

Qualitative research is used when data is presented as narration with words. This type of research is mostly concerned with understanding the social phenomenon from participant's perspective (Bell, 2005:105). Its purpose is to provide rich narrative description of the phenomenon under study to enhance in-depth understanding. According to Creswell (2007: 27), qualitative research begins with assumptions, a worldview, the possible theoretical lens, and the study of research problem inquiry translated into meanings individual and groups ascribe to social and human problems. Thus qualitative researchers make use of an emerging qualitative approach to inquire and collect data in natural settings sensitive to the people and place under study. It is for the reasons discussed in this paragraph that qualitative approach dominated this study as its goal is holistic, seeks an in-depth understanding and it is more concerned with individual perception of the world. For this study, part of the data was collected by the researcher from the direct interviews with respondents in form of notes and words.

As indicated earlier, qualitative approach was complemented by quantitative approach which emphasises the use of statistics (statistical analysis of data). Demscombe (2003: 236) states that, "...quantitative research carries with it an aura of scientific respectability. Because it uses numbers and can present findings in the form of graphs and tables, it conveys a sense of solid objective research." This type of research presents statistical results with numbers and its purpose is to describe the phenomena under study numerically to answer a specific question/hypothesis.

In quantitative research approach, interpretation and findings are based on measured quantities

rather than impressions and these quantities can be checked by others for authenticity. The data can be analysed quickly, provided adequate preparation and planning has occurred well in advance. The quantitative approach was used for this study because the questionnaires had demographic information and responses which could easily be analysed statistically using the Statistical Analysis System.

## **1.7.2 POPULATION AND SAMPLING PROCEDURE**

### **1.7.2.1 Population**

Polit and Hungler (1999:37) refer to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications.

Population of the study is a target group or group of interest to the researcher (Bell, 2005: 105). Therefore, the population of the study was five (5) selected primary schools in Gaborone with enrolment figures of approximately 800 students per school. From each school, 20-32 teachers are employed, making it a total of approximately 150 teachers. Teachers who were attached to the units for learners who are intellectually challenged were targeted because they deal directly with these learners hence were presumed to provide reliable and much needed information for the study.

### **1.7.2.2 Sampling procedure**

According to Johnson (2004: 87), to sample is, to test a small amount of something in order to get information about a larger picture. It also can be defined as a “process or method of drawing a sample from a population” (Thomas Nelson Online Dictionary, 2007). Researchers on a fact-finding mission generally use sampling. Researchers select or take a small group in order to get information applicable to a large group or population. The researcher selected simple random sampling and purposive sampling techniques. According to Maree (2007), a simple random sample is a subset of a statistical population in which each member of the subset has an equal probability of being chosen. Simple random sampling is meant to be an unbiased representation of a group. Purposive sampling techniques involve selecting certain units or cases based on a specific purpose rather than randomly (Tashakkori & Teddlie, 2003).

For the purpose of this study, a simple random sampling approach was used to select schools for the study and a purposive sampling approach was used to get respondents in selected schools, being teachers who are teaching intellectually challenged learners and learners who are intellectually challenged. Purposive sampling means that participants are selected because of some defining characteristics that make them holders of the needed information (Kauffman, 2012: 94).

Five (5) selected primary schools participated in this study, with ten (10) teachers and five (5) learners per school. Teachers completed the questionnaire while learners were interviewed by the researcher. In total there were seventy-five (75) respondents.

### **1.7.3 DATA COLLECTION TECHNIQUES**

Two instruments, the questionnaire and an interview, were used for data collection.

#### **1.7.3.1 Questionnaire**

According to De Vos (2002:172), the basic objective of the questionnaire is to obtain facts and opinion about the phenomenon from people who are informed on the particular issue. This is a very important technique for data collection in educational research. De Vos (2002:172) maintains that “in using questionnaires, researchers rely totally on the honesty and accuracy of participants’ responses.

The questionnaire consisted of two sections, that is section ‘A’ and ‘B’. Section ‘A’ covered biographic information of the respondents. Such kind of information helped the researcher to gain an insight into the profiles of the respondents involved.

Section ‘B’ contained closed-ended questions. The questions were formulated on the basis of research objectives and literature review. The questions sought to find out:

- The challenges encountered by educators in dissemination of HIV/AIDS information

to learners who are intellectually challenged.

- How educators in primary schools disseminate HIV/AIDS information to learners who are intellectually challenged.

Thus in the study, questionnaires are an appropriate data collection method to gain an insight into the topic of study.

### **1.7.3.2 Interview guide**

The interview guide was used as a second research instrument. The interview is a research technique that can be used to investigate a wide variety of research problems as well as projects. An interview is a conversation between the interviewer and the respondents with the purpose of eliciting certain information from the respondents. According to Maree (2007:87), an interview is a two way conversation in which the interviewer asks the participants questions to collect data and to learn about the ideas, beliefs views options and the behaviours of the participants.

In the current study the interview was semi-structured. The advantage of semi-structured interviews is that they give more latitude to respondents and the researcher, and allow for an exploration of issues emerging from the research (Bell, 2005: 106). Interviews can be built around the emerging responses of each interviewee rather than being bound by pre-decided issues and, semi-structured interviews are believed to produce a wealth of valuable data (Maree, 2007:87).

The interviews sought to find out if the current system of disseminating HIV/AIDS information to learners who are intellectually challenged is appropriate as well as to investigate whether learners comprehend the information. Furthermore, the researcher found out from learners, other means of disseminating information which they thought they understood better.

During the interview, the responses were noted in point form and later converted into notes. The researcher opted for note taking because it gives the researcher an instant record of key points of

an interview. After the interview, the researcher read the notes with the respondents in order to find out whether what was captured was exactly what was said.

#### **1.7.4 DATA ANALYSIS**

The analysis of qualitative data was thematic, where by the researcher described and reported on what was identified within the data (De Vos, 2002:166). As for quantitative data it was analysed statistically, whereby the statistical package for social sciences (SPSS) 2011 version software was used. Frequencies and percentages of responses to each item were presented followed by interpretation of the results. Tables and figures were used to illuminate the findings.

#### **1.8 RATIONALE OF THE STUDY**

The researcher's position and capacity as a teacher in a primary school in Botswana as well as the integration of learners who are intellectually challenged in regular schools as per recommendations of RNPE (1994), motivated the need to investigate the challenges faced by educators when it comes to dissemination of HIV/ AIDS information to learners who are intellectually challenged. The researcher chose HIV/ AIDS because it has remained a major global health concern to which every individual including the intellectually challenged is vulnerable.

The researcher got inspired by a report published by the National Commission on Education of 1993 which indicated that most learners who are intellectually challenged are in regular schools due to their units being attached to regular schools. Moreover, their placement is not based on their degree of severity, that is, mild to profound. Instead, they are just mixed in a class/unit. As a result of this integration, the report indicated that learners are more vulnerable to HIV/AIDS. This prompted the researcher to undertake the study because learners who are intellectually challenged seem to be left behind in being taught such important information as the researcher feels if not exposed to, may lead to them being at risk of acquiring the disease due of lack of knowledge. The study will benefit, to some extent, educators by equipping them with skills to disseminate HIV/AIDS information to overcome the challenges mentioned. In the same vein, learners who are intellectually challenged will directly benefit from those skills taught by their

teachers.

## **1.9 RESEARCH PARADIGM**

As explained by Maree (2010: 30), the researcher needs to explicate a theoretical framework to situate/ locate his or her research, that is, show the origin of the study or to test the theory. In this study, the researcher showed the origin of the study in a well-defined explanation of events in which key concepts or principles are linked. There was an in-depth literature review in relation to the topic of the study.

This study was influenced by the constructivism theory. Constructivism is a view of learning based on the belief that knowledge isn't a thing that can be simply given by the teacher to students, but rather that knowledge is constructed by learners through an active, mental process of development. Learners are the builders and creators of meaning and knowledge (Schram, 2006). On the other hand, Somekh and Lewin (2005) define constructivism with reference to four principles: learning in an important way, depends on what we know already; new ideas occur as we adapt and change our old ideas; learning involves inventing ideas rather than mechanically accumulating facts; meaningful learning occurs through re-thinking old ideas and coming to new conclusions about new ideas which conflict with our old ideas. A productive, constructivist classroom, then, consists of learner-centred, active instruction in which the teacher provides students with experiences that allow them to hypothesise, predict, manipulate objects, pose questions, research, investigate, imagine and invent. The teacher's role is, therefore, to facilitate this process.

In this study, the concept of "constructivism" will mean a process whereby the intellectually challenged learners construct their own understanding, reality and knowledge of the world they live in, through reflection of what they have been taught about HIV/ AIDS by their teachers. It involves a dramatic change in the focus of teaching, to overcome the challenges encountered by educators in disseminating HIV and AIDS information to the intellectually challenged learners.

### **1.10 DELIMITATIONS OF THE STUDY**

The study on the challenges faced by educators in disseminating HIV/AIDS information to learners who are intellectually challenged was confined to selected primary schools in Gaborone in Botswana.

This was due to the fact that the researcher is a teacher in one of the primary schools within Gaborone, therefore it was easy to gain access to the respondents. Furthermore, the participants were teachers and learners in upper classes. Upper classes are learners who range between standard five up to seven. The upper classes were chosen because learners in such classes can at least speak about issues and answer questions better than their counterparts in the lower classes. It is important to note that due to the intellectual challenge presented by the learners at the study school, there were some overgrown (up to age 21) learners who were still in primary school and hence the need for this study in the selected classes.

### **1.11 LIMITATIONS OF THE STUDY**

The study was confined to five primary schools in Gaborone. This may mean that the findings are not fully representative of schools in Botswana, which vary according to district, locality, region, type of school, time constraints, resources, age, gender, ethnicity, race and overall population. So, the study does not give a holistic view about the challenges faced by educators in disseminating HIV/ AIDS information to intellectually challenged learners in Botswana at large.

### **1.12 DEFINITION OF CONCEPTS**

#### **Intellectually challenged/ Intellectual disability:**

These are individuals who demonstrate some degree of impaired mental abilities, traditionally said to be reflected in an IQ significantly below average and lacking some adaptive skills (Vaugh, Bos & Schumm, 2003: 229).

According to the American Association of Intellectual and Developmental Disabilities (AAIDD) (2016), Intellectual disability is a disability characterized by significant limitations in both

intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills.

For this study, the definitions above in their context are used to mean the intellectually challenged learners.

**HIV:** Is an acronym for Human Immunodeficiency Virus.

**AIDS:** Acronym for Acquired Immune Deficiency Syndrome.

Schenker & Nyirenda (2001: 161) explained AIDS further as follows:

**Acquired:** the virus is not spread like a virus such as influenza is spread; mainly it is spread through sexual intercourse or contacted through infected blood.

**Immune deficiency:** The virus attacks the immune system which protects people against different diseases. As a result, the system becomes weak and deficient and thus the body is vulnerable and defenceless when attacked by various diseases, contrary to its natural function, the immune system is unable to fight back.

**Syndrome:** AIDS is understood to be a collection of diseases rather than one disease and for this reason is referred to as syndrome.

## **1.12 DIVISION OF CHAPTERS**

### **Chapter 1: Introduction and background**

This chapter serves as orientation to the entire study including the problem of the study. It will cover factors which lead to the investigation of the study, research objectives and research design.

### **Chapter 2: Literature review**

The chapter covers the literature relevant to the topic of study. Topics discussed are as follows: definition and characteristics of learners who are intellectually challenged, ways of disseminating HIV/AIDS information to learners who are intellectually challenged, challenges encountered when disseminating HIV/AIDS information to learners who are intellectually challenged and raising awareness about HIV/AIDS and solutions to challenges faced by educators.

### **Chapter 3: Research design**

The chapter describes the research design used in the study. It also presents targeted population, sampling procedures, and instruments for data collection as well as data analysis procedures.

### **Chapter 4: Data presentation, analysis and Interpretation**

The chapter presents data collected from the respondents/participants as well as analysis of data in relation to research objectives and literature. While findings for quantitative data were presented by tables and figures, findings from qualitative were done whereby the researcher described key issues that emerged from data. At this point in the research, quantitative and qualitative approaches used in this study were merged.

### **Chapter 5: Summary, discussions, conclusion and recommendations**

The chapter presents a summary of the entire study with reference to the purpose and objectives of the study as well as the findings of the study. The chapter also outlines recommendations drawn from the findings of the study.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

A literature study of the research topic (challenges faced by educators in disseminating HIV/AIDS information to intellectually challenged learners is presented. Various sources were consulted to give a holistic picture about the topic under study and how far researchers have researched about the topic “Challenges faced by educators when disseminating HIV/AIDS information to intellectually challenged learners.” To this end, first the theory underpinning the study is presented followed by literature study covering the following sub-headings:

- Who are learners with intellectual disabilities?
- Characteristics of learners with intellectual disabilities
- How educators disseminate HIV/AIDS information to learners with intellectual disabilities
- Challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disabilities
- Solutions to challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disabilities

### **2.2 THEORETICAL FRAME WORK GUIDING THE STUDY**

This study was influenced by the constructivism theory. According to Piaget’s theory and Kelly (1991) cited by Eggen and Kauchack (2010:49), constructivism is a view of learning based on the belief that knowledge is not a thing that can simply be given by the teacher to the students, but rather that knowledge is constructed by learners through an active, mental process of development and that learners are the builders and creators of meaning and knowledge.

On the other hand, Fosnot (1989) cited by Eggen and Kauchack (2010:49) defines constructivism by making reference to five principles:

- learning in an important way depends on what we know already,
- new ideas occur as we adapt and change our old ideas,
- learning involves inventing ideas rather than mechanically accumulating facts,

- meaningful learning occurs through re-thinking old ideas and
- Coming to new conclusions about new ideas which conflict with our old ideas.

Therefore, a productive, constructivist classroom, then, consists of learner-centred, active instruction in which the teacher provides students with experiences that allow them to hypothesize, predict, manipulate objects, pose questions, research, investigate, imagine and invent. The teacher's role is therefore to facilitate this process.

Hence in this study, the concept "constructivism" will mean a process whereby the learners who are intellectually challenged construct their own understanding, reality and knowledge of the world they lives in, through reflection of their past experiences and through their interactions with the environment. With regard to dissemination of HIV/AIDS, information this will mean that teachers provide students with experiences that will allow them to hypothesize, predict, manipulate objects, pose questions, research, investigate, imagine and invent. Hence learners who are intellectually challenged will be equipped with skills and knowledge.

### **2.3 WHO ARE LEARNERS WITH DISABILITIES?**

The task of defining learners with disability is a challenge that the special education community struggles to clarify (Catts & Kamhi, 2005).

According to National Center on Birth Defects and Developmental Disabilities (NCBDDD) (2005) intellectual disability is a term used when a person has certain limitations in mental functioning and in skills such as communicating, taking care of him or herself, and social skills. These limitations will cause a child to learn and develop much slower than a typical child. Children with intellectual disabilities may take longer to learn to speak, walk, and take care of their personal needs such as dressing or eating. They are likely to have trouble learning in school. They will learn, but it will take them longer. There may be some things they cannot learn.

An intellectual disability is a significant limitation in a student's cognitive functioning and daily adaptive behaviors (Schalock and Luckasson, 2004; American Association on Mental Retardation, 2002). Garry (2012) states that 'Intellectual disability is a broad concept encompassing various intellectual deficits, including mental retardation (MR), deficits too mild to properly qualify as MR, various conditions such as specific learning disability, and problems acquired later in life through acquired brain injuries or neurodegenerative diseases like dementia. Intellectual disabilities may appear at any age.

Intellectual disability is a disability characterized by significant limitations both in intellectual functioning and in adaptive behaviour, which covers many everyday social and practical skills (Carver & Smith, 2012:4).

The above section discusses the meaning of learners with intellectual disabilities, the following section looks at the causes of intellectual disability in such learners.

### **2.3.1 What Causes Intellectual Disability?**

In order to be able to deal with the challenges faced by educators in disseminating HIV/ AIDS information to intellectually challenged learners, it is important to understand, from the literature the causes of intellectual disability. In this section, these causes are explored since can help to come up with recommendations that can help to curb such challenges.

According to NCBDDD (2005) doctors have found many causes of intellectual disabilities. The most common are:

- ***Genetic conditions.*** Sometimes an intellectual disability is caused by abnormal genes inherited from parents, errors when genes combine, or other reasons. Examples of genetic conditions are Down syndrome, fragile X syndrome, and phenylketonuria (PKU).
- ***Problems during pregnancy.*** An intellectual disability can result when the baby does not develop inside the mother properly. For example, there may be a problem with the way the baby's cells divide as it grows. A woman who drinks alcohol or gets an infection like rubella during pregnancy may also have a baby with an intellectual disability.

- **Problems at birth.** If a baby has problems during labour and birth, such as not getting enough oxygen, he or she may have an intellectual disability.
- **Health problems.** Diseases like whooping cough, measles, or meningitis can cause intellectual disabilities. They can also be caused by extreme malnutrition (not having enough to eat, not eating enough of the right things, or being unable to use the food that one does eat), not getting enough medical care, or by being exposed to poisons like lead or mercury.
- **Metabolic Disorders like phenylketonuria.** Phenylketonuria (PKU) is a metabolic disorder that is caused by a recessive gene inherited from both parents. In most cases, PKU is characterized by the body's inability to convert phenylalanine, an essential amino acid found in certain foods, to paratyrosine. In PKU, the enzyme that breaks down phenylalanine (phenylalanine hydroxylase) is not produced by the liver. As the child eats foods rich in phenylalanine, such as dairy, meats, cheeses, and certain breads, the substance builds up and becomes toxic. Phenylalanine toxicity eventually causes brain damage and Intellectual Disability.
- **Maternal Substance Use.** Many drugs, if ingested by pregnant women, are associated with low birth weight, small head circumference, and increased risk for behavioural and learning problems in childhood. Interestingly, "hard" drugs, such as heroin and cocaine, are not as consistently associated with children's Intellectual Disability as are more socially accepted drugs like alcohol.

An intellectual disability is not a contagious disease. Individuals cannot catch an intellectual disability from anyone. It is also not a type of mental illness, like depression. There is no cure for intellectual disabilities. However, most children with an intellectual disability can learn to do many things. It just takes them more time and effort than other children (Fuchs, Mock, Morgan, & Young, 2003).

#### **2.4 CHARACTERISTICS OF LEARNERS WITH INTELLECTUAL DISABILITIES.**

Vuijk, Hartman, Scherder and Visscher (2010:955-965) indicated that intellectual disability is characterized by significant limitations both in intellectual functioning and in adaptive behaviour expressions expressed in conceptual, social and practical adaptive skills. This disability originates before the age of 18 (Schalock: 2007, 116-124). Individuals with intellectual disability

have limitations in developmental skills in several domains of functioning including cognitive, motor, auditory, language psychosocial, moral judgement and specific integrative adaptive activities of daily living (Pratt and Greydanus, 2007 375-386). These characteristics are given so that readers can have an insight as to who really are learners with intellectual disabilities.

#### **2.4.1 Poor intelligence**

Turnbull (2007:243) defines intelligence as “a student’s general mental capability for solving problems, paying attention to relevant information, thinking abstractly, remembering important information and skill, learning from everyday experiences, and generalizing knowledge from one setting to another”. It is important to say that traditional tests that measure intelligence, such as IQ tests are, for the most part, not used when concerning students with intellectual disabilities because they do not give a fair and accurate representation of someone that experiences intellectual limitations. This is because testing conditions and interpretation of test results influence the IQ measure and other psychometric outcomes.

Furthermore, IQ tests are psychometric tests which only capture a few aspects of many different ‘intelligences’ or ‘systems of abilities’ omitting, for example, creative and practical intelligence social, emotional and moral intelligence, and lateral and radiant thinking. Also, wisdom is not considered. IQ tests are ‘static’ (that is, ‘What has the child learned?’) rather than ‘dynamic’ (that is, ‘What does the child achieve when given guided feedback?’) Basically IQ tests do not measure intelligence but are rather tests of a child’s attainments in certain class oriented and arbitrarily selected skills (Ropers and Menzel, 2007).

#### **2.4.2 Limitations in adaptive behaviour**

According to Jenkinson (1996), definitions of intellectual disability have traditionally depended on psychometric conceptions of intelligence and the use, with varying degrees of flexibility, of cut-off scores on intelligence tests. More recently, deficits in adaptive behaviour as well as in intelligence have been incorporated into definitions of intellectual disability and identification is directed towards establishing support needs rather than identifying group or category

membership. According to Turnbull (2007: 245), adaptive behaviour refers to the collection of conceptual, social and practical skills that have been learned by people in order to function in their everyday lives. It is safe to say that people with Intellectual Disabilities have substantial restrictions in adaptive behaviour which can be seen when a student has trouble demonstrating a skill he or she has already learned.

Typically, the student will need to be prompted when and where to perform a specific skill. When teaching students with intellectual disabilities that exhibit any limitations in adaptive behaviour, three areas also need to be taken into account: Conceptual skills, such as language, reading and writing, social skills that includes but is not limited to self-determination, self-esteem, motivation and perseverance, and practical skills like learning how to use and keep track of money (Turnbull, 2007: 246).

### **2.4.3 Borderline or Mild IQ**

While discussing several characteristics that are often seen when a student is identified with a mild intellectual disability, it does not mean to suggest that all students with this disability are alike (Rosenberg, Westling & McLeskey, 2013). Indeed, as with any group of people, students with mild intellectual disabilities vary widely in their ability to do schoolwork and adjust to social situations in school and other locations. However, in contrast to most other disability categories, students with mild intellectual disabilities tend to have more general, delayed development in academic, social, and adaptive skills. This delayed development is reflected in low achievement across content and skill areas as well as significantly lower scores on measures of intelligence and adaptive behaviour when compared with students who are not identified with intellectual disabilities.

According to Roberts (2013:1) a person's intellectual functioning abilities are assessed by intelligence tests which determine the individual's Intelligence Quotient, or IQ. The levels of intelligence, which are determined by an IQ test, fall into four categories: borderline or mild, moderate, severe and profound. These levels are based on assessment results and are clinical definitions of a person's level of intellectual functioning. IQ's are arbitrary and do not measure a person's strengths, wants or lifestyle. An IQ which falls at or below 70 is two standard deviations

below the average, and considered borderline or mild intelligence. Possessing a borderline or mild IQ is a characteristic of intellectual disability.

Educators have the responsibility of disseminating HIV/AIDS information to learners who are intellectually challenged. Characteristics of these learners should not discourage educators from disseminating HIV/AIDS information. Vaugh (2003: 127) highlighted that learners who are intellectually challenged should know the basic fact of HIV/AIDS as well as medical facts of HIV/AIDS and treatment, but the authors acknowledged that it is not an easy task taking into consideration characteristics of learners who are intellectually challenged.

Students who are identified with mild intellectual disabilities lag significantly behind grade-level peers in developing academic skills. Thus, students with mild intellectual disabilities are likely to be significantly delayed in learning to read and learning basic math skills (Taylor, Richards, & Brady, 2005). This delay in developing foundational skills in reading and math, coupled with delays in language skills, results in delays in other academic areas that require the use of skills (such as writing, spelling, science). Thus, these delays in the development of such important foundation and language skills make it difficult for educators to disseminate HIV/ AIDS information to learners with intellectual disabilities.

#### **2.4.4 Challenging Behaviour**

Approximately 25% of individuals with Intellectual Disability show challenging behaviour. Experts in the field of developmental disabilities use the term challenging behaviour to describe children's actions which are of such intensity, frequency, or duration that their physical safety (or the safety of others) is placed in jeopardy. Challenging behaviour also includes actions that limit the child's access to educational or social opportunities (Duker, Didden, & Sigafoos, 2004). Challenging behaviour is problematic because it can affect children's health and development. Specifically, it can adversely affect children and families in several ways.

- It can be physically harmful.
- It can strain relationships with parents and cause children to be rejected by peers.
- It can limit children's access to developmentally appropriate social experiences, such as birthday parties, sleepovers, and participation in sports.
- It can interfere with learning and cognitive development.

- It can place a financial burden on families and the public.

These adverse conditions make it difficult for learners to absorb the HIV/ AIDS information that is disseminated to them by their teachers as they clearly affect the learners' ability to learn.

#### **2.4.5 Stereotypes**

Some children with Intellectual Disability show stereotypes, behaviours that are performed in a consistent, rigid, and repetitive manner and that have no immediate, practical significance (Carcani-Rathwell, Rabe-Hasketh, & Santosh, 2006). Stereotypes often involve repeated movements of the hands, arms, or upper body. For example, some children flap their hands, repeatedly move their fingers, twirl, fidget with objects, or rock back and forth. Other common stereotypes are facial grimacing, face and head tapping, self-biting, and licking. Typically developing infants and toddlers sometimes show stereotyped behaviours, such as arm waving, kicking, or swaying. Some healthy older children and adolescents continue to engage in repetitive behaviours, such as hair twirling, body rocking, and repetitive object manipulation (e.g., twirling a pencil). These behaviours are not problematic unless they come to dominate the youths' behaviour, persist over time, and interfere with functioning.

In one large study, 18% of higher functioning and 31% of lower functioning children with developmental disabilities also displayed stereotypies. Moreover, 71% of youths with Intellectual Disability showed stereotyped behaviours (Elizabeth & Luc, 2013).

Children engage in stereotypes for many reasons (Elizabeth & Luc, 2013). Certain genetic disorders are characterized by stereotyped movements. More commonly, children engage in stereotypes because these behaviours are self-reinforcing. For example, spinning in place or rocking back and forth can be pleasurable, especially in situations that might otherwise be boring (e.g., sitting at a desk, waiting in line). Still other children engage in stereotypes to regulate anxiety or frustration. For example, a child might suck his fingers or flap his arms to soothe himself or express agitation or excitement.

#### **2.4.6 Self-Injurious Behaviours**

Self-injurious behaviours (SIBs) involve repetitive movements of the hands, limbs, or head in a manner that can, or do, cause physical harm or damage to the person. SIBs can be classified in three ways. First, they can be described in terms of their severity, from mild (e.g., head rubbing, finger picking, thigh slapping) to severe (e.g., eye gouging, self-scratching, head banging). Second, SIBs can be described in terms of frequency, from low-occurrence acts with high potential for harm (e.g., head banging once per day) to high-occurrence acts that may cause harm over time (e.g., hand rubbing). Some actions seem reinforced by the reactions they elicit in others. For example, a child might gain attention from his teacher by picking his skin. Other actions appear to be reinforcing by themselves. For example, a child might insert objects into his mouth or ears because they produce positive sensations.

Approximately 10% to 12% of children with Intellectual Disability engage in SIBs (Didden, Huskens & Reijas, 2012). The prevalence of SIBs, like stereotypes, is directly related to the severity of children's intellectual and adaptive impairments. SIBs are most commonly seen in children with severe and profound impairments, children in institutional settings, and children with Autism Spectrum Disorder (Thompson & Caruso, 2002). Indeed, children with Intellectual Disability and autism may be five times more likely than children with Intellectual Disability alone to show SIBs. Head banging and self-biting/scratching are the two most common SIBs (Kahng, Iwata, & Lewin, 2002).

#### **2.4.7 Physical Aggression**

Learners with Intellectual Disability, like their typically developing peers, sometimes engage in aggression (Farmer & Aman, 2011). Aggression refers to behaviour that causes (or can cause) property destruction or injury/harm to another person. Aggressive acts include throwing objects, breaking toys, ruining furniture, hitting, kicking, and biting others. Some experts also consider name-calling, screaming, and yelling a form of aggression. By definition, aggressive acts are done deliberately, not by accident. However, it is sometimes very difficult to determine the intentions of children with severe or profound Intellectual Disability (ID) (Didden et al., 2012).

Even though aggression occurs in a social context and is maintained to a major extent by social contingencies, medical, genetic, psychiatric and psychological conditions, aggression and related disruptive acts represent the most frequently occurring behavioural challenges of learners with intellectual disabilities (Gardner, 2007: 251). As an example, an increased rate of occurrence of aggression has been reported in learners with Intellectual Disability (Gardner, 2007: 251). Additionally, referrals for mental health services for learners with ID typically are initiated by presence of recurring and severe behavioural concerns involving aggression and related disruptive activities (Gardner, 2007, 251). Such injurious aggression makes it difficult for educators not only to teach but also to disseminate important HIV/ AIDS information to learners with intellectual disabilities.

#### **2.4.8 Low Academic Performance**

Learners who are identified with mild intellectual disabilities lag significantly behind grade-level peers in developing academic skills. Thus, students with mild intellectual disabilities are likely to be significantly delayed in learning to read and learning basic math skills (Taylor, Richards, & Brady, 2005). This delay in developing foundational skills in reading and math, coupled with delays in language skills, then results in delays in other academic areas that require the use of these skills (e.g., writing, spelling, science).

However, many learners with mild intellectual disabilities develop basic literacy skills and functional mathematical skills. For example, most learners with mild intellectual disabilities learn basic computational skills and functional arithmetic skills related to money, time, and measurement. However, most of these students continue to have difficulty with more advanced skills related to content, such as mathematical reasoning and applying concepts to solve problems (Beirne-Smith Patton & Kim, 2006).

It is noteworthy that delayed language development, which is characteristic of students with mild intellectual disabilities, also has a negative influence on academic achievement. The academic area in which language delay has the most detrimental effect is reading (Torgesen, 2000). While students who are mildly intellectually disabled and who are poor readers share a deficit in phonological language skills similar to other students with disabilities (e.g., students with LD) (Fletcher, Scott, Blair, & Bolger, 2004), students with intellectual disabilities are also often

significantly delayed in general oral language skills. Thus, even if students with mild intellectual disabilities develop the ability to read individual words and strategies for reading comprehension, they will have difficulty comprehending what they have read because of weak verbal skills in areas such as vocabulary. Therefore, teachers need to provide these students with instruction to address their phonological weaknesses as well as a broader range of language skills (e.g., vocabulary development) (Torgesen, 2000).

#### **2.4.9 Low Cognitive Performance**

Students with mild intellectual disabilities are characterized by general delays in cognitive development that influence the acquisition of language and academic skills. Moreover, while these students can learn much information that is part of the general education curriculum, they learn more slowly than do typical students. Deficits in specific cognitive skill areas also contribute to this delay. Three of the most important cognitive skill deficits exhibited by students with mild intellectual disabilities are related to attention, memory, and generalization.

**i) Attention:** Students with mild intellectual disabilities have difficulty with different types of attention, including orienting to a task, selective attention, and sustaining attention to a task (Wenar & Kerig, 2006). Orienting to a task requires a student to look in the direction of the task (e.g., a teacher demonstrating how to solve a math problem on an overhead projector in the front of the room). Selective attention requires that the student attend to relevant aspects of the task and not to unimportant task components (e.g., attending to one type of math problem on a page and completing the appropriate operation). Finally, sustained attention requires that the student continue to attend to a task for a period of time.

The attentional difficulties of students with mild intellectual disabilities have several implications for how they may be more effectively taught (Beirne-Smith et al., 2006, p. 277). For example, teachers should;

1. present initial stimuli that vary in only a few dimensions,
2. direct the individual's attention to these critical dimensions,
3. initially remove extraneous stimuli that may distract the individual from attending
4. increase the difficulty of the task over time, and

5. teach the student decision-making rules for discriminating relevant from irrelevant stimuli.

**ii) Memory:** Students with mild intellectual disabilities also have difficulty remembering information (i.e., short-term memory). For example, these students may have difficulty remembering math facts or spelling words; or if they remember this information one day, they may forget it the next. To some degree, memory problems are influenced by attentional difficulties. That is to say, students will have difficulty remembering information if they do not orient to the information, select the information that needs to be remembered, and maintain attention to the important material for a period of time.

However, distinct from attentional problems, students with mild intellectual disabilities have difficulty generating and using strategies that help facilitate short-term memory. For example, when students attempt to remember information, many use a rehearsal strategy (repeating information over and over) to facilitate learning (Kirk, Gallagher, Anastasiow, & Coleman, 2006). Teaching approaches to addressing short-term memory deficits include focusing on meaningful content during instruction and instructing students about strategies that they might use to facilitate remembering information (e.g., rehearsal, clustering information, using mnemonic devices) (Smith, Polloway, Patton, & Dowdy, 2004).

**iv) Generalization:** A final area in which many students with mild intellectual disabilities have difficulty relates to the generalization of information to other material or settings (Wenar & Kerig, 2006). For example, a student may learn operations for addition and subtraction but may then have difficulty generalizing this information to a division problem. Similarly, a student may learn a new word when reading material in one subject area but may have difficulty reading the same word in other reading material. Students with mild intellectual disabilities also have difficulty generalizing material learned in one setting to another (e.g., from school to the community). Teaching strategies that may be used to address difficulties with generalization include teaching material in relevant contexts, reinforcing students for generalizing information across material or settings, reminding students to apply information they have learned in one setting to another, and teaching information in multiple settings (Smith et al., 2004).

#### **2.4.10 Low Social Skills Performance**

Many of the cognitive characteristics of students with mild intellectual disabilities may contribute to difficulty interacting socially. For example, a low level of cognitive development and delayed language development may cause a student with intellectual disability to have difficulty understanding the content of verbal interactions and understanding expectations during verbal interactions. Similarly, difficulty with attention and memory impedes social interactions, as students with mild intellectual disabilities have difficulty attending to important aspects of social interactions, maintaining attention over time, and holding important aspects of what they observe in short-term memory.

In addition to social difficulties that result from general cognitive deficits, students with mild intellectual disabilities share many of the same social difficulties of students with learning disabilities, including the inability to read social cues and interact successfully in conversations, lack of affiliation in school activities, low social status, and negative self-concept.

As with students with LD, these characteristics often lead to lower social status in classrooms and, at times, alienation of students from teachers and peers and lack of affiliation or involvement in school. Moreover, social skills deficits may lead students with mild intellectual disabilities to feel that they are unimportant to peers and teachers and produce feelings that they are not involved in the social community of the school. These difficulties may lead students with mild intellectual disabilities to withdraw in social situations or seek attention in inappropriate ways. They may also behave inappropriately because they have difficulty distinguishing between acceptable and unacceptable standards of behaviour (Beirne-Smith et al., 2006).

Directly teaching social skills is one approach that may be used to address the social skills deficits of students with mild intellectual disabilities. This may be necessary for many students with mild intellectual disabilities because their limited cognitive and language skills prevent them from developing these skills through spontaneous interactions with peers.

Students with mild intellectual disabilities have little opportunity to interact with age-level peers in school settings, due to the fact that they spend a large proportion of the school day in segregated school settings with other students with disabilities (Williamson, McLeskey, Hoppey,

& Rentz, 2006). Extensive research evidence reveals that the social skills of students with mild intellectual disabilities tend to be improved when they are provided with appropriate supports and included in a general education classroom with age-appropriate peers for a large part of the school day (Freeman & Alkin, 2000).

## **2.5 GLOBAL PERSPECTIVE**

Globally there is need for more well-trained and motivated teachers to teach intellectually challenged learners. Well trained teachers can help ensure that every child learns to their full potential from an early age and enters adult life well-equipped to be active citizens and support the development of their community and country (Rowden, 2011). Many countries do not have enough teachers, let alone enough teachers who have received pre and in-service training and access to continuing professional development to be able to teach children with intellectual disabilities (Singal, 2007). The lack of well-prepared and motivated teachers impacts on the enrolment, participation and achievement of all children (including those with intellectual disabilities) – but can be particularly detrimental to the education of children from marginalized groups, who may need some extra encouragement or assistance to reach their educational potential (ibid).

According to Rowden (2011) teachers are often simply not trained or supported to teach children with intellectual disabilities, which makes these children among the most marginalized in terms of educational opportunity and attainment. An estimated 15% of the world's population has a disability. Globally, 93 million children are estimated to have moderate and severe intellectual disabilities – and many of these children are out of school (ibid). That means they are not being given the chance to become empowered as individuals and support their communities. The exclusion of children with intellectual disabilities from education and from fair life chances requires urgent and sustained attention.

In particular, attention needs to be paid to preparing teachers who are capable of including children with intellectual disabilities in the education process while disseminating the HIV/AIDS information. Such preparation of teachers can help them to achieve their goals of making

intellectually challenged learners understand and grasp the HIV/ AIDS concepts as they are taught (Rowden, 2011).

### **2.5.1 The education of children with intellectual disabilities as an urgent issue**

According to UNESCO (2010) the number of children of primary school age who are out of school fell from 108 million in 1999 to 61 million in 2010, but progress has stalled in recent years. Although there are 25% more children in secondary school today compared to 1999, 71 million adolescents of lower secondary school age were out of school in 2010; as primary education, progress has stagnated.

Children with disabilities like intellectual disabilities are disproportionately represented among those who are missing out on education. UNESCO (2010) indicates that having a disability more than doubles the chance of never enrolling in school in some countries. Intellectual disability is often a more significant factor in relation to exclusion from education than gender or geographical location. Coming from a poor family and having a parent with an intellectual disability also increases the likelihood of a child being out of school, for example by 25% in the Philippines and 13% in Uganda.

Singal (2007: 47) says that the quality of education for those attending school is unsatisfactory. For example in his research, Singal (2007:47) shows that approximately 200 million children are currently in school but are learning very little about HIV/AIDS because of inefficient and inadequate education; between 25% and 75% of children with intellectual disabilities in poor countries cannot read a single word even after several years in school. As a consequence of these quality issues, children with intellectual disabilities who do access HIV/AIDS information often do not participate on equal terms with their non-disabled peers, or achieve to their full potential. This has enormous implications for their chances on fighting HIV/AIDS and playing an active role in helping others not to have information about HIV/ AIDS.

In a research undertaken by Kauffman (2012), the international community has committed itself to achieving universal basic education through the Millennium Development Goals and Education for All goals. Yet these frameworks pay insufficient attention to marginalized groups such as children with intellectual disabilities – which is a major reason they continue to miss out on quality education. Education goals and targets in the post-2015 development framework must be based on human rights principles and focused on eliminating inequalities faced by persons with disabilities (this in turn requires gathering of disaggregated data). Moreover, the educational aspects of the new framework need to incentivize states to build and strengthen inclusive systems of education. One vital step that can be taken to this end is to pay greater attention to recruiting, training and supporting teachers to respond to the diverse needs of learners with intellectual disabilities.

### **2.5.2 Preparing teachers to teach children with disabilities is essential**

A root cause for poor quality education is the severe lack of well-trained teachers who are adequately supported and managed throughout their careers. In Niger, for instance, ‘... there are just 1,059 trained teachers at lower secondary level for 1.4 million children’ – that’s 1,322 children for every trained teacher (Global Campaign for Education, 2012:2). Compare this with a pupil to (trained) teacher ratio in the UK of approximately 16:1 in secondary education, and the massive shortage of trained teachers in developing countries like Niger becomes very obvious (Global Campaign for Education, 2012). This makes it difficult to attend to the intellectually challenged and most importantly disseminate HIV/AIDS information to them.

The Global Campaign for Education (2012) argues: ‘... high quality education requires sufficient recruitment of teachers who are trained, supported, paid and managed as professionals to handle learners with intellectual disabilities. An estimated 1.7 million more primary teaching positions need to be created in the period 2010–2015. Policy-makers also need to better understand teacher attrition (the number of teachers leaving the profession) and work to reduce it’. However, improving recruitment levels and reducing attrition must not lead to countries employing less qualified teachers or lowering national standards. Of 100 countries with data on primary education, 33 have less than 75% of teachers trained to handle learners with intellectual disabilities.

National standards for teacher training can vary considerably between countries, and are often inadequate. Teacher training for regular teachers also rarely prepares teachers for working in diverse classrooms and, in particular, does not equip them with the confidence, knowledge and skills to effectively support learners with intellectual disabilities (The Global Campaign for Education, 2012). This is a key reason why so many children with intellectual disabilities remain out of school, or excluded from the learning process within school. If we are to reignite progress towards quality basic education (early childhood, primary and lower secondary schooling) *for all*, then regular teachers need to be prepared to meet the learning and participation needs of children with intellectual disabilities (ibid). This way, they will be able to disseminate HIV/AIDS information to learners with intellectual disabilities.

### **2.5.3 The importance of donor support for fundamental improvements to teacher training**

The Global Campaign for Education (2012) highlighted that bilateral and multilateral donors must work with developing countries in order to ensure the right to education for all children, particularly the most marginalized, such as children with intellectual disabilities. Donors need to:

- research the most effective approaches to training, supporting and managing teachers to include all children in different contexts. This will include piloting innovative projects, rigorously monitoring and evaluating all initiatives, and supporting efforts to scale-up, adapt and transfer successful pilots;
- develop the capacities of those responsible for organising and providing training and on-going support to teachers;
- document and share good practice in relation to training quality teachers who deliver effective learning and participation for diverse students in inclusive ways.

All of this must link to other ‘building blocks’ of the education system (i.e. policy and governance; financing; curriculum and assessment; equipment and materials; infrastructure; and management information systems) and ensure co-ordination with other sectors such as health and nutrition if HIV/AIDS information will be disseminated well.

Recent UNESCO studies suggest that only one-to-two per cent of children with intellectual disabilities in developing countries receive basic education. Boys with disabilities attend school more frequently than girls in similar situations (<http://www.aidsfreeworld.org/our-issues/disability/~media/edb93e5e4cf043a6a1c67dcc97994582.pdf>). This is perhaps because of the society that looks at girls as inferior to boys especially in Africa.

A study conducted in Maryland USA shows that intellectually disabled people are 2 to 10 times as likely as their able counterparts to be HIV positive. This has been attributed to the challenges intellectually challenged people experience including poor access to information about HIV/AIDS and safe sex, inadequate treatment programs and issues such as confidentiality within the community, difficulty in getting information from the media and lack of prevention programs aimed specifically at them (Monaghan, 2003).

Education and awareness on HIV/AIDS enables learners with intellectual impairments to make informed decisions in relation to living positively or negatively (Monaghan, 2003). The author also indicated that the use of participatory strategies enables them to share ideas, engage in the construction of messages, activities and come to a consensus as to what they understand by the concepts being explored. Schools working for and with intellectually disabled people utilize outreach forums such as workshops, seminars, home visits and mobilization to disseminate information regarding HIV/AIDS transmission, prevention, care and treatment. In these forums intellectually challenged people are involved in dissemination of HIV/AIDS information. According to Monaghan (2003) successful approaches utilized by various programmes to enhance awareness include:

#### **a) Peer Education**

According to Monaghan (2003) peer education has proven to be an effective strategy in global HIV/AIDS prevention. Successful programmes have used both formal and informal approaches to gather and teach the intellectually impaired on the intersections between sexuality, and HIV/AIDS at individual, group and community levels. Through peer education, training on use of condoms, transmission, care and treatment of HIV/AIDS, counselling and empowerment on

communication skills have been facilitated. The key strategies that have been used in carrying out peer education sessions include:

- Peer led informal discussions on sexuality, decision-making and sex negotiation skills.
- Use of diverse techniques, for example through condom demonstrations, to provide information on the associations between risky sexual behaviour and HIV/AIDS.

#### **b) Behaviour change communication**

Some schools in the world, especially USA, have zeroed in on the creation of HIV/AIDS prevention and awareness through the development of intellectually impaired friendly educational tools such as posters, flyers, policy briefs, newsletters, brochures, banners, drawings and pictorial illustrations such as cartoons with HIV messages (Monaghan, 2003).

Innovative approaches aimed at enabling HIV/AIDS awareness such as the use of magnetic theatres have also been utilized. Magnetic theatres are short dramas and skits acted by disabled people. They are premised on the edutainment approach which combines education and entertainment and therefore often attract large crowds (Monaghan, 2003).

Monaghan (2003) highlighted that in Jamaica, some strategies used include;

- i) Utilization of mobile phone and television. Through this strategy, the programme directly addresses the disabled community on the subject of HIV, by:
  - Customizing messages and information and delivering it in accessible formats to suit their intellectual disabilities such as sending HIV prevention messages through the short text messaging service on mobile phones.
  - Ensuring that public health information on television has the necessary sign language for the intellectually impaired learners' community.
- ii) Use of Videos and Compact Discs (CDs):

Video and CD documentaries with HIV/AIDS and Sexually Transmitted Infections (STI) information have also been produced to teach the intellectually impaired on issues pertaining HIV/AIDS.

## **2.6 CHALLENGES ENCOUNTERED BY EDUCATORS WHEN DISSEMINATING HIV/AIDS INFORMATION TO LEARNERS WITH INTELLECTUAL DISABILITIES.**

According to Rohleder (2010), little is known about how HIV/AIDS affects people with disabilities, although international literature suggests that people with learning disabilities and other disabilities may be at increased vulnerability to HIV infection. One factor that increases vulnerability to HIV is the lack of sex education and resulting knowledge about safe sex. People who are intellectually challenged have historically been excluded from sex education as they have often been perceived as being either asexual or over-sexed, and this sex education is either irrelevant or potentially dangerous. For those that work with people with learning disabilities, they may have to work with notions of damage, vulnerability and dependency, which may be disavowed aspects of the self which are projected on to people with disabilities. The work is made more difficult by the anxieties that issues of sex and sexuality raise.

Disseminating information is hampered by several factors depending on the severity of the intellectual disability, the institution, the society at large and failure to address the needs (Kanyengo, 2009). Reaching intellectually disabled learners with HIV and AIDS messages and other services presents unique challenges (Helander, 1998). Learners with intellectual disabilities, particularly in the developing world, experience barriers to accessing information and services. These can arise from restrictive cultural norms (Smith et. al., 2004) service limitations and lack of communication skills by staff (Ubido, 2002).

It also has been argued that most teachers, unfortunately, have no formal training in teaching HIV and AIDS issues. Not much has been done to orient them on how to handle such issues. For example, a survey carried out by Kenya National Union of Teachers (KNUT), showed that

Kenyan teachers were not generally well prepared for lessons and that many were not well informed about the subject.

In another development Schmaling (2006) revealed that in his feature *'person with AIDS advocates for deaf'*, Andrew Burges of AIDS project Los Angeles, highlights the language barriers involved in transferring HIV and AIDS information to persons who are intellectually impaired. Unlike English, sign language is a very visual and emotional language and because of that, it does not translate well into a written language. This language hurdle is a prime concern for HIV educators who have a difficulty reaching out to the intellectually impaired.

Adoyo (2002) further says that curriculum is one of the obstacles or tools that needs to be carefully designed and adapted in order to facilitate the development and implementation of a proper teaching of learners with intellectual disabilities. It should facilitate the development of more inclusive settings by leaving room for the centre of learning or by helping the individual teachers to make adaptations to enhance sense in the local context for the individual learner.

Cohen (2002) describes the context of education programmes including school environments that are not safe or health-affirming, huge gaps between home and school, poverty and concomitant fatalism, disempowered women and images of masculinity that include promiscuity. Other studies confirm that the socio-economic and cultural factors are major constraints in effecting behavioural sexual changes. These factors include the exchange of sex for material compensation (Rivers & Aggleton 1999), alternative strategies for HIV protection, so-called cultural logic systems (Easton 1999; Sobo, 1995) and class, education and religious affiliation as perceived protective mechanisms (Levine and Ross, 2002).

In some studies where teachers have been subjects of research, for example, Akoulouze, Rugalema and Chaney (2001), they have been positioned as deliverers of an uncontested, already negotiated body of HIV/AIDS knowledge within spaces (schools and institutions) that are unproblematic. In this regard, teachers have consequently been targets of training programmes that have largely portrayed them as lacking knowledge and skills to teach life skills or sex

education programmes effectively. These training programmes help them gain such knowledge and skills to disseminate HIV/ AIDS information to intellectually challenged learners effectively.

Studies such as those of Buczekiewicz and Carnegie (2001) suggest that translating HIV knowledge into behaviour change means a change in how teachers teach. But, as they propose, it is sometimes difficult for teachers to reduplicate the conditions of their training, and so difficult to reduplicate the methods they were taught. In addition, they believe teachers need detailed guidance on content.

The lack of training and expertise in inclusive education may make educators to revert to using the methodology and experiences they went through during their special education training while disseminating HIV/AIDS information to the intellectually challenged learners. Dart, Chadwick, Davis and Molefe (2007:28) quote Tafa who expressed a feeling that the ‘colleges themselves are stuck in the behaviourist groove ... it actually prepares students in a manner that is no different to that which they experienced in school themselves’. The finding by Whitworth (n.d) is that the current teacher trainers themselves did not get greater exposure of teaching learners with diverse needs like intellectual disabilities because during their studies and teaching years in ordinary schools learners with diverse needs were segregated from the general education setting.

Furthermore, teacher trainers have limited skills in some areas – hence they do not feel competent to equip their trainees with the relevant knowledge and skills in those areas. The study conducted by Gaotlhobogwe (2008:3) confirmed that special education lecturers from the training institutions lacked skills in certain areas and therefore, they cannot effectively disseminate HIV/ AIDS information to intellectually challenged learners.

## **2.7 THE PRESENT SITUATION AND CHALLENGE**

Reauthorization of the original Education of All Handicapped Children Act of 1975 led to the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). With the Act of 2004, reauthorization put greater emphasis on the rights of learners with disabilities to learn and to be educated with learners without disabilities and by highly qualified teachers. In addition, the No Child Left Behind Act (NCLB) of 2001 has heightened awareness of the need to challenge all students and to stress the importance of all students learning core curriculum content (Browder &

Spooner, 2006). Teachers are being held increasingly accountable for the learning of their students. Both of these educational acts (IDEIA and NCLB) support the inclusion of students with disabilities in general education classrooms with access to core curriculum.

While learners with moderate to severe disabilities may be gaining physical placement in age-appropriate general education classrooms, questions remain as to how to teach students in these classrooms, especially during large group discussion or lecture times (Browder & Spooner, 2006). Such teaching arrangements pose particular challenges for students with certain intellectual disabilities due to their heavy emphasis on verbal skills, ability to recall information quickly, and the ability to focus on a teacher standing at the front of the room. Browder and Spooner (2006) also indicate that teachers who pursue inclusive education for their learners with intellectual disabilities need to know strategies to use to provide the necessary individualized and systematic instruction in general education, especially when the learning arrangement is least conducive to active participation by their students. Students with moderate to severe intellectual disabilities can learn in general education environments, but they need skilled teachers to provide the adaptations and accommodations that they need to be successful.

Research has been done on effective teaching strategies for students with moderate to severe intellectual disabilities (Angell, Bailey, & Larson, 2008). Some of these practices include task analysis, constant or progressive time delay, simultaneous prompting, and least to most instructional prompting. Such practices have been shown to be effective for teaching such skills as communication (Angell, Bailey, & Larson, 2008), literacy (Bradford, Shippen, Alberto, Houchins, & Flores, 2006), and community skills. What is less in evidence is the implementation of these recognized strategies within general education classes.

Most experts in the area of intellectual disabilities stress the need for systematic teaching procedures for these students to learn (Browder, Trela, & Jimenez, 2007; Copeland, Hughes, Agran, Wehmeyer, Fowler, 2002; Duker, Didden, & Sigafos, 2004). Systematic instruction refers to carefully planned and direct strategies used to teach new behaviours and skills, maintain skills, and generalize skills to other environments, activities, and people.

According to Browder, Trela and Jimenez (2007), the challenge for teachers is to provide high quality systematic instruction to individual students when they are taught in general education classrooms. Instead of having control over their own special education rooms, special educators, paraprofessionals, and related service providers must share learning space with general educators and in such a way as to blend highly specialized instruction into the general education class activities. In other words, teachers have to apply what is known about the learning of students with moderate to severe disabilities within the specifications of a fully inclusive environment so as to disseminate HIV/ AIDS information to intellectually challenged learners.

## **2.8 HOW EDUCATORS DISSEMINATE HIV/AIDS INFORMATION TO LEARNERS WHO ARE INTELLECTUALLY CHALLENGED**

### **2.8.1 Interactive awareness creation sessions**

This is achieved through role playing and recreation where games on HIV are used in furthering awareness. Within interactive awareness creation sessions, teachers of intellectually challenged people are sensitized on how to pass on these messages to them. Some organizations were, through the secondary literature review found to host AIDS talks for those with intellectual impairments that are simple, straightforward and that emphasize repetition of key themes (Pronk, 2012:35). Furthermore, educators do develop information and communication materials such as pictorials and illustrations containing different messages on HIV/STI prevention, HIV & sexual abuse, among others (Pronk, 2012:36).

### **2.8.2 Use of professionals**

The use of paraprofessionals in public schools has become one of the primary mechanisms by which students with disabilities get supported in general education classes (Giangreco, Edelman, Broer, & Doyle, 2001). Therefore, it is not surprising that there has been a substantial increase in the number of paraprofessionals hired to support students with disabilities (French, 2003). Correspondingly, there has been an increase in the amount of research devoted to paraprofessional issues hence helping educators attain skills on how to disseminate HIV/ AIDS information to learners who are intellectually challenged.

### **2.8.3 Use of inclusive education**

Inclusive education is fulltime membership of students with disabilities in their chronologically age-appropriate classrooms with the necessary support and services to benefit from educational activities (Ryndak, Jackson & Billingsley, 2000). It ensures access to the core academic curriculum for the learner with severe disabilities which is a mandate for example as per Individuals with Disabilities Education Improvement Act (IDEIA), (2004). Educators do include learners with intellectual disabilities in regular classrooms during sessions for HIV/ AIDS information dissemination.

Inclusive education is a global agenda that mandates countries and states to correct and change their views and philosophies on how learners experiencing barriers like intellectual disabilities to learning must be supported in their learning and development. The inclusion movement gained its momentum in the 1990s. Scholars such as Alu (in Kgothule, 2004:42) are of the view that the movement originated in western countries where strong legislation and effective support made it possible to demonstrate good inclusive practices.

According to Sourav, Serefete and Emmanuel (2009:2), educating students with and without intellectual disabilities in the general classroom about HIV/AIDS is becoming the current practice which is commonly known as inclusive education. Inclusive education is perceived to be one of the ways to increase educational access to large number of students with intellectual disabilities. This means more children with intellectual disabilities will be placed in the regular classroom than before. In order to provide effective inclusive education for all students, teachers develop a different set of skills and knowledge in disseminating HIV/ AIDS information to all learners (including the intellectually challenged) than traditionally required by the profession. At the same time the roles of the special education teachers are changing from solely being a teacher to being a case manager.

Schumm and Vaughn (1995) and Baker and Zigmond (1995) observed that increasing numbers of children with special needs are being served in regular classrooms, which is dramatically changing the way special education services are being provided in schools. They stressed that this development must be addressed in pre-service teacher education programs so that the next

generation of educators will be better prepared to work more efficiently and effectively in disseminating HIV/AIDS information to learners with intellectual disabilities. Therefore, the importance of changing the traditional ways of teaching in regular classrooms cannot be overemphasized. Given the complex nature of classrooms and the increasing demands on teachers, who often have little or no specialized training in working with exceptional students, structures should be set up to provide the necessary help and guidance for teachers to make changes in their instruction (Magg & Katsiyannis, 2000).

According to Van Laarhoven, Munk, Lynch, Bosma and Rouse (2007:440), the widespread practice of including learners with exceptionalities in general education classrooms, often called inclusive education, has increased expectations for general educators and has sparked discussion, debate, and structural changes in teacher preparation programs. Furthermore, it has been stated that restructuring of teacher preparation programs have been widely recommended as a means to better prepare pre-service general educators for inclusive settings (Van Laarhoven, et al., 2007:440). In furthering the argument, Avramidis and Norwich (2006:86) claim that teacher training and education are very important towards the success of inclusion programmes.

Without a clear and consistent plan for teacher training in the educational needs of learners experiencing barriers to learning and development, attempts to include these learners in the regular schools would be too great a challenge.

Despite the increased debates on improving teacher training, development and support for realising inclusive education, there are still gaps that need to be filled to that effect. For instance it has been argued that teacher education has not kept pace with the new demands; few teachers feel adequately prepared to effectively support learners of widely diverse abilities (Covell, 2001:18). Wearmouth (in Pearson & Chambers, 2005:116) is also of the same view. The author stated that “the current technicist, recipe-like approach to teacher training is viewed as ill-suited to training in relation to inclusion, since it does not recognise the complexities and uncertainties involved”. Moreover, the research by Golder, Norwich and Bayliss (2005) showed that training institutions give teacher trainees information on inclusion but do not prepare them to address barriers to inclusive development when they get to the field. In addition, the challenges to

inclusive teacher education are embedded in the modern philosophies of special education and support to children with “diverse needs”.

With the increasing diversity among children in today’s classrooms, teacher preparation programs are increasingly called on to train teachers who are able to respond competently to the challenges of inclusive classrooms (Munby, Lock, Hutchinson, Whitehead, & Martin, 1999). A major part of responding to the diversity found inside the classroom is through effective and efficient teacher preparation to disseminate HIV/AIDS information. Regular and special education teachers often feel that they are inadequately prepared to address the needs of learners with various categories of exceptionalities including intellectual disability. The current teacher-training model should focus on affording trainee teachers ample opportunities to practice as much as possible in classrooms with diverse of learners throughout the program (Jenkins, Pateman& Black, 2002). This calls for a change in the national teacher preparation program for teachers (for both regular and special education). As a result, teachers use more flexible ways to adapt classroom instruction to meet the learning needs of students both with intellectual disabilities (Hamill, Jantzen, & Bargerhuff, 1999). At the same time, special education teachers collaborate with the critical stakeholders to ensure that learning takes place in a meaningful way. Therefore, educators employ special education skills in communication, collaboration, and cooperative learning strategies and they have confidence to use those skills (Jackson, Ryndak, & Billingsley, 2000) if they are to disseminate effectively HIV/AIDS information to learners with intellectual disabilities.

#### **2.8.4 Giving more time and practice than usual**

If a student has only a mild intellectual disability, he or she can probably learn important fundamentals of the academic curriculum—basic arithmetic, for example, and basic reading. Because of the disability, though, the student may need more time or practice than most other students. He or she may be able to read many words by sight (day, night, morning, afternoon, among others.), but need longer than other students to recognize and say them. Or the student may know that  $2 + 3 = 5$ , but need help applying this math fact to real objects; you (or a helper) might need to show the student that two pencils plus three pencils make five pencils.

Giving extra help takes time and perseverance, and can try the patience of the student (and of the educator, too). To deal with this problem, teachers reward the student frequently for effort and successes with well-timed praise, especially if it is focused on specific, actual achievements; praises like “You added that one correctly,” are more helpful than “You’re a hard worker,” even if both comments are true and therefore, these are used by teachers in disseminating HIV/ AIDS information in case learners do something expected. Giving appropriate praise is in turn easier if you set reasonable, “do-able” goals by breaking skills or tasks into steps that the student is likely to learn without becoming overly discouraged. At the same time, it is important not to insult the student with goals or activities that are too easy or by using curriculum materials clearly intended for children who are much younger. Teachers set appropriate expectations not to deprive intellectually challenged learners their rightful opportunities to learn. Setting expectations too low actually deprives a student with an intellectual disability of rightful opportunities to learn—a serious ethical and professional mistake (Bogdan, 2006) In many curriculum areas, fortunately, there already exist materials that are simplified, yet also appropriate for older students (Snell, et al., 2005). Special education teacher-specialists can often help in finding them and in devising effective ways of using them.

### **2.8.5 Adaptive and functional skills**

According to Bodgan (2006) students with intellectual disabilities present a huge dilemma in teaching: since there is not enough time to teach everything, how do we choose what to teach? One basis for selecting activities is to relate learning goals to students’ everyday lives and activities, just as you would with all students. This strategy addresses the other defining feature of mental retardation, the student’s difficulties with adapting to and functioning in everyday living. In teaching addition and subtraction, for example, you can create examples about the purchasing of common familiar objects (for example, food) and about the need to make or receive change for the purchases. Similar considerations apply to learning new reading or oral language vocabulary. While disseminating HIV/ AIDS information, instead of teachers using simply learning words in a “basal reading” series (or reading textbook), they try encouraging the student to learn words that are especially useful to the student’s own life.

An adaptive, functional approach can help in non-academic areas as well. In learning to read or “tell time” on a clock, for example, try focusing initially on telling the times important to the student, such as when he or she gets up in the morning or when schools starts. As you add additional times that are personally meaningful to the student, he or she works gradually toward full knowledge of how to read the hands on a clock. Even if the full knowledge proves slow to develop, however, the student will at least have learned the most useful clock knowledge first. In the same way, teachers do focus on telling learners with intellectual disabilities important pieces of information about HIV/ AIDS such as how or when is HIV/ AIDS contacted and then they add on important information in a series form to allow the learners develop fully.

### **2.8.6 Include the student deliberately in group activities**

The key word here is inclusion: the student should participate in and contribute to the life of the class as much as possible. This means that wherever possible, the student attends special events (assemblies, field days) with the class; that if the class plays a group game, then the student with the disability is part of the game; that if classmates do an assignment as a group, then if at all possible the student is assigned to one of the groups. The changes resulting from these inclusions are real, but can be positive for everyone. On the one hand, they foster acceptance and helpfulness toward the child with the disability; classmates learn that school is partly about providing opportunities for everyone, and not just about evaluating or comparing individuals’ skills. On the other hand, the changes caused by inclusion stimulate the student with the disability to learn as much as possible from classmates, socially and academically.

Among other benefits, group activities can give the student chances to practice how to “belong” skills—how to greet classmates appropriately, or when and how to ask the teacher a question. These are skills, I might add, that are beneficial for everyone (disabled or not) to learn (Reynolds, Zupanick, & Dombeck, 2013). As a result, teachers do deliberately include the intellectually challenged learners in group activities while disseminating HIV/ AIDS information. This helps them have a sense of belonging and, therefore, they end up participating in the learning process.

### **2.8.7 Modify the teaching approach**

According to Reynolds, Zupanick and Dombeck (2013), lengthy verbal directions and abstract lectures are ineffective teaching methods for most audiences. Most people are kinesthetic

learners. This means they learn best by performing a task "hands-on." This is in contrast to thinking about performing it in the abstract. A hands-on approach is particularly helpful for students with ID. They learn best when information is concrete and observed. For example, there are several ways to teach the concept of gravity. Teachers can talk about gravity in the abstract. They can describe the force of gravitational pull. Second, teachers could demonstrate how gravity works by dropping something. Third, teachers can ask students directly experience gravity by performing an exercise. The students might be asked to jump up (and subsequently down), or to drop a pen. Most students retain more information from experiencing gravity first hand. This concrete experience of gravity is easier to understand than abstract explanations.

### **2.8.8 Positive Behaviour Support**

A strong foundational belief is that all interactions with students are positive and respectful and reflect the premises of positive behaviour support (PBS); (see Horner, Albin, Todd, & Sprague, 2006). PBS represents a comprehensive, systematic, and positive approach to helping all students engage in desired school behaviour (Sugai, Simonsen, & Horner, 2008). According to Horner, Sugai, Todd, and Lewis-Palmer (2005), PBS that is school wide is a three-tiered system. The majority of all students in a school generally respond well to a positive, supportive, and nurturing environment that praises desired behaviour, teaches appropriate ways of interacting, and arranges the learning environment to prevent behaviour problems (first tier). In the same way, teachers who are disseminating HIV/ AIDS information to intellectually challenged learners support learners positively in order for them to understand the concepts.

### **2.8.9 Self-Determination**

This relates to positive behaviour support and deals with empowering the student and demonstrating respect for individual preferences. Students, despite difficulties with communication, must be listened to and must be supported in their efforts to become self-determined. Helping students experience the world to develop their interests is a critical aspect of self-determination so that students can advocate for what they desire. Instead of forcing students to learn the same material in the same way, respecting the individual student's unique interests and strengths can encourage a greater partnership in learning between teacher and student. Self-determination skills include (but are not limited to) choice making, problem solving, self-monitoring, decision making, goal setting, and self-advocacy (Horner et al, 2005).

The desired outcome of self-determination is that students gain and maintain as much say as possible over their lives. Some bias may exist against students with moderate to severe disabilities who have limited communication skills and who have traditionally had minimal control over their lives (Agran & Wehmeyer, 2003). To counter this bias, every effort should be made to teach these students as many self-determination skills as possible and to give them every opportunity to practice and hone these important skills.

Much has been written about the importance of self-determination for students with disabilities (Turnbull & Turnbull, 2001). In addition, benefits of self-determination for these students, which includes improved behaviour, enhanced productivity, and increased contribution in class, have been noted (Agran, Blanchard, Wehmeyer, & Hughes, 2002; Brooks, Todd, Tofflemoyer, & Horner, 2003; Wehmeyer & Palmer, 2003). While most self-determination studies have involved students with learning disabilities, emotional disorders, and mild intellectual impairments, the importance for all students is clear. Fowler, Konrad, Walker, Test, and Wood (2007) completed a literature review of the impact of the teaching of self-determination skills on academic skills of students with developmental disabilities. From the 11 studies reviewed, findings indicated that self-determination instruction strongly improved organizational skills for academic work and also provided some direct support for math and spelling skills. For students with significant cognitive disabilities, initial aspects of teaching self-determination involve respecting student interests and providing choices for students (Realon, Favell, & Lowerre, 1990). Students without speech make their preferences known to others through their use of pictures, objects, or actions in general. There is no need to wait for formal communication or language to develop to teach self-determination.

Supporting students to advocate for themselves and their interests occurs when students are given choices of materials, sequence of activities, locations, among others that do not deter from the lesson but that motivate the student to learn. Starting with simple choices that lead to immediate and positive consequences for the student, (for instance, choice of where to sit or stand, rewards, food, partner to work with), the student learns the skills needed to make more complex and difficult choices regarding future events (for example, choosing to work for a

reward later in the day or week). Teachers can support the development of choice making (as an early step toward self-determination) by relinquishing some control to the student. In other words, instead of giving materials to a student to work with, the teacher can present several options to the student and then honour the one(s) chosen. The student needs to learn that choices he makes will be honoured by those around him, thus empowering him to make other, more complex decisions.

By starting this practice in the early years of preschool and continuing to build on these skills as the student progresses through each grade, students leaving high school should have considerable practice honing these skills to be used as adults (Agran & Wehmeyer, 2003). When disseminating HIV/ AIDS information to learners who are intellectually challenged, teachers do focus on individual preferences of learners. This is because intellectually challenged learners have different ways they prefer things done. Additionally, teachers use diverse learning materials to the different learners and do not necessarily communicate verbally to the learners.

### **2.8.12 Use of Assistive Technology**

Agalotis and Kartasidou (2005) posit that the use of real materials or actual tools in natural environments is an essential component in the effective instruction of students with intellectual disabilities. Although these materials would be labelled as “low tech” teaching resources, they serve to both motivate the student and facilitate generalization to multiple environments. An example of this type of technology would be the use of manipulatives or concrete objects for a math lesson. Teachers should keep in mind that students with intellectual disabilities in inclusive classrooms also benefit from using the same materials as the rest of the students whenever possible. In other words, a high school student would use a calculator to work math problems whereas an elementary student may be more likely to use counting blocks.

There are a number of existing software packages designed to support students with intellectual disabilities in the classroom. One promising approach in literacy software utilizes universal design for learning principles. This approach combines reading for meaning with direct instruction for decoding and understanding. The resulting software consists of an audio and

video based curriculum that can be adjusted by the teacher to meet the specific academic capacities of the student.

Ultimately, any learning software that can tailor content to address the interests of the student can be useful in supporting learning with individuals with intellectual disabilities, given that the instruction can be adapted to meet the needs of the individual learners (Agaliotis & Kartasidou, 2005), and this aids teachers in disseminating HIV/ AIDS information to intellectually challenged learners.

## **2.9 SOLUTIONS TO CHALLENGES ENCOUNTERED BY EDUCATORS WHEN DISSEMINATING HIV/AIDS INFORMATION TO LEARNERS WITH INTELLECTUAL DISABILITIES**

There is need to establish age, gender, culture and language-appropriate HIV prevention programmes and provide HIV information tailored for intellectually challenged people (United Nations programme on AIDS [UNAIDS],2009).

The HIV and AIDS information should be disseminated in a variety of formats such as radio and billboards to ensure that specific groups such as those with hearing impairment do not miss out (United Nation International children's Education Fund [UNICEF], 1999).

Dissemination of information to the intellectually challenged on HIV and AIDS should be done through entertainment such as dramatization, discussion with group influential members of the community to raise awareness, games for life and learners' friendly health services. Other methods may include the use of leaflets and T-Shirts (Siatontola, 2004). Skills needed for HIV prevention cannot be taught only through teaching since the attention span of these learners is not always long. Talking to young girls who are intellectually challenged about assertiveness will not empower them to say no to sex when they are pressured. And teaching boys on the need to resist peer pressure will not help when their friends are teasing them for not having sex. Learners with intellectual disabilities need to be actively involved in developing and practicing skills. This can be done through participatory methodologies such as role plays, drama, small group work, games and debate (Ministry of Education, 2006).

According to Monaghan (2003) peer education has proven to be an effective strategy in global HIV and AIDS prevention. It is better to train a few intellectually impaired peers and show them how to teach the others. Successful programmes have used both formal and informal approaches to gather and teach the hearing impaired on intersections between sexuality and HIV and AIDS at individual, group and community levels. Through peer educators, training on use of condoms, transmission, care and treatment of HIV and AIDS, counselling and empowerment on communication skills have been facilitated. For example, the HIV awareness project of the deaf in Nairobi started in 2004 under Sahays International to train deaf individuals to become puppeteers, use sign language to convey important message on HIV and AIDS to the audience puppetry show, interactive group games are also employed. Networks project helped the deaf with ability to share information with their peers (Monaghan, 2003).

### **2.9.1 Reality checks and strategic principles**

HIV and education strategic plans based on sound policy and a realistic assessment of available capacity are essential for counterattacking AIDS (Hunter and Williamson 2000). According to Devanney (2001) principles to guide strategic planning and action in the sector can be summarized as follows;

- i) Governments cannot by themselves protect education services but must work with all other stakeholders in the education community – Non Government Organisations (NGOs), parents and traditional leaders, Community Based Organizations (CBOs), international agencies and volunteers – as well as with social sector departments at national, provincial and community levels.
- ii) Effective responses are usually those that are locally devised to meet local conditions, and this principle seems to underlie success. Knowledge, behaviours, attitudes and understanding exist within a complex set of cultural values and economic circumstances that must inform planning and action.
- iii) Local responses must be complemented by vigorous, extensive and intensive national programmes relating to condom use and STI prevention, life skills curricula in schools and

support for children orphaned by AIDS, in order to reach as many people as possible. Rigorous coordination of local programmes within a national policy framework might achieve similar results.

iv) Many governments are managerially challenged. It is essential to choose interventions that are within the competence of the system to deliver. If simple tasks are successfully managed, they will contribute to building an environment that will make more challenging interventions possible at a later stage (Marais 2000).

v) Educators may not always be the best people to deliver vital messages about death and sex, behaviour change and risk. Young people, on the other hand, have often been at the forefront of successful change (Devanney 2001).

### **2.9.2 Adjusting the legal and regulatory framework**

Ndubani (2001) posits that the challenge of AIDS requires that all education legislation, policy, regulations, codes and statutes be reviewed for at least two reasons. First, it is necessary to identify the rights and responsibilities of individuals and agencies. Second, it is essential to adjust laws and regulations antithetical to the promotion of rights, particularly of women and children. The South African Law Commission undertook complete review of existing legislation for the Department of Education before its policy on HIV and AIDS was promulgated. The Commission's *Consultative Paper on Children Infected and Affected by HIV/AIDS* (1998) specified that learners with HIV should not be unfairly discriminated against, that no learner should be denied access to school on the basis of his or her HIV status, that testing of learners for HIV for admission to or attendance at school would be prohibited, that needs of learners with HIV should be accommodated within the school environment, that a learner's HIV status should be confidential and not be disclosed without consent, that all schools should implement universal precautions to eliminate the risk of transmission of blood-borne pathogens including HIV in the learning environment, and that HIV education programmes should be implemented at all institutions for learners, educators and other staff (Smart 1999). It is also necessary to check teaching service regulations, codes of conduct and government general orders relating to the service to keep them in line with changing conditions (Ndubani 2001).

### **2.9.3 Educating the teachers**

It is assumed that teachers will be at the forefront of the response to HIV, but they need to be equipped. For example, in South Africa, the Department of Education's *HIV and AIDS Emergency Guidelines for Educators* sets out HIV facts and eight key messages about preventing HIV and related discrimination, deals with questions educators ask about sexuality education, advises on universal precautions and how to build a school culture of non-discrimination. It offers helpline numbers and channels to other support services (South Africa Department of Education 2001).

Pre-service and in-service programmes offered by universities and colleges need to be adjusted to take into account new classroom realities, including increasing numbers of disadvantaged and traumatized children and illness and absenteeism among learners and educators. In-service Teacher Education (INSET) structures are very rarely robust anywhere in the developing world, and they are able to do little, despite reported successes in a few places like Karnataka State in India and the Western Cape Province in South Africa, to prepare large numbers of serving teachers to cope with HIV at school. Crouch (2001) estimated that South Africa would have to train at least 30,000 new teachers per year by 2010. The output in 2001 was only around 2,000.

Teaching and learning materials are needed to guide teachers, heads of institutions and parents on dealing with HIV issues with children in their care. *Securing a Future: Mekong Children and HIV/AIDS* is a good example of material prepared for those working with younger children (UNICEF 2001); see also *HIV/AIDS Handbook for Christian Caregivers* (Rwanda Christian Counselling and Training Centre 2001) and *HIV and AIDS: Care and Support of Affected and Infected Learners: A Guide for Educators*, which is a useful resource for South Africa's teachers and others working with children in trauma (South Africa Department of Health 2001). Every educator should have a personal copy, however cheaply produced, of a booklet setting out the aetiology of the disease (Visagie, 1999, for example), because educator ignorance about the nature of the virus, transmission modes, precautions and basic therapy for affected children is universally and abysmally high. It is crucial to develop appropriate educational materials and make them easily accessible to all concerned.

Finally, educator training and sensitization needs to be done in conjunction with development of workplace policy, workplace prevention programmes (every learning institution is a workplace) and impact management programmes. The *ILO Code of Practice on HIV/AIDS and the World of Work* has been tabled and is suitable for adaptation to local circumstances (International Labour Organization 2001).

#### **2.9.4 Youth awareness – using the energy of young people**

Children and adolescents are part of the solution to AIDS. They need to be involved in the design and delivery of prevention programmes through peer school health teams, local and international NGO programmes, and anti-AIDS clubs. UNAIDS (2006) reports that, where HIV prevention has been successful, young people have been at the forefront of change. In Rwanda, a recent evaluation of anti-AIDS clubs demonstrated their potential and the advantages of youth working with youth, a strategy also being promoted in Rwanda by Population Services International (PSI) (UNICEF, 2001).

The AIDS Task Force of Fiji works with peer educators throughout the Pacific Region. Peer educators from Kiribati, the Marshall Islands, Nauru, Samoa, the Solomon Islands and Tonga have been trained in outreach work, interpersonal skills and HIV issues and they help to train other peer educators. They are known for their commitment and dedication, although there is concern that they only have the knowledge and skills to give information about the virus and are not trained to instigate behavioural change (AIDS Task Force of Fiji 2001, p.14).

#### **2.9.5 Retaining learners – education as a vaccine**

School is like a vaccine for children at risk: Children who drop out of school are more vulnerable to HIV infection, are more likely to engage in early sexual activity with larger numbers of partners, and are more apt to use alcohol earlier than children who continue with their education (Save the Children UK, 2001). The single most certain step that any government can take to counteract HIV among the youth is to increase the provision of education and to ensure young people remain in educational programmes. Ensuring that every child gets into school, stays in school for a minimum number of years and has some worthwhile learning and skills at the end is critical, especially for girls (Coombe and Kelly, 2001; Vandemoortele, 2001). ‘Education

ministries should bend every effort to implement Education for All (EFA) strategy. Finance ministries should ensure that the resources are made available. The outcome will be a society with a lower incidence of HIV/AIDS, less poverty, greater female empowerment, and a human resource base from which the skills lost to HIV/AIDS can be replenished.’(Kelly, 2001, p. 13).

### **2.9.6 Delivery system adjustment – greater flexibility**

If broad principles are established for the timetable, daily schedules, and even the education and training calendar, schools, colleges and communities could be allowed to regulate them in response to local requirements. To some extent this has been achieved in Southern Africa, where such schools commonly charge no fees, require no uniforms, provide almost all educational materials and use teachers from within or close to the community, often on a voluntary basis and with little training (UNICEF and USAID, 2000). Similarly, the Rajasthan ShikshaKarmi Project in India harnesses the energies of ‘barefoot teachers’ for children in remote rural areas where primary schools are either non-existent or dysfunctional (Swedish International Development Cooperation Agency 2001).

While the positive aspects of this development are the deep sense of community ownership and involvement, the danger is that such schools might become second-rate, catering for the poorest, or that the state might feel itself absolved of responsibility. (Coombe and Kelly 2001). Other alternative responses include the use of interactive radio (Ghana Community Broadcasting Services 2001; USAID 2000), and the appointment of itinerant teachers who go out from a central school to animate and supervise tutors engaged by community groups. There is a growing sense in some communities that schools must be seen as comprehensive, community-based organizations where teachers are joined by those with a traditional role in society (leaders, healers, birth attendants, craftsperson) in collectively educating children (UNICEF and USAID 2000).

### **2.9.7 Developing life skills curriculum and learning and teaching materials**

The teaching response to HIV (known as HIV education, reproductive health and sex education, life skills or life orientation) is generally supposed to communicate relevant knowledge, engender appropriate values and attitudes and build personal capacity to maintain or adopt

behaviour that will minimize or eliminate the risk of becoming infected by HIV. An indirect benefit of such programmes is that teachers too, lacking educator-focused prevention programmes of their own, learn about HIV and also equipping learners with intellectual disabilities with skills such as decision making, problem-solving, effective communication, assertiveness, and conflict resolution (Kelly, 2000).

### **2.9.8 Family Involvement**

A strong way to disseminate HIV/AIDS information to intellectually challenged learners is that families will be actively involved (to the degree they prefer) in their child's education. Family input is critical, as family members supply considerable information on the learner's strengths, preference, dislikes, responses to past intervention, as well as their goals and hopes for the future. Cultural and religious values also can be shared so that these will not be compromised unknowingly by the educational staff (King, Baxter, Rosenbaum, Zwaigenbaum, & Bates, 2009; Poston & Turnbull, 2004). Without strong family input and involvement, educational teams could easily get off track with regard to critical learning needs and the most appropriate academic goals to pursue (Blue-Banning, Summers, Frankland, Beegle, 2004; Lynch & Hanson, 2004).

Families come in a variety of configurations, sizes, linguistic backgrounds, cultural experiences, religious beliefs, and racial experiences. As a result, unique family interpretations of the educational experience for their child are essential to obtain and make appropriate use of in the planning and implementation of any educational program. Families know what and how their child has been taught in the past and can provide critical information regarding what has been most successful with their child and what strategies should be avoided while handling their children with intellectual disabilities. They know what motivates their child to perform and what situations create the most difficulty for their child. As a result, teachers can save considerable time developing program for learners with intellectual disabilities by talking to family members about the educational program at the outset (Blue-Banning et al, 2004).

Of particular importance are the goals and dreams that family members hold for their family member (Rogers-Atkinson, Ochoa, & Delgado, 2003). The educational team needs to know what

the family hopes their child will achieve. They also need to understand what the family holds little value for. For example, a teacher may feel that it is imperative that a learner with intellectual disability learns the names of colours and may spend considerable time on this one skill. However, in talking to the family, it is discovered that they place relatively little importance on this skill and would much rather that he learn how to handle money or read. The student may actually make use of colours (e.g., putting like colour items together or matching an outfit to wear) but cannot name them. Family members may feel that other skills are much more important for their child and would rather that the educational team addresses those skills to help their children attain information easily about HIV/AIDS (King et al, 2009). Since teachers have limited time to teach a large number of important skills, it makes sense to listen to families to determine where the majority of instructional time should be spent. Differences in anticipated educational outcomes can be particularly impacted by cultural aspects. Expectations for certain behavioural and social outcomes can be quite different as well as the strategies used to achieve them (Rogers-Atkinson, Ochoa, & Delgado, 2003).

### **2.9.9 Supplementary aids and services**

According to National Centre on Birth Defects and Developmental Disabilities (2005) intellectual disabilities affect learning, it is often crucial to provide support to students with ID in the classroom. This includes making accommodation appropriate to the needs of the student. It also includes providing what IDEA calls “supplementary aids and services.” Supplementary aids and services are supports that may include instruction, personnel, equipment, or other accommodation that enable children with disabilities to be educated with nondisabled children to the maximum extent appropriate.

Thus, for families and teachers alike, it is important to know what changes and accommodations are helpful to students with intellectual disabilities. These need to be discussed by the IEP team and included in the IEP, if appropriate.

### **2.9.10 Teaching Strategies**

To fully address the limitations in intellectual functioning and adaptive behaviour often experienced by individuals with intellectual disabilities, teachers need to provide direct instruction in a number of skill areas outside of the general curriculum (Blacher, 2014). These skills are more functional in nature but are absolutely essential for the future independence of the individual. Additional skill areas include money concepts, time concepts, independent living skills, self-care and hygiene, community access, leisure activities, and vocational training. Students with intellectual disabilities learn these skills most effectively in the settings or activities in which they will be asked to apply these skills. Once the skills are mastered, then additional environments can be added to work towards generalization.

General curriculum areas should not be neglected however, and there are some promising practices to help support these students in a number of academic areas. One effective early literacy strategy with these students is pre linguistic milieu teaching (Fey, Warren, Brady, Finestack, Bredin-Oja, Fairchild, Sokol & Yoder, 2006), a technique that ties instruction to the specific interests and abilities of the individual child. This language acquisition instructional strategy also helps support effective self-determination, as a key component of the training is frequent requesting behaviour from the student.

According to Blacher (2014) breaking down larger tasks into their specific component parts can be an effective technique for teaching any number of skills to students with intellectual disabilities. More complex concepts or activities can then be taught over time, and as the student masters one component of the task, another is added to the routine. This type of task analysis can be taught using a variety of instructional supports, from physical and verbal prompting to observational learning. As always, the specific instructional strategies and materials used with the student should be aligned to the student's own interests and strengths.

Useful strategies for teaching students with intellectual disabilities include, but are not limited to, the following techniques (Blacher, 2014):

- Teach one concept or activity component at a time
- Teach one step at a time to help support memorization and sequencing

- Teach students in small groups, or one-on-one, if possible
- Always provide multiple opportunities to practice skills in a number of different settings
- Use physical and verbal prompting to guide correct responses, and provide specific verbal praise to reinforce these responses

### **2.9.11 Developing Autonomy**

In a study conducted by Hadley (2008), a learning centre where students with learning disabilities could have all of their accommodations and services delivered is the ideal model to meet their academic needs. The students with intellectual disabilities he used in the study expressed interest in having a single place where they could go to take an exam when they needed extended time and/or privacy, individual help from tutors, or to collect notes for their classes. Several of the students noted that while in high school, as a student with a learning disability, they could go to a specific room within their high school and receive assistance from adult learning disabilities specialists with degrees in English or education. A couple of students reported that on the grounds of their high school, there was a separate building where students with special needs could go for individual assistance. One of the female Arts and Sciences majors, when commenting on her high school experience said:

“In high school I had one-on-one professional tutoring and extra time to take tests.”

She elaborated that the tutors would actually be located in the classroom and work with the students that needed help in the classroom.

### **2.10 SUMMARY**

Literature shows that the challenges encountered in disseminating HIV/AIDS information to intellectually challenged learners are prevalent not only in other countries but is also a problem in Botswana schools. Basically, the literature also shows that learners with intellectual disabilities are usually characterized by poor intelligence, limitations in adaptive behaviour, and borderline or mild IQ.

Furthermore, the related literature showed that among the challenges encountered in disseminating the HIV/AIDS information may include; service limitations and lack of communication skills by staff, lack of education to teachers and the language hurdle and poor curriculum.

Some of the ways through which teachers disseminate HIV/AIDS information to learners who are intellectually challenged include the following:

- Interactive awareness creation sessions
- Development of information, education and communication materials
- Use of professionals
- Use of inclusive education
- Adaptive and functional skills
- Include the student deliberately in group activities
- Break down learning tasks into small steps
- Modify the teaching approach
- Self-determination

Among the solutions to the challenges encountered in disseminating HIV/AIDS information to learners who are intellectually challenged include;

- Reality checks and strategic principles
- Adjusting the legal and regulatory framework
- Educating the teachers
- Youth awareness – using the energy of young people
- Learning what works – monitoring and evaluation
- Delivery system adjustment – greater flexibility

The next chapter focused on the research methodology used in the investigation. The study was undertaken by both qualitative and quantitative research design.

## **CHAPTER THREE: RESEARCH DESIGN AND METHODS**

### **3.1 INTRODUCTION**

According to Demscombe (2003: 22) research design constitutes the plan and structure of investigation used to obtain evidence in order to answer research questions. In addition Schumacher (2001: 166) explains that research design shows which individuals will be studied, when, where and under which circumstances they will be studied. In this chapter, the research design, population and sampling procedures, data analysis and methods employed are presented.

### **3.2 RESEARCH DESIGN**

Burns and Grove (2003:195) define a research design as “a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings”. Parahoo (1997:142) describes a research design as “a plan that describes how, when and where data are to be collected and analysed”. Polit et al (2001:167) define a research design as “the researcher’s overall for answering the research question or testing the research hypothesis”. This study focuses on the challenges educators face in disseminating HIV/AIDS information to intellectually challenged learners. The research approach is qualitative and quantitative.

#### **3.2.0 Research approach**

The study used both qualitative and quantitative research approaches. These approaches were used together in order to complement one another. Qualitative research is used when data is presented as narration with words. This type of research is mostly concerned with understanding the social phenomenon from participant’s perspective (Bell, 2005:105). Its purpose is to provide rich narrative description of the phenomenon under study to enhance in-depth understanding. These two methods were necessary to be used because of the tools which were used to collect research information. Both the questionnaires and interviews had areas which could be statistically analysed as well as drawing thematic conclusions from the qualitative information.

According to Creswell (2007: 27), qualitative research begins with a worldview, the possible theoretical lens, and the study of research problem inquiry translated into meanings individual and groups ascribe to social and human problems. Thus, qualitative researchers make use of an

emerging qualitative approach to inquire and collect data in natural settings sensitive to the people and place under study. It is for the reasons discussed in this paragraph that qualitative approach was used in this study as its goal is holistic and seeks an in-depth understanding as well as that it is more concerned with individual perception of the world. For this study, a lot of data was collected by the researcher from the direct interviews with respondents in form of notes and words. This made the qualitative approach relevant to the study as it helped the researcher to present data as narrations properly organized in thematic conclusions.

As indicated earlier, qualitative approach complemented quantitative approach which puts more emphasis on the use of statistics (statistical analysis of data). Demscombe (2003: 236) states that, “...quantitative research carries with it an aura of scientific respectability. Because it uses numbers and can present findings in the form of graphs and tables, it conveys a sense of solid objective research”. This type of research presents statistical results with numbers and its purpose is to describe the phenomena under study numerically to answer specific research question.

In quantitative research approach, interpretation and findings are based on measured quantities rather than impressions and these quantities can be checked by others for authenticity. The data can be analysed quickly provided adequate preparation and planning has occurred well in advance. The quantitative approach was used for this study because the questionnaires had demographic information and responses which could easily be analysed statistically using the Statistical Analysis System.

In gathering both quantitative and qualitative data, the researcher personally visited the selected small group of participants (individuals in their schools) to collect data. This means that the variables under investigation were studied where they naturally occur, not in research controlled environment under research controlled conditions.

### **3.2.1 Research paradigm**

This study was influenced by the constructivism theory. Constructivism is a view of learning based on the belief that knowledge isn't a thing that can be simply given by the teacher to students, but rather that knowledge is constructed by learners through an active, mental process of development. Learners are the builders and creators of meaning and knowledge (Schram, 2006). On the other hand, Somekh and Lewin (2005) define constructivism by reference to four principles: learning in an important way, depends on what we know already; new ideas occur as we adapt and change our old ideas; learning involves inventing ideas rather than mechanically accumulating facts; meaningful learning occurs through re-thinking old ideas and coming to new conclusions about new ideas which conflict with our old ideas. A productive, constructivist classroom, then, consists of learner-centred, active instruction in which the teacher provides students with experiences that allow them to hypothesise, predict, manipulate objects, pose questions, research, investigate, imagine and invent. The teacher's role is therefore to facilitate this process.

In this study, the concept "constructivism" will mean a process whereby the intellectually challenged learners construct their own understanding, reality and knowledge of the world they live in, through reflection of what they have been taught about HIV/ AIDS by their teachers. It involves a dramatic change in the focus of teaching, to overcome the challenges encountered by educators in disseminating HIV and AIDS information to the intellectually challenged learners.

Research is conducted by making use of a particular approach on what the research problem is. A research paradigm is an all-inclusive system of interconnected practice and philosophy that define the nature for the investigation for researchers along three elements of ontology, epistemology and methodology (Blanche, Durrheim & Kelly, 2006:06). The two main conceptual frame work of research paradigms are qualitative and quantitative research paradigm (Punch, 2009: 114). Therefore, in this study both research paradigms were used. They were used together so that they could supplement each other. Furthermore, qualitative design assisted the researcher in the sense that most of the description and interpretations are portrayed in words while for quantitative were portrayed statistically. Quantitative data was gathered through the questionnaires while qualitative data was through the interview.

### **3.3 POPULATION AND SAMPLING PROCEDURE**

#### **3.3.1 Population**

Polit and Hungler (1999:37) refer to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. Population of the study is a target group or group of interest to the researcher (Bell, 2005: 105). Therefore, the population of the current study was schools in Gaborone where five (5) primary schools with enrolment figures of approximately 800 students per school were selected participants. From each school, 20-32 teachers were employed by the school, making it a total of approximately 150 teachers. Teachers who are attached to the units were targeted because they deal directly with learners, hence can provide reliable and much needed information for the study.

#### **3.3.2 Sampling procedure**

To sample is, according to Johnson (2004: 87), to test a small amount of something in order to get information about a larger picture. It also can be defined as a “process or method of drawing a sample from a population” (Thomas Nelson Online Dictionary, 2007). Researchers on a fact finding mission generally use sampling. Researchers select or take a small group in order to get information applicable to a large group or population. The researcher selected simple random sampling and purposive sampling techniques. According to Maree (2007), a simple random sample is a subset of a statistical population in which each member of the subset has an equal probability of being chosen. Simple random sampling is meant to be an unbiased representation of a group. Purposive sampling techniques involve selecting certain units or cases based on a specific purpose rather than randomly (Tashakkori & Teddlie, 2003).

For the purpose of this study, a simple random sampling approach was used to select schools for the study and a purposive sampling approach was used to get respondents (teachers) in selected schools. Purposive sampling means that participants are selected because of some defining characteristics that make them holders of the needed information (Kauffman, 2012: 94).

Five (5) selected primary schools were used, with ten (10) teachers and five (5) learners per school. Learners were selected using a simple random selection from the groups of those who are intellectually challenged. This study used These learners were selected because they have first-hand information on how teachers disseminate HIV/ AIDS information to them and therefore,

they can give that information as to whether they understand. The intellectually challenged learners were easy to identify as they information was picked from their teachers in the special classrooms from which the random selection was done. Teachers completed the questionnaire while learners were interviewed by the researcher. In total there were seventy-five (75) respondents.

### **3.4 DATA COLLECTION TECHNIQUES**

#### **The research tool**

The tool describes the method that will be used in collecting data for investigation. Two instruments were used for data collection that is the questionnaire and an interview guide.

#### **3.4.1 Questionnaires as a research tool**

A questionnaire is a set of questions dealing with the same topic or related group of topics, given to selected group of individuals, for the purpose of gathering data on a problem under consideration (De Vos, 2000:153). Data is any kind of information that researchers can identify and accumulate to facilitate answers to their queries (Van Wyk, 1996: 130). The questionnaire is regarded as the most widely used survey data collecting technique (De Vaus, 2009:80).

According to De Vos (2000: 153) questionnaires include mailed questionnaires, telephonic questionnaires, personal questionnaires, questionnaires delivered by hand and group-administered questionnaires. Factors such as time limitations, financial considerations, availability of manpower and infrastructure normally play a crucial role in the choice of the type of questionnaire selected. Questionnaires can only be used if respondents can read or can be motivated to read the questions carefully and respond honestly on the issues which are addressed in the questionnaire.

A well-designed questionnaire is the culmination of a long process of planning the objective of the research, formulating the problem and generating the hypothesis, (Wolhuter, Van der Merwe, Vermeulen&Vos, 2003: 14). A poorly designed questionnaire can invalidate any research results notwithstanding the merit of the sample, the fieldworkers and the statistical techniques.

According to De Vos (2002:172), the basic objective of the questionnaire is to obtain facts and opinion about the phenomenon from people who are informed on the particular issue. This is a very important technique for data collection in educational research. De Vos (2002:172) maintains that “in using questionnaires, researchers rely totally on the honesty and accuracy of participants’ responses.

In this research, the questionnaire consisted of both closed and open ended questions. Open ended questions allow for a variety of responses and fit better with the aim of getting an inside view of the situation (Walsh, 2001: 159). They also allow respondents to make any response he or she wishes in his/her own words and the respondents can include ideas the researcher has not predetermined (Bell, 2005: 104). They also help the researcher to avoid introducing any of his or her own perceptions and protect the validity of data (Walsh, 2001: 66). It is for these reasons that the study was dominated by qualitative approach by way of open ended questions in addition to interviewing the learners.

The length of individual questions, the number of response options and the format and the wording of questions are determined by the following (Dane, 1990: 315-319):

- The choice of the subject to be researched.
- The aim of the research.
- The size of the research sample.
- The method of data collection.
- The analysis of the data.

Against this background the researcher looked at the principles that determine whether the questionnaire is well-designed or not. The researcher therefore deemed it necessary to draw a distinction between questionnaire content, question format, question order, type of questions, formulation of questions and validity and reliability of questions.

### **3.4.1.1 Construction of the questionnaire**

The questionnaire requires sufficient time and careful consideration in its construction. Van den Aardweg & Van den Aardweg (1990: 198) states that the researcher should consult and seek advice from specialists and colleagues at all times during the construction of the questionnaire. The questionnaire should be pre-tested to eliminate all possible errors. An ideal questionnaire must be clear and unambiguous. There should be no hesitation in changing questions several times, keeping the original purpose in mind before the final formulation (Wolhuter, Van der Merwe, Vermeulen & Vos, 2003:15).

According to Kidder and Judd (2001:243-245) adequate time should be allocated by the researcher in order to construct and test the questionnaire. The questionnaire design is time-consuming and requires effort. The researcher has to keep in mind that the questionnaire will be re-drafted a number of times before being finalized. An important aim in the construction of the questionnaire in this investigation was to present the questions as simple and straight forward as possible. All the above was taken into consideration by the researcher during the design of the questionnaire for this research. The researcher pre-tested the questionnaire and allowed herself ample time to develop it such that it is on the required standard.

#### **(1) Types of questions**

De Vos (2000: 161) states that the questions in the questionnaire can either be open or closed-ended.

##### **(a) Closed-ended questions**

A closed-ended questionnaire is one in which the respondents are offered a choice of alternative answers. Closed-ended questions are easy to ask and quick to answer and their analysis is also straightforward. The major drawback of close ended questions is that they limit the respondents to the provided answers or alternatives. The respondents are deprived of the opportunity of providing their own answers in their own way. These questions may also introduce some form of bias.

### **(b) Open-ended questions**

De Vos (2000: 161) state that open ended questions are not followed by any kind of choice and the respondent's answers are recorded in full. In the case of the written questionnaire, the amount of space or the number of lines provided for the answer will partly determine the length and the fullness of the responses received. The advantage of the open-ended question is that it does not force the respondent to adapt to pre-conceived answers. Open ended questions are flexible in that they enable the researcher to clear up misunderstandings.

The chief advantage of the open-ended question is the freedom it gives the respondents. Once they have understood the intent of the question, they can respond freely without being influenced by a prepared set of answers. The disadvantage of open-ended questions is that they are difficult to answer and difficult to analyse. Many open-ended questions lengthen the time of completion and respondents may be tempted to leave notes incomplete, which decreases the real value of the data obtained from the questionnaires. A large number of open ended questions also lengthen the time necessary for the processing of data. According to De Vos (2000: 160), the inclusion of too many open-ended questions makes it more expensive, more time consuming and more liable to contain errors.

### **(c) Scaled items**

Kidder and Judd (2001: 244-245) emphasise that scales are used extensively in questionnaires because they allow a fairly accurate assessment of beliefs or opinions. This is because beliefs and opinions are thought of in terms of gradations. The usual format of scaled items is a question or statement followed by a scale of potential responses. Scaled items are a type of multiple-choice questions. The subjects check the place on the scale that best reflects their beliefs or opinions about the statement. The most widely used example is the Likert-type scale. A Likert-type scale is one in which the item includes a value or direction and the respondent indicates agreement or disagreement with the statement. Likert type items use different response scales; the items can either be neutral or directional.

De Vos (2000:164) explains that a scale question is useful to obtain information about non-exact and more subjective aspects. The researcher must be careful not to follow the same sequence

from positive to negative throughout the questionnaire. Alternation is necessary to decrease bias. For this study, the researcher employed the Likert-type scale response (agree, disagree, uncertain) in the construction of the questionnaire.

The questionnaire consisted of two sections, that is section 'A' and 'B'. Section 'A' covered biographic information of the respondents. Such kind of information helped the researcher to gain an insight into the profile of the respondents involved.

Section 'B' contained both closed and open ended questions as stated earlier. The questions were formulated on the basis of research objectives and literature review. The questions sought to find out:

- The challenges encountered by educators in dissemination of HIV/AIDS information to learners who are intellectually challenged.
- How educators in primary schools disseminate HIV/AIDS information to learners who are intellectually challenged.
- The effectiveness of the strategies employed by educators in disseminating HIV/AIDS information to learners who are intellectually challenged.

The questionnaire was designed based on all the research objectives. The items that were included in the questionnaire were selected from the literature and put under each objective and the respondents had either to agree, disagree or strongly disagree with them.

Thus in this study, questionnaires were an appropriate data collection method to gain an insight into the topic of study.

#### **3.4.1.4 Validity and reliability of the questionnaire**

Validity and reliability are two concepts that are of critical importance in understanding issues of measurement in research (Huysamen, 1993: 1-3). All too rarely do questionnaire designers deal consciously with the degree of validity and reliability of their instrument. This is one reason why so many questionnaires are lacking in these two qualities (Bless & Higson-Smith, 1995: 135). Questionnaires have very limited purpose. They are often one-time data gathering devices with a very short life, administered to a limited population. There are ways to improve both the

validity and reliability of questionnaires. Basic to the validity of a questionnaire is asking the right questions phrased in the least ambiguous way. Terms must be clearly defined so that they have meaning to all respondents (Bless & Higson-Smith, 1995: 136-137). Non ambiguity of questions was heavily considered by the researcher in this study when designing the questionnaire tool.

Kidder and Judd (2001: 53) mention that although reliability and validity are two different characteristics of measurement, they "shade into each other". They are two ends of a continuum but at points in the middle it is difficult to distinguish between them. Validity and reliability are especially important in educational research because most of the measurements attempted in this area are obtained indirectly.

Researchers can never guarantee that an educational or psychological measuring instrument measures precisely and dependably what it is intended to measure (Van den Aardweg & Van den Aardweg, 1990: 198). It is essential, therefore, to assess the validity and reliability of these instruments. In this study, the researcher included in his research report an account of the validity and reliability of the instrument she employed. Researchers must therefore have a general knowledge as to what validity and reliability are and how one goes about validating a research instrument and establishing its reliability (Huysamen, 1993: 1-3).

### **(1) Validity of the questionnaire**

By validity is meant that the researcher's conclusion is true or correct. Validity is the extent to which a measuring instrument satisfies the purpose for which it was constructed. It also refers to the extent to which it correlates with some criterion external to the instrument itself (Van Rensburg, et al., 1994: 560). Validity is that quality of a data gathering instrument or procedure that enables it to determine what it was designed to determine. In general the validity refers to the degree to which an instrument succeeds in measuring what it has set out to measure. In this study, validity was considered as an indispensable characteristic of measuring devices.

Van den Aardweg and Van den Aardweg (1990: 237) and Dane (1990: 257-258) distinguish between three different types of validity:

- Content validity where content and cognitive processes are included and can be measured. Topics skills and abilities should be prepared and items from each category randomly drawn.
- Criterion validity which refers to the relationship between scores on a measuring instrument and an independent variable (criterion) believed to measure directly the behaviour or characteristic in question. The criterion should be relevant reliable and free from bias and contamination.
- Construct validity where the extent to which the test measures a specific trait or construct is concerned for example intelligence, reasoning ability attitudes etc.

The validity of the questionnaire in this research indicated how worthwhile a measure was likely to be in a given situation. Validity showed whether the instrument is reflecting the true story, or at least something approximating the truth. A valid research instrument is one that has demonstrated that it detects some "real" abilities, attitude or prevailing situation that the researcher can identify and characterize (Schnetler,1993: 71). If the ability or attitude is itself stable, and if a respondent's answers to the items are not affected by other unpredictable factors then each administration of the instrument should yield essentially the same results (Dane 1990: 158).

According to De Vos (2000: 168) three questions are posed when evaluating how valid an instrument is:

- How well does this instrument measure what one wants it to measure? (content validity) .
- How well does this instrument compare with one or more external criteria purporting to measure the same thing? (criterion validity).
- What does this instrument mean, what is it in fact measuring, and how and why does it operate the way it does? (construct validity).

The validity of the questionnaire as a research instrument reflects the sureness with which conclusions can be drawn. It refers to the extent to which interpretations of the instrument's results, other than the ones the researcher wishes to make, can be ruled out. Establishing validity requires that the researcher anticipates the potential arguments that sceptics might use to dismiss

the research results (Dane, 1990: 148-149; Kidder & Judd 2001: 54). From the interpretation of the results obtained and the sureness with which conclusions could be drawn the researcher is convinced that the questionnaire, to a great extent, did measure that which it was designed for.

To ascertain validity of the questionnaire, the researcher made sure that it covered the correct content about disseminating HIV/AIDS information to intellectually challenged learners, furthermore, logical and creativity were upheld to ensure construct validity.

## **(2) Reliability of the questionnaire**

According to Bless and Higson-Smith (1995: 132-133) and Van Rensburg, Landman and Bodenstein (1994: 512) reliability is a statistical concept that relates to consistency of obtaining the same relative answer when measuring phenomena and dependability. A reliable measuring instrument is one that, if repeated under similar conditions, would present the same result or a near approximation of the initial result.

De Vos (2000: 168) defines reliability as the accuracy or precision of an instrument; as the degree of consistency or agreement between two independently derived sets of scores, and as the extent to which independent administrators of the same instrument yield the same or similar results under comparable conditions. The researcher, in this study, ensured reliability of the questionnaire through observing how respondents answered similar questions on the instrument. The researcher noticed that they were answering in almost a similar logical manner.

### **3.4.2 Interview guide**

An interview guide was used as a second research instrument. The interview is a research technique that was used to investigate a wide variety of research problems as well as projects. An interview is a conversation between the interviewer and the respondents with the purpose of eliciting certain information from the respondents. According to Maree (2007:87), an interview is a two-way conversation in which the interviewer asks the participants questions to collect data and to learn about the ideas, beliefs views options and the behaviours of the participants.

In the current study, the interview was semi-structured. As such, it gave more latitudes to

respondents and the researcher and allowed for an exploration of issues emerging from the research (Bell, 2005: 106). Interviews were built around the emerging responses of each interviewee rather than being bound by pre-decided issues and semi-structured interviews were believed to produce a wealth of valuable data (Maree, 2007:87),

The interviews were mainly aimed at finding out if the current system of disseminating HIV/AIDS information to learners who are mentally challenged is appropriate, as well as, to investigate whether learners comprehend the information. The researcher interviewed learners who are intellectually challenged to verify if the strategies used by teachers to disseminate HIV/AIDS information to them work and also to get information from them on how more they would love to be disseminated to. Teachers were not interviewed because they filled in the questionnaires.

During the interview, the responses were noted in point form and later convert them into notes. The researcher opted for note taking because it gives the researcher an instant record of key points of an interview. After the interview, the researcher went over the notes with the respondents in order to find out whether what is captured is exactly what was said. Audio was also recorded to give the researcher a concrete understanding and recap on what was interviewed during the analysis just incase she missed out ideas during note taking.

### **3.4.2.2 Types of interviews**

According to Denham (2015), there are many types of interviews serving diverse purposes. Knowing what to expect can help you achieve your goals.

#### ***1. Informational Interview***

The objective of this interview is to ask for advice and learn more about a particular career field, employer or particular job. Interviewing experts in their field is one more way to become more occupationally literate. The knowledge that you gain here will make you a sharper and more informed. You will also make a contact and further develop your network (Denham, 2015).

## ***2. Screening or Telephone Interview***

According to Maree (2007) a phone interview is a very cost effective way to screen candidates. These can last anywhere from 10 to 30 minutes. You should prepare for it like an open book exam. It is recommended that you have in front of you your resume, the job description, a list of references, some prepared answers to challenging questions and perhaps something about the company. The vast majority of communication is non-verbal. Because they can't see your body language, it is critically important to have positive and polished answers with energetic tone and inflection. Be sure to ask what the next step is. However, this was not used for this study as the respondents had to be met physically.

## ***3. Individual Interview***

This is the most common type and often called a "personal interview." It is typically a one-on-one exchange at the organizations offices. In order to best prepare you will want to know the length of the interview which can usually range from 30 to 90 minutes. If the interview is 30 minutes you have to be concise and have a high impact with your answers. If it is 60 or 90 minutes you will want to go into much more depth and use specific examples to support your generalizations (Denham, 2015). This was considered and used in broadness for this particular study.

## ***4. Small Group or Committee Interview***

This is where you will be meeting with several decision-makers at once. This can be an intimidating experience if you are not prepared (Bell, 2005). It's an efficient way to interview candidates and allows for different interpretations or perceptions of the same answer. Be sure to make eye contact with everyone, no matter who asked the question. It's important to establish rapport with each member of the interview team. Try to find out the names and job titles of the participants.

### ***5. The Second or On-Site Interview***

After your first interview, you may be asked back again for a “second date.” They like you enough that you made the first round of cuts, but they would like to know more about you before making their final decision. Second Interviews can last either a half or full-day so it is best to check again and get an agenda. You may be meeting with three to five individuals. This may include a representative from Human Resources, the department head, the office staff and the department head’s supervisor. Be alert and enthusiastic at all times! The more you know about the structure of the process, the less anxious you are going to feel and the better you will perform (Kidder & Judd, 2001: 56). This is the last step before an offer is made.

### ***6. Behavioural-Based Interview***

According to Denham (2015) the theory behind Critical Behavioural Interviewing (CBI) is that past performance in a similar situation is the best predictor of future performance. CBI probes much deeper than traditional interviewing techniques. You should prepare by thinking of specific examples that demonstrate your competence in core behaviours such as teamwork, problem-solving, communication, creativity, flexibility and organizational skills. You will want to tell your story and structure it by stating your answers in terms of the situation, the task, what action you took, and what was the result or outcome.

### ***7. Task Oriented or Testing Interview***

This is a problem-solving interview where you will be given some exercises to demonstrate your creative and analytical abilities. A company may ask you to take a short test to evaluate your technical knowledge and skills. Sometimes a presentation to a group is necessary to determine your communication skills. Try to relax as much as possible.

### ***8. Stress Interview***

During this rare type, the interviewer tries to bait you, to see how you will respond. The objective is to find your weaknesses and test how you hold up to pressure. Such tactics as weird

silences, constant interruptions and challenging interrogation with antagonistic questions are designed to push your boundaries. The question you have to ask yourself is: Do I want to work for a company that treats me this way even before the offer is made? Rethink the corporate culture.

### **3.4.2.3 Advantages and Disadvantages of Interviews**

Denham (2015) explains the following advantages and disadvantages of interviews:

The advantages of interviews as a method of selection are that they:

- provide opportunities for interviewers to ask probing questions about the candidate's experience and to explore the extent to which the candidate's competences match those specified for the job;
- enable interviewers to describe the job (a 'realistic job preview') and the organization in more detail, suggesting some of the terms of the psychological contract;
- provide opportunities for candidates to ask questions about the job and to clarify issues concerning training, career prospects, the organization and terms and conditions of employment;
- enable a face-to-face encounter to take place so that the interviewer can make an assessment of how the candidate would fit into the organization and what he or she would be like to work with;
- give the candidate the same opportunity to assess the organization, the interviewer and the job.

The disadvantages of interviews are that they:

- can lack validity as a means of making sound predictions of performance, and lack reliability in the sense of measuring the same things for different candidates;

- rely on the skill of the interviewer; but many people are poor at interviewing, although most think that they are good at it;
- do not necessarily assess competence in meeting the demands of the particular job;
- can lead to biased and subjective judgments by interviewers.

### **3.5 COVERING LETTER**

A cover letter accompanies or transmits another document such as a survey questionnaire. Its purpose is to alert the respondent about the questionnaire it accompanies and to provide the details of requested actions on the part of the respondent, used as a part of multiple communications or overall research strategy, such as an advanced contact or future reminder mailings, it can help increase response by conveying important information (e.g. research topic, survey sponsor, incentives) that is likely to influence a respondent's decision to cooperate and/or to comply fully and accurately with the survey task. For this research, a letter was got from North West University, Faculty of Education and was presented to the respondents along with the questionnaires.

### **3.6 PILOT STUDY**

In all research strategies and approaches, the researcher should aim at developing procedures that will produce results that are both reliable and valid. In checking content validity and reliability of data collected through interviews, the researcher had an opportunity to check notes with the respondents in order to confirm whether what has been captured is a true reflection of their responses. This will mainly facilitate the detection of ambiguity (Walsh, 2011:14), hence improving the reliability and validity of the study.

The questionnaire was pilot tested before administration. The purpose of this was to detect and eliminate ambiguities as well as to check whether they are fit for the purpose, i.e. whether or not the instrument achieves the intended purpose and to determine consistency of the instrument (Walsh, 2011 and Wilkinson, 2010). The questionnaire was given to three (3) teachers in Gaborone and the results were positive. The 3 teachers agreed with the questionnaires and gave their responses accordingly. These were selected because they are knowledgeable and therefore

it was assumed that they can assist much in determining the reliability and validity of the instrument.

The results of the pilot study informed the researcher of any gaps, ambiguities, modifications that needed to be addressed and also whether the instrument was fit for purpose. Where these gaps and or ambiguities were identified, the questionnaire was reconstructed so as to achieve the intended purpose.

In all cases, it is essential that newly constructed questionnaires, i.e. in their semi-final form, be thoroughly tested before being utilized in the main investigation. This ensures that errors of whatever nature can be rectified immediately at little cost. It does not matter how effective sampling or analysis of the results is, it remains a fact that ambiguous questions lead to biased responses; and vague questions lead to vague answers. Only after the necessary modifications have been made following the pilot test should the questionnaire be presented to the full sample (De Vos, 2000: 158).

A pilot study is an abbreviated version of a research project in which the researcher practises or tests the procedures to be used in the subsequent full scale project (Dane, 1990: 42). The pilot study is a preliminary or "trial run" investigation using similar questions and similar Subjects as in the final survey.

According to Kidder and Judd (1991: 211-212) the basic purpose of a pilot study is to determine how the design of the subsequent study can be improved and to identify flaws in the measuring instrument. A pilot study gives the researcher an idea of what the method will actually look like in operation and what effects (intended or not) it is likely to have. In other words, by generating many of the practical problems that will ultimately arise, a pilot study enables the researcher to avert these problems by changing procedures, instructions and questions.

The number of participants in the pilot study or group is normally smaller than the number scheduled to take part in the final survey. Participants in the pilot study and the sample for the

final study must be selected from the same target population. For the purpose of this study the researcher conducted a pilot run on her colleagues.

According to Plug, Meyer, Louw and Gouws (1991: 49-66) the following are the purposes of a pilot study, and these were also the aims of the researcher in this survey:

It permitted a preliminary testing of the hypotheses that leads to testing more precise hypotheses in the main study; It provided the researcher with ideas, approaches and clues not foreseen prior to the pilot study. It permitted a thorough check of the planned statistical and analytical procedures, thus allowing an appraisal of their adequacy in treating the data; It greatly reduced the number of treatment errors because unforeseen problems revealed in the pilot study resulted in redesigning the main study; It saved the researcher major expenditures of time and money on aspects of the research which would have been unnecessary; Feedback from other persons involved were made possible and led to important improvements in the main study; In the pilot study the researcher experimented with a number of alternative measures and selected only those that produced the best results for the final study; The approximate time required to complete the questionnaire was established in the pilot study. Questions and/or instructions that were misinterpreted were reformulated. Through the use of the pilot study as "pre-test" the researcher was satisfied that the questions asked, complied adequately with the requirements of the study.

The interview guide was also pilot tested by the researcher in order not to ask ambiguous questions to respondents and where corrections were required, they were done accordingly.

### **3.7 TRUSTWORTHINESS**

According to Maree (2010:80) "... it is generally accepted that strategies of data collection in qualitative research such as interviews... should lead to trustworthiness". In this study, trustworthiness was achieved by ensuring the validity of data and the reliability of data through the use of valid research tools.

The researcher chose to conduct the study in Gaborone South where she is working to ensure reliability and validity of data. The researcher's aim in conducting the study in the area where she is working rather than travelling to other places is due to the time factor. If the researcher chose to conduct the study at other places, she would probably not have met the deadlines or

appointments with the respondents which might have compromised the study's reliability and validity. There is a likelihood as well that the respondents may not have given information which is valid, leading to negative impact on the trustworthiness of the study.

### **3.8 VALIDITY**

Mbokodi (2008:62) cites Hammersley as stating that validity is the extent to which an account accurately represents the social phenomena to which it refers. Therefore, one way of establishing validity in a study is taking one's findings back to the subjects being studied to verify. This is called respondent validation. In this study, findings were taken back to members of the participating schools for them to verify if what was captured was actually what they said.

According to Terre Blanche & Durrheim (2005:46), validity can also be defined by the degree to which the researcher can produce observations that are believable for him or her, the subjects being studied, and the eventual readers of the study. Validity of qualitative data can be external. External validity refers to the degree to which findings can be generalized to the population from which the participants were drawn. It also encompasses the degree to which the sample is a representative of the population from which the sample was drawn. This is called population validity (Best & Khan, 2006:12). For this study, the researcher believed that the fifty (50) educators and twenty five (25) learners who were selected as participants was a valid representative sample for the whole population.

### **3.9 REALIBILITY**

Best & Kahn (2006:285) aver that a test is reliable to the extent that it measures whatever it is measuring consistently. Silverman in Mbokodi (2008:64) explains further and says that reliability refers to the degree of consistency with which instances are assigned to be the same category by different observers or by the same observer on different occasions. Neuman (2003:184) adds to his definition of reliability the issue of dependability. Dependability of data was established by capturing all interviews on a phone recorder and transcribed in writing. During the transcription exercise the researcher eliminated only those parts of the story that were not commensurate with the research topic or had no significance to the research. Attempts were made to reproduce the interview scripts as accurately as possible. Following the transcription, the researcher listened again to the audio recording while reading the transcript.

### **3.10 ETHICAL CONSIDERATION**

In research, ethical issues are pervasive and complex (de Vom, et al, 2005:57). No researcher can just demand access to an institution, an organisation or to materials. Permission to carry out an investigation must always be sought at an early stage (Bell, 2005:35). The researcher started by introducing herself and requesting for permission from the Regional Education Office and school heads to carry out the study in their respective schools. A letter from Head of Department (Foundations of Education), North West University was also obtained to support the introduction of the researcher to the relevant stakeholders. Permission was granted by the respective offices (see appendix D for permission letters).

Ethics in research involves explaining the study to participants and giving information about voluntary participation and consenting to such participation without any coercion whatsoever. Researchers therefore need to exercise that the right of individuals are safeguarded (Polit and Hungler, 2008). The purpose of the study was fully explained by the researcher to school heads and regional education officer before permission was granted. After it was granted, the researcher sought an opportunity to do the same for the targeted sample of the study. It was during the explanations that some ethical issues such as confidentiality, anonymity, legality and professionalism were explained. These were ensured in a way that the researcher kept all information confidential and took legal paths to obtain information. The main reason behind this is that although people are not obliged to help the researcher, they will be expected to give out information within their knowledge and control, and may be confident, which they have a right to know what it will be used for (Bell, 2005:37). Participants have the right to withdraw if sufficient information is not provided to them by the researcher about the study and its objectives or if they decide not to assist the researcher hence the researcher was compelled to communicate all information to them. This ensured that respondents understood the purpose of the study, the need for taking part in the study, what was expected of them as well as for them to have a trust in the researcher.

### **3.11 TRIANGULATION**

Triangulation is defined to be a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study Creswell, (2009:95). It is typically a strategy for improving the validity and reliability of research

or evaluation of findings (Punch, 2009). Patton (2001) advocates the use of triangulation by stating that it strengthens a study by combining methods, and controls bias and establishes propositions (Mathison as cited in Greswell, 2009). Triangulation according to Maree (2010:80), is a traditional strategy for improving the validity and reliability of research or evaluation of findings. Triangulation of data sources (interviews and questionnaire) was used in the study to gather data from the teachers and learners. For this study, triangulation enabled cross verification from the interviews and questionnaires since one source was thought by the researcher not to be enough to shed light on problem, hence validity was enhanced.

### **3.12 DATA ANALYSIS**

According to Bell (2005:171) data collection by any means or method, means very little until they are analysed and evaluated. Data analysis also assists the researcher in making conclusions and recommendations based on the information collected.

The quantitative responses from the questionnaires were summarised in tabular groupings of related responses and organised into thematic conclusions according to the frequency of occurrence of a given category of quantitative reasoning. Frequencies and percentages of responses to each item were presented followed by interpretation of the results. Tables and figures are used to illuminate the findings.

The researcher described and reported on key themes found within the data collected using the interviews. As for quantitative data, it was analysed by means of Special Package for Statisticians (SPSS) whereby frequencies and percentages of responses to each item are analysed. SPSS software was used because it proved to be quite useful for the purpose of graphical representation of the raw data. With the help of the SPSS application, different graphs based on different complex data were drawn easily and effectively. It reduced the time and efforts of the researcher employed in the process of drawing the graphs based on the data. Tables were used to present and illuminate findings.

Furthermore, the analysis of qualitative data was done using content analysis whereby categorisation of verbal or behavioural data, for purposes of classification, summarisation and tabulation was done in form of a written discussion. These unquantifiable assertions and suggestions were used to reinforce findings in the quantitative analysis.

### **3:13 SCHOOL PROFILE**

One of the schools the researcher collected data from is Solomon Dihutso Primary School. Solomon Dihutso Primary School was built and opened in 1978 as the second Primary school in Mogoditshane village. The school was named after the village chief Kgosi Solomon Dihutso. It is less than ten kilometres from Gaborone. The school is an integrated school as it enrolls both the mainstream learners and those with intellectual disabilities. It has a roll of 930 learners.

### **SOLOMON DIHUTSO SPECIAL UNIT CLASS**

Solomon Dihutso Primary school Unit was established in the year 1999, with an enrolment of 15 learners. Current enrolment is 74 learners with ages ranging from seven (7) to twenty-one (21) years. The unit targeted learners with intellectual disability who could not access the mainstream Education due to their low level intellectual functioning which hinders their transition to higher education levels. Within the seventy-four (74) learners, some can be said to have multiple disabilities as their condition is accompanied by speech problem, hearing problem and mobility problem.

**Classrooms:** The unit started operating in a mainstream classroom which was not modified to cater for such learners. An Isuzu van donated by Lady Khama Charitable organization was used to transport learners to and from school as most of them could not afford to find their way using public transport due to their condition and also because some were residing outside Mogoditshane. In 2007, the unit was moved from the mainstream block to a newly built modified block with two open classrooms to cater for wheelchairs, physiotherapy room, consultation room, two offices, kitchen, four toilets and two bathrooms and two staff toilets. This was built by the district council.

**Learning and teaching materials:** teaching and learning for this vulnerable group of learners is also affected as they are not provided with relevant materials. The teachers are then forced to use any material that they can find for learning to go on. This does not benefit the learners as they learn better through manipulation and demonstration, hence the need for concrete materials. At

the moment, the special unit teachers depend on sourcing out donations from the community to buy suitable material mostly for the development of pre-vocational skills which is very vital for life skills development for our learners who do not benefit much from academics. The unit has a staff compliment of twelve members - six teachers, three teacher- aids, one driver and two cleaners.

### **Challenges Faced by the unit:**

- Lack of transport specially designed and modified to cater for wheelchair users.
- Lack of suitable materials to cover areas such as basic academics, art and craft, bead work dress making, horticulture, recycling, hospitality and music.
- Lack of food as the school meal is at 10:30am during summer and 11:00am during winter hence the learners need breakfast as they arrive early in school also need lunch as it takes them time to get home as they stay very far.
- Lack of cleaning materials such as disinfectants, gloves.
- Lack of toiletry for grooming.
- Lack of equipment for making appropriate learning activities and for physiotherapy e.g. photocopying machine, stencil, internet, exercising equipment etc.
- Shortage of classrooms, which has forced the school to turn offices, physio room and consultation room into classrooms.

### **3:14 CHILD PROFILE**

When children are admitted to a special unit, the child has to go through an interview to check whether the child has to be admitted in the special unit or mainstream classes. There is a form the teacher has to fill in when interviewing the child. The form includes particulars of the child, educational history of the child, development milestones of the child during his/her growth, the child's physical handicaps, before and after birth history, dressing and personal care, drinking, toilet habits, social habits, verbal ability and other information of the child's growth. Example of a complete form of an admission form can be found at the appendix page.

To cater for the child's needs, the child has to go through an assessment at the CRC (Central Resource Centre) to determine the child's real problem. The school sends a teacher that

accompanies the learners when they come for assessment as most of the assessments rendered are educational and hence recommendations have to be implemented most of the time by schools.

The assessments conducted in the Centre are aimed at promoting holistic development and determine the level of functioning in various development areas including cognition, perception, communication and language, gross and fine motor, emotional and behavioural, sensory integration, functional vision and educational abilities. These assessments are carried out by qualified professionals in the fields of educational psychology, speech and language therapy, occupational therapy, physiotherapy, remedial therapy and low vision. During assessments several ?? are used to collect data about the learner and therefore it is important that the accompanying teacher is familiar with the learners and has records on each learner. The process also involves getting medical and developmental history of the learner and this can only be provided by a parent or guardian. It is important to bear in mind that the assessment process varies depending on the needs of the learner.

This is aimed at enabling the school and parents to have the initial impressions from assessment and to implement some recommendations while awaiting a written report. An assessment report will always be sent at a later date and is important for schools to keep this document safely for future reference. Schools are then expected to implement the assessment recommendations to support the learner and, when necessary, facilitate in the referrals to other service providers.

An example of a learner at the unit is Vincent who has gone for assessment at the Central Resource Center (CRC). Vincent Mosudisa was referred to the Central Resource Centre on the 25 September 2003 when he was nine years old and doing standard 4 at Sebele Primary School. The child had an intellectual disability and problem with ears. Below is the conclusion and recommendations from the CRC.

## Conclusions and Recommendations

Vincent is now a twenty-one year old boy who presents with some expressive and receptive language delay. He has adequate social skills with regards to activities of daily living but also appears to have learning difficulties which are worsened by the confirmed hearing loss. Based on the outcome assessment the following is recommended:

- Refer back to Audiology Clinic for Aural Rehabilitation (bilateral hearing aid and FM system fitting).
- Placement in social unit with the focus being on pre-vocational skills. Solomon Dihutso P. School appears to be the school with such services which is nearest to the client's home. He would also benefit from being supported by a Hearing Impairment Specialist Teacher.
- He should be encouraged to continue **sitting at the front of the class** for better lip reading and interpretation of facial expression. The teacher should try and desist from moving around the class whilst teaching or instructing him.
- All **teachers** and **examiners** must be mindful to speak to him whilst maintaining eye contact with him as to ensure that he is able to lip read therefore aiding his hearing ability.
- Please permit him to take **3 minute** health breaks **every 20 minutes** during tests as he appears to have limited concentration skills. The intervals between health breaks will be adjusted according to his needs/progress.
- Vincent should also be provided with extra time to respond verbally as he is reliant on lip reading which may lead to delayed communication.

### 3.15 SUMMARY

In this chapter, the research methods that were engaged in this study, as well as tools that were used to collect data have been discussed. The sample has been described and the sample procedure explained. Steps will be followed in the field in conducting interviews.

The next chapter will deal with the presentation and interpretation of findings from interviews with learners and questionnaire for teachers. A detailed discussion of the outcome of the study will be presented.

## **CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

### **4.1 INTRODUCTION**

This chapter presents the findings of the study, their interpretation and discussion of the findings. Data compiled was collected using the questionnaires and interviews.

### **4.2 DATA ANALYSIS**

In the survey, specific questions were asked and the analysis was done based on the frequencies of the respondents and, where possible, tests of association were carried out.

The questionnaire administered to teachers contained a list of statements focusing on the teachers' understanding of learners with intellectual disability, challenges faced by teachers when disseminating HIV/AIDS information to learners with intellectual disabilities, how teachers disseminate HIV/AIDS information to learners with intellectual disabilities and solutions to challenges encountered by teachers when disseminating HIV/AIDS information to learners with intellectual disabilities. The four item Likert scale was used in which, 1) represented "Strongly Agree"; 2) represented "Agree", 3) represented "Disagree" while, 4) represented "Strongly Disagree".

### **4.3 STUDY'S DATA**

The data from the teachers was collected through a self-administered questionnaire completed by the purposively selected teachers from the five randomly selected schools involved in the study. A semi-structured interview was used to collect data from the selected learners who are intellectually challenged. Responses were noted in point form during the interview and later converted into notes. After the interviews, the researcher went over the notes with the respondents in order to find out whether what was captured was exactly what the interviewees had said.

### **4.4 FINDINGS OF THE STUDY**

The findings of the study begin with a description of the demographic profiles of the respondents. It is then followed by specific findings regarding the various statements relating to

the teachers' understanding of learners who are intellectually challenged, methods and solutions to challenges encountered by teachers when disseminating HIV/AIDS information to learners who are intellectually challenged.

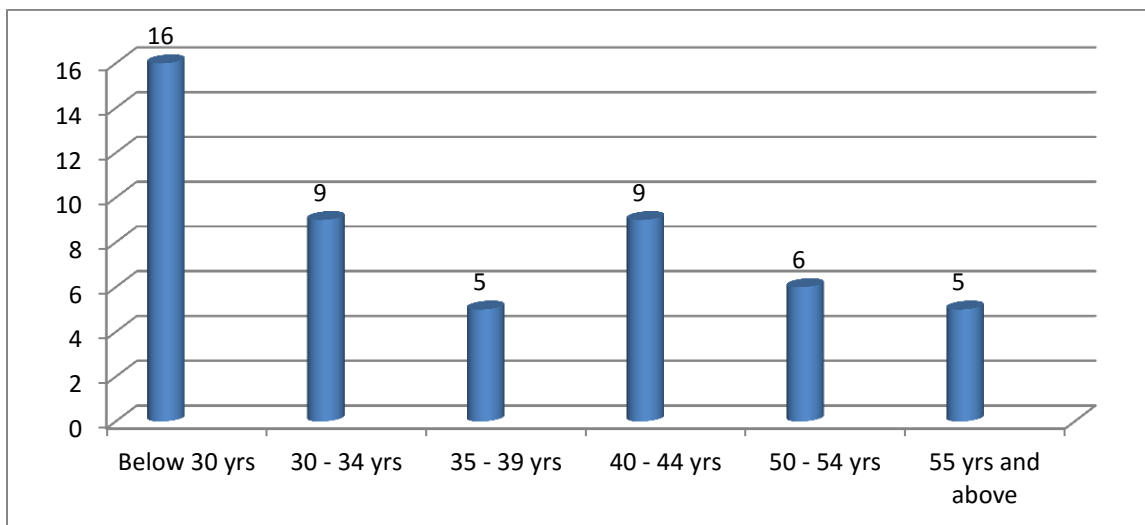
#### 4.4.1 DEMOGRAPHIC PROFILES OF THE RESPONDENTS

A total of 50 teachers filled in the questionnaire. The sample consisted of 44 (88%) females and 6 (12%) males.

##### 4.4.1.1 Age of the Respondents

**Figure I** below shows the age distribution of the respondents

The majority 16 (32%) of the respondents were below the age of 30. There were equal proportions 9 (18%) of those aged between 30 -34 years and 40 – 44 years. Respondents aged between 50 – 54 years constituted 6 (12%) of the sample while those aged 35 – 39 years and 55 years and above contributed 5(10%) each.



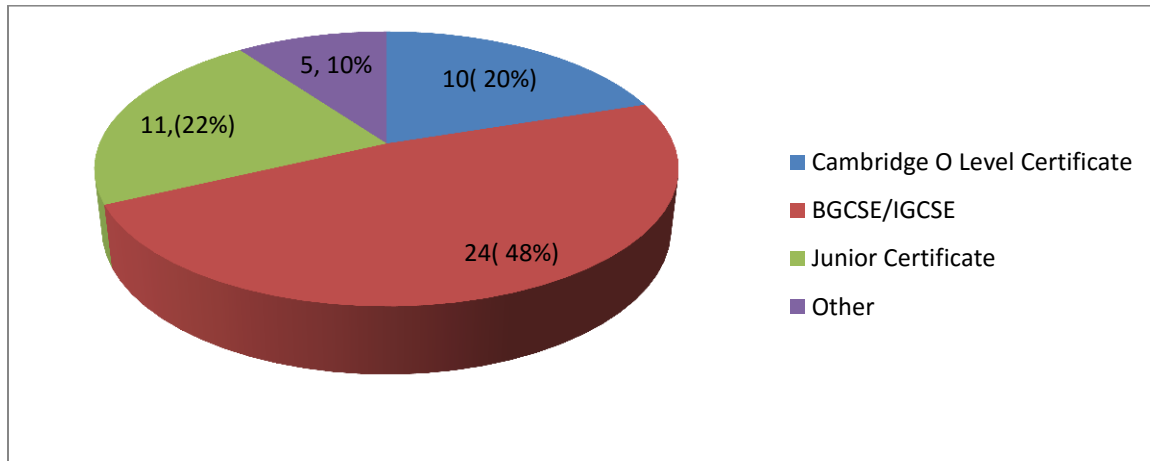
**Figure I: Age Distribution of the Teacher Respondents**

##### 4.4.1.2 Academic Qualifications of the Respondents

**Figure II**, below shows the academic qualification distribution of the respondents.

The majority of the respondents 24 (48%) attained the BGCSE or IGCSE qualification. Almost equal proportions of respondents held either the Cambridge, O level certificate 10 (20%) and those with junior certificate were 11 (22%). Five (10%) of the respondents indicated that they

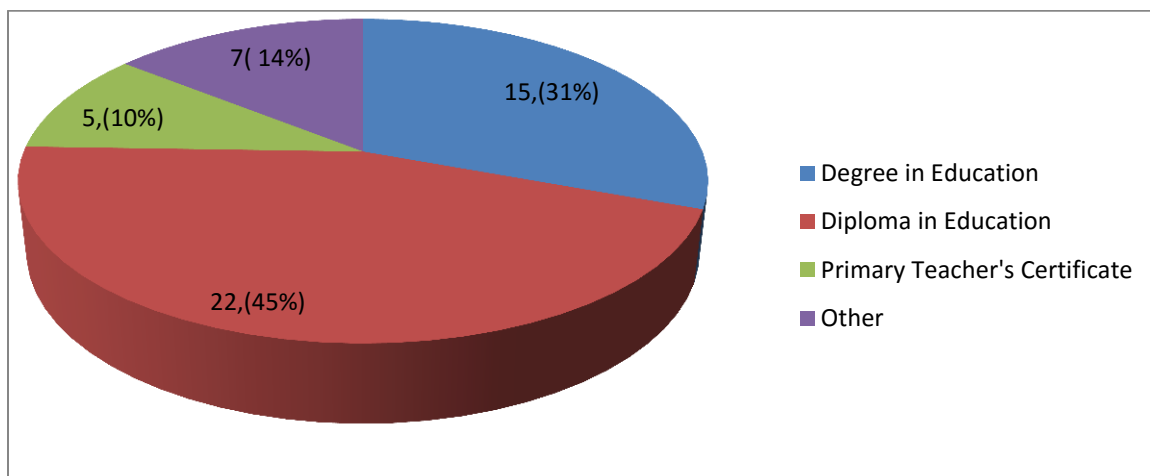
held other qualifications. Under the others include the Primary Leaving Examinations qualification was allowed in the 1960s, 70s and 80s to teach Primary schools.



**Figure II: Academic qualifications of respondents**

#### 4.4.1.3 Professional Qualifications of the Respondents

**Figure III** below shows the professional qualification distribution of the respondents. As shown in the pie-chart above, 22 out of 49 which is (45%) of the respondents had a Diploma in Education. Fifteen (31%) of the respondents held a Degree in Education while five (10%) had the Primary Teacher’s certificate. Seven (14%) indicated that they held other professional qualifications.

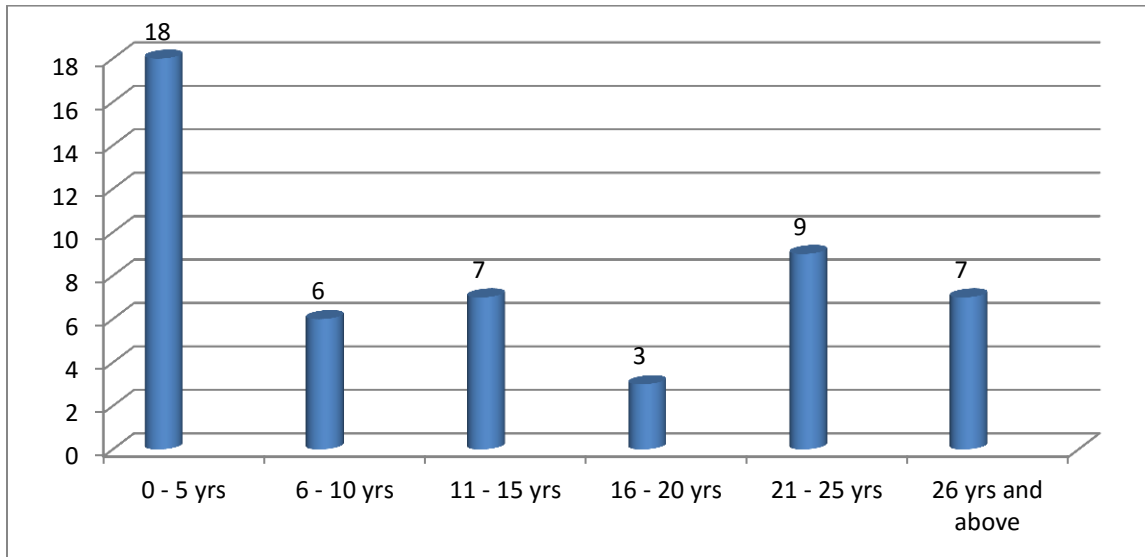


**Figure III: Professional Qualifications Distribution**

#### 4.4.1.4 Teaching Experience of the Respondents

As shown in **Figure IV** The majority 18 (6%) of those interviewed had teaching experience of 5 years or less. Six (12%) of the respondents had 6 – 10 years teaching experience. Equal

proportions 7 (14%) of the respondents had 11 – 15 years and 26 years or more teaching experience. Eighteen per cent had 21 -25 years teaching experience while only three (6%) had between 16 and 20 years’ experience.



**Figure IV: Teaching Experience Distribution**

### **SUMMARY OF DEMOGRAPHIC INFORMATION OF THE RESPONDENTS**

In terms of age, teachers are experienced enough as they seem to be elderly and have taught for some time to work with young children and are likely to understand their problems regarding intellectual disabilities. They can, therefore, give reasonable responses regarding the challenges they face in disseminating HIV/AIDS information to such learners. Possibly, the only exception may be those teachers in the age bracket of below 30 years and between 30-34 years. They may have less than 5 years’ experience but the rest have over 5 years’ experience since in Botswana, people graduate from the teachers colleges mostly at the age of 22-28 years and are posted in schools to teach so by 35 years, they have already attained enough experience on dealing with learners who are intellectually challenged.

For some time in Botswana, the highest requirement for Primary school teachers has been a Diploma in Education but the results show that a reasonable percentage (31%) has university degrees. These results are good because the more qualified educators are, the easier it will most probably be to identify and assist learners with intellectual disabilities and help them. As for teaching experience, all the respondents are experienced in the teaching profession though their

experiences vary. The more experienced educators are, the more they are able to identify learners who are intellectually challenged and may be better equipped to assist learners with such problems with regards to disseminating HIV/AIDS information. The more experience and training educators have, the more confidence and expertise they will acquire to be more effective (Naidoo, 2000: 12).

#### **4.4.2 FINDINGS FROM SECTION B OF THE QUESTIONNAIRE**

##### **4.4.2.1 Findings related to the teachers' understanding of learners with intellectual Disabilities**

Table I below shows that when asked what their understanding of learners with intellectual disability were, 14 (28%) strongly agreed that learners with intellectual disabilities face limitations in adaptive behaviour, while 25 (50%) agreed that learners with intellectual disabilities face limitations in adaptive behaviour whereas 7 (14 %) disagreed and 3 (6 %) strongly disagreed with the statement. The results implied that 39 (78 %) agree that learners with intellectual disability face limitations in adaptive behaviour while 10 (20 %) disagreed.

The table further shows that 10 (20 %) respondents strongly agreed that learners with intellectual disabilities always have poor intelligence while 11 (22%) agreed with the statement. But 13 (26 %) strongly disagreed with the statement that says learners with intellectual disabilities always have poor intelligence while 16 (32 %) disagreed with the statement. Analysis in table 4.1 shows that majority of the respondents 29 (58 %) disagreed with the statement that says learners with intellectual disabilities always have poor intelligence whereas 21 (42%) agreed with the statement.

As for the statement that says learners with intellectual disabilities have borderline or mild IQ, 6 (12%) strongly agreed with the statement whereas 28 (56 %) agreed. Ten (20%) disagreed with the statement and 6 (12 %) strongly disagreed with the statement. The implication here is that majority 34 (68%) agreed with the statement whereas 16 (32 %) disagreed.

**Table I:** Educators understanding of learners who are intellectually challenged

| What is your understanding of learners with intellectual disability? | Educators' response |          |          |          |
|--|---------------------|----------|----------|----------|
|  | SA                  | A        | D        | SD       |
| They always have poor intelligence                                   | 10 (20%)            | 11 (22%) | 16 (32%) | 13 (26%) |
| They face limitations in adaptive behaviour                          | 14 (28%)            | 25 (50%) | 7 (14%)  | 3 (6%)   |
| They have borderline or mild IQ                                      | 6 (12%)             | 28 (56%) | 10 (20%) | 6 (12%)  |

#### **4.4.2.2 Findings on challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disability**

As shown in Table II below, the majority 12 (24 %) strongly agreed that lack of communication skills was a challenge they encountered when disseminating HIV/AIDS information to learners with intellectual disabilities while 26 (52%) agreed with the statement. Six (12 %) strongly disagreed with the statement while the other 6 (12 %) disagreed with the statement. The implication of the table is that the majority of the respondents 38 (76 %) agree with the statement whereas 12 (24%) disagreed.

The table also shows that 35(70%) of the respondents agreed that language hurdles was challenge while 14 (28%) disagreed. As to whether restrictive cultural norms pose challenge to educators when it comes to disseminating HIV/AIDS information, the table shows that 29 (58 %) agreed that it does while 21 (42 %) disagreed with the statement.

The majority 26 (52%) of the respondents, does not agree that lack of formal training in teaching HIV/AIDS issues bring with it a challenge to educators while 24 (48 %) agreed that lack of formal training bring a challenge to educators. This shows that much as the majority do not agree, a reasonable percentage (48%) agree and this cannot be ignored. There is need to increase on the formal training for educators disseminating HIV/ AIDS information.

**Table II:** Challenges encountered by educators disseminating HIV/AIDS information

| Challenges encountered by educators when disseminating HIV/AIDS information | Response of respondents |          |          |         |
|---|-------------------------|----------|----------|---------|
|   | SA                      | A        | D        | SD      |
| Restrictive cultural norms  | 6 (12%)                 | 23 (46%) | 16 (32%) | 5 (10%) |
| Lack of communication skills  | 12 (24%)                | 26 (52%) | 6 (12%)  | 6 (12%) |
| No formal training in teaching HIV/AIDS issues                              | 9 (18%)                 | 15 (30%) | 18 (36%) | 8 (16%) |
| Language hurdle   | 13 (26%)                | 22 (44%) | 8 (16%)  | 6 (12%) |

#### 4.4.2.3 How educators disseminate HIV/AIDS information to learners who are intellectually challenged

**Table III:** How educators disseminate HIV/AIDS information

| How educators disseminate HIV/AIDS information       | Respondents' response |            |           |          |
|--|-----------------------|------------|-----------|----------|
|  | SA                    | A          | D         | SD       |
| Use of interactive awareness creation sessions       | 8 (17.4%)             | 34 (73.9%) | 1 (2.2%)  | 3 (6.5%) |
| Development of communication materials               | 14 (29.2%)            | 30 (62.5%) | 2 (4.2%)  | 2 (4.2%) |
| Use of professionals                                 | 12 (25.5%)            | 24 (51.1%) | 9 (19.1%) | 2 (4.3%) |
| Use of inclusive education                           | 17(34.7%)             | 27(55.1%)  | 3 (6.1%)  | 2 (4.1%) |
| Giving more time to practice than usual              | 14 (29.1%)            | 24 (50%)   | 8 (16.7%) | 2 (4.2%) |
| Use of adaptive functional skills                    | 9 (18.8%)             | 34 (70.8%) | 4 (8.3%)  | 1 (2.1%) |
| Include the student deliberately in group activities | 15 (31.3%)            | 28 (58.3%) | 3 (6.3%)  | 2 (4.2%) |

As shown in Table III above, 8 (17.4 %) strongly agreed that they use interactive awareness creation sessions to disseminate HIV/AIDS information to learners while 34 (73.9 %) agreed. Only 3 (6.5 %) strongly disagreed that they use interactive method while 1(2.2%) disagreed. The majority of educators about, 42 (91.3%), use interactive awareness method to disseminate HIV/AIDs information to learners who are intellectually challenged.

As for the development of communication materials, the majority 44 (91.7 %) of educators, indicated that they have adopted the strategy to disseminate information to learners whereas 4 (8.3 %) have not. Furthermore, the majority 36 (76.6 %) of educators, highlighted that they disseminate information through using other professionals while 11 (23.4 %) did not agree that educators use other professionals to disseminate HIV/AIDS information.

As for the use of inclusive education as a strategy of disseminating HIV/ AIDS information by the educators, 44 (89.8%) agreed that they use inclusive education while 11(22.4%) disagreed. This implies that the majority of the respondents use inclusive education to disseminate HIV/AIDS information to learners who are intellectually challenged. They use inclusive education.

About 38 (79.2%) respondents highlighted that they give learners more time practice than usual when disseminating HIV/AIDS information while 10 (20.8 %) does not. This further shows that educators use the mentioned strategy, i.e. giving learners more to practice, to disseminate HIV/AIDS information.

Table III also indicated that the majority 43 (89.6 %)of educators, make use of adaptive functional skills to disseminate HIV/AIDS information while 5 (10.4 %) do not. The table also shows that 43 (89.6%) include learners who are intellectually challenged deliberately in group activities in order to disseminate HIV/AIDS information to them while 5 (10.4%) do not include them.

Table III shows that the majority of educators use the strategies mentioned within the table to disseminate HIV/AIDS information to learners who are intellectually challenged. The majority (over 75%) of the educators either agreed or strongly agreed that they used all the methods listed in the table to disseminate information to learners with intellectual disabilities.

#### 4.4.2.4 Solutions to challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disabilities

**Table IV:** Solutions to challenges educators encounter when disseminating HIV/AIDS information

| Solutions to challenges educators encounter                         | Educators' response |            |        |         |
|---|---------------------|------------|--------|---------|
|   | SA                  | A          | D      | SD      |
| Establishment of language appropriate HIV prevention programmes     | 16 (32%)            | 29 (58%)   | 3 (6%) | 2 (4%)  |
| HIV/AIDS information should be disseminated in a variety of formats | 37 (74%)            | 12 (24%)   |        | 1 (2%)  |
| Dissemination of information should be done through entertainment   | 30 (60%)            | 18 (36%)   |        | 2 (4%)  |
| Train a few intellectually impaired peers                           | 22 (44%)            | 22 (44%)   | 4 (8%) | 2 (4%)  |
| Educate the teachers  | 32 (64%)            | 16 (32%)   | 1 (2%) | 1 (2%)  |
| Learning what works   | 17 (34.7%)          | 29 (59.2%) | 1 (2%) | 2(4.1%) |
| Delivery system adjustment  | 15 (30%)            | 30 (60%)   | 1 (2%) | 4 (8%)  |

The questionnaire indicated possible solutions to challenges encountered by educators, as shown in Table IV above, when disseminating HIV/AIDS information to learners who are intellectually challenged. Below are the educators' responses:

As part of the solutions, 29 (58%) educators agreed with the establishment of language appropriate HIV prevention programmes while 16 (32%) strongly agreed. Furthermore, 3 (6%) disagreed while 2 (4%) strongly disagreed.

The questionnaire also suggested that HIV/AIDS information should be disseminated in a variety of formats. Thirty seven (74%) educators strongly agreed with the suggestion while 12 (24%) agreed. Only 1 (2%) respondent strongly disagreed with the suggestion.

Another suggestion given was that dissemination of information should be done through entertainment of which 30 (60%) strongly agreed with the suggestion while 18 (36%) agreed. Two (4%) educators strongly disagreed with the suggestion.

Furthermore, the table revealed that 22 (44%) respondents strongly agreed with training of intellectually challenged learners to disseminate information while the other 22 (44%) agreed. Furthermore, 4 (8%) disagreed while 2 (4%) strongly disagreed.

The results also revealed that 32 (64%) educators strongly agreed with training of teachers to disseminate information while 16 (32%) agreed. One (2%) educator disagreed while the other 1(2%) strongly disagreed.

The questionnaire also suggested learning what works as a way of disseminating information. Twenty nine (59.2%) educators agreed with the suggestion while 17 (34.7%) strongly agreed. Two (4.1 %) educators disagreed while 1 (2%) disagreed.

Another suggestion given was delivery system adjustment. Thirty (60%) respondents agreed with the suggestion while 15 (30%) strongly agreed. Four (8%) respondents strongly disagreed while 1 (2%) disagreed.

#### **4.4.3 DATA EMERGING FROM LEARNERS CONCERNING HOW EDUCATORS DISSEMINATE HIV/AIDS INFORMATION**

A total of twenty-five students were interviewed. The sample consisted of 13 (52%) males and 12 (48%) females.

##### **4.4.3.1 Age**

The students' ages ranged from 9 years to 21 years with a mean of 15.8 years (SD = 3.34). There was no significant difference between the ages of the male students and female students.

##### **4.4.3.2 DATA COLLECTED FROM LEARNERS**

A number of items emerged under this section, in response to the questions posed to the learners. These include learners' understanding of HIV/AIDS, how educators disseminate HIV/AIDS information, effectiveness of methods used by educators, methods which will assist learners comprehend information better and additional information from learners concerning HIV/AIDS information.

##### ***Item 1: Learners' understanding of HIV/AIDS***

A variety of responses emerged when it came to learners' understanding of HIV/AIDS. Below are some of the exact commonly said narratives learners gave in response to the question: 'What do you understand by HIV/AIDS?'

- A. "It is a disease that kills".
- B. "One gets HIV/AIDS if you have sex with an infected person, kissing and touching blood".
- C. "It is a virus".
- D. "When one is suffering from sugar diabetics".
- E. "When one is suffering from asthma".
- F. "It is sharing blankets".
- G. "It is circumcision".
- H. "A disease you get after drinking beer".

Despite the fact that teachers are disseminating HIV/AIDS information, learners of this study, to some extent, seemed to misunderstand it. The responses from those interviewed varied as shown above. Data collected revealed that there is confusion in learners understanding. Verbatim 'A' to 'C' show that some learners who responded understood something about HIV/AIDS as they indicated that there is a disease that kills; one gets HIV/AIDS when having sex with an infected person, through kissing or touching blood and also that it is a virus.

Even though learners did not indicate that it is caused by a virus but their mentioning of virus showed that they understand the cause of AIDS. Data collected, basing on responses from A to C, revealed that learners understand HIV/AIDS to some extent. This is an indication that educators disseminate HIV/AIDS information to them.

Although not directly explaining how HIV/AIDS information is disseminated, when it comes to responses "F" to "H", there seems to be some linkage with HIV/AIDS. For example; statement "F" where the participating learner talks about "sharing blankets". Though learners in the study translated it literally, one can conclude that they know that in order to be infected one must have sex – which normally takes place between two individuals sharing blankets. Statement "H" may be suggestive of the fact that, after getting drunk, a person may just go around having unprotected sex hence can easily get infected.

Nowadays people are encouraged to get circumcised so as to reduce the rate of infection. This further shows that at least teachers do disseminate HIV/AIDS information to learners. The only problem again is lack of understanding of the presented information. This is reflected by the indirect responses that leave one to think of what the learners may have implied by what and how they responded. Responses "D" to "E" do not relate at all to HIV/AIDS which is an indication that comprehension at times was a problem to some of these learners. This is further, attributed to the fact that learners in this study were intellectually challenged. It also is suggestive a challenge in lack of comprehension and the need for more innovative ways of disseminating HIV/AIDS information by educators rather than only sticking to what the educators in this study have responded to as ways of disseminating HIV/AIDS information.

### ***Item 2: How educators disseminate HIV/AIDS information***

When learners were asked about how their educators disseminate HIV/AIDS information to them, they indicated that it is disseminated through;

- A. Oral teaching/ presentations
- B. Pictures / posters
- C. Videos and films

As learners were indicating how information is disseminated i.e. through oral presentations; they also tried to emphasize that as one child said “My teacher taught me not to touch the blood of an infected person, one has to use a condom every time when having sex.” The other said “The police once taught us not to share sweets.” The results show that educators do some work of disseminating HIV/AIDS information to intellectually challenged learners. Even in the interview room there were some posters and one boy called Kago (not his real name) pointed at one of the posters and said “like that one”.

Other participating learners said “If our educators can use TV, videos and films we would understand better.” Yet another participating learner indicated that where he was attending school previously, they used to show them pictures of people suffering from HIV/AIDS using a ‘wall machine’ (that is how he perceived a film projected). He said it will be better for other learners like (Joel) who cannot walk or talk. This shows that educators use some media to disseminate HIV/AIDS information to intellectually challenged learners. However, most of the educators disseminate information orally to learners. The mention of learner Joel who cannot walk or talk as an example of who benefits from alternative ways of disseminating HIV information, is an indication of a challenge of misunderstanding because it is clear the learner associated HIV/AIDS with disability as though HIV/AIDS is mainly for people with disabilities.

### ***Item 3: Effectiveness of methods used by educators***

When asked if the methods that educators use to tell them about HIV/AIDS information really work for them, learners stated that the methods work for them. Probably that is why learners were able to tell what they understand about HIV/AIDS. The methods in question are oral presentation and use of posters/ pictures and videos.

### ***Item 4: Methods which help learners understand better***

When asked what they thought would be the best way of sharing with them information about HIV/AIDS, learners suggested the use of pictures/posters and videos. In addition, one learner

suggested that nurses should be the ones who should disseminate HIV/AIDS information to them. One child mentioned invitation of nurses and doctors to come to schools to disseminate HIV/AIDS information to them. By mentioning nurses and doctors this probably shows that learners know people who are trained for disseminating HIV/AIDS information to people.

Another child mentioned the use of films in their schools as being very good. He recalled an example of one of his former schools, Camphill school, where their teachers used to show them films. With regards to the responses given by learners, there is an indication that educators are doing something to make learners understand HIV/AIDS information better. Learners indicated that it should be through:

- The use of pictures/posters, videos and films
- Addresses to learners during assembly and in classes.
- The involvement of nurses and doctors

Learners pointed out some of the above, possibly, because they have seen them being used; for instance; posters, pictures and videos which seem to be used in schools. However, the use of films and invitation of nurses and doctors are yet to be heeded and learners want them. Thus, for intellectually challenged learners, it seems not enough is being done.

***Item 5. Any additional information from learners concerning HIV/AIDS information***

The responses of learners interviewed on dissemination of HIV/AIDS information to them, indicate that learners do understand something about HIV/AIDS information, even though their understanding varies; one learner said; “this HIV/AIDS diseases is very dangerous ... is like Ebola disease, and people must be careful and take care of themselves”. Another participating learner said “the virus can pass from the mother to child”, while yet another participating learner said “we boys should go for circumcision for us not to be infected by HIV/AIDS.” All the responses of the learners show that HIV/AIDS information is being disseminated to them more through oral presentation. The findings seem to suggest that it would be better if educators make more use of audio visual aids in classes, like film, TV and posters to disseminate HIV/AIDS information to intellectually challenged learners. Interestingly, unlike the educators in this study, the participation learners of this study suggested other means of disseminating HIV/AIDS

information. For example, they suggested the use of nurses and doctors even recalling police men as other people who can disseminate HIV/AIDS.

#### **4.5 DISCUSSION OF THE FINDINGS**

Discussion of the findings was drawn from data collected from both the interview and questionnaire. Discussion was as well related to the research objectives and literature review.

The first question from the questionnaire aimed at finding out educators understanding of learners who are intellectually challenged. It was very important for the researcher to know whether educators understand these learners very well in terms of their intellectual ability as well as how they relate/interact with each other. In response 39 (78 %) agreed that learners with intellectual disability face limitations in adaptive behaviour while 10 (20 %) disagreed. Furthermore the 29 (58 %) respondents disagreed that learners with intellectual disabilities always have poor intelligence whereas 21 (42%) agreed. The results also show that 34 (68%) agreed that learners with intellectual disabilities have borderline or mild IQ whereas 16 (32 %) disagreed.

Though the majority of the respondents understood learners with intellectual disabilities, except where the majority disagreed that learners are not always of poor intelligence, there is a lot of education/training that is to be carried out in order to empower educators about these learners as 64% of educators strongly agreed and 32% agreed that training of educators to equip them with the necessary skills to disseminate HIV/ AIDS information (see table 4.4). Taking into consideration educators' age qualifications and teaching experience one would expect them to be more informed not give such responses as indicated earlier. But the majority of educator's response concurs with Jenkinson (1996) who asserted that deficits in adaptive behaviour as well as in intelligence have been incorporated into definitions of intellectual disability all over the globe, and identification is directed towards establishing support needs rather than identifying group or category membership. Furthermore, the teachers concur with Taylor, Richards and Brady (2005) that students who are identified with mild intellectual disabilities lag significantly behind grade-level peers in developing academic skills. Thus, students with mild intellectual disabilities are likely to be significantly delayed in learning to read and learning basic math

skills. In the case of this study, this could suggest that such learners are likely to be significantly delayed in learning what they are taught about HIV and AIDS.

Research objective one, which is to identify the strategies employed by educators in disseminating HIV/AIDS information to learners who are intellectually challenged, was addressed by item 3 of the questionnaire and item 2 of the interview. Educators indicated that they disseminate HIV/AIDS information to learners who are intellectually challenged through interactive awareness creation sessions, the development of communication materials, other professionals, the use of inclusive education which includes putting intellectually challenged learners in mainstream classes to enjoy and interact with the normal ones, giving learners more time to practice and make use of adaptive functional skills.

In their responses 42 (91.3%) educators indicated that they use interactive awareness method to disseminate HIV/AIDS information to learners who are intellectually challenged and 36 (76.6 %) highlighted that they use other professionals. As for the development of communication materials, the majority of educators, about 44 (91.7 %) indicated that they have adopted the strategy to disseminate information to learners. Furthermore 44 (89.8%) highlighted that they use inclusive education while 38 (79.2%) give learners more time to practice in disseminating HIV/AIDS information and 43 (89.6 %) make use of adaptive functional skills to disseminate HIV/AIDS information to learners who are intellectually challenged. Learner's also indicated that educators have ways in which they disseminate HIV/AIDS information to them as those interviewed stated that they mainly do it through oral teaching, the use of pictures and videos.

The results do not differ from what other researchers suggested for example Pronk (2012:35) who said that to host AIDS talks for those with intellectual impairments that are simple, straightforward and that emphasize repetition of key themes together with development of information, education and communication materials can be key methods of disseminating HIV/AIDS information to intellectually challenged learners. Furthermore, educators also concur with Giangreco, Edelman, Broer and Doyle (2001) about the use of professionals in public schools as one of the primary mechanisms by which students with disabilities get supported in general education classes. The use of inclusive education is also seen as important by the

teachers in disseminating HIV/AIDS information to intellectually challenged learners as seen by Sourav, Serefete and Emmanuel (2009:2) who say that inclusive education is perceived to be one of the ways to increase educational access to large number of students with intellectual disabilities. This means more children with intellectual disabilities are placed in the regular classroom than before. Educators also confirm what Bodgan (2006) posits that because of the disability, the student who are intellectually challenged may need more time or practice than most other students and the student should participate in and contribute to the life of the class as much as possible

The results of the study clearly indicate that educators use a variety of ways to disseminate HIV/AIDS information to learners who are intellectually challenged. It is very important for teachers to vary how they disseminate information to learners as learners are unique and how they comprehend information differs. What is best to the other learner will not necessarily be best to others.

The second research objective which is 'To establish the challenges encountered by educators in dissemination of HIV/AIDS information to learners who are intellectually challenged' was addressed by item 2 of the questionnaire as well as items 3 of the interview. Basing on learner's' responses to item 3, one would assume that educators do not encounter any challenges when disseminating HIV/AIDS information to them as the majority of them stated that the methods - being oral presentation and use of posters and videos - employed by their educators to tell them about HIV/AIDS information, worked. Possibly, the methods employed by the educators while disseminating the information work and are effective.

But educators stated the following as the challenges they encounter when disseminating HIV/AIDS information; they lack communication skills, that there are some language hurdles, there are some restrictive cultural norms, and lack of formal training in teaching HIV/AIDS issues. To support that, indeed, the information that came from the respondents, 38 (76 %) alluded to lack of communication skills and 35 (70%) respondents agreed that language hurdles

poses a challenge. As Ubido (2002) posits, the majority of respondents concur with him that lack of communication skills by staff is a great barrier to disseminating HIV/AIDS information to intellectually challenged learners. Schmaling (2006) revealed in his feature that ‘person with AIDS advocates for deaf’, Andrew Burges of AIDS project Los Angeles, highlights the language barriers involved in transferring HIV and AIDS information to persons who are intellectually impaired. 71.4% of the teachers confirm Schmaling’s revelation about the language barrier being a challenge in disseminating HIV/AIDS information to learners who are intellectually challenged. In order to possibly curb the language hurdle, teachers should probably communicate in first languages or design communication material which can easily be understood by the intellectually challenged learners to supplement posters and videos.

As for restrictive cultural norms and lack of formal training in teaching HIV/AIDS issues, responses were almost equal as 29 (58 %) respondents indicated that restrictive cultural norms pose challenge to educators and 21 (42 %) disagreed while 26 (52%) did not agree that lack of formal training in teaching HIV/AIDS issues brings with it a challenge to educators while 24 (48 %) agreed. This possibly shows that the cultural norms, to some extent, restrict dissemination of HIV/ AIDS information. For instance, some words cannot be easily mentioned. It also implies that may be, there is need to improve on the formal training.

The third objective being: ‘To find out recommendations to challenges encountered by educators when disseminating HIV/AIDS information to learners who are intellectually challenged was addressed by item 4 of the questionnaire as well as item 4 of the interview. Information obtained from the study revealed the solutions to challenges educators encounter as:

1. Establishment of language-appropriate HIV prevention programmes and providing HIV information tailored for the intellectually challenged. This was revealed by 45 (90%) respondents who supported that the establishment of language appropriate HIV/AIDS prevention programmes of learners who are intellectually challenged could assist in addressing the challenge.
2. HIV and AIDS information should be disseminated through a variety of media; radio, billboards to ensure that specific groups such as intellectually impaired do not miss out.

Forty- nine 49 (98%) educators suggested the use of various formats. The use of various formats seemed to even work better for learners, as during the interview when asked what teachers should do to teach them about HIV/AIDS, they recommended the use of pictures, posters, videos and assembly areas. Much as these were cited out as more useful by the respondents, it is noteworthy that these exist but more needs to be done to improve and use more of them.

3. Dissemination of information to the intellectually challenged on HIV and AIDS should be done through entertainment such as drama.. Forty- eight 48 (96%) respondents agreed that dissemination of information should be done through entertainment.
4. Train a few intellectually impaired peers and show them how to teach the others. Forty- four (88%) respondents were in favour of the suggestion.
5. Educating the teachers. Forty- eight (96%) agreed to training of educators.
6. Learning what works- monitoring and evaluation. The majority 46 (93.95) agreed that learning what works is the best solution in addressing challenges encountered by educators when disseminating HIV/AIDS information to learners who are intellectually challenged.

Hence high proportions (over 87%) of the respondents either agreed or strongly agreed with the all solutions to the challenges encountered as listed in the table.

One student was for the idea that educators should engage nurses to teach about HIV/AIDS.

This finding probably confirms that all the solutions to the challenges encountered in disseminating HIV/AIDS information to learners are probably the same everywhere as the different researchers also gave the same from the literature. For example, the UNAIDS (2009) suggested the need for language-appropriate HIV prevention programmes, UNICEF (1999), who said that HIV and AIDS information should be disseminated in a variety of formats such as radio and billboards, Siatontola (2004) who also affirmed that information to the intellectually challenged on HIV and AIDS should be done through entertainment such as dramatization, discussion with group influential members of the community to raise awareness, games for life and learners' friendly health services. Teachers also agree with Monaghan (2003) on using peer education on educating teachers on how to disseminate HIV/AIDS information to intellectually challenged learners and delivery system adjustment have proven to be effective strategies.

#### **4.5.1 Findings from the literature.**

The following are the main findings from the literature review of the study;

From the literature, it was derived that an intellectual disability is a significant limitation in a student's cognitive functioning and daily adaptive behaviours (c.f.2.2)

The following are some of the important findings from the literature study on the characteristics of learners who are intellectually challenged (c.f.2.3):

- Poor intelligence (c.f.2.3.1). Poor intelligence means learners with intellectual disability can hardly pay attention, remember ideas, solve problems and learn from everyday experiences.
- Limitations in adaptive behaviour (c.f.2.3.2). Learners with intellectual disabilities can hardly adopt to present and normal life situations.
- Borderline or Mild IQ (c.f.2.3.3). Borderline IQ means that learners with intellectual disabilities have an IQ of less than 70%.
- Challenging behaviour (c.f.2.2.4). Challenging behaviour means learners do actions that limit the child's access to educational or social opportunities.
- Stereotypes (c.f.2.2.5). They often involve repeated movements of the hands, arms, or upper body.
- Self-Injurious Behaviours (c.f.2.2.6). Learners with intellectual disabilities sometimes involve repetitive movements of the hands, limbs, or head in a manner that can, or do, cause physical harm or damage to the person.
- Physical aggression (c.f.2.2.7). Learners with Intellectual Disability, like their typically developing peers, sometimes engage in aggression.

#### **4.5.2 Findings from the empirical study**

On the challenges encountered by educators when disseminating HIV/AIDS information to learners who are intellectually challenged, the following emerged (c.f.4):

- Restrictive cultural norms act as a great challenge, supported even by 58 % of the respondents. This is because in some cultures, it is not acceptable to talk about HIV/AIDS. It is seen as part of bad character.
- Lack of communication skills is another challenge affecting HIV/AIDS information dissemination to learners who are intellectually challenged. Intellectually challenged learners require special communication methods, skills and material. This seems to be a problem that the educators face in disseminating HIV/AIDS information to intellectually challenged learners.
- There is some lack of formal training in teaching HIV/AIDS issues as only 48% of the teachers agreed with lack of formal training. In Botswana schools, there is no framework specifically designed for educators to receive training about HIV/AIDS. If they are not trained themselves, it then becomes difficult for them to disseminate the information to intellectually challenged learners.
- There is a language hurdle. The medium used to teach learners in Botswana schools is mostly English. Many learners at primary level do not understand the language very well and can understand their native Setswana. Communicating in English (especially to the intellectually challenged) may make them miss out important information about HIV/AIDS.

About the ways on how educators disseminate HIV/AIDS information to learners who are intellectually challenged, the following were the findings (c.f. 4)

- That use of interactive awareness creation sessions is one of them (c.f.4). They help teachers to create good rapport between them and the intellectually challenged learners and the learners become interested in the subject. The more interested they become, the more they can understand the information about HIV/AIDS information when it is disseminated to them.
- Another method is the development of Communication materials (c.f.4). Communication materials for learners who are intellectually challenged are designed

and developed specifically to meet the needs of such learners. These materials include specific posters and videos.

- Use of specialist professionals (c.f.4). Just as professionals are trained to deal with specific areas of life, there is need to train professionals to specifically deal with learners with intellectual disabilities. These professionals will know how to handle such learners and in case they are disseminating any relevant information regarding HIV/AIDS, the learners would easily understand.
- Use of inclusive education (c.f.4). Inclusive education advocates for teaching all learners in regular classrooms, learning and participating together. If intellectually challenged learners are taught together with the others, they would probably learn from them. However, inclusive education also encourages picking out those with specific disabilities; for instance intellectual disabilities and attending to them specifically to meet their needs. In this way, they would understand information disseminated to them regarding HIV/AIDS.
- Giving more time to practice than usual to intellectually challenged learners (c.f.4). As learners with intellectual disabilities tend to grasp learning at a slower pace, it would be ideal to give them more time to concentrate on their activities, as well as giving them more time when teaching them about HIV/AIDS. However, the time should not be too much because their attention span is most likely to be low, which would also affect the disseminating of the information.
- Use of adaptive functional skills. This means that educators can use everyday life activities to disseminate HIV/AIDS information to learners who are intellectually challenged.
- Including students deliberately in group activities (c.f.4). This is ideal because when the, said to be, normal students are mixed with those who are intellectually challenged, the latter feel a sense of belonging and not isolated. In this way, they can do their work together and may probably understand more, than they would if information regarding HIV/AIDS is disseminated in isolation..

The following were the findings for the solutions to challenges encountered by educators when disseminating HIV/AIDS information to learners who are intellectually challenged.

- It emerged that establishment of language-appropriate HIV prevention programmes and providing HIV information tailored for intellectually challenged learners is necessary. This was accepted by all the respondents who filled the questionnaire and therefore, developing a language-appropriate HIV/AIDS prevention programme tailored towards the learners who are intellectually challenged seems to be a workable solution as it is also supported by UNAIDS (2009).
- The other finding is that HIV and AIDS information should be disseminated in a variety of formats; such as radio and billboards to ensure that specific groups such as intellectually impaired do not miss out. Although some respondents who filled the questionnaires did not agree with this, most of them accepted that this can work. Therefore, it is important to use all the mechanisms at the disposal of the educator to disseminate the HIV/AIDS information to learners who are intellectually challenged.
- It also emerged that dissemination of HIV/AIDS information to learners who are intellectually challenged can be done through entertainment such as drama, games and role plays. If the learners who are intellectually challenged are, themselves, involved then they would not easily forget their roles in the drama or game and this would help them internalise information about HIV/AIDS.
- Another finding is that if you train a few intellectually challenged learners and show them how to teach the others about HIV/AIDS, it can help in disseminating the information well. This is because it is easier to learn from a peer.
- Monitoring and evaluation can also help in disseminating HIV/AIDS information to learners who are intellectually challenged. After teaching, educators need to monitor and evaluate to check the progress of their learners. Small classroom tests can be set and

given to these learners. Discussions with the learners can also help determine what they have understood and not.

- It was also found out that if there is greater flexibility in the delivery system on how HIV/AIDS information is disseminated to learners who are intellectually challenged, then they can understand the concept. This can be done for example through making up timetables which suit the needs of such learners, daily schedules and school calendars which are more flexible to such learners.
- It was also found that there is no association between the challenges encountered and the number of years of experience of the respondents as well as their ages. The challenges encountered were also independent of the academic and professional qualifications of the respondents.

## **CHAPTER FIVE: SUMMARY, FINDINGS, RECOMMENDATIONS AND CONCLUSIONS**

### **5.1 INTRODUCTION**

In the previous chapters the challenges faced by educators in disseminating HIV/AIDS information to learners who are intellectually challenged were investigated by means of a literature review, questionnaire and interviews. In this final chapter a summary of the previous chapters are presented. This will be followed by findings from the literature as well as the study recommendations and final remarks.

### **5.2 SUMMARY**

#### **5.2.1 Introduction and Background**

Chapter one focuses on and sets out the background for this study. It clarified the main research problem and purpose of the study. It further explains the research objectives, research questions, significance of the study, and chapter divisions of this dissertation.

In essence, this chapter brought forward the objectives for carrying out the research as;

- To establish the challenges encountered by educators in dissemination of HIV/AIDS information to learners who are intellectually challenged.
- To identify the strategies employed by educators in disseminating HIV/AIDS information to learners who are intellectually challenged.
- To draw from the findings of the study recommendations to challenges encountered by educators when disseminating HIV/AIDS information to learners who are intellectually challenged.

The statement of the problem was also elaborated in this chapter, focusing on challenges that affect the dissemination of HIV/AIDS information to learners who are intellectually challenged.

### **5.2.2 Literature review**

This presents a review of related literature of other authors/researchers who have done work on the subject of study. The chapter presented the definitive representation of intellectual disability and further discusses the entire problem of challenges encountered by educators in disseminating HIV/AIDS information to learners with intellectual disabilities.

It emerged from the literature that intellectual disability is a significant limitation in a learner's 'cognitive functioning and daily adaptive behaviours. 'Intellectual disability is a broad concept encompassing various intellectual deficits, including mental retardation (MR), deficits too mild to properly qualify as MR, various conditions such as specific learning disability, and problems acquired later in life through acquired brain injuries or neurodegenerative diseases like dementia. Intellectual disabilities may appear at any age.

It was further discovered that a learner struggling with literacy skills is considered as possibly having a learning disability if he/she is dually discrepant, that is, he or she has low achievement levels, and makes little or no progress in a three tiered intervention program.

Learners with intellectual disabilities are always characterised by poor intelligence, mild or borderline IQ and limitations in adaptive behaviour.

Some of the challenges encountered in disseminating the HIV/AIDS information that the chapter presented include; cultural norms, lack of education of teachers and shortage of learning materials.

Among the solutions included; development of Information material, use of professionals, educating teachers and inclusive education plus giving more time to learners who are intellectually challenged to learn.

### **5.2.3 Research methodology.**

**This chapter discussed the research approach and methods used.**

In this study, a questionnaire was utilized as a research instrument to obtain data concerning the research problem. The questionnaire was administered to fifty (50) educators in the five (5) primary schools selected for the study.

The information required for this investigation was better directly obtained from the said educators. When a situation like this exists, where the primary schools targeted for the research are widely dispersed, the most appropriate source of obtaining data is a questionnaire. The questionnaire is easily adaptable to a variety of situations and the information could be more easily and efficiently obtained in terms of time and cost. The aim of the questionnaire was to obtain information regarding educators' perceptions concerning the challenges encountered in disseminating HIV/AIDS information to learners who are intellectually challenged. All the questionnaires administered, were filled in and returned and this shows how educators are eager to speak about an educational issue at hand. The questions were formulated to establish the following:

- Characteristics of learners with intellectual disability.
- Challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disabilities.
- How educators disseminate HIV/AIDS information to learners who are intellectually challenged.
- Solutions to challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disabilities.

Interviews were also used to obtain information from the twenty five (25) learners themselves.

### **5.2.4 Presentation and analysis of research data**

The purpose of chapter 4 was to statistically analyse and discuss data collected from the questionnaires completed by fifty educators. The formulated questions were based on the objectives of the study. Comments were offered and the findings interpreted. This was followed by the presentation and discussion of the responses to the questions in the questionnaire. The

responses from learners' interviews were analysed by reading and re-reading the transcripts and making sense of what learners said.

### **5.3 RECOMMENDATIONS**

The following recommendations are drawn from the findings of the study:

#### **5.3.1 Recommendations from the literature**

- Introduction of more special schools alongside inclusive education for learners with intellectual disabilities would be necessary and greater flexibility should be emphasized in terms of time tables, daily schedules and even the education and training calendars. As pointed out by UNICEF and USAID (2000), schools, colleges and communities should be allowed to regulate such flexibility in response to local requirements and the requirements of learners with intellectual disabilities. Although one may argue that special schools are against the new dispensation of inclusive education, but inclusive education allows that students can leave classrooms for specific reasons and given one-on-one attention, especially those who are intellectually challenged.

The greater flexibility would help learners with intellectual disabilities to participate in education with ease, and not in a rush. This will enhance their learning since such learners are said to be having mild or borderline IQ (Rosenberg, Westling & McLeskey, 2013) hence they will have time to study at their own pace.

- There should be introduction of special learning materials, aids and guides for learners with intellectual disabilities in order to ease the work of teachers who teach these learners with intellectual disabilities on matters regarding HIV/AIDS.

Learning aids and guides like charts are always interesting to look at by learners and have good visual impressions and can therefore communicate favourably to the learners who are intellectually challenged. This will aid learners with intellectual disabilities to understand issues better concerning HIV/AIDS other than merely talking by the teachers.

### **5.3.2 Recommendations from the empirical research**

These recommendations are made bearing in mind that a single study with a sample such as is the case with this study may not be generalizable. However the relevance of the findings can give insight into similar situations and contexts. The findings are suggestive of the following recommendations.

- From the findings of the study, it has been revealed that learners in this study vary in their understanding of HIV/AIDS. This could be attributed to the fact that they are intellectually challenged. Therefore there is need for teachers to learn how to communicate with learners who are intellectually challenged. Teachers need to think about communication when preparing a lesson plan. Knowing how to communicate with intellectually challenged learners can help them understand information disseminated to them about HIV/AIDS information.
- Since the research only focused on selected schools in Gaborone, it is recommended that further research on the challenges faced by educators in dissemination HIV/AIDS information to learners with intellectual disabilities be undertaken beyond Gaborone borders in order to establish a trend of the challenges encountered by educators when disseminating HIV/AIDS information.
- Recognizing and dealing with challenges encountered in disseminating HIV/AIDS information, by means of educating educators first, is more likely to reduce the challenges faced by the educators when disseminating HIV/AIDS to learners who are intellectually challenged. The finding of this study, especially from literature, is that presently educators in Gaborone are not adequately trained on how to teach learners with intellectual disabilities.
- The Department of Education, in collaboration with teachers' unions, school management teams, parents and governing bodies must collaborate to eliminate or harmonize the restrictive cultural norms. They should introduce and promote policies that can incorporate and help learners who are intellectually challenged to understand issues about HIV/AIDS.

The ultimate aim is to help learners who are intellectually challenged to understand issues about HIV/AIDS information. Hunter and Williamson (2000) say that only when sound

strategic policies and realistic assessment of available capacity are undertaken by stakeholders, then the intellectually challenged learners will be helped.

- There is need for the Department of Education, together with the Ministry of Education and Skills Development in Botswana, to arrange special training workshops for the educators who disseminate HIV/AIDS information to the intellectually challenged learners to equip them with the latest techniques on how to teach and use the latest learning aids in order for them to be effective in their endeavours.
- From the findings, it was discovered that language hurdle is a phenomenon that deters the dissemination of HIV/AIDS information to the intellectually challenged learners. There is need for the educators to engage in using local languages as the main media of instruction other than English as this would help to make the learners understand better in their local vernacular languages.

#### **5. 4 CONCLUSION**

The findings of this study highlighted, both the challenges encountered by educators while disseminating HIV/AIDS information to learners who are intellectually challenged; and also identified the strategies employed by educators in disseminating HIV/AIDS information to such learners, as well as drawing some recommendations to mitigate challenges encountered by educators when disseminating HIV/AIDS information to the intellectually challenged learners in accordance to the objectives of the study.

Among the challenges, the findings revealed that despite the fact that teachers are disseminating HIV/AIDS information, learners of this study, to some extent, seemed to misunderstand it. The responses from those interviewed varied. And there is evidence of confusion in learners understanding.

The strategies employed by educators in disseminating HIV/AIDS information to learners who are intellectually challenged included, among others, the establishment of language-appropriate HIV prevention programmes, providing HIV information tailored for intellectually challenged learners and supplementing the available methods of disseminating HIV and AIDS information with other practical methods including the use of drama. Interestingly, the learners suggested making use of nurses and doctors as those who should also be disseminating HIV/AIDS information, although the focus of this study was limited to challenges faced by educators in disseminating HIV/AIDS information to intellectually challenged learners

Some of the recommendations drawn from the findings of this study include training of teachers on how to disseminate HIV/AIDS information to learners who are intellectually challenged and that future research on challenges faced by educators in disseminating HIV/AIDS information to intellectually challenged learners should be conducted beyond the borders of Gaborone since the current study was conducted in Gaborone.

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## APPENDIX 1: QUESTIONNAIRE FOR TEACHERS

The aim of this research is to explore the challenges faced by educators when disseminating HIV/AIDS information to learners who are intellectually challenged. You are kindly requested to respond to the questions below. Please, note that the information gathered is for academic purposes only and will be kept confidential.

### SECTION A: BIOGRAPHIC DATA

Please, put a tick in the appropriate box

#### 1. Gender

1.1 Male

1.2 Female

#### 2. Age

2.1 Below 30 years

2.2 30-34 years

2.3 35-39 years

2.4 40-44 years

2.5 50-54 years

2.6 55 years

#### 3. Academic qualification

3.1 Cambridge O level certificate

3.2 Junior certificate

3.3 Primary leaving examinations

3.4 BGCSE/ IGCSE

3.5 Other (Specify)

**4. Level of Professional qualifications**

4.1 Degree in Education

4.2 Diploma in Education

4.3 Primary teachers' Certificate

4.4 Other (specify)

|  |
|--|
|  |
|  |
|  |

**5. Experience in position**

5.1 0-5 years

5.2 6-10 years

5.3 11-15 years

5.4 16- 20 years

5.5 21-25 years

5.6 26 years and above.

|  |
|--|
|  |
|  |
|  |
|  |
|  |
|  |

**SECTION B: TO SEEK INFORMATION ON THE CHALLENGES FACED IN DISSEMINATING HIV/AIDS INFORMATION TO LEARNERS WHO ARE INTELLECTUALLY CHALLENGED.**

Using the scale below, indicate your opinion on the nature and scope of disseminating HIV/AIDS information to learners who are intellectually challenged.

- 1 SA = Strongly Agree
- 2 A = Agree
- 3 SD = Strongly Disagree
- 4 D = Disagree

|   | SA | A | SD | D |
|---|----|---|----|---|
| <b>PART 1: What is your understanding of learners with intellectual disability?</b> |    |   |    |   |
| 1. They always have poor intelligence   |    |   |    |   |
| 2. They face limitations in adaptive behaviour                                      |    |   |    |   |
| 3. They have borderline or mild IQ  |    |   |    |   |

|  | SA | A | SD | D |
|--|----|---|----|---|
| <b>PART 2: Challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disabilities.</b> |    |   |    |   |
| 1. Restrictive cultural norms.   |    |   |    |   |
| 2. Lack of communication skills  |    |   |    |   |
| 3. No formal training in teaching HIV and AIDS issues  |    |   |    |   |
| 4. Language hurdle   |    |   |    |   |

| <b>PART3: How educators disseminate HIV/AIDS information to learners who are intellectually challenged.</b> | SA | A | SD | D |
|---|----|---|----|---|
| 1. Use of Interactive awareness creation sessions   |    |   |    |   |
| 2. Development of Communication materials   |    |   |    |   |
| 3. Use of professionals   |    |   |    |   |
| 4. Use of inclusive education   |    |   |    |   |
| 5. Giving more time and practice than usual   |    |   |    |   |
| 6. Use of Adaptive and functional skills  |    |   |    |   |
| 7. Include the student deliberately in group activities   |    |   |    |   |

| <b>PART 4: Solutions to challenges encountered by educators when disseminating HIV/AIDS information to learners with intellectual disabilities</b>                            | SA | A | SD | D |
|---|----|---|----|---|
| 1. Establishment of language-appropriate HIV prevention programmes and providing HIV information tailored for intellectually challenged                                       |    |   |    |   |
| 2. HIV and AIDS information should be disseminated in a variety of formats; radio, billboards to ensure that specific groups such as intellectually impaired do not miss out. |    |   |    |   |
| 3. Dissemination of information to the intellectually challenged on HIV and AIDS should be done through entertainment such as dramatization.                                  |    |   |    |   |
| 4. Train a few intellectually impaired peers and show them how to teach the others.   |    |   |    |   |
| 5. Educating the teachers   |    |   |    |   |
| 6. Learning what works – monitoring and evaluation  |    |   |    |   |
| 7. Delivery system adjustment – greater flexibility   |    |   |    |   |

*“Thank you for your cooperation*

**APENDIX B: INTERVIEW GUIDE FOR LEARNERS**

1. Age: \_\_\_\_\_

1 What do you understand by HIV/AIDS?

---

2 How does your school /teachers tell you about HIV/AIDS information to you?

---

3 Do you think the methods that teachers use to tell you about HIV/ AIDS information work?

Yes

No

4. What do you think would be the best way of telling you about HIV/ AIDS information? (ways which will make you understand better).

---

---

---

5 Do you have any other information to say concerning HIV/ AIDS information?

Yes

No

**THANK YOU FOR YOUR TIME**

## **APPENDIX C: REQUEST TO CARRY OUT RESEARCH**

P O BOX 1538

Molepolole

20 November 2013

The Director

Kweneng Region

Private bag 005

Molepolole

Dear Sir/Madam

### **APPLICATION FOR A PERMISSION TO CONDUCT A RESEARCH**

I am a Master's student in educational Psychology (MED IN EDU PSYC) studying at the North West University in Mafikeng (South Africa). I am currently conducting a research on the challenges faced by Educators in Disseminating HIV/AIDS information to learners who are intellectually challenged.

I therefore request for permission to collect data. Thank you in anticipation.

Yours Faithfully

Boitumelo M. Keipeile

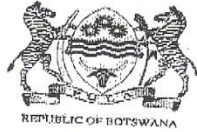
Student NO. 215 099 80

## APPENDIX D: PERMISSION TO CARRY OUT RESEARCH



(267) 5921724

FAX: (267) 5905157



REPUBLIC OF BOTSWANA

KWENENG REGION  
MOLEPOLOLE EDU  
PRIVATE BAG 045  
MOLEPOLOLE  
BOTSWANA

REF: KWR 1/24/2 I (87)

10<sup>th</sup> January 2014

Ms. Boitumelo M. Keipeile  
P O Box 1538  
Molepolole

Dear Madam,

### PERMISSION TO CARRY ACADEMIC RESEARCH

Permission is hereby granted and you are to give the Region and the Ministry the copy of your research at the end.

We wish you the best in your research.

Thank you.

Yours faithfully

F. M. Serema  
for/ACTING DIRECTOR - REGIONAL OPERATIONS

KMK/mm

## APPENDIX E: REQUEST FROM UNIVERSITY



NORTH-WEST UNIVERSITY  
YUNIBESITHI YA BOKONE-BOPHIRIMA  
NOORDWES-UNIVERSITEIT  
MAFIKENG CAMPUS  
Private Bag X2046  
Mmabatho, 2735  
Tel: +27(18) 3892441/2500  
Fax: +27(18) 3892012

20 September 2012

### TO WHOM IT MAY CONCERN

This is to confirm that **Ms Boitumelo M Keipeile (Student No: 21509980)** is a Master (MEd) student in Educational Psychology at the North West University, Mafikeng Campus.

She is collecting data for her research. We request that she be allowed to collect data by questionnaire from educators of primary schools in Gaborone, Botswana.

Any assistance given to her will be appreciated.

**Prof. J.R. Debeila**  
Director: School of Postgraduate Studies



North West University, Mafikeng Campus, Cnr University & Albert Luthuli Drive,  
Mmabatho 2735 |

## APPENDIX F: DATA PRESENTATION SPSS

Data For Teachers.sav

| ... | Name        | Type    | Width | Decimals | Label                 | Values            |
|-----|-------------|---------|-------|----------|-----------------------|-------------------|
| 1   | ID          | Numeric | 8     | 0        |                       | None              |
| 2   | GENDER      | Numeric | 8     | 0        |                       | {1, MALE}...      |
| 3   | AGE         | Numeric | 8     | 0        |                       | {1, BELOW ...     |
| 4   | ACADEMIC... | Numeric | 8     | 0        |                       | {1, CAMBRI...     |
| 5   | ACAD_SPE... | String  | 8     | 0        |                       | None              |
| 6   | PROF_QUAL   | Numeric | 8     | 0        |                       | {1, DEGRE...      |
| 7   | PROF_QUA... | String  | 51    | 0        |                       | None              |
| 8   | EXPERIENCE  | Numeric | 8     | 0        |                       | {1, 0 - 5 Yrs}... |
| 9   | B1.1        | Numeric | 8     | 0        | They always ha...     | {1, Strongly ...  |
| 10  | B1.2        | Numeric | 8     | 0        | They face limita...   | {1, Strongly ...  |
| 11  | B1.3        | Numeric | 8     | 0        | They have bord...     | {1, Strongly ...  |
| 12  | B2.1        | Numeric | 8     | 0        | Restrictive cultu...  | {1, Strongly ...  |
| 13  | B2.2        | Numeric | 8     | 0        | Lack of commu...      | {1, Strongly ...  |
| 14  | B2.3        | Numeric | 8     | 0        | No formal traini...   | {1, Strongly ...  |
| 15  | B2.4        | Numeric | 8     | 0        | Language hurdle       | {1, Strongly ...  |
| 16  | B3.1        | Numeric | 8     | 0        | Use of interactiv...  | {1, Strongly ...  |
| 17  | B3.2        | Numeric | 8     | 0        | Development of ...    | {1, Strongly ...  |
| 18  | B3.3        | Numeric | 8     | 0        | Use of professio...   | {1, Strongly ...  |
| 19  | B3.4        | Numeric | 8     | 0        | Use of inclusive...   | {1, Strongly ...  |
| 20  | B3.5        | Numeric | 8     | 0        | Giving more tim...    | {1, Strongly ...  |
| 21  | B3.6        | Numeric | 8     | 0        | Use of adaptive ...   | {1, Strongly ...  |
| 22  | B3.7        | Numeric | 8     | 0        | Include the stud...   | {1, Strongly ...  |
| 23  | B4.1        | Numeric | 8     | 0        | Establishment ...     | {1, Strongly ...  |
| 24  | B4.2        | Numeric | 8     | 0        | HIV and AIDS i...     | {1, Strongly ...  |
| 25  | B4.3        | Numeric | 8     | 0        | Dissemination o...    | {1, Strongly ...  |
| 26  | B4.4        | Numeric | 8     | 0        | Train a few intell... | {1, Strongly ...  |
| 27  | B4.5        | Numeric | 8     | 0        | Educating the t...    | {1, Strongly ...  |
| 28  | B4.6        | Numeric | 8     | 0        | Learning what w...    | {1, Strongly ...  |
| 29  | B4.7        | Numeric | 8     | 0        | Delivery system...    | {1, Strongly ...  |
| 30  | Challenges  | Numeric | 8     | 0        |                       | None              |
| 31  | Xpriece_r   | Numeric | 8     | 0        |                       | {1, 0 -10 yrs...  |
| 32  | B1.1_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |
| 33  | B1.2_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |
| 34  | B1.3_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |
| 35  | B2.1_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |
| 36  | B2.2_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |
| 37  | B2.3_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |
| 38  | B2.4_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |
| 39  | B3.1_r      | Numeric | 8     | 0        |                       | {1, Agree}...     |

Data For Teachers.sav

|    | Missing | Columns | Align | Measure | Role  |
|----|---------|---------|-------|---------|-------|
| 1  | None    | 8       | Right | Nominal | Input |
| 2  | None    | 8       | Right | Nominal | Input |
| 3  | None    | 8       | Right | Scale   | Input |
| 4  | None    | 8       | Right | Nominal | Input |
| 5  | None    | 8       | Left  | Nominal | Input |
| 6  | None    | 8       | Right | Nominal | Input |
| 7  | None    | 8       | Left  | Nominal | Input |
| 8  | None    | 8       | Right | Nominal | Input |
| 9  | None    | 8       | Right | Nominal | Input |
| 10 | None    | 8       | Right | Nominal | Input |
| 11 | None    | 8       | Right | Nominal | Input |
| 12 | None    | 8       | Right | Nominal | Input |
| 13 | None    | 8       | Right | Nominal | Input |
| 14 | None    | 8       | Right | Nominal | Input |
| 15 | None    | 8       | Right | Nominal | Input |
| 16 | None    | 8       | Right | Nominal | Input |
| 17 | None    | 8       | Right | Nominal | Input |
| 18 | None    | 8       | Right | Nominal | Input |
| 19 | None    | 8       | Right | Nominal | Input |
| 20 | None    | 8       | Right | Nominal | Input |
| 21 | None    | 8       | Right | Nominal | Input |
| 22 | None    | 8       | Right | Nominal | Input |
| 23 | None    | 8       | Right | Nominal | Input |
| 24 | None    | 8       | Right | Nominal | Input |
| 25 | None    | 8       | Right | Nominal | Input |
| 26 | None    | 8       | Right | Nominal | Input |
| 27 | None    | 8       | Right | Nominal | Input |
| 28 | None    | 8       | Right | Nominal | Input |
| 29 | None    | 8       | Right | Nominal | Input |
| 30 | None    | 12      | Right | Scale   | Input |
| 31 | None    | 12      | Right | Nominal | Input |
| 32 | None    | 10      | Right | Nominal | Input |
| 33 | None    | 10      | Right | Nominal | Input |
| 34 | None    | 10      | Right | Nominal | Input |
| 35 | None    | 10      | Right | Nominal | Input |
| 36 | None    | 10      | Right | Nominal | Input |
| 37 | None    | 10      | Right | Nominal | Input |
| 38 | None    | 10      | Right | Nominal | Input |
| 39 | None    | 10      | Right | Nominal | Input |

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|    | Missing | Columns | Align | Measure | Role  |
|----|---------|---------|-------|---------|-------|
| 1  | None    | 8       | Right | Nominal | Input |
| 2  | None    | 8       | Right | Nominal | Input |
| 3  | None    | 8       | Right | Scale   | Input |
| 4  | None    | 8       | Right | Nominal | Input |
| 5  | None    | 8       | Left  | Nominal | Input |
| 6  | None    | 8       | Right | Nominal | Input |
| 7  | None    | 8       | Left  | Nominal | Input |
| 8  | None    | 8       | Right | Nominal | Input |
| 9  | None    | 8       | Right | Nominal | Input |
| 10 | None    | 8       | Right | Nominal | Input |
| 11 | None    | 8       | Right | Nominal | Input |
| 12 | None    | 8       | Right | Nominal | Input |
| 13 | None    | 8       | Right | Nominal | Input |
| 14 | None    | 8       | Right | Nominal | Input |
| 15 | None    | 8       | Right | Nominal | Input |
| 16 | None    | 8       | Right | Nominal | Input |
| 17 | None    | 8       | Right | Nominal | Input |
| 18 | None    | 8       | Right | Nominal | Input |
| 19 | None    | 8       | Right | Nominal | Input |
| 20 | None    | 8       | Right | Nominal | Input |
| 21 | None    | 8       | Right | Nominal | Input |
| 22 | None    | 8       | Right | Nominal | Input |
| 23 | None    | 8       | Right | Nominal | Input |
| 24 | None    | 8       | Right | Nominal | Input |
| 25 | None    | 8       | Right | Nominal | Input |
| 26 | None    | 8       | Right | Nominal | Input |
| 27 | None    | 8       | Right | Nominal | Input |
| 28 | None    | 8       | Right | Nominal | Input |
| 29 | None    | 8       | Right | Nominal | Input |
| 30 | None    | 12      | Right | Scale   | Input |
| 31 | None    | 12      | Right | Nominal | Input |
| 32 | None    | 10      | Right | Nominal | Input |
| 33 | None    | 10      | Right | Nominal | Input |
| 34 | None    | 10      | Right | Nominal | Input |
| 35 | None    | 10      | Right | Nominal | Input |
| 36 | None    | 10      | Right | Nominal | Input |
| 37 | None    | 10      | Right | Nominal | Input |
| 38 | None    | 10      | Right | Nominal | Input |
| 39 | None    | 10      | Right | Nominal | Input |

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|    | Name   | Type    | Width | Decimals | Label | Values          |
|----|--------|---------|-------|----------|-------|-----------------|
| 40 | B3.2_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 41 | B3.3_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 42 | B3.4_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 43 | B3.5_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 44 | B3.6_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 45 | B3.7_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 46 | B4.1_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 47 | B4.2_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 48 | B4.3_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 49 | B4.4_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 50 | B4.5_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 51 | B4.6_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 52 | B4.7_r | Numeric | 8     | 0        |       | {1, Agree}...   |
| 53 | Age_r  | Numeric | 8     | 0        |       | {1, Below 30... |

Data For Teachers.sav

|    | Missing | Columns | Align   | Measure   | Role  |
|----|---------|---------|---------|---|---|
| 40 | None    | 10      | ≡ Right |  Nominal |  Input |
| 41 | None    | 10      | ≡ Right |  Nominal |  Input |
| 42 | None    | 10      | ≡ Right |  Nominal |  Input |
| 43 | None    | 10      | ≡ Right |  Nominal |  Input |
| 44 | None    | 10      | ≡ Right |  Nominal |  Input |
| 45 | None    | 10      | ≡ Right |  Nominal |  Input |
| 46 | None    | 10      | ≡ Right |  Nominal |  Input |
| 47 | None    | 10      | ≡ Right |  Nominal |  Input |
| 48 | None    | 10      | ≡ Right |  Nominal |  Input |
| 49 | None    | 10      | ≡ Right |  Nominal |  Input |
| 50 | None    | 10      | ≡ Right |  Nominal |  Input |
| 51 | None    | 10      | ≡ Right |  Nominal |  Input |
| 52 | None    | 10      | ≡ Right |  Nominal |  Input |
| 53 | None    | 10      | ≡ Right |  Nominal |  Input |

**APPENDIX G: ADMISSION FORM**

**SOLOMON DIHUTSO PRIMARY SCHOOL**

**APPLICATION FOR ADMISSION TO SPECIAL UNIT**

DATE OF INTERVIEW ----- DATE OF ADMISSION -----

**1. BACKGROUND**

1.1 Name: ----- Surname: -----

1.2 Date of Birth: ----/----/---- Gender:-----

1.2 Nationality: -----

1.3 Religion: -----

1.4 Home Language: -----

1.5 Present Home Address: -----  
-----

Plot No. -----

1.6 Name of mother: ----- Occupation: -----

Tel No. (W) ----- (H) ----- Cell: -----

Name of father: ----- Occupation: -----

Tel No. (W) ----- (H) ----- Cell: -----

1.7 Number of children in the family: -----

**2. REFERRAL**

2.1 Child referred by -----

2.2 Reason for referral -----

**3. EDUCATOINAL HISTORY**

3.1 Has the child ever attended a regular school -----

3.2 If so, for how long ----- Name of School -----

3.3 If the child attended a regular school at some stage and left, why did he/she leave  
-----

- 3.4 Has the child ever attended a special class /school -----
- 3.5 If so, for how long ----- Name of school -----
- 3.6 Is your child at a special school/ in special class now -----
- 3.7 If the child attended a special school at some stage and left, why did he / she leave  
-----

**4. DEVELOPMENT MILESTONES**

At what age did the child :

- 4.1 Sit ----- 4.2 Crawl -----
- 4.3 Walk ----- 4.4 Talk -----
- 4.5 Become independent with regard to toileting -----

**5. PHYSICAL HANDICAPS**

- 5.1 Is the child's eyesight normal/ defective -----
- 5.2 Is the child's hearing normal/ defective -----
- 5.3 If the child's eyesight or hearing is/ are defective, what steps have been taken to correct the disability/ies -----
- 5.4 Does the child suffer from epilepsy (fits) -----
- 5.5 If so, what medication is he/she on -----
- 5.6 Where is the medication obtained from -----
- 5.7 Does the child have any physical handicaps -----
- 5.8 If so, describe the extent and severity of such handicap/s and the nature of treatment given -----
- 5.9 Is the child hyperactive -----
- 5.10 If so, what medication is the child on -----

- 3.4 Has the child ever attended a special class /school -----
- 3.5 If so, for how long ----- Name of school -----
- 3.6 Is your child at a special school/ in special class now -----
- 3.7 If the child attended a special school at some stage and left, why did he / she leave  
-----

**4. DEVELOPMENT MILESTONES**

At what age did the child :

- 4.1 Sit ----- 4.2 Crawl -----
- 4.3 Walk ----- 4.4 Talk -----
- 4.5 Become independent with regard to toileting -----

**5. PHYSICAL HANDICAPS**

- 5.1 Is the child's eyesight normal/ defective -----
- 5.2 Is the child's hearing normal/ defective -----
- 5.3 If the child's eyesight or hearing is/ are defective, what steps have been taken to correct the disability/ies -----
- 5.4 Does the child suffer from epilepsy (fits) -----
- 5.5 If so, what medication is he/she on -----
- 5.6 Where is the medication obtained from -----
- 5.7 Does the child have any physical handicaps -----
- 5.8 If so, describe the extent and severity of such handicap/s and the nature of treatment given -----
- 5.9 Is the child hyperactive -----
- 5.10 If so, what medication is the child on -----

9.1 Eats independently -----

**10. DRINKING**

10.1 Drinks from cup with help -----

10.2 Uses a straw to drink -----

10.3 Drinks independently -----

**11. TOILET HABITS**

11.1 Express need to go to toilet: Yes/No -----

11.2 Indicates when wet or dirty: Yes/No -----

11.3 Washes and dry hands after visiting the toilet: Yes/No -----

11.4 Adjusts clothes without difficulty: Yes/No -----

11.5 Completely independent: Yes/No -----

**12. SOCIAL HABITS**

12.1 Loses temper often: Yes/No -----

12.2 Plays on own/group -----

12.3 Able to mix with other children; Yes/No -----

12.4 Engages in destructive behaviour towards other: Yes/No -----

**13. VERBAL ABILITY**

13.1 Does the child uses speech to communicate his needs: Yes/No -----

13.2 If not, how does he maker known his needs -----

13.3 Does the child use: (a) single words: -----

(b) 2-3 word sentences -----

(c) Longer sentences -----

13.4 Does the child speak English -----

13.5 Does the child speak vernacular language -----

14. ANY ADDITIONAL INFORMATION

-----  
-----  
-----  
-----

UNDERTAKING

I ----- PARENT/GUARDIAN OF -----  
----- DO HEREBY DECLARE THAT THE INFOFMATION  
GIVEN BY ME IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE AND  
CORRECT.

DATE: -----

INTERVIEWED BY: -----

SIGNATURE -----

SIGNATURE (PARENT/GUARDIAN)

-----