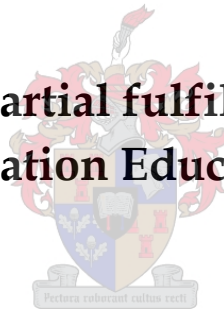


**EDUCATORS' KNOWLEDGE OF AND  
ATTITUDES TOWARD FETAL ALCOHOL  
SPECTRUM DISORDER**

**BY**

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**Thesis submitted in partial fulfillment of the degree of  
Master of Education Educational Support**



**at**

**Stellenbosch University**

**Supervisor: M.D Perold**

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## DECLARATION

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## Summary

Fetal Alcohol Spectrum Disorder, which is the most common cause of mental and learning disabilities in the world, is totally preventable. Fetal Alcohol Spectrum Disorder is not a genetic or inherited condition; however, it is permanent and reduces human potential. There is no cure or treatment. Fetal Alcohol Spectrum Disorder does not distinguish between race, class or culture and can affect children from all socio-economic groups. It is however more prevalent amongst poor, uneducated, uninformed and marginalised (minority groups) or aboriginal communities due to a variety of historical, socio-political and economic reasons. Fetal Alcohol Spectrum Disorder has become a public health problem in South Africa in provinces like the Western and Northern Cape (wine-growing areas), where substantial research has been conducted and where alcohol abuse can be traced back to the 'dop' system. The highest documented prevalence of Fetal Alcohol Spectrum Disorder in the world has been identified in these provinces amongst a marginalised group of people classified in South Africa as 'coloured'.

A substantial amount of research has been conducted on the characteristics, manifestation and prevalence of Fetal Alcohol Spectrum Disorder in South Africa, but no research has yet been done to ascertain educators' knowledge of and attitude to learners with Fetal Alcohol Spectrum Disorder. In view of the high prevalence of Fetal Alcohol Spectrum Disorder in South Africa, and the possibility that many of the learners with learning and behavioural problems in our schools could be victims of Fetal Alcohol Spectrum Disorder (also known as a 'hidden disability') I concentrated my research on schools situated in low socio-economic areas on the Cape Flats where poverty and unemployment are high and shebeens are plentiful.

Through this research I firstly wished to establish how much knowledge educators have of Fetal Alcohol Spectrum Disorder and what their attitudes are toward learners manifesting the disorder. Secondly, my aim was to ascertain to what extent educators are able to support and identify these learners. Qualitative research methods and an interpretive constructivist paradigm were used to conduct the study. Data was primarily collected through the use of interviews, focus group discussions, observations and a research journal. Nine participants, from three different low socio-economic schools (one from each educational phase) on the Cape Flats, were involved. Themes that emerged from the data were analysed and recorded through the constant comparative method. They are discussed together with the research findings.

This study revealed important issues pertaining to educators' knowledge of Fetal Alcohol Spectrum Disorder and whether they are able to assist learners presenting with this disorder in mainstream education in South Africa. A number of recommendations are made for further research in this field.

## Opsomming

Fetale Alkohol Spektrumsindroom, wat as die algemeenste oorsaak van verstandelike en leergestremdhede in die wêreld beskou word, is 'n sindroom wat voorkom kan word. Die sindroom is nie geneties of oorerflik nie, maar die skade is permanent omdat daar geen behandeling en teenmiddel is nie. Dit het gevolglik 'n negatiewe impak op menslike vermoëns. Fetale Alkohol Spektrumsindroom kan kinders van alle sosio-ekonomiese groepe affekteer en alhoewel dit nie kultuur-, ras- of klasgebonde is nie, is dit oorwegend 'n algemene verskynsel onder groepe met 'n lae opvoedingspeil, diegene wat oningelig en gemarginaliseer is (minderheidsgroepe) of dié wat as inboorlinggemeenskappe bekend staan, wat toegeskryf kan word aan verskeie historiese, sosio-politieke en ekonomiese redes. Fetale Alkohol Spektrumsindroom is tans 'n openbare gesondheidsprobleem in Suid-Afrika, veral in die wynstreke van die Wes- en Noord-Kaap. Omvattende navorsing is al in genoemde provinsies gedoen waar alkoholmisbruik 'n lang aanloop het en verbind word met die dopstelsel. Die Wes-Kaap en Noord-Kaap is alombekend as provinsies met die hoogste voorkomsyfer van Fetale Alkohol Spektrumsindroom FASD in die wêreld, veral onder 'n gemarginaliseerde groep mense wat as die 'kleurlinge' bekend staan.

Alhoewel omvattende navorsing oor die karaktereienskappe, manifestasies en voorkoms van Fetale Alkohol Spektrumsindroom in Suid-Afrika reeds gedoen is, kon geen navorsing gevind word wat die kennis van opvoeders en hul en houdings jeens leerders met Fetale Alkohol Spektrumsindroom probeer vasstel nie. As die hoë voorkoms van Fetale Alkohol Spektrumsindroom in ag geneem word, asook die moontlikheid dat baie leerders in ons skole leer- en gedragsprobleme manifesteer, kan daar waarskynlik slagoffers van Fetale Alkohol Spektrumsindroom wees en wie se gestremdhede dus 'onsigbaar' is. My navorsing fokus daarom hoofsaaklik op skole in

die lae sosio-ekonomiese areas van die Kaapse Vlakte, waar armoede en werkloosheid hoogty vier en waar daar 'n hoë voorkoms van onwettige drankwinkels ('sjebiens') is.

My primêre doel met hierdie navorsing was om die kennis van onderwysers oor Fetale Alkohol Spektrumsindroom te bepaal en om die houding van opvoeders jeens leerders wat met kenmerke van hierdie sindroom vas te stel. Ek wou ook vasstel tot welke mate opvoeders bevoeg om is leerders met Fetale Alkohol Spektrumsindroom te identifiseer en te ondersteun. Kwalitatiewe navorsingsmetodes en 'n interpretatiewe konstruktivistiese paradigma is in die studie gebruik. Data is primêr ingesamel met behulp van onderhoude, fokusgroep-besprekings, observasies en 'n navorsingsjoernaal. Nege deelnemers verbonde aan drie verskillende skole met lae sosio-ekonomiese vlakke (een opvoeder van elke opvoedingsfase), op die Kaapse Vlakte was by die studie betrokke. Temas wat blootgelê is deur die data is ontleed en by wyse van die konstante vergelykende metode opgeneem. Hulle word saam met die navorsingsbevindings bespreek. Die navorsing toon belangrike aspekte van opvoeders se kennis van Fetale Alkohol Spektrumsindroom. Dit bevraagteken ook of hoofstroom-opvoeders in staat is om leerders met Fetale Alkohol Spektrumsindroom te ondersteun. Voortspruitend uit die bevindings word aanbevelings gemaak vir verdere ondersoeke op hierdie gebied.

## **Dedication**

This work is dedicated to my late husband Gerald, my son Aidan and my daughter Melissa. It is also dedicated to all the children with FASD as they are innocent victims of a debilitating condition which reduces human potential and inhibits the very life skills children need to survive in today's world.

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The participants in the study, the educators and principals of the three schools. I am very grateful for their willingness to be part of the research study. Their contribution to the research provided some insight into the plight of the learner manifesting with FASD in mainstream education in our low socio-economic schools on the Cape Flats of the Western Cape.

I also wish to thank Dr. John Philander for his helpfulness and support throughout the research study.

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## CHAPTER 1

### CONTEXTUALISATION AND OBJECTIVES OF THE STUDY

#### 1.1 INTRODUCTION

Fetal Alcohol Syndrome (FAS) is the most common non-genetic, preventable cause of intellectual disability in the world. Fetal Alcohol Spectrum Disorder (FASD) presents a range of disorders and is found in all populations and ethnic groups but is most prevalent in impoverished communities (Streissguth, 1997; London, 1999; May, Brooke, Gossage, Croxford, Adnams, Jones, Robinson & Viljoen, 2000; Viljoen, Croxford, Gossage, Kodituwakku & May, 2002; May, Gossage, Brooke, Snell, Marais, Hendricks, Croxford & Viljoen, 2005; Viljoen, Gossage, Brook, Adnams, Jones, Robinson, Hoyme, Snell, Khaole, Kodituwakku, Asante, Findlay, Quinton, Marais, Kalberg, & May, 2005). Epidemiological studies in South Africa (SA) have shown that rural populations in the Western Cape are particularly affected and have FAS rates exceeding those reported in other world communities (London, 1999; May et al., 2000; May et al., 2005; Mc Kinstry, 2005; Birn & Molina, 2005; Viljoen et al., 2005; May, Gossage, Marais, Adnams, Hoyme, Jones, Robinson, Khaole, Snell, Kalberg, Hendricks, Brooke, Stellavato, Viljoen, 2007). According to Birn and Molina (2005), various socio-economic, political and cultural factors in SA are at the root of FAS and alcohol abuse.

As stated above, South Africa has the highest documented prevalence of FAS in the world. In a community in the Western Cape FAS among school-entry learners increased from 40, 5 - 46, 4 per 1 000 (May et al., 2000) to 65, 2 - 74, 2 per 1 000 (Viljoen et al., 2005) and to 68, 0 - 89, 2 per 1000 (May et al., 2007). In De Aar, a small town in the Northern Cape, the prevalence of FAS was found to be as high as 122 per 1 000 births (FASfacts, 2007). The Western Cape Province and the Northern Cape Province have the

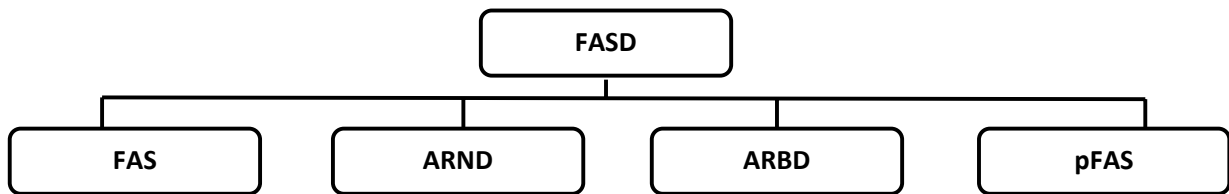
highest number of FAS cases in SA, followed by Gauteng (May et al., 2000; Viljoen et al., 2002; May et al., 2005; Viljoen et al., 2005; Mc Kinstry, 2005; Birn & Molina, 2005; May et al., 2007).

FAS occur predominantly amongst the coloured community in the Western Cape Province. The term 'coloured' will be used in this context throughout the thesis. It is a contentious term which is not accepted by many South Africans of mixed ancestry, but it is still used in SA to delineate a certain group of people.

Although extensive research has been conducted in South Africa on FAS, especially in the field of prevalence, cause and effect, none has been done to ascertain South African educators' knowledge of and attitude toward FASD, or to determine whether educators are able to identify the characteristics of FASD and support these learners in educational settings. A greater challenge is posed by the fact that the majority of such learners have not formally been diagnosed with FASD and a substantial number are attending mainstream schools. Two relevant studies, namely those of Mack (1995) and Caley (2006) in the USA, will be discussed in Chapter 2. Mack (1995) focused on the attitudes and knowledge of preschool teachers while Caley (2006) explored school nurses' knowledge of FAS.

## **1.2 FETAL ALCOHOL SPECTRUM DISORDER**

Fetal Alcohol Spectrum Disorder (FASD) represents a range of disorders which form a continuum, as illustrated in Figure 1.1. The abbreviations used in the figure are explained below.



**Figure 1.1: Illustration of terms used in research** (Source: Carrier, Green, Jones, Soliman & Wark, 2005)

**FASD (Fetal Alcohol Spectrum Disorder)** is an umbrella term used to describe a range of effects that can occur in an individual whose mother consumed alcohol three months before conception and during pregnancy. The effects include physical, mental, behavioural and/or learning disabilities. FASD includes FAS as well as other conditions where some but not all of the clinical signs of FAS are present (Carrier et al., 2005; Duquette, Stodel, Fullarton & Hagglund, 2006). The range of effects includes ARBD, ARND and pFAS (explained below).

**FAS (Fetal Alcohol Syndrome)** is a medical diagnosis that refers to a specific cluster of anomalies in an individual associated with the exposure to alcohol during pregnancy. It is a term first used in the United States in 1973 by Dr's Kenneth Jones and David Smith to describe individuals with documented prenatal exposure to alcohol. It has four key features: Prenatal exposure to alcohol; growth deficiency; certain facial characteristics; brain damage. Fetal Alcohol Syndrome is also the most severe effect of prenatal alcohol exposure (Streissguth & Kanter, 2002; Carrier et al., 2005).

**ARND (Alcohol-related neurodevelopmental disorder)** is a term coined by the USA Institute of Medicine in 1996 to describe individuals with a confirmed history of maternal alcohol exposure. It focuses specifically on brain dysfunction. Individuals with ARND will exhibit a complex pattern of behavioural and cognitive abnormalities inconsistent with the person's developmental level and not explained by a genetic condition. Problems may include learning disabilities, school-performance deficits, poor impulse control, social perceptual problems, language dysfunction, abstraction difficulties, and deficiencies with regard to mathematics, attention problems and judgment problems (Streissguth & Kanter, 2002; Carrier et al., 2005).

**ARBD (Alcohol-Related Birth Defects)** is a term used to describe physical, developmental and behavioural anomalies which may be disabling and which can be attributed to prenatal exposure to alcohol. Physical anomalies that may result from prenatal alcohol exposure are heart, skeletal, vision, hearing and fine and gross motor problems (Carrier et al., 2005; Duquette et al., 2006).

**pFAS (Partial FAS)** is a term used to describe the presence of some but not all FAS characteristics. Learners presenting with pFAS have cognitive and adaptive behaviour problems similar to those in children with full FAS (Streissguth & Kanter, 2002; Carrier et al., 2005).

For the purpose of this research and to avoid any confusion, I will primarily be using the term **(FASD) 'Fetal Alcohol Spectrum Disorder'** as it encapsulates the entire syndrome.

### 1.3 MOTIVATION FOR THE STUDY

I decided to do research in this field because the condition has affected me on different levels: in my professional capacity as an educational specialist (I taught learners presenting with FASD and administered Intellectual Quotient (IQ) tests to learners with FASD), and to a large extent on a personal level. I am a South African of mixed ancestry, i.e. 'coloured'; I grew up in a rural area and started my teaching profession at a rural school. I then moved to the Western Cape and taught at both mainstream and special schools in low socio-economic urban environments on the Cape Flats. At present I am working for the Western Cape Education Department (WCED). I support learners and educators in low and high socio-economic schools in both rural and urban settings as well as in special schools.

I have first-hand experience of learners who present with structural abnormalities, neurological impairments and functional deficits which result in learning and behavioural problems (Streissguth, 1997; Morrissette, 2001; Viljoen et al., 2002). The majority of these learners do not receive the necessary support and are being passed on through each phase (without ever experiencing success). They eventually drop out of school or might qualify for admission to schools of skills. For a variety of reasons, the SA education system is unable to support these learners, whose condition is chiefly caused by maternal alcohol use and abuse. This aspect is discussed below.

The effects of maternal alcohol use during pregnancy are pervasive, numerous and costly. Learners exposed to prenatal alcohol consumption may exhibit a variety of cognitive, physiological and behavioural problems (Streissguth, 1997; Rust & Bowden, 2001). As the majority of the learners who present with features of FASD are not formally diagnosed as such, it becomes difficult (and dangerous) to assume that

learners who manifest learning and behavioural problems do so as a result of FASD. In the absence of a formal diagnosis, such assumptions carry with it feelings of blame and shame, which could have destructive consequences for the learners and the families involved. Educators are at a loss to support learners manifesting with possible FASD as conventional teaching and learning methods do not necessarily provide positive results. According to Rust and Bowden (2001) educational programmes that address the cognitive and behavioural characteristics of children with FASD have been more successful in educating learners with FASD than conventional methods. The abilities of learners with FASD vary because of the degree of central nervous system (CNS) involvement; therefore the functional curriculum will vary from learner to learner.

Educators in the low socio-economic schools in the Western Cape work under poor conditions in overcrowded classrooms with little facilities - a situation that makes it even more difficult to support learners with FASD. There is often more than one learner with FASD in a class, which makes one-to-one education very difficult if there are 49 learners in a class.

Learners with FASD are often ignored in class or sent out of class if they misbehave, which exacerbates the problem. At schools where there are learning support educators, learners with FASD often do not receive support because they do not seem to make any progress in the conventional educational support programmes that are used for 'normal' learners with learning problems in our mainstream schools. These programmes are not geared toward the specific needs of learners with FASD. Learners with FASD present with varying degrees of effects depending on the amount/volume of maternal alcohol consumption and the stage of in utero development. The intellectual functioning of such learners does not fall within the criteria of the WCED,

thus they are seldom able to qualify for remediation or learning support. The criterion is average and above IQ.

Special school placement is also a problem for these learners because of their behavioural problems. South African special schools are mostly geared toward specific disabilities which often do not fit the criteria for FASD learners. Learners who have been exposed to alcohol prenatally, but who demonstrate less obvious effects of FASD, receive no special support within mainstream education. For example, a learner who has an IQ within the borderline and low average category will not qualify for special school placement at a school for the intellectually impaired because his/her IQ is too high. Such a learner will also not qualify for learning support in mainstream education because his/her IQ is too low. He/she will qualify with this IQ for placement at a school of skills after Grade 7.

Only learners with an IQ score of cognitively impaired are admitted to special schools for the cognitively impaired. Alternatively, they may be placed in a unit class at a full service school (DoE, 2002). Learners with physical disabilities (amongst which could be a possible diagnosis of ARBD) may be admitted to a special school for that specific disability, but it will mostly be seen as a physical disability and not as a consequence of ARBD (WCED personal communication 2007; Rust & Bowden, 2001).

Some special schools have become more open to accepting learners with other disabilities than those for which they were originally designed. We are moving closer towards inclusion and to a situation where special schools will be functioning as resource centres (DoE, 2002). However, the admission of learners with FASD is still problematic as these learners often present with behavioural problems (Streissguth &

Kanter, 2002). Their presence in a classroom could, however, pose a risk to the safety of learners with vulnerable disabilities, such as those who are physically disabled or visually impaired.

I have experienced the impact of poverty and alcohol abuse, in both rural and urban communities, where the only recreation seems to be binge drinking over weekends. The ignorance that exists about the dangers of alcohol and pregnancy and the effects of binge drinking (by males as well as females) has dire consequences. Documented statistics have shown that 50% of pregnant women in the Western Cape consume alcohol, compared to 34% of pregnant women in the metropolitan areas of SA as a whole. The majority of these women come from families with a history of generations of alcohol abuse and heavy drinking (Birn & Molina, 2005; May et al., 2005). This awareness has sensitised me to the children thus affected by the behaviour of pregnant women and the necessity of educational support for these learners.

#### **1.4 CONTEXT OF FASD IN THE WESTERN CAPE**

For the purpose of this study it is important to contextualise FASD in the Western Cape. Over several centuries, alcohol was given to farm workers in the Western Cape as partial payment and as an incentive for work. This system was known as the 'dop' system. Farm workers consisted mainly of men and women from the 'coloured' community, they received low wages and the women were often contracted as seasonal workers. The 'dop' system continues today even though it has been made illegal. The system has become ritualised and alcohol is still the favoured commodity among many of the local population. Together with poverty, alcohol abuse has led an epidemic of FASD in SA (London, 1999; Birn & Molina, 2005; May et al., 2005).



According to Mc Kinstry (2005), the high rate of FAS in SA is caused by a multitude of factors and therefore a holistic, comprehensive approach will be necessary to begin changing the trend that has developed over 300 years. May et al. (2005) have identified several risk factors amongst women of childbearing age in low-resource nations such as South Africa. These factors include binge drinking during pregnancy, maternal age, poor education, poor nutrition, genetic influences, gravidity and poor socio-economic environment. A major risk factor in the Western Cape is alcohol abuse during pregnancy, which has an impact on the fetus, making the unborn child more susceptible to FASD (Viljoen et al., 2002; Birn & Molina, 2005; Viljoen et al., 2005).

## **1.5 AIMS OF THE RESEARCH**

The need for the study originated from the paucity of data and literature on SA educators' knowledge of FASD and their attitude toward learners presenting with FASD. My aim was to establish whether educators have the knowledge to identify the needs of learners with FASD and whether they are able to support these learners academically. This is especially important when considering the high prevalence of FASD in SA. The current study is an attempt to contribute to literature and research in this field, through systematic investigation of educators' knowledge of FASD and their attitude to learners manifesting this disorder. It is envisioned that patterns will emerge from the data which will bring new insight into educators' knowledge of FASD and their attitude to learners manifesting this disorder.

Educators in our low socio-economic schools are confronted daily with the education of learners manifesting a vast array of learning and behavioural problems with little to no knowledge or skills on how to support these learners. Learners who are undiagnosed or misdiagnosed as having FASD face extreme challenges and daily misunderstandings,

and they are categorised as having behavioural problems and being disobedient, stubborn, rude, wilful or obstinate. They are very often not able to achieve academically, not because they do not want to, but because they are neurologically not able to (Streissguth, 1997; Streissguth & Kanter, 2002; Kulp, 2002).

## **1.6 RESEARCH QUESTIONS**

The following two research questions guided the research:

1. What do educators know about FASD and what is their attitude toward learners with FASD?
2. To what extent are educators able to support learners with FASD in mainstream education?

## **1.7 OBJECTIVES**

The main research objective was to investigate educators' knowledge of FASD and to determine their attitude toward learners with FASD. A second objective was to establish whether educators are able to identify the needs associated with FASD and then to establish to what extent educators are able to support learners with FASD in mainstream (inclusive) education.

Because of the varying degree of the effects of FASD and the lack of training in this area for professionals, including medical personnel and educators, very few learners benefit from appropriate interventions (Morrisette, 2001). Streissguth and Kanter (2002)

contend that early diagnosis (identification) and intervention can prevent secondary disabilities. ; Morrisette (2001) adds that a diagnosis before the age of six can prevent the severity of secondary disabilities. However, at present a substantial number of learners (taking our high prevalence into consideration) are being neglected scholastically, educationally, socially and emotionally, which compounds the considerable social problems (Morrisette, 2001; Streissguth & Kanter, 2002; Viljoen et al., 2002; Viljoen et al., 2005). According to Morrisette (2001) learners with FASD can be successful if they receive appropriate support and the proper interventions. Current research studies that are being conducted by the WCED (2006) on the reading and mathematical (literacy and numeracy) abilities of learners in schools situated in the lower socio-economic communities have yielded discouraging results. Approximately 75% of the learners involved in the study are under-performing in literacy and numeracy (WCED, 2006). It is possible that the high prevalence of FASD could have contributed to these poor results.

## **1.8 RESEARCH DESIGN**

I used an interpretive constructive paradigm to investigate the knowledge and attitudes of educators working with learners with FASD. A constructivist paradigm was used for this study because according to Mertens (2005, p. 12):

Constructivism reflects one of the basic tenets of this theoretical paradigm which is that reality is socially constructed by people active in the research process and that a researcher should try to understand the complex world of lived experiences from the point of view of those who live it.

Interpretive constructivism is therefore fundamentally concerned with meaning and it tries to understand the participants' definition of situations. The question is therefore: what is real for them? Meaning is mediated through the researcher as an instrument by making sense of people's experiences through interacting with them and listening carefully to what they are telling us (Merriam & Associates, 2002; Terre Blanche, Durrheim & Painter, 2006). In this instance I wished to understand educators' knowledge of FASD and their attitudes to learners manifesting FASD. I wanted to determine how educators experience and understand these learners.

## **1.9 METHODOLOGY**

Qualitative research techniques were used to collect and analyse data. Purposeful sampling was used to provide specific information about the phenomenon of interest (Merriam & Associates, 2002). In this research process, purposeful sampling was used because of the accessibility of the sample. I would therefore be able to select cases that were typical of the population. The purposeful sample from which data was collected in this research process was drawn from educators of learners with FASD in schools in a low socio-economic area in the Western Cape (Merriam & Associates, 2002).

Semi-structured interviews were conducted to obtain specific answers to questions, thereby ensuring coverage of important information but also allowing flexibility. Data was collected through field notes and transcriptions of audio-tapes. Observations in the classrooms were conducted through passive participation. Focus-group discussions were conducted as guided discussions with participants. Semi-structured questions were used to ensure coverage of important information. They also allowed flexibility to respond to group-initiated concerns (Babbie & Mouton, 2001; Merriam & Associates, 2002; Mertens, 2005; Terre Blanche et al., 2006).

A qualitative thematic, constant comparative method of data analysis and coding was used to analyse findings. Multiple methods are used to enhance validity and reliability within qualitative research. In this study, methodological triangulation was used, i.e. multiple methods were used to study the phenomena by looking for convergent evidence from different sources. Methods which were used included interviewing, observation, focus group discussions, a research journal and member checks. Extensive field notes were kept (Babbie & Mouton, 2001; Terre Blanche et al., 2006).

#### **1.10 POPULATION SAMPLE**

In this research sample, purposeful sampling was used for the sake of accessibility because I wished to do research on educators of learners with FASD (Mertens, 2005; Terre Blanche et al., 2006). This sample was selected because of the large number of learners experiencing learning and behavioural problems in selected schools situated in low socio-economic areas on the Cape Flats. Considering the Western Cape's has a history of the highest prevalence of FASD in the world, together with poverty, unemployment and the large number of shebeens in these areas, one could expect a significant prevalence of FASD in these schools (May et al., 2000; Viljoen et al., 2002; May et al., 2005).

This study focused on nine participants (educators) from three primary schools (three participants per school) situated in selected low socio-economic areas of the Western Cape. This purposeful sample aimed at including one educator from each learning phase, i.e. the foundation; intermediate and senior phase. Audio-taped interviews were conducted with participants and classroom observation was conducted of both learners and educators. Thereafter focus group discussions were held to gain additional insight

from the interaction of ideas among the group participants (Babbie & Mouton, 2001; Ritchie & Lewis, 2003; Mertens, 2005).

### **1.11 ETHICS**

Consent was obtained from the Western Cape Education Department (Addendum A), school managers (Addendum B) and the participants (Addendum C) to conduct the research. All parties involved were informed about the purpose of the study. Only participants who had given their voluntary written consent (Addendum C) were participants in the research process. No learners were directly involved in the research process (Merriam & Associates, 2002).

Participation in the research was done on a voluntary basis and participants could decline or withdraw at any stage of the research process. Anonymity and confidentiality of all participants as well as of all the participating schools were ensured at all times. No learners were interviewed or discussed in their presence.

### **1.12 THE POSITION OF THE RESEARCHER**

According to Merriam and Associates (2002), the researcher should strive to understand the meaning people have constructed about their experiences and the way people experience their world. This leads to an in-depth understanding of what it means for participants to be in a certain setting. The researcher is the human instrument for data collection and data analysis.

The researcher should be aware of his or her shortcomings and biases that might have an impact on the study. It is important to identify and monitor these biases instead of trying to ignore them as they may be shaping the collection of data. Researchers have a social responsibility toward participants. My sense of social responsibility as well as the fact that I am an educator influenced my choice of research. Researchers should also be aware that research is an interactive process. The researcher operates from a position of power and this power must be used responsibly in terms of the rights and welfare of the research participants. Terre Blanche et al. (2006) emphasise that participants should be treated with respect and that the researcher should be sensitive to their cultural values and traditions. My position as a researcher and a representative of the Western Cape Education Department might have had an influence on the outcome of the findings of this study. It may well have had an influence on the participants' willingness to be involved in the study as only one of the nine participants eventually withdrew due to duties at school.

### **1.13 QUALITY ASSURANCE**

Quality assurance is vital for the validation of research. The trustworthiness of the research should be ensured through its credibility, dependability, transferability and confirmability. I used multiple data collection methods for quality assurance. The methods that I employed in this research process to validate quality assurance included keeping a research journal, and member checks. Together with triangulation this ensured credibility and resulted in a large audit trail, parts of which would be found in the final report (Babbie & Mouton, 2001; Terre Blanche et al., 2006).

According to Babbie and Mouton (2001), an inquiry audit should be kept where all the processes during the data collection and analysis can be recorded. Terre Blanche et al.

(2006) state that “[q]uality research can be evaluated in terms of how well it accounts for the phenomenon being studied, and in terms of the consequences that flow from the research”.

Some of the terminology used in this thesis is explicated in the next section.

#### 1.14 CLARIFICATION OF TERMINOLOGY

Some of the salient terminology used in this thesis is explained below.

**Knowledge:** (n) knowing; what is known of a person; sum of what is known to mankind; a person’s range of information (Oxford Dictionary of Current English, 1992). In this study, the word ‘knowledge’ will be used when referring to the information educators have about learners with FASD.

**Attitude:** (n) way of regarding, considered and permanent disposition or reaction, relative to given points (Oxford Dictionary of Current English, 1992). In this research study, the word ‘attitude’ will be used when describing how educators feel toward, react to, or treat learners with FASD.

**Binge drinking** refers to the consumption of four or more alcoholic drinks in about one hour. Binge drinking during pregnancy causes FASD (May et al., 2005).

**Central nervous system (CNS) abnormalities:** Abnormalities of this nature involve damage to the brain, which could entail small head size (microcephaly), seizures, and missing brain structures. Individuals with FASD often have structural brain



abnormalities, fewer basal ganglia (associated with motor activity) and small or absent corpus callosum (which carries nerve fibres that connect the right and the left brain hemisphere) (Streissguth & Kanter, 2002).

**Prenatal exposure to alcohol (PEA)** refers to the exposure of a fetus to alcohol due to maternal alcohol use during pregnancy, which causes FASD (Streissguth & Kanter, 2002).

**Primary disabilities** are functional deficits which are inherent in FASD. They include a low IQ, difficulties with reading and mathematics, and problems with adaptive functioning. These abnormalities are permanent and cannot be cured (Streissguth & Kanter, 2002).

**Secondary disabilities** are problems that may occur in individuals with FASD. They can be prevented or ameliorated by early intervention, early identification and appropriate support of the disability. Secondary disabilities include disrupted schooling, trouble with the law, mental health problems, substance abuse, inappropriate sexual behaviour, dependent living and problems with employment (Streissguth & Kanter, 2002; O'Malley & Streissguth, 2008).

**Dysmorphology** is a term used for the study of human congenital malformations. In this study, the term refers to the dysmorphic features, mostly facial, associated with FASD (Streissguth & Kanter, 2002).

**Teratogen** is “any substance, organism or process that causes or increases the probability of congenital disorders or birth defects in a baby” (May et al., 2007). In this study the term refers to alcohol.

**A syndrome** is a group of symptoms which consistently occurs together (South African Concise Oxford Dictionary, 2002). In this research the term is used to refer to a specific cluster of anomalies in an individual associated with the use of alcohol during pregnancy (FAS).

**Coloured:** A person of mixed ancestry of European, African and Asian origin. This is a contentious term and is not accepted by many South Africans of mixed ancestry (London, 1999; May et al., 2005). It is still used in SA for the purpose of delineating a particular group of people. Many people of mixed ancestry would prefer to be known as South Africans only, while some prefer the Afrikaans term ‘bruinmense’.

**‘Dop’ system:** ‘Dop’ is an Afrikaans word which means a tot. This system was used by white farmers as an incentive and payment for work on farms, mainly wine farms. Male and female farm workers of predominantly mixed ancestry were given wine daily while working on the farms. This system has been declared illegal in SA (London, 1999; May et al., 2005).

## 1.15 REFLECTION AND CONCLUSION

This chapter, which is the introduction to the study, gives an overview of the research process. It provides some background on the history of FASD in South Africa and the current statistics on this disorder. This chapter also gives direction to the research

process and integrates the various facets of FASD which I discuss in that process. The research design, methodology and ethical issues are briefly discussed and the terminology that is used in this study is explained.

The literature pertaining to FASD is discussed in detail in the following chapter (Chapter 2). On reflection, Chapter 1, allowed me to become immersed in the research process. It serves as a framework for the study and provides the direction, layout and structure of the research process.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 INTRODUCTION

In this chapter I will discuss the historical perspective of Fetal Alcohol Spectrum Disorder (FASD) in general, but I will focus specifically on the South African context. Historical, political, economic and societal factors impact on South Africans in different ways. In certain communities in South Africa these factors have contributed to alcohol abuse that has been perpetuated through many generations. One of the consequences of this problem is FASD. In this chapter, the prevalence of alcohol abuse and consequences for the unborn child will be covered. The characteristics of FASD will also be discussed.

Alcohol abuse and FASD have become major public health issues in South Africa – predominantly among the ‘coloured’ community of the Western and Northern Cape where extensive research has already been done on school-entering learners. In this thesis, I focus mainly on an educational aspect of this issue, namely on the role of educators in educating learners with FASD. My research focused on educators’ knowledge of FASD, and their attitude towards learners with FASD in their classroom. No research has yet been done in South Africa on the educational aspect of learners with FASD or on the role of educators in this context. It is therefore an important field of research, particularly in view of the fact that South Africa has the highest prevalence rate of FASD in the world (Birn & Molina, 2005; May et al., 2005; Riley & McGee, 2005; Viljoen et al., 2005).

In my research I focused on the implications of the prevalence of FASD on the education of learners in the low socio-economic schools in the Western Cape, where epidemiological studies have indicated a high incidence of this disorder. My aim was to establish what educators' experiences are, whether they are able to identify the needs of learners with FASD, and whether they are able to support such learners academically. I also aimed to discuss the educational, physical, neurological, emotional and behavioural implications that may result from FASD, or which are known consequences of this disorder.

Ancient writings have indicated and warned against prenatal alcohol consumption and subsequent developmental delays in children of women using alcohol during pregnancy. An example of such a reference can be found in the Bible (Judges 13:7, cited in South Dakota Council on Developmental Disabilities, 2002): "Behold, thou shalt conceive and bear a son, and now drink no wine or strong drink." The Greek philosopher Aristotle wrote: "Foolish drunken and harebrained women most often bring forth children like unto themselves, morose and languid." The Carthaginian ritual furthermore forbade the use of wine by the bridal couple so that a defective child would not be born (South Dakota Council on Developmental Disabilities, 2002; Streissguth, 1997).

In relatively modern times, the medical profession became aware of the consequences of maternal alcohol consumption and its effects on the unborn child. Only recently has FAS been studied in depth by the medical profession. Lemoine (1968, cited in Streissguth & Kanter, 2002), first described the pattern of malformation resulting from heavy prenatal alcohol exposure. Drs Smith and Jones (paediatric dysmorphologists) were the first to coin the term 'Fetal Alcohol Syndrome' in the USA. The diagnosis of FAS still remains the same as originally proposed by Jones and Smith in 1973

(Streissguth, 1997; Streissguth & Kanter, 2002; Chambers, Vaux, Itani, Windle, Pramanik, Wagner & Rosenkrantz, 2006).

The Republic of South Africa is known to have the highest incidence of FASD in the world among a minority group of people, called 'coloureds'. It is mainly, ascribed to South Africa's past economic and political history (May et al., 2005). The term 'coloured' was used in apartheid SA to classify and delineate a group of citizens of mixed ancestral heritage (European, African and Asian) (London, 1999). These marginalised people of SA were victims of the 'dop' system (which was a daily amount of alcohol given to the farm labourers as a form of payment and an incentive for work) which has contributed to widespread alcoholism among many of these people (London, 1999; Riley, Mattson, Jacobson, Coles, Kodituwakku, Adnams, & Korkman, 2003; Birn & Molina, 2005; Viljoen, 2005). The 'dop' system, the Group Areas Act, and apartheid racial policies of disempowerment, social and political exclusion, emanated in lost opportunities, status, power and privileges. These inequalities resulted in poverty and developmental problems that strained the social economic and physical development of this group of marginalised people (Riley et al., 2003; Birn & Molina, 2005; May et al., 2005; Mc Kinstry, 2005; Viljoen et al., 2005).

## **2.2 PAST POLITICAL POLICIES AND SOCIO-ECONOMIC DEPRIVATION IN THE WESTERN CAPE**

Poverty in the Western Cape manifests in adverse factors caused by unemployment and low-paid menial jobs. Adverse factors that arose because of poverty are ill health, under-nourishment, being deprived of privileges, backlogs in education and unsupportive environments such as informal settlements, squatter camps and sub-

standard over-crowded houses (London, 1999; Viljoen et al., 2002; Riley et al., 2003; Lomofsky & Lazarus, 2001).

The past legacy of the Cape 'dop' system has brought with it an unhealthy culture of alcohol abuse in the Western Cape. Due to urbanisation and expansion this culture of alcohol abuse has not only affected the 'coloureds' living on the wine, fruit and agricultural farms but to a great extent also the people living on the present-day Cape Flats (London, 1999; Rust, 2002; Viljoen et al., 2002; Riley et al., 2003; Viljoen et al., 2005). In 1950 the Group Areas Act led to the dismantling of District Six, which was an area in central Cape Town where people of all races lived side by side. 'Coloured' and a few black people living in these and other mixed areas around the Peninsula were relocated to racially designated sections of the Cape Flats known as 'the dumping grounds of Apartheid'. Here they had to live in substandard overcrowded government houses. Many of these displaced people around the country lost their property along with their dignity, status, power and privileges. This resulted in a disempowered society characterised by social decay and alcoholism due to a loss of privileges, few if any expectations and low self-esteem (18 with a Bullet, 2002).

In the Western Cape, the Cape Flats, rural areas and farming communities are still plagued by alcoholism today. The 'dop' system is still being practised on 1.4% of farms even though it has been declared illegal since 1963 (Rust, 2002). Inexpensive inferior wines which the poor can afford are readily available. A popular cheap wine that is sold in a foil bag is known as a 'papsak'. The 'dop system' has to a large extent been replaced by shebeens and taverns (they are informal bars situated in houses which sell alcohol). Shebeens are often open 24 hours per day and are situated throughout the townships. The unbridled use and abuse of alcohol has led to huge social problems, fostering violence, dysfunctional families and Fetal Alcohol Syndrome (London, 1999; Viljoen et al., 2002; Riley et al., 2003; Landsberg, Krüger & Nel, 2005; May et al., 2005;).

In South Africa the women who are prone to alcohol abuse during pregnancy often come from poor, marginalised communities. Although alcohol abuse occurs in all races and socio-economic groups, epidemiological data shows that it is more prevalent in minority groups and people of low socio-economic status (May et al., 2000; Viljoen et al., 2002; Birn & Molina, 2005).

These women are often uneducated or poorly educated and are thus not informed of the dangers associated with alcohol use during pregnancy. They often have little to no access to private and public health facilities. In many cases they themselves are victims of FASD and are ignorant of the problems associated with FASD. Consequently they do not have the ability to identify learning difficulties which their children might be experiencing. In cases where mothers were informed about the dangers of alcohol use during pregnancy, they often continue to drink or only stop when some damage has already been done. In many instances these mothers are so overwhelmed by poverty, unemployment and social problems that they resort to alcohol in order to escape these responsibilities (Connor & Streissguth, 1996; Rust, 2002; May et al., 2000; Viljoen et al., 2002).

The availability of shebeens in townships exacerbates the drinking problem they sell cheap liquor and potent illegal homebrewed beer in poor, marginalised communities such as in 'coloured' and black townships in both rural and urban areas. In De Aar, a small town with approximately 28 000 inhabitants, 99 illegal shebeens were counted (Science in Africa, 2006). The demise of the railway system in De Aar has led to huge unemployment and subsequent poverty which resulted in this rural town having the highest prevalence of FASD reported in a population in the world. Most recent research in the De Aar project has reported 122 per 1 000 school entry learners, which amounts to



12% (FASfacts, 2007). This is a strong indication of the magnitude of the FASD crisis in South Africa (Beresford, 2007; McVay, 2007).

Much research is being done on FASD in SA, but not much support is available, and no legislation has been passed to prevent and inform pregnant women about the danger associated with alcohol consumption to the unborn child. Not enough is being done to disseminate information to potential mothers or to warn and inform mothers who have already given birth to a child with FASD or to support the victims of FASD (Riley et al., 2003; Birn & Molina, 2005).

Research is currently being done in SA on FASD prevention strategies (May, Seedat, & Parry, 2008). In the USA, public policies to prevent FASD began immediately when alcohol was identified as a teratogen. The US surgeon-general advised women not to consume alcohol before or during pregnancy. Legislation was passed by Congress in 1989 to mandate labels on alcoholic beverage containers sold in the USA warning against the dangers of consuming alcohol during pregnancy (Birn & Molina, 2005; May et al., 2005; Mc Kinstry, 2005).

There are no statistics on the financial impact of FASD on the South African economy other than the loss of potential skills. Since the South African government does not recognise FASD as a disability, there is no social or economical support for learners with this disorder. According to American statistics the lifetime medical and social costs of each child with FASD are estimated to be as high as US\$800 000 (Birn & Molina, 2005). In South Africa, where many women continue to drink during pregnancy and children are being born with FASD, learning problems, drug abuse, unemployment and violence continue to escalate. A marginalised group of people continue to degenerate. The AIDS epidemic has been well publicised and documented in SA in recent years. However, a

lesser known health crisis which has profound socio-economic implications has been developing for hundreds of years in the Western Cape, which has resulted in SA having the highest rates of FASD in the world (Birn & Molina, 2005; May et al., 2005).

According to Viljoen (2005, cited in Beresford, 2007) HIV/AIDS and other illnesses are forcing the syndrome down the list of the S.A government's priorities. The state seems to lack the insight into the correlation between alcohol abuse, poverty, FASD and HIV/AIDS (Birn & Molina, 2005; Mc Kinstry, 2005).

### **2.3 FASD IN SCHOOLS IN THE WESTERN CAPE**

The majority of learners with FASD in SA attend public mainstream schools, and have to follow the national curriculum. They attend mainstreams schools with no formal identification of their condition (as diagnosed by a medical practitioner), and the majority of these learners receive no support for their specific learning problems. They are often misunderstood and categorised as having learning problems, reading and mathematical problems, behavioural problems, Attention Deficit Hyperactivity Disorder (ADHD) or Attention Deficit Disorder (ADD) and many more (Evenson, 1994; Kulp, 2002). A large number of these learners drop out from school, as the educational system is not geared to support their needs. The majority of individuals who have been prenatally exposed to alcohol do not have any external physical characteristics. Yet their brain dysfunction may be as severe as in the case of full FAS. Identification of this larger group of individuals with FASD is crucial as they are at a greater risk of failure due to the invisibility of their disability (Riley et al, 2003; Streissguth & Kanter, 2002). According to the WCED literacy and numeracy strategy (2006) there is a 50% high school dropout rate in the Western Cape.

Very few learners in deprived communities are formally diagnosed as having FASD even though they present with all the physical and/or neurological traits and with a maternal history of alcohol abuse. To prevent barriers to learning from developing or intensifying, it is essential to identify learners who are contending with such barriers as soon as possible, even before they reach school (Streissguth, 1997; Streissguth & Kanter, 2002). The breakdown of generations of this syndrome lies in the destigmatisation of the disease by the medical fraternity. FASD has a significant national health, economic and socio-political impact on a country (Connor & Streissguth, 1996; Streissguth & Kanter, 2002; Viljoen et al., 2002).

## **2.4 EARLY CHILDHOOD EDUCATION AND INTERVENTION IN SOUTH AFRICA**

The South African Constitution, section 28 of the Bill of Rights (1996, cited in Landsberg et al., 2005, p5) states that

A child's best interest is of paramount importance in every matter concerning the child and each child has a right to:

- A name and nationality
- Family and parental care or appropriate alternative care
- Basic nutrition, shelter, basic health and social care
- Basic education
- Protection from maltreatment, neglect, abuse or degradation
- Protection from exploitative labour practices

In SA, however, more than 40% of young children grow up in abject poverty and neglect. Children with FASD are at risk to be born with a low birth weight,

developmental delay, poor adjustment to school and learning problems. These adverse factors necessitate early intervention to minimise the effects of early deprivation and to maximise the child's development potential. The SA government has put in place several policies, laws and programmes to address the need for early childhood development (Landsberg et al., 2005).

Early identification and intervention of the learner with FASD is therefore not to label the learner but to support, understand, protect and to minimise the effects of early deprivation. According to experts in this field identification is necessary for the following reasons:

- validation
- a different approach to the individual
- opening doors for services and support for both the individual and the family
- new strategies at home, school and other environments in which the individual is involved
- to facilitate funding in schools and to obtain social grants if needed
- to obtain better medical management
- to prevent secondary disabilities in the adolescent
- to prevent young mothers from giving birth to other alcohol-affected children

#### **2.4.1 Early childhood intervention: A bio-ecological approach**

According to Landsberg et al. (2005) early childhood intervention refers to the process that facilitates optimal early childhood development. These processes aim to prevent developmental problems in young children or try to minimise the impact. The

ecological approach to early childhood development emphasises that situations, people and actions of people in the child's life impact on the child's development, irrespective of whether the child has direct contact with that environment or not. Bronfenbrenner (1979, cited in Landsberg et al., 2005) describes four ecological contexts for human development: the microsystem, the mesosystems, the exosystem and the macrosystem. These contexts are briefly explained below.

The microsystem is the inner circle which is the immediate setting in which the child develops. It includes the immediate family, early learning centre/school and social relationships. The quality of this system contributes to the child's early development and determines whether it will be influenced in a positive, secure, loving and nurturing way or in a negative, insecure way.

The mesosystems are the relationships between the microsystems in which the individual experiences reality. This reality forms the links between the different microsystems in which the child functions, e.g. the connection between the child's family and the school, how much contact there is between the two, and what the quality is of those contacts to support the child.

The exosystem are those settings in which the child does not have a direct role but that do have an influence on the child's development, e.g. the parents' workplace. These systems can impact either positively or negatively on the child.

The macrosystem refers to the broad, ideological demographic patterns of culture that serves as the blueprint of the child's development. It is the child's general orientation to

life as it is. Poverty in specific geographical areas in specific communities imposes huge challenges on early childhood development and interventions (Landsberg et al., 2005).

#### **2.4.2 The bio-ecological approach and the child with FASD in South Africa**

When applying Bronfenbrenner's model (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998, cited in Landsberg et al., 2005) in the context of a child with FASD in SA, we can deduce what adverse effects the different systems will have on the child due to poor socio-economic conditions in which the child has to function.

As mentioned earlier, research has shown that FASD is more prevalent amongst poor socio-economic communities (Streissguth, 1997; May et al., 2005). On the macrosystems level large segments of the population in SA live in poverty, which results in families not being able to provide their children with adequate environmental circumstances to be able to thrive. Many of these areas are adversely affected by violence and gangsterism as well as a culture of drinking. These adverse social influences impact negatively on the learner. The child with FASD is therefore adversely affected on the macrosystems level (Landsberg et al., 2005).

On an ecosystems level, poor working conditions, such as low-paid, menial, and casual employment, unemployment, violence and poor housing, are factors which may have a negative impact on the learner with FASD. These negative influences may contribute to secondary disabilities later in life (Streissguth & Kanter, 2002; Landsberg et al., 2005).

On the mesosystems level, adverse conditions often lead to isolation, especially in situations where alcohol is being abused, and this in turn often leads to violence, abuse

and neglect. Isolation from the school, church and the community often reduces social networks that are necessary for support.

If poverty and alcohol abuse play a major role on a microsystems level, then this systemic level may have major implications for the child's development because of its close interaction with the child. Parents may be more stressed and irritable, and child abuse and neglect may become more prevalent. As a result of alcohol abuse and poor socio-economic conditions parents may not be able to provide a secure home for their child (Bronfenbrenner & Morris, 1998, cited in Landsberg et al., 2005). Learners with FASD are therefore negatively affected on all systems levels.

### **2.4.3 FASD and inclusive education**

#### **2.4.3.1 Principles and values of inclusion**

Inclusion is based on a value system that encompasses mutual acceptance and respect for diversity, social justice and a sense of belonging. It strives to combat prejudice and discriminatory practices, using human resources to the benefit of all. It recognises that all learners can learn and have a right to an education (Landsberg et al., 2005).

Inclusive education was globally directed by the World Conference on Special Needs Education on 7 to 10 June 1994 in Salamanca, Spain (Salamanca Statement, 1994). This conference was represented by 92 governments and 25 international organisations. Participants at this conference all reaffirmed their commitment to an Education for all, confirming the necessity and urgency of providing education to all children, youth and

adults with special educational needs within the regular education system (Salamanca Statement, 1994).

### **2.4.3.2 National documents on special needs education**

#### **2.4.3.2.1 Education White Paper 6 on inclusive education and training**

According to Education White Paper 6 (DoE, 2001, p. 6):

All children and youth can learn and they all need support. By accepting and respecting the fact that all learners are different in some way and have different learning needs which are equally valued and an ordinary part of our human experience. Acknowledge and respect differs in learners whether due to age, gender, ethnicity, language, class and disability or HIV status. Inclusion is about changing attitudes, behaviour, teaching methodologies, curricula and the environment to meet the needs of all learners. It is about maximising the participation of all learners in the curricula of educational institutions and uncovering and minimising barriers to learning.

Some learners may require more intensive and specialised support to be able to develop to their full potential. An inclusive education and training system is organised so that it can provide various levels and kinds of support to learners and educators (DoE, White Paper 6, 2001).

There seems to be a discrepancy between what DoE (2001) White Paper 6 (henceforth referred to as White Paper 6) states as every learner's right and the support that learners with FASD get in our schools. The support and acknowledgement that learners with FASD receive in mainstream schools seem to fall far short of what White Paper 6 claims



to be their human right. According to White Paper 6, if learners with FASD and their educators are to be properly supported, these learners will first have to be identified as learners with FASD. It is further necessary to identify their needs, as early identification is crucial for early intervention (Streissguth & Kanter, 2002; Landsberg et al., 2005; Viljoen et al., 2005). Appropriate learning programmes within an inclusive learning environment, designed to meet their specific learning needs, should be developed to support these learners. An Individual Educational Development Programme (IEDP) should be drawn up for each learner to accommodate his/her specific learning problems.

Since each fetus is affected differently, depending on several factors, FASD learners are differently affected and have different needs. Determining alcohol-related factors are the volume of alcohol consumed by the pregnant mother, the pattern of drinking (binge drinking) and the timing (during which trimesters the alcohol was consumed). Genetic factors and the socio-economic circumstances (nutritional factors) of the mother may also have a negative impact on the unborn child (Connor & Streissguth, 1996; May et al., 2005). FASD may result in multiple disabilities and therefore a multi-modal or multi-disciplinary approach is advised to address the multiple and diverse needs of learners with FASD (Connor & Streissguth, 1996; Engelbrecht, Kriegler & Booyesen, 1996; May et al., 2005; Donald, Lazarus & Lolwana, 2005; Riley & Mc Gee, 2005).

#### **2.4.3.2.2 Quality education for all: Overcoming barriers to learning and development**

In 1997 a national committee on quality education for all was established with the aim of overcoming barriers to learning and development. One of the barriers identified by the committee was attitudes.

The Oxford dictionary of Current English (1992) defines an attitude as “a way of regarding, or [the] considered and permanent disposition or reaction, relative to given points”. In this thesis the word ‘attitude’ will be used to describe how educators feel towards and react to or treat learners with FASD. According to the Report on the National Commission on Special Needs Education and Training (NCSNET). “Negative and harmful attitudes towards differences in our society remain a critical barrier to learning and development” (National Committee on Education and Support Services, 1998, p. 15). These negative attitudes towards learners result in the labelling of learners. Sometimes the labelling comprises only negative associations in the system with labels such as ‘slow learners’ or ‘drop-outs’.

Labelling, which has a negative effect on learners’ self-esteem, can be dangerous if such a label is linked to placement or exclusion without the appropriate assessment of the learners’ needs and what is required to meet those needs. Negative attitudes, which are often caused by fear and a lack of awareness about a specific disability, may lead to barriers to learning and development. FASD in SA is a hidden disability. Learners with FASD in our mainstream education are given incorrect and negative labels because of a lack of knowledge and proper diagnosis or identification of the disorder. Shame and blame also have a negative effect on these learners and engender negative attitudes which exacerbate the problem.

According to Streissguth and Kanter (2002) and many other proponents (who are specialists in this field as mentioned in this document) early diagnosis of FASD is essential for early intervention and support, but we have to guard against early diagnosis or identification resulting in negative labels and attitudes. If educationists lack the knowledge and skills to support these learners, it can exacerbate barriers to learning and development of learners with FASD.

## **2.5 THE EXPERIENCE OF PROFESSIONALS WORKING IN THIS FIELD**

### **2.5.1 Educators of learners with intellectual disabilities**

Since FASD is regarded as a strong predictor of learning disabilities, it generally poses a greater challenge to educators to deal with. According to international research (Soodak, Podell & Lehman, 1998) educators find it very stressful and problematic to deal with learners with intellectual disabilities within mainstream education and within the inclusive classroom (Engelbrecht, Oswald, Swart & Eloff, 2003; Soodak et al., 1998) contend that educators have a negative attitude towards the inclusion of learners with intellectual disabilities, learning disabilities and behavioural disorders in mainstream education, and that their inclusion causes anxiety amongst educators.

A similar study, conducted in South Africa, generated similar findings. Engelbrecht et al. (2003) found that educators did not know how to teach or help learners with intellectual disabilities and felt they lacked the appropriate training to educate learners with disabilities. Educators indicated that they lacked the knowledge to adjust unit plans and they experienced problems in adapting the curriculum to meet the needs of learners with special needs. They were overwhelmed by the learning and reading problems experienced by these learners and felt that they could not do justice to all the learners in the overcrowded classrooms. They felt personally responsible for the educational outcomes of learners with intellectual disabilities.

Insufficient financial resources in the classroom also contributed towards educators' negative attitudes. Educators indicated a need for adequate and continuous support from other professionals such as occupational and speech therapists as well as

physiotherapists and support educators in their classrooms. Educators also felt that poverty played a significant role. Furthermore, they got little support from the parents of the learners with special needs, because these parents were not involved in their children's academic progress and they lacked the knowledge to understand their children's educational problems (Engelbrecht et al., 2003).

### **2.5.2 Pre-service educators' attitudes towards inclusive education**

Researchers in this field contend that the attitudes of educators are critical for the successful implementation of inclusive education (Mdikana, Ntshangasa & Mayekiso, 2007). Bowman (1986, cited in Mdikana et al., 2007) found in her 14-nation UNESCO study that severely intellectually disabled learners were least favourably accommodated by educators in inclusive education, whereas those learners with medical, sensory and physical disabilities were seen as more likely to manage within inclusive education. In countries such as Ghana, the Philippines, Israel and Taiwan, educators' attitudes towards inclusion were found to be less positive, and researchers ascribed this finding to limited or no training of teachers in the acquiring of integrated competencies (Mdikana et al., 2007).

In the research study on pre-service educators' attitudes towards inclusive education a large number of pre-service educators indicated that there was a need for special educational skills as they lacked confidence in instructional and management skills. According to researchers, teaching in an inclusive classroom requires special skills. The majority of SA educators are not trained to teach these classes, which creates feelings of hopelessness and helplessness and provokes anxiety amongst educators. Educators also indicated a need for special resources. According to White Paper 6, inclusive education

would only be introduced to schools in SA when human and material resources had been provided (DoE, 2001).

Pre-service educators responded more positively towards learners with special needs, but emphasised that they should be prepared to meet the needs of learners with disabilities. The resourcing of these schools is also essential to alleviate anxiety regarding the implementation of inclusive education (Mdikana et al., 2007).

### **2.5.3 Teachers' attitudes towards inclusion**

In their study Edhoweris and Alsheikh (2006) found that educators generally had a positive attitude towards the inclusion of learners with disabilities in the general education classroom. Some differences were however found between the attitudes of special and regular education teachers. They found that special educators were more supportive of full inclusion than general educators.

The result of this study is consistent with those of other studies in this field. These researchers found that the amount of training and experience educators had in teaching learners with disabilities was related to educators' attitudes towards inclusion. In this case all special needs educators had a positive attitude towards inclusion. General educators were not supportive of inclusion and had strong reservations towards including learners with severe disabilities in mainstream education (Edhoweris & Alsheikh, 2006).

#### **2.5.4 Preschool teachers educating learners with FASD**

Research conducted in the USA on preschool teachers' attitudes and knowledge regarding FAS found that educators had a moderate awareness of FAS (Mack, 1995). The majority of educators knew about the basic physical and neurological anomalies of FAS. Over half of the respondents did not agree that FAS was associated with intellectual impairment. The majority felt that the lower socio-economic groups had the highest prevalence of FAS. More than half of the respondents said that they were unprepared or not prepared to teach these learners. A large number of respondents indicated that they lacked the ability to identify learners with FAS. An overwhelming number of respondents agreed that early intervention was crucial for the development of learners with FAS. The majority indicated that the information gathered from the learners' developmental history did not include questions on parental alcohol consumption (Mack, 1995).

#### **2.5.5 School nurses' knowledge of FAS**

According to the research results on school nurses' knowledge of FAS in the USA, Caley (2006) found that school nurses knew that prenatal alcohol consumption caused FAS. They were less knowledgeable about the epidemiology and facial dysmorphism associated with FAS. A large number indicated that they needed more information about FAS and the features associated with FAS. They needed more information on risk factors and interventions for secondary disabilities. The majority indicated that they needed more information to understand the basic biomedical mechanism that results in FAS (Caley, 2006).

## 2.6 VULNERABILITY OF THE DEVELOPING FETUS

**Figure 2.1** illustrates the different stages of development of the fetus and shows when certain parts can be affected when exposed to prenatal alcohol consumption. The yellow bars represent the most sensitive periods of development which, if the fetus is exposed to alcohol, would result in major structural abnormalities in the child.

### Prenatal exposure to alcohol and the developing fetus

Alcohol passes the placental 'barriers' freely with damaging impact on the developing fetus

Period in which major **physical abnormalities** occur is 3 - 7 weeks

Periods in which **functional defects** and **lesser physical abnormalities** occur: 8 weeks - 4 years

Pre-embryo	3 weeks	4 Weeks	5 weeks	6 weeks	7 weeks	8 weeks	9 weeks	16 weeks	20-30 weeks	38 weeks	4 years	
	Central nervous system											
	Heart											
	Upper limbs											
	Eyes											
	Lower limbs											
			Teeth									
			Palate									
				Genitals								
	Ears											

**Figure 2.1:** An illustration of the vulnerability of the fetus to defects during different periods of development (Stade, Clark & D'Agostino, 2004)

## 2.7 FACIAL ANOMALIES AND CHARACTERISTICS OF FAS

Some learners with FASD may present with specific facial features or anomalies that are associated and discriminating features of FAS. Where these facial anomalies are present they could include the following:

**Discriminating facial features are:**

- **Microcephaly**, which is a small head circumference; with **short palpebral fissures** which are small eye openings; a **flat midface** with a **short up turned nose**; an **indistinct philtrum** which is an absence of a ridge between the nose and lips and a **thin smooth upper lip**.

**Associated facial features are:**

- **Epicanthal folds**, which is a skin fold covering the inner corner of the eyes; a **low nasal bridge** which is a flat mid face; **micrognathia**, which is a small chin and **minor ear** anomalies.

According to research, days 15 to 22 are the period during pregnancy when facial cranial deformities are most likely to develop. An optimal age for the recognition of FASD features are between three and ten years of age. These features may become less obvious as individuals reach puberty (Carrier et al., 2005).

**An illustration of these characteristics can be found in Figure 2.2.**



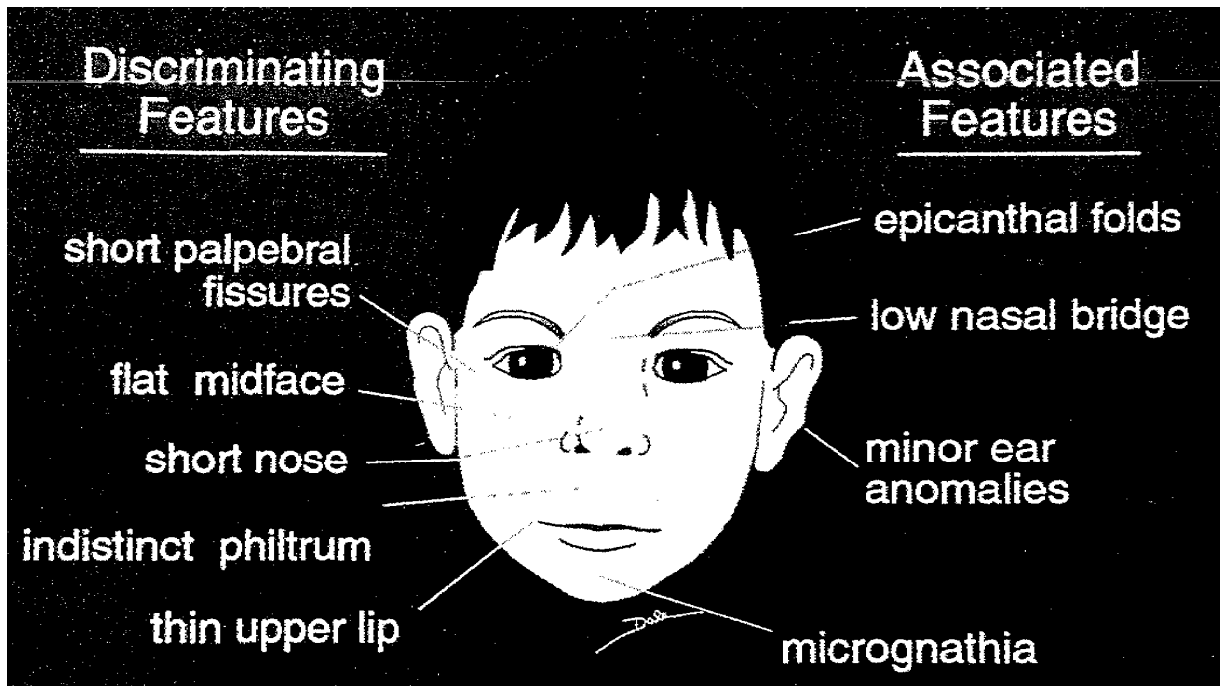


Figure 2.2: An illustration of FAS facial anomalies (Streissguth & Little, 1994)

Table 2.1 below is an illustrative summary of the characteristics of facial anomalies, growth deficiency and central nervous system dysfunction associated with FASD (South Dakota Council on Developmental Disabilities, 2002).

Table 2.1: CHARACTERISTICS OF FETAL ALCOHOL SYNDROME

Characteristics of fetal alcohol syndrome	Facial anomalies	Growth deficiency	Central nervous system dysfunction
<p>Fetal alcohol syndrome is characterised by three categories</p> <ol style="list-style-type: none"> <li>1. Growth deficiency</li> <li>2. Facial anomalies</li> <li>3. Central nervous system dysfunction</li> <li>4. Physical abnormalities</li> </ol> <p>All the characteristics of FAS can be present in an individual to a varying degree. These characteristics can also be absent in an individual with FSD which is also known as Fetal alcohol effects (FAE); ARND; ARBD.</p>	<ul style="list-style-type: none"> <li>• Short palpebral fissures (eye slits)</li> <li>• Flat midface</li> <li>• Short upturned nose</li> <li>• Smooth philtrum (ridge between the nose and mouth)</li> <li>• Thin upper lip</li> </ul>	<ul style="list-style-type: none"> <li>• In height</li> <li>• In weight</li> <li>• In both height and weight</li> <li>• Prenatal or postnatal or both</li> </ul>	<ul style="list-style-type: none"> <li>• Microcephaly (small head/ small brain size)</li> <li>• Tremors</li> <li>• Seizures</li> <li>• Hyperactivity</li> <li>• Fine motor difficulties</li> <li>• Gross motor difficulties</li> <li>• Attention deficit</li> <li>• Learning disabilities</li> <li>• Mental disabilities</li> <li>• Developmental delays</li> <li>• Intellectual disabilities. In addition to the major signs, children with FASD may also be born with a variety of other physical and organ malformations such as heart and kidney defects, and bone, eye, ear, joint and liver problems.</li> </ul>

### **2.7.1 Characteristics of FASD that may be seen in the different phases of development**

Knowledge of the different phases of development forms an important part of educators' knowledge required to support learners who manifest specific characteristics of FASD. The effects of the syndrome can be seen in a variety of ways throughout the different developmental stages. It is also important to note that not every learner manifesting FASD will exhibit all the characteristics at a given age. The characteristics that may be experienced by children with FASD during the different phases of development (South Dakota Council on Developmental Disabilities, 2002) are discussed next (2.7.2 - 2.7.5).

### **2.7.2 Characteristics that may be seen in newborn babies and infants**

Newborn babies exposed to prenatal alcohol consumption may present with the following problems: difficulty in sleeping, feeding problems which may manifest in weak sucking reflexes, and an increased sensitivity to light and sound. They may also become easily over-stimulated. They are slow to learn to walk and talk. In addition, they may present with electroencephalogram (EEG) abnormalities, seizures, tremors and jitters, heart defects, kidney problems or skeletal anomalies. They may experience neurological dysfunction and poor fine motor control. They may also show signs of failure to thrive (small size), and may be susceptible to infections (South Dakota Council on Developmental Disabilities, 2002).

### **2.7.3 Characteristics that may be seen in preschool years**

Some preschool learners with FASD may present with the following: They may exhibit emotional over-reaction to tantrums, lack impulse control, and present with hyperactivity and mental disability. Their eye-hand and physical coordination may be poor. They may manifest speech delays, expressive and receptive speech in the form of poor articulation, slow vocabulary or grammar development or perseverative speech. They are prone to non-compliance. They may be small for their age (Streissguth & Kanter, 2002; South Dakota Council on Developmental Disabilities, 2002).

### **2.7.4 Characteristics that may be seen in the foundation phase learner**

Foundation phase learners may present with attention deficit hyperactivity disorder as well as learning and cognitive disabilities. They may experience delays in reading, writing and arithmetic. They may require continuous reminders for basic activities. They are prone to exhibiting poor impulse control. They experience memory problems; information that is learned is retained for a while and then lost. Learners with FASD experience problems with social skills and interpersonal relationships. They fall behind as the work becomes more abstract and concept-based. Since learners may present with behavioural problems they may be suspended from school (Szabo, 2000; South Dakota Council on Developmental Disabilities, 2002).

### **2.7.5 Characteristics that may be seen in adolescents and young adults**

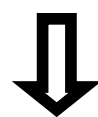
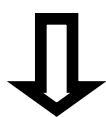
Young adults and adolescents may experience low academic achievement and low self-esteem. They may demonstrate pronounced impulsiveness seen as lying, stealing or defiant acts and poor judgment. They have an inability to anticipate consequences.

They experience difficulty with abstract reasoning and present with memory impairments. During this phase there is an increase in truancy or they may refuse to go to school and become school dropouts because they cannot cope with the academic demands expected from them at school. They present with increased behavioural disruption in school, and mathematics tends to be the most difficult subject to deal with. They have difficulty showing remorse or taking responsibility for their actions. At this age they are at a high risk for problems with the law and involvement in the criminal justice system. They experience problems in managing time and money (Szabo, 2000; Streissguth & Kanter, 2002; South Dakota Council on Developmental Disabilities, 2002).

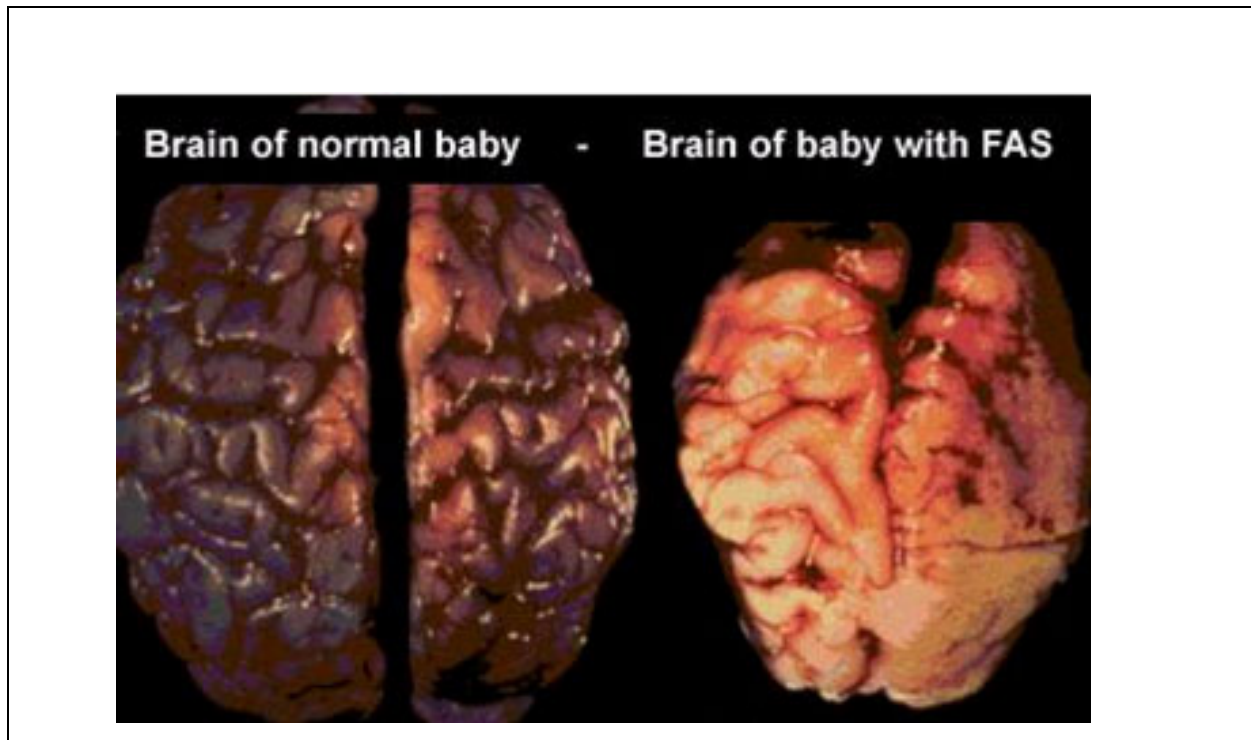
## **2.8 CHANGES IN THE BRAIN STRUCTURE DUE TO FASD**

Prenatal alcohol consumption affects the developing brain of the fetus and may result in the under-development of the brain (microcephaly), which is a small brain size (fig. 3). The changes or underdevelopment of the brain structure due to FASD causes learning problems as alcohol interferes with the migration and organisation of brain cells during the first trimester. Heavy drinking during the 10<sup>th</sup> to 20<sup>th</sup> week after conception causes clinical features (Streissguth & Kanter, 2002; Riley & McGee, 2005).

**Figure 2.3 is an illustration of the brain showing microcephaly and partial agenesis of the corpus callosum due to maternal prenatal alcohol consumption which result in central nervous system (CNS) neuro-developmental abnormalities.**



6-week-old baby 'normal brain'    6-week-old 'fetal alcohol syndrome brain'



**Figure 2.3: An illustration of the brain showing microcephaly and partial agenesis of the corpus callosum due to maternal alcohol consumption (Kellerman 2008)**

### **2.8.1 Brain structures affected by prenatal alcohol consumption**

Damage to these structures may result in specific structural and adaptive problems which may be experienced by learners with FASD.

The **hippocampus** may be affected during the third trimester. If this happens, problems will arise with encoding visual and auditory information (reading and mathematics). It is involved with spatial and verbal memory retrieval. Damage may also cause chronic stress, anxiety and depression. Reduced size of the **cerebellum** may result in impaired

motor development and functioning, as well as behavioural and memory problems, it also impacts on learning and cognitive skills. Learners may present with hyperactivity if the **corpus callosum** is affected by prenatal alcohol consumption. They may present with agenesis of the corpus callosum or partial agenesis of the corpus callosum, which means that the corpus callosum is underdeveloped or non-existent. The corpus callosum passes information from the left brain (rules, logic) to the right brain (impulse, feelings) and vice versa. It is also related to attention deficit problems; psychosocial functioning and verbal learning (Kellerman, 2002; Streissguth & Kanter, 2002; Riley et al., 2003).

In many learners with FASD the **basal ganglia** were found to be reduced in size, which may affect spatial memory. Deformation or reduced size of the basal ganglia may also result in perseveration, which is the inability to switch modes, the inability to work towards goals and the inability to predict behavioural outcomes and perceptions of time. The **hypothalamus** controls appetite, emotions, temperature and pain sensation. Underdevelopment of this part of the brain can be seen in some learners with FASD having a very high pain threshold, which can be dangerous as pain sensation is a predictor of danger and even death. The **frontal lobes** control impulses and judgment. Learners with FASD manifest with poor judgment and poor control impulses. The prefrontal cortex controls executive functions which may also be affected in learners manifesting with FASD. The **amygdala** may also be affected by prenatal alcohol consumption, it is the central part of emotions, and it senses danger, fear and anxiety. It plays a significant role in the recognition of faces and facial expression, in social behaviour, aggression and emotional memory. It is critical for stimulus reinforcement association learning. (Kellerman, 2002; Streissguth & Kanter, 2002; Riley et al., 2003; Riley & McGee, 2005).

The areas of the brain that may be affected by prenatal alcohol exposure are shown in Figure 2.4 below.

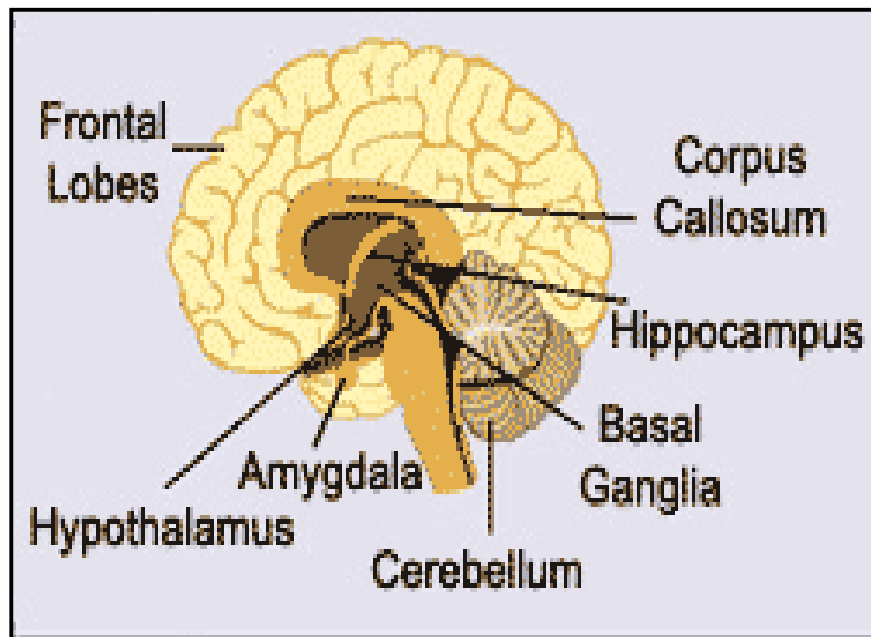


Figure 2.4: An illustration of the areas of the brain which may be affected by prenatal alcohol exposure (Source: Kellerman, 2002)

## 2.9 PRIMARY AND SECONDARY DISABILITIES ASSOCIATED WITH FASD

### 2.9.1 Primary disabilities

Primary disabilities are functional deficiencies that may be caused by CNS damage or dysfunction inherent in FASD. The damages to the brain are the most devastating. These are intrinsic factors that present in the child at birth and they include low intelligence and problems with adaptive functioning. Such abnormalities are permanent and cannot be cured. Primary disabilities are often mistaken as behavioural problems. Studies in animals have indicated a correlation between functional problems



and brain structure damage due to prenatal alcohol exposure (Streissguth & Kanter, 2002).

### **2.9.1.1 Functional difficulties which may result due to CNS damage**

Learners with FASD may present with functional deficits due to CNS damage as a direct result of prenatal alcohol exposure. Learners with FASD may experience some but not all of the following functional difficulties: They may experience academic problems due to intellectual disabilities; they may also have adaptive behavioural problems (i.e. they lack the ability to understand the rules in social games and behaviour that is socially accepted) which may manifest in the following: poor impulse control, poor personal boundaries and intrusive behaviour, poor anger management skills, stubbornness, and over-friendliness towards strangers, which could be dangerous; they may have poor daily living skills and they may present with developmental delays (Streissguth & Kanter, 2002).

Learners with FASD often have attention problems such as attention deficit hyperactivity disorder (ADHD). They often have cognition problems which result in slower cognitive processing and they may be unable to focus under pressure, which causes confusion. They could also have poor abstract skills and find it difficult to distinguish between fantasy and reality (Streissguth & Kanter, 2002; Riley & McGee, 2005). These learners may experience problems with their executive functioning skills. They may present with information processing disorders, have problems understanding cause and effect reasoning and for this reason often land in trouble as they do not learn from their mistakes. They have poor judgment skills, poor generalisation ability and experience inconsistencies at linking words to actions (Streissguth & Kanter, 2002; Riley et al., 2003; Riley & McGee, 2005). Learners with FASD may appear to have good verbal skills but their reasoning may lack substance.

They experience language problems, both expressive and receptive. They are able to grasp parts of concepts, but not whole concepts. They have problems understanding metaphors, idioms and sarcasm (Kulp, 2002; Riley & McGee, 2005). Learners with FASD may furthermore experience memory problems such as poor short-term memory, inconsistent memory and knowledge-based memory. They may have problems with their motor skills, such as poor fine and gross motor skills or delayed motor skills (Streissguth & Kanter, 2002; Riley & McGee, 2005).

Sensory integration and soft neurological problems may also be common amongst learners with FASD. For instance, they may experience problems involving visual perceptual skills, or they may find it difficult to perceive patterns. They may demonstrate tactile defensiveness or under-sensitiveness to stimulation. They lack social communication skills, e.g. they will intrude on a conversation. They may present with an inability to read nonverbal or social cues (Streissguth & Kanter, 2002; Riley & McGee, 2005).

### **2.9.1.2 Secondary disabilities**

Secondary disabilities are problems that may occur later in life in individuals with FASD. Secondary disabilities may occur because of negative, unsupportive life experiences imposed on a learner with FASD. This problem may be prevented by early identification, intervention and support of the disability. Streissguth and Kanter (2002) call these “extrinsic factors” and they contend that these disabilities could be modified by the social or institutional environment in which the child is situated at birth. These authors have found that secondary disabilities may result in disrupted schooling (60%), trouble with the law (60%), mental health problems (90%), substance abuse (30%)

inappropriate sexual behaviour (50%), and dependent living, homelessness and problems with employment (80%) (Streissguth & Kanter, 2002).

According to Streissguth and Kanter (2002) children with FAS or full FAS have lower IQ scores than children with FASD. Streissguth and Kanter (2002) also state that children in the lower range of the continuum present with fewer secondary disabilities. The low IQ score of 70 and below acts as a 'protective' factor. Such learners have less disrupted schooling, less trouble with the law, less aggressive behaviour, less confinement and fewer alcohol and drug problems. IQ levels have little relevance to mental health problems or inappropriate sexual behaviour. The IQ level is however a risk factor for dependent living and problems with employment.

Children with FASD who do not have growth deficiencies and facial dysmorphology as seen in full FAS have higher IQ scores (above 70), but usually have more secondary disabilities. According to studies done in the USA they also have less access to support services than those with full FAS even though they have cognitive and adaptive behavioural problems similar to children with FAS (Streissguth, 1997; Streissguth & Kanter, 2002). It is important that appropriate intervention structures be put in place early in life and be maintained throughout the person's life-span to prevent secondary disabilities (Streissguth & Kanter, 2002; O'Malley & Streissguth, 2008).

People with FASD also have a greater need for interaction but lack the social and cognitive skills to establish safe, long-term relationships (Streissguth & Kanter, 2002). They have problems structuring their own lives and understanding cause and effect. This often leads to petty crime, gang involvement, and serious crime (delinquency). Their cognitive abilities are often masked by their superficial verbal abilities (Streissguth & Kanter, 2002; Kulp, 2002). If early interventions and structures are not put in place early in life and maintained across the life-span, many people with FASD

are at high risk from birth, through the adult years, of becoming involved with the illegal activities (Streissguth & Kanter, 2002; Kulp, 2002).

### **2.9.1.3 Protective factors to prevent secondary disabilities**

There are various protective factors that will help prevent secondary disabilities from occurring in learners with FASD. One such protective factor is living in a stable and nurturing home of good quality instead of having to change households frequently, which is often the case with learners placed in foster care. A stable nurturing home provides structure and security and has positive outcomes. In secure households learners with FASD will not be exposed to the negative influence of violence. Having been diagnosed before six years of age and having a diagnosis of FAS instead of FASD is also a protective factor as learners diagnosed with FAS have better access to support services than learners with FASD. Having received developmental disability support or a grant (which rarely happens in SA for learners with FASD) also serves as a protective factor for learners with FASD. Having a lower than 70 IQ score is a protective factor as such learners have less disrupted schooling and trouble with the law (Streissguth, 1997).

Taking the above into consideration we can understand the negative implications for our learners with FASD in SA who mostly come from broken, poverty-stricken homes with none of the protective factors mentioned above.

## **2.10 SUPPORTIVE INTERVENTIONS (COGNITIVE, DEVELOPMENTAL AND BEHAVIOURAL THEORIES)**

There is no cure for FASD, as CNS damage causes permanent disability. It can however be supported and treated with the correct interventions. According to Streissguth and Kanter (2002) traditional medical interventions are frequently used to treat individuals with FASD. Psychoactive drugs are often used for individuals with FASD. Ritalin has been successfully used with learners with FASD who present with ADHD (Streissguth & Kanter, 2002). Individuals with FASD are often diagnosed with overlapping (similar) disorders. FASD presents with multiple disabilities and a multi-modal or multi-disciplinary approach should be used to support learners with FASD.

FASD interferes with normal development, which results in delayed, skipped or immature development. A 'normal' learner can over time negotiate the increasing demands of life by progressing through the stages of development in a normal way. Learners with FASD will not develop in the same way due to CNS damage.

### **2.10.1 The cognitive developmental approach (Piaget)**

Donald et al. (2005 p. 63) state that Piaget "sees people as actively engaged in an ongoing process of adaptation to the world they live in". Piaget believed that this progress happens through three continuously interacting processes: assimilation, when the child acquires new information that can fit into his existing schema; accommodation, which occurs when new information comes into conflict with the child's schema, and equilibrium, which is the continuous process of organisation and dynamic balance.

According to Piaget individuals develop through four stages of cognitive development: the sensorimotor stage, the pre-operational stage, the concrete operational stage, and the formal operational stage. These stages are discussed below.

**The sensorimotor stage** (from birth to about two years)

At this stage of development, schemata are simple and limited to what the infant can explore through his/her body and senses. The sensorimotor experience is that which he/she sees and touches, and his/her actions. Manipulating of objects and actions, and later on words and ideas, are the driving force in cognitive development. The implications for the learner with FASD is that prenatal alcohol exposure interferes with his/her normal development, which results in the child being over-sensitive to stimulation, sights, sounds and touch. Such children often present with tactile defensiveness and will therefore not be eager to touch and explore objects. They are slow to walk and talk. They experience memory problems and visual spatial problems.

**Pre-operational stage** (from about two to seven years)

During this stage of development the schemata are based on perceptual experiences. The child's thinking, imagining and problem-solving skills develop faster because he/she now works with images and symbols. Children with FASD will experience problems in this developmental stage, as prenatal alcohol exposure results in the underdevelopment of the brain which causes slower cognitive processing. These children experience problems with imagination, abstraction, result and consequences, and they lack problem-solving skills. They present with verbal learning problems.

**The concrete operational stage** (from about seven to eleven years)

During this stage of development (middle to late childhood), new ways of thinking at a different level become possible. Children can now think logically, they can conserve, reverse and seriate and they can classify. They can generalise from one situation to another. Learners with FASD experience memory problems, problems with generalisation, and problems with perceiving patterns. They also have poor judgment skills.

**The formal operational stage** (from about eleven years)

From this development stage upwards children engage in more abstract thinking. They are able to think metaphorically and are able to generalise an abstract principle to different situations (Donald et al., 2005). Learners with FASD experience problems with information processing and with abstract thinking, they cannot generalise (cause and effect), and they have problems understanding metaphors, idioms and sarcasm. They are unable to read nonverbal or social cues (Riley & McGee, 2005; Riley et al., 2003).

Learners with FASD experience substantial developmental delays. If educators know the developmental stage a learner is at and what tasks he/she has to follow, interventions can be geared towards helping the learner reach developmental tasks and demands successfully. If a learner is delayed in adaptive behaviour, interventions can be directed towards solving specific delays through additional education and practices, for example making accommodations and giving reminders to support the desired functioning level. This approach takes the learner's developmental context into account while also developing interventions (Malbin, 2002).

Central nervous system (CNS) damage, together with secondary disabilities, can become problematic for learners with FASD in the classroom as well as at home. In SA, however, the majority of these learners come from unstable, poverty-stricken homes with little nurturing, which lack parental skills due to low socio-economic status or educational levels. In many instances the parents are victims of FASD themselves. The few learners placed in foster care often end up in the same dysfunctional communities. In some instances, the only stable structural influence in the learner's life is the school (Malbin, 2002; Streissguth & Kanter, 2002; Donald et al., 2005).

### **2.10.2 Behavioural interventions**

Behavioural approaches that assist FASD learners in developing more appropriate ways of expressing their needs or feelings may help to improve their behaviour, especially immature attention-seeking behaviour (Conner & Streissguth, 1996). Behaviour modification techniques, especially positive reinforcement, may work with some children. For example, each time a child takes the time to think before responding to a comment, the educator could make a note of the positive behaviour. A chart with stars could be used each time the child is successful (Streissguth & Kanter, 2002).

### **2.10.3 Cognitive interventions**

In a pilot study done in (2002) amongst SA learners with FASD Adnams, Rossouw, Perold, Koditwakhu and Kalberg (2002, cited in Riley et al., 2003) used cognitive control therapy (CCT) with significant success.



The aim of CCT is to teach learners with FASD how to think, so that they can learn through self-observation and self-regulation. In learners with FASD, self-regulation has been impaired by prenatal exposure to alcohol. In this regard Adnams et al. (2002, cited in Riley et al., 2003 p. 364-366) state that “CCT addresses dysfunctional learning processes identified by the administration of the Cognitive Control Assessment Battery. Cognitive Control Assessment battery and CCT are culturally fair and user friendly for children.” According to previous research results, CCT interventions can improve the adaptive learning skills of children with cognitive impairments and learning difficulties. The use of CCT interventions have been successful in SA in a range of settings and have proven to be an effective, culturally appropriate intervention for both English- and Afrikaans-speaking primary school learners with neurological and learning disabilities.

The results of this pilot study showed qualitative changes in the intervention group, which means that all the learners showed a trend towards functionality. In the intervention group the therapist noted qualitative improvement in the learners’ self-efficacy, motivation, cooperation, self-confidence and self-activity (Adnams et al., 2002, cited in Riley et al., 2003).

#### **2.10.4 Speech therapy**

In another pilot study, also conducted by Adnams, Sorour, Kalberg, Kodituwakku, Perold, Kotze, September, Castle, Gossage & May (2007), the efficacy of classroom language and literacy intervention in learners with FASD in the Western Cape was investigated. This study formed part of a larger study which included metacognitive and family support interventions. For this study, 65 nine-year-olds who were identified as learners with FASD and others not prenatally exposed to alcohol were randomly assigned to either the language and literacy training (LLT) intervention group or the

FASD control group. Twenty-five non-alcohol-exposed controls (NONEXP-C) were randomly selected as non-exposed controls.

In the initial diagnosis, and before the interventions, participants with FASD were significantly weaker than NONEXP-C learners in reading, spelling, addition, subtraction, phonological awareness and other tests of early literacy. Results of this pilot study revealed significant improvement in the LLT intervention group compared to the FASD-C group in specific categories of language and early literacy (Adnams et al., 2007).

#### **2.10.5 The neurobehavioural approach**

The neurobehavioural approach focuses on the neurological deficits from which behaviours and cognitive processes arise. According to Malbin (2002) this approach is an integrative perspective that acknowledges and encourages a multi-modal array of treatment and interventions that draw from all FASD treatment approaches. This approach tries to shift single-perspective treatment approaches into a new, coherent paradigm that will be able to address the complexities of problem behaviours and cognitions resulting from CNS damage as a direct consequence of FASD.

According to Malbin (2002) the emphasis of the neurobehavioural approach is on “trying differently rather than harder”. This approach tries different perspectives and interventions based on the effects of the CNS damage and the particular needs of the learner rather than on trying harder to implement behaviour-based interventions. It is a strength-based approach which develops positive outcomes. According to Malbin (2002) parents and teachers tend to try harder rather than to use good techniques in order to change behaviour. The behaviour of learners with FASD changes as a function

of change in the environment. Some of the objectives of this approach are to be able establish relationships that accept that the person has an invisible physical disability, and to evaluate the environment in order to fit, adapt and modify the environment to maximise potential. One should ask 'what if' questions and continue to explore.

Climates should be structured rather than controlled to minimise power struggles. Structure is safe, it is conducive to creating respect and it invites participation and the development of solutions. Educators are advised to recognise the learner's actual potential. They should observe patterns, as there might be a delayed reaction from the time of a stressor and the acting-out behaviour – it may be linked to something that happened earlier on. Thinking should be shifted from 'will not do' to 'cannot do'. Tasks should be broken into small steps. The person should be included in the problem-solving process. Educators should keep tasks concrete, specific and simple and they should consider the learner's neurological potential (Malbin, 2002).

### **2.10.6 The Advocacy Model**

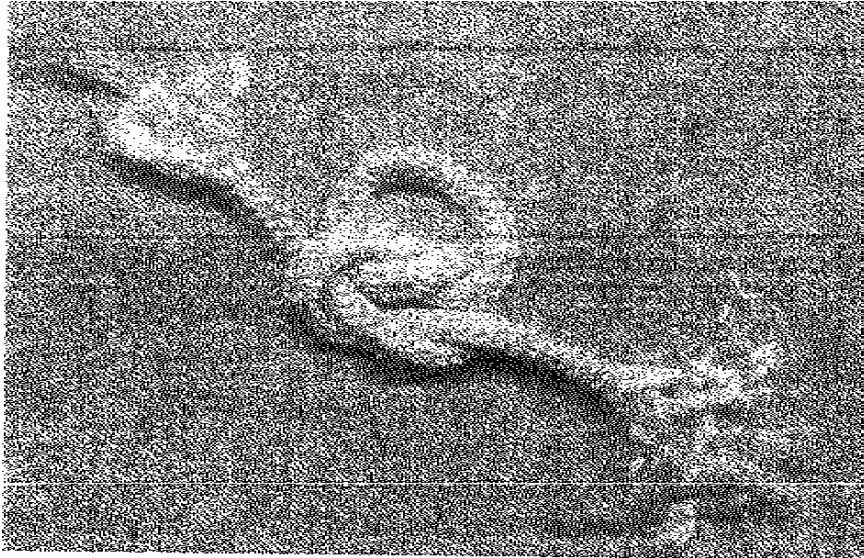
According to this model someone is needed to actively mediate between (or act on behalf of) the environment and the person with FASD. The advocacy can be conducted by a family member, friend or case manager. This model is divided into three basic categories:

- (1) An advocate of FASD will interpret FASD and the disability which arises from it and explain it to the environment in which the learner operates.
- (2) An advocate will promote change or accommodation on behalf of the learner.
- (3) An advocate will assist the learner with FASD to reach and develop attainable goals.

This model is a good tool to use when developing an Individualised Education Program (IEP), which is essential when educating these learners because of their diverse learning needs. An IEP/ISP is an individualised education programme that is devised to fit the particular needs of a specific learner with FASD. The IEP/ISP will be drawn up from the learner's strengths and needs and will make adjustments and accommodations to lend support to a particular learner whose needs can be very different from the next learner with learning difficulties in the same class (Streissguth & Kanter, 2002; Wilton & Plane, 2006).

The Developmental Framework informs and enhances the Advocacy Model. The Advocacy Model applies interventions at a systems level to educate schools, social workers and communities, amongst others, on best practices for FASD. An advocate speaks for those persons who cannot speak or negotiate for themselves. It is also a form of protection for the person with barriers to learning (Streissguth & Kanter, 2002; Wilton & Plane, 2006).

**The cord in Figure 2.5 represents the umbilical cord, the spinal cord and the nervous system. The circle formed by the knot symbolises the womb, a baby's head, the brain, the earth. The knot represents the people who care in the world. The cord is the awareness symbol for FASD and is related to the advocacy model (Adnams, de Jong, du Plessis, Jurgens, Marais, Moletsane and Olivier, 2003).**



**Figure 2.5: Symbol representing FASD (Adnams et al., 2003).**

#### **2.10.7 Public health and policy**

To prevent FASD from occurring it is advised that the condition should be treated at public health and policy level. At this level it is related to the Advocacy Model but promoted at a different systems level by developing community education support in schools, churches, NGOs, advertisements, clinics (contraceptive; prenatal and post-natal care), shopping centres, chemists and national awareness programmes. Warning labels should be placed on all alcoholic beverage containers to warn consumers of the dangers associated with prenatal alcohol consumption. South Africa falls far short where prevention strategies are concerned (Connor & Streissguth, 1996; May et al., 2005).

#### **2.11 REFLECTION AND CONCLUSION**

The literature review in this study gives a broad overview of the multifaceted effects of FASD. It has also made me immensely aware of the great impact this disorder has on

the population at large as a result of maternal prenatal alcohol consumption. Through doing the research, I became aware of the large amount of research done and information available on FASD in first world countries (Streissguth & Kanter, 2002). According to published research there are substantial prevention programmes available in first world countries where FASD prevalence is significantly lower than in South Africa (May et al., 2005). I realised how much work has to be done in South Africa to inform, support and educate parents and potential parents of the dangers of alcohol consumption before and during pregnancy.

Low socio-economic communities that may be affected by FASD seem to be caught up in poverty with the majority either working in low-paid menial jobs or unemployed. These poor communities also have a higher dropout rate at school. State advocacy and legislation should be put in place to prevent the cause of FASD. Destigmatisation of FASD by the medical and educational fraternity will help the unborn child. The problem should be addressed honestly and directly. Support structures need to be put in place at medical and educational level, to support both mother and child in an attempt to bring about better outcomes for future generations.

Chapter 3 will focus on the research design and methodology of the current study.

## **CHAPTER 3**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 INTRODUCTION**

In this chapter I will discuss the research design that I have used as a framework for the research. The research design used took the form of a strategic framework for action. It served as a bridge between the research question and the execution or implementation of the research (Terre Blanche et al., 2006). The research design therefore plans and guides the conditions for the collection and analysis of data. It is the designed and planned nature of the observation that allows for empirical evidence which distinguishes research from other everyday forms of observation (Babbie & Mouton, 2001; Terre Blanche et al., 2006).

#### **3.2 THE RESEARCH QUESTIONS**

The research questions that directed this study were:

What is educators' knowledge of learners with FASD?

What are educators' attitudes towards learners with FASD?

Are educators able to identify the needs of learners with FASD and to what extent are educators able to support learners with FASD?

My aim with this research was to apprehend and convey as full a picture as possible of the nature of a multifaceted reality, in this case educators' knowledge of and attitudes towards learners with FASD.

I was interested in understanding what educators' experiences and attitudes are towards these learners, and whether educators are able to support and identify learners with FASD. Understanding and insight into educators' experiences with regard to FASD might lead to better support structures for both educators and learners. This is very necessary in a country like South Africa, which has the highest percentage of FASD in the world.

### **3.3 RESEARCH PARADIGM**

I shall now explain the paradigm from which I approached this research. According to Mertens (2005, p. 7) "a paradigm is a way of looking at the world". I worked from the interpretive constructivist paradigm, which asserts that participants "make meaning" of a situation or phenomenon. This meaning is mediated through the researcher as instrument, the strategy is inductive and the outcomes descriptive (Merriam & Associates, 2002, p. 5).

Through using an interpretive paradigm the researcher takes the participants' subjective experiences seriously as the essence of what is real for them. Furthermore, the researcher attempts to make sense of their experiences by interacting with them (creating meaning) and listening carefully to what they are saying. In conducting a qualitative research study, we seek to understand the worldviews of the people



involved (i.e. the participants) (Merriam & Associates, 2002; Ritchie & Lewis, 2003; Mertens, 2005).

To know about the world empirically we need to be objective and neutral in the collection, interpretation and presentation of qualitative data. Interpretivism is reflected through the understanding of people's perspectives in the context of their lives. Through qualitative research we therefore seek to obtain a "thick description", that is, as much detailed information as possible about the participants' experiences (Merriam & Associates, 2002, p. 15; Ritchie & Lewis, 2003; Mertens, 2005).

According to Lincoln and Guba, (2002, cited in Mertens, 2005), there are three concepts which help define a paradigm. These are ontology, epistemology and methodology. These concepts are briefly explicated below.

**Ontology** - The questions that are asked are, "What is the nature of reality (the social world)?" and "What do we know about that reality?"

Constructivists believe that there are multiple, socially constructed realities.

**Epistemology** - When dealing with this concept, we ask the questions, "What is the nature of our knowledge?" and "How can we acquire that knowledge?"

Constructivists believe that there is an interactive link between researcher and participants, that values are made explicit, and that findings are created through the research process.

**Methodology** - The question asked in relation to this concept is, "How can the knower obtain the desired knowledge and understanding?"

Constructivists believe that research is primarily qualitative, hermeneutical, dialectical and only contextual factors are described (Babbie & Mouton, 2001; Ritchie & Lewis, 2003; Mertens, 2005).

According to the ontological position (or what it is we want to know about the world) we accept that the social world exists independently of individual subjective understanding (subtle realism) and that it is only accessible via the respondents' (in this case the educators') interpretation, which may be further interpreted by the researcher (Ritchie & Lewis, 2003). We also realise that different respondents will have different vantage points which will result in different types of understanding. This diverse and multifaceted external reality in turn will add richness to our understanding of various ways in which reality can be experienced (Ritchie & Lewis, 2003; Mertens, 2005; Terre Blanche et al., 2006).

### **3.4 METHODOLOGY**

Qualitative methods are mostly used in research that is designed to provide an in-depth description of a specific setting (Mertens, 2005). Mertens (2005) defines qualitative research as a constructed activity which places the observer in the world which he wishes to investigate. Qualitative research makes use of a set of interpretive, material practices that make the world visible to the observer or researcher. These practices then transform the world.

Qualitative researchers therefore study phenomena in their natural settings, to make sense of, or to interpret, phenomena in terms of the meaning people bring to them (Mertens, 2005; Terre Blanche et al., 2006). An inductive approach is mainly used in qualitative research, which allows the researcher to make "sense of a situation without

imposing pre-existing expectations on the phenomena being investigated” (Mertens, 2005, p.15).

### **3.5 RESEARCH METHODS**

By making the world visible, qualitative researchers make use of a series of representations such as field notes, interviews, conversations and recordings. Qualitative research involves the studied use and collection of a variety of empirical materials (data) that describe the problematic moments in participants’ lives (Mertens, 2005; Terre Blanche et al., 2006).

#### **3.5.1 Sampling**

Merriam and Associates (2002) state that a specific sample is selected to yield or provide the most information about a phenomenon of interest. In this study, a purposeful sampling strategy was used so that I would be able to choose cases that are typical of the population, in these instance educators who teach learners with FASD (Merriam & Associates, 2002; Terre Blanche et al., 2006).

#### **3.5.2 Data collection**

The empirical methods that I used to collect data were the following: semi-structured interviews, observation in the classroom (passive participation), focus groups and field notes. I also kept a research journal.

### 3.5.2.1 Semi-structured interviews

Semi-structured interviews were conducted with the participants on the basis of a loose structure consisting of open-ended questions. This defined the research area to be explored and encouraged participants to respond. I diverged from this in order to pursue the research topic in more detail by using an interview schedule (a list of key topics and subtopics). Data was collected through audio-tape recordings, transcriptions and field notes (Merriam & Associates, 2002; Terre Blanche et al., 2006).

As interviews form an integral part of qualitative research and hold the most important and most informative data to be collected in the research process, the interviews were carefully planned and constructed before implementation (Babbie & Mouton, 2001). Open-ended questions and interview schedules are attached as addenda (see **Addenda E; F and G**).

The central purpose of the interviews was to engage in dialogue with the participants to elicit their knowledge of FASD, their views and experiences, and their feelings and emotions towards the teaching of learners with FASD (Merriam & Associates, 2002). Merriam and Associates (2002, p. 272) describe interviewing as “a conversation with a specific purpose between the researcher and the participant focusing on the self, and life experiences expressed in the participants’ words”. Through the interviews the researcher gains access to and understands the “private interpretations and reality that individuals hold” (Merriam & Associates, 2002, p.272).

I made sure to present myself in a non-threatening manner to make the educators feel at ease and become aware of the empathetic understanding I have for both the educator and the learner, especially when considering the unfavourable circumstances in which

both the educator and the learner situated in low socio-economic schools in SA find themselves. To ensure that participants felt at ease and to make sure they would open up during the interviews I used the metaphor as suggested by Kvale (1996, cited in Babbie & Mouton, 2001) of the interviewer as a minor. This method assumes that the participants possess information which I, as the researcher, wish to acquire. By probing for answers and being a good listener who is more interested than interesting, I tried to obtain the answers to the questions during the interviews.

### **3.5.2.2 Observations**

An interpretive constructivist approach emphasises studying phenomena in a natural setting (Terre Blanche et al., 2006). Through observation, the researcher can observe participants' behaviour in a natural setting. Observational data collection allows the researcher to have first-hand experiences of the phenomena being studied, rather than second-hand as in the case of interviews (Merriam & Associates, 2002; Mertens, 2005).

I used passive participation which means that I only observed in classrooms, but did not interact with the learners or educators to allow as little disturbance as possible in the natural classroom situation (Mertens, 2005). Primarily, educators' interaction with learners with FASD was observed as well as these learner's behaviour and interaction with their educators and their peers. The above-mentioned interaction between educators and learners shed some light on the attitudes of educators toward learners.

As no formal diagnosis was available to identify learners as learners with FASD, I used informal selection criteria based on past referrals by educators for IQ assessments of learners with learning disabilities for referrals to special schools. Possible identification was also based on a history of prenatal alcohol consumption, growth deficiency, facial

anomalies and central nervous system dysfunction. No learner was ever labelled as a learner with FASD. I worked on an assumption which was directed by the large number of learners experiencing learning problems and the multiple requests for special school placements. Where it was possible, I selected specific subjects, such as mathematics and reading, as FASD learners experience substantial learning problems in these subjects (Streissguth & Kanter, 2002; Duquette et al., 2006). Approximately one subject period was spent per phase.

Field notes were recorded throughout the observation, both empirical observations (what you know has happened) as well as the interpretations (what you think has happened). Educators were informed beforehand about the observation (during the planning of the research) and the reason for the observation (Ritchie & Lewis, 2003). Particular attention was given to major types of observable data as mentioned below (Babbie & Mouton, 2001).

The exterior physical signs of the schools were observed (the classroom setting, number of learners in the class, physical appearance of learners and the school) to get an idea of the socio-economic status of the school and the learners. Furthermore, expressive movement (bodily movements, posture), learners' behaviour and movement in class were observed to determine whether such movement was unnaturally active or passive. Observation of how the learners were responding to the teaching and learning process in the classroom was also necessary. The physical location (the setting observed, personal space) of the school and the community in which the school is located was observed. Learners' language usage, both expressive and receptive, and their behaviour in general in the classroom were observed. Learners' interaction with their peers and the educator were observed, i.e. how learners responded and interacted in the classroom. Learners' ability to concentrate during lesson time was also observed.

### 3.5.2.3 Advantages of observation

Observation forces the researcher or observer to familiarise him/herself with the subject instead of interpreting second-hand information as with interviews. The researcher is involved in the natural setting. This makes the researcher aware of previously unnoticed aspects as he/she will focus on specific observations. As actions speak louder than words, observing these aspects is valuable as it provides a personal account of what is being observed. Observation can be unobtrusive and when it is, the subjects take little or no notice of the observer (Babbie & Mouton, 2001).

A negative aspect of observation is that the presence of the observer might influence or change participants' behaviour. Learners could stare and refuse to take part in front of a stranger or they may act up and become attention seeking. Participants may become more respectable or modify their speech and behaviour and the social interaction process itself might change. The researcher should be aware of this possibility, as it is inevitable. What the observer does or does not do may have an important effect on what happens. Sensitivity to this effect is important. During the observation I made allowances for the influence my presence might have. I sat as passively and unobtrusively as possible to allow the participants to relax as far as possible but knowing that my presence could have an influence on the outcome (Babbie & Mouton, 2001).

### 3.5.2.4 Focus groups

The focus group discussion took the form of a guided discussion initially with five to seven semi-structured questions to ensure coverage of important data, but it also allowed some flexibility to respond to group-initiated concerns. The participants who could attend formed part of the focus group discussion. Participants were informed beforehand what was required of them in terms of the content and the process of the group, as well as the amount of time required.

The focus group discussion was used to generate data and insight. It was also used to increase dependability and reliability of the study, which formed part of the multiple methods used in triangulation. Data was generated through interaction between group participants. They presented their own views and experiences but they also listened to what other members had to say. In the process, they listened, reflected and considered their own standpoint. This resulted in additional material being processed in response to what they had heard. Participants asked questions, they sought clarification and commented on what they had heard, which prompted others to reveal more (Ritchie & Lewis, 2003; Mertens, 2005).

Four basic components of focus group interviews, namely procedure, interaction, content and recording, were used (Terre Blanche, et al., 2006), as discussed below.

#### **Procedure**

Procedure refers to the ground rules that give structure to and set the limits of the group process. Ground rules, such as giving everyone a chance to speak, respecting the views of others and respecting the sensitivity of the subject, were set.



**Interaction**

The researcher had to be aware of the personal and interpersonal dynamics of the group situation, e.g. marginalisation of people, avoidance of particular topics (FASD can be a very personal and sensitive topic). Icebreakers were used to bring about lively participation.

**Content**

This refers to the interview at hand in the form of initial structured questions to give direction for the focus group discussion.

**Recording**

The focus group discussion was recorded by taking field notes. Educators were encouraged to share their unique experiences and commonalities in the education of learners manifesting with FASD and also to gain knowledge of and insight into unknown territory exposed during the discussions.

**3.6 DATA ANALYSIS**

Qualitative data analysis is the process or procedures researchers use to make sense of or explain the data they collected during the research process. Qualitative data analysis is based on an interpretative philosophy. By doing qualitative data analysis, researchers examine the symbolic and meaningful content of the data. For good interpretive analysis one needs to stay close to one's data to interpret it from a position of empathic understanding. According to Greetz (cited in Terre Blanche et al., 2006, p.

321), the purpose of interpretive analysis is to provide a “thick description”, which means a thorough description of the “characteristic process, transaction and context that constitutes the phenomenon” being studied and described in rich language familiar to the phenomenon.

A qualitative research perspective implies making the “strange familiar and the familiar strange” (Terre Blanche et al., 2006, p. 321). Interpretive analysis is a back and forth movement between what one knows and what one wishes to know, “description and interpretation, foreground and background, part and whole, to achieve a compelling account of the phenomenon being studied” (Terre Blanche et al., 2006, p. 321).

The researcher must stay close enough to context so that people familiar to the context can recognise it as true, but far enough to see the phenomenon in a new perspective (Merriam & Associates, 2002; Terre Blanche et al., 2006).

### **3.6.1 Familiarisation and immersion**

Interpretive research, being analysed as it develops, implies that when one reaches the data analysis stage one already has a preliminary understanding of the meaning of one’s data. During data analysis the researcher immerses him/herself again in all the material, this time working with the text, field notes and interview transcriptions. By that stage the researcher should know his/her data well enough to know what kinds of things could be found there as well as what interpretation could be drawn and what could be supported by the data and what not (Mertens, 2005; Terre Blanche, et al., 2006). For this research, I read through my texts many times, made notes, drew diagrams and brainstormed.

### **3.6.2 Coding into themes**

Coding is used to divide data into themes. When coding, the researcher identifies passages of text or meaningful phenomena by applying labels to them to indicate that they are examples of some thematic idea. For this research I used coding, and I identified themes and patterns that emerged from the data. The method was inductive, and the process at that stage was to reduce and analyse data. The data was reduced into key themes (Babbie & Mouton, 2001; Merriam & Associates, 2002; Terre Blanche et al., 2006).

### **3.6.3 Inducing themes**

I identified themes and used my interview language to label my categories (Terre Blanche et al., 2006). I made use of the constant comparative method (CCM) to induce themes. According to Merriam and Associates (2002), CCM involves continually comparing one unit of data with another in order to devise conceptual elements of the theory. These authors say that units of data which the researcher sees as meaningful are compared with each other to generate tentative categories and properties. By constantly comparing incident with incident and incidents with emerging conceptual categories and by reducing similar categories into smaller numbers of highly conceptual categories, a framework of substantive theory develops. I used this approach to analyse the data gathered during the research. I worked with themes which emerged from the data and then constantly compared them to each of the other themes that emerged from the data. Lastly, I isolated the themes and placed them into collective patterns because they were repeated in each of the data-gathering processes.

### **3.6.4 Elaboration**

Elaboration means exploring themes more closely by going over the data, field notes and transcripts several times, bearing in mind that fresh ideas may emerge which will revise the coding system. Terre Blanche et al. (2006, p. 326) point out that “the purpose is to capture the finer nuances of meaning” not captured before. By changing and playing around with one’s data a thorough analysis may be attained.

### **3.6.5 Interpretation and checking**

The interpretation of the results is the final written account of the research study.

## **3.7 QUALITY ASSURANCE**

According to Merriam and Associates (2002 p. 22) “All researchers aspire to produce valid and reliable knowledge in an ethical manner.” In these instances both the producer as well as the consumer of the research want to be certain that the research findings can be trusted. The following strategies were used to confirm internal validity by making use of multiple methods to confirm the findings (Merriam and Associates, 2002).

### 3.8 TRIANGULATION

By making use of triangulation the researcher collects data in many different ways and from many diverse sources. Triangulation allows the researcher to inspect the phenomenon from different angles thereby providing a better and clearer understanding (Terre Blanche et al., 2006). In this study I made use of methodological triangulation, which means that I used multiple methods to study the phenomenon. The methods that I used were interviewing, observation and focus group interviews or discussions, as well as a research journal.

Merriam and Associates (2002) state that triangulation ensures internal validity of the study. It allows for corroboration of the data, i.e. what the researcher hears in an interview can be confirmed or checked against his/her observations in the field or from the focus group discussions. Triangulation in qualitative research also ensures consistency and dependability or reliability.

Triangulation also elicits the various constructions of reality (different realities) which exist in a study by making use of different methods. It allows for a “thick description” which in this case was important in understanding educators’ knowledge of and attitudes toward learners manifesting with FASD (Babbie & Mouton, 2001).

### 3.9 MEMBER CHECKS

Member checks or member validation is mostly associated with qualitative research. It occurs when data, analytic categories, interpretations and conclusions are tested by the research participants from whom the data was originally obtained.

Member checks are an important technique to establish credibility. As the research progresses the researcher has to verify with members or participants whether they agree with the construction that is developing as a result of data collected and analysed. This gives the participants an opportunity to comment critically on the analysis while allowing the researcher to verify data collected (Merriam & Associates, 2002; Terre Blanche et al., 2006). Member checks can be done formally and informally. By discussing data collected with members, they can clarify their perspective and present their viewpoint more accurately (Mertens, 2005; Terre Blanche et al., 2006).

After the interviews I went over my transcripts with the participants to corroborate and critically analyse the data collected. In instances where participants were unsure these issues were again discussed and clarified from the participants' perspective. It also gave me a chance to clarify and elaborate on issues pertaining to the data of which I needed more detail or clarity (Merriam & Associates, 2002; Mertens, 2005).

The positive aspect of member checking is that it gives participants an opportunity to correct errors and to correct what is perceived as wrong interpretations. Member checking thus provides an opportunity to acquire additional information which was brought about by the repeat process. It also allows for preliminary findings to be summarised (Mouton & Babbie, 2001; Merriam & Associates, 2002).

Shortcomings of member checking according to an interpretive research perspective are that interpretive understanding in qualitative research is co-created (multiple realities) and that there is no objective truth or reality to which the research results can be compared (Terre Blanche et al., 2006; Mertens, 2005).

### **3.10 THE RESEARCH JOURNAL**

Qualitative research emphasises the importance of researchers reflecting on their own values, assumptions, beliefs and biases and monitoring these as the research progresses. A good way to do this is to keep a research journal where the researcher monitors (writes down) what he/she feels, hears and how he/she interprets as the research progresses. In addition, it monitors the reflections, doubts and contradictions that might be experienced during the research process (Mertens, 2005; Terre Blanche et al., 2006).

A research journal or analytic diary is used as part of the audit trail. At all stages of the research process, the audit trail describe in detail what is done and why it is done, such as initial concerns and how these have changed. The research journal should continue until the research is finalised. It is advised that a section of the journal be included in the report to give the reader an idea of the direction followed towards the final resolution of the report. What is written in a journal does not only make a statement, but it reveals the statement's perspective (interpretive framework) (Terre Blanche et al., 2006).

Merriam and Associates (2002, p. 21) state that an "audit trail or a transparency of method" is one of the strategies used to enhance the study's reliability. It ensures

confirmability. The amount of detail and transparency of the methodology adds value to the study (Babbie & Mouton, 2001).

I kept a research journal throughout while conducting the research. The journal contained detailed writings of my reflections, questions, decisions, problems, issues and ideas encountered during the data collection process. This detailed journal keeping gave me an overview of how I obtained the interpretations of the results. The journal also forced me to make quality checks as I went over and over my recordings. The latter resulted in reflexivity as I considered the nature of my involvement in the research process, as well as the questions and assumptions I had made throughout the research process and the way these might have shaped the outcome. I also reflected on my personal feelings and biases for and against FASD. As a researcher I therefore sought to remain neutral at all times and to listen to the world as it unfolds through the eyes of the participants. I strived to keep an open mind as an observer, recorder and investigator to reach my findings (Merriam & Associates, 2002).

### **3.11 THE POSITION OF THE RESEARCHER**

In qualitative research the researcher is the instrument for collecting data. The researcher decides which questions to ask, what to observe and what to write down. The researcher therefore brings certain values, assumptions, beliefs and biases to the study (Mertens, 2005).

Mertens, (2005) rejects the unbiased notion as proposed by the objective scientific research stance. She says that the researcher's own status (e.g. race and gender) influences the shaping of knowledge. She advises that the researcher develop more



“inclusive ways” to discover the multiple views of the participants by assuming more personally interactive roles.

Researchers should therefore be aware that their position could influence the research process. They should reflect on their own values, beliefs and biases and constantly monitor these as the study develops to be able to determine their own impact on the study (Mertens, 2005). My role as a researcher in this study carried a considerable amount of responsibility in exploring educators’ knowledge of and attitude towards learners with FASD. I had to interpret, explain and bring to light through the research what knowledge educators have about FASD, how they feel about teaching these learners, their experiences, frustrations, hopes, shortcomings and problems as well as the difficulties educators and learners have to face on a daily basis. My role as an education specialist supporting learners (mostly those with special needs) and educators in low socio-economic schools (predominantly coloured schools in the Western Cape) and special schools, together with my social responsibility, influenced my choice of research topic.

My role in this research was that of a hearing, empathetic fellow educator, who is aware of the difficulties faced by educators and learners but who would like to learn more about their knowledge of and experiences and attitude to the teaching of learners with FASD.

### **3.12 ETHICS**

Ethical guidelines are needed in research to guard against possible harmful effects of the research.

The National Commission for the Protection of Human Subjects in Biomedical and Behavioural Research (1978) identified three ethical principles and norms that should guide scientific research (Mertens, 2005). These principles, beneficence, respect and justice, are discussed in the sections below.

### **3.12.1 Beneficence**

Research should be beneficial to participants, science and humanity as a whole. Researchers should avoid unnecessary risks which could be harmful to participants.

In my research, the names of all the schools and participants were kept confidential. No learner was part of the research process. None of the learners were labelled or discussed. Educators had the opportunity to exchange ideas with educators from other schools. They could share experiences and discuss similar problems with colleagues who were part of the research process. They could also ask questions to obtain clarity.

It is hoped that this research will contribute to the training of educators thereby enhancing their skills so that they will obtain better insight into the world of the learner with FASD. This research will hopefully bring about better support and understanding for learners with FASD in mainstream education.

### **3.12.2 Respect**

Researchers should treat all people with dignity and respect. This includes vulnerable people, small children and children with mental disabilities. No learners or any of their family members were part of the research process. They were therefore not exposed or

labelled. All participants were informed beforehand about what the research would entail. All the participants participated in the research process voluntarily. Schools, as well as individual participants, could refuse or with-draw at any time during the research.

### **3.12.3 Justice**

Researchers should ensure that the ones who are put at risk (participants) in the research are the ones who will benefit from the research. Researchers should make sure that the procedures they use in the research process are responsible and non-exploitive, that they are carefully considered and fairly administered (Mertens, 2005; Terre Blanche et al., 2006).

Ethical research principles require a commitment that will last throughout the research process and thereafter. The interests of all parties involved in the research should be upheld. Participants in qualitative research have the right to the same protection and respect as those in quantitative research (Mertens, 2005).

In my research, I adhered to certain ethical principles. Anonymity and confidentiality of all participants and schools were ensured at all times. No learners were directly involved in the research process. None of their names were mentioned in the research report or any discussion or article that might emanate from it in future. Informed, written consent was obtained from participants (educators) and school managers (see Addenda B & C). Written permission was obtained from the Western Cape Education Department to do research (see Addendum A). Participation in the research was totally voluntary; participants could decline or withdraw whenever they wanted to.

### 3.13 THE RESEARCH PROCESS

In qualitative research the researcher works inductively, which according to Terre Blanche et al, (2006, p. 43) implies an:

“immersion in the details and specifics of the data to discover important categories, dimensions and interrelationships; this begins by exploring genuinely open questions rather than testing theoretically derived hypothesis.”

In qualitative research, researchers are mostly concerned with the process rather than the outcome. This research process is therefore more descriptive and represents meaning and understanding of the data.

#### 3.13.1 Background of the participants

The participants were from three study sites: School A, School B and School C. Two of these schools are situated on the Cape Flats and one outside Cape Town, on the West Coast. Three educators from each school were selected, i.e. one educator per educational phase: foundation, intermediate and senior phase. The nine participants were all female educators: eight ‘coloured’ and one black participant who had been purposively identified and selected to be part of the interpretive constructivist study.

These educators and schools had to adhere to the following criteria: They had to be educators at a predominantly ‘coloured’ school of the former House of Representatives; the school had to be situated in a previously disadvantaged community and had to be in a socio-economically deprived area; there should also be possible learners with FASD

(taking into consideration the criteria for diagnosis). No formal diagnosis (by a clinician) was available at any of the schools in which the research was done. In the absence of formal diagnosis then, the diagnostic criteria that were used for possible identification of learners with FASD were: knowledge of maternal alcohol consumption during pregnancy, i.e. confirmed maternal alcohol exposure; evidence of a characteristic pattern of facial anomalies; evidence of growth retardation; evidence of central nervous system neurodevelopmental abnormalities, for example developmental delay, behavioural problems and learning disabilities. No formal diagnoses were made during the research process as no learners were directly involved and no clinicians formed part of the research process. Assumptions were based on the number of learners presenting with learning and behavioural problems at these schools, knowledge of the poor socio-economic conditions in the areas where the schools were situated, the large number of shebeens found in these areas and knowledge of maternal alcohol abuse.

At that stage I had been working at these schools for more than a year, where I had been responsible for educator, learner and parental support. I had also done a substantial number of IQ assessments at the schools for referrals and placements to special schools. I had developed a good working and supportive relationship with educators, learners and parents. I had no problem in selecting the participants as I had gained insight into and empathy for the educational conditions and situations at these schools.

After I had identified the schools, I discussed the research process with the learning support educators at the schools, as I had been working closely with them. With their help I decided to use the educators who had the most possible FASD learners in their classes, considering past referrals from educators for learner IQ assessments and

referrals to special schools. I then informed the respective school managers about the research and asked for their consent. I also explained the entire research process and purpose to them, and they gave their written informed consent.

I arranged with the help of the principals and the learning support educators at the schools for an initial individual interview with each of the identified educators. It was arranged that the interviews would take place after school. During these interviews I explained the research process and purpose of the study. All the identified educators agreed to take part in the research and gave their consent. I then made arrangements with each of them for a time, date and place that were convenient to them for the research to be conducted. I also discussed and explained the classroom observations and focus group discussions. Dates were set for the observations as well as the focus group discussions.

On the appointed dates each of the educators was given the consent forms to read and I again explained it to them in a language of their choice, which was either English or Afrikaans. They were given the opportunity to ask questions to ensure that they understood what was expected from them during the data gathering process as it was an integral part of the research. On the allocated dates I returned to the schools to conduct the interviews at the different schools. The interviews took the form of in-depth open-ended and semi-structured interviews. An interview guide was used (see Addenda D & E). The interviews were tape-recorded with the permission of the participants, and field notes were taken. These interviews were transcribed verbatim to compare with the field notes taken during the interviews to ensure that no important data had been lost. The interviews were conducted in both English and Afrikaans.

Observation of the schools and communities in which the research was conducted was done throughout the research process. Passive participant observation was done during the course of the interviews as well as during the visits to the different schools. I kept a detailed research journal, both before and during the research process as part of the audit trail to enhance the reliability of the study and to add value to the study. This research journal contained writings regarding my experiences, reflections, contradictions, questions, decisions, problems, issues and ideas encountered during the data collection process (Babbie & Mouton, 2001; Merriam & Associates; 2002; Terre Blanche et al., 2006).

Focus group discussions were conducted with only two of the three schools, i.e. A and B on the Cape Flats. Educators from school C, which is situated further away, were not available due to practical and financial constraints such as distance, transport and fuel expenses. Participants were informed beforehand what was expected of them in terms of content, process and time (Terre Blanche et al., 2006). The focus group discussions were conducted after school at School B.

Data was analysed throughout the study, as suggested by Merriam (2001). Preliminary analysis was done after each interview and observation. Data was coded and recoded according to the constant comparative method until themes emerged. Member checks were also done at this time with a few of the participants to increase the dependability of the findings (Merriam, 2001). As I did not conduct all the interviews and observations at the schools at the same time, but moved between schools due to availability of time after school, I could conduct member checks where needed when I returned to the schools, to make corrections and to clarify omissions and contradictions. I wanted to ensure that I was accurately portraying educators' knowledge of and attitude towards learners with FASD.

### 3.13 REFLECTION

This chapter concentrated on the research design which consisted of the research paradigm, research methodology and the purpose of the study. The interpretive constructivist research design used in this study focused on educators' knowledge of and attitude towards learners with FASD.

The research framework guided and gave direction to the research process. It also guided me as the instrument for data collection as I explored the worldview of educators teaching learners with FASD (Terre Blanche, et al., 2006). During the research process I realised how sensitive the study of FASD can be. Just by discussing FASD, I became aware of the fear and guilt associated with the subject. I also realised that a great deal of ignorance still exists regarding FASD, particularly in terms of the use and dangers of alcohol consumption during pregnancy. I also became conscious of how little information on this subject is available to the general public.

The following chapter will focus on the findings of the study, as well as on a discussion of the findings, keeping the information from the literature in mind.



## **CHAPTER 4**

### **FINDINGS**

#### **4.1 INTRODUCTION**

In this chapter I will present and discuss the findings gathered through the following research methods: interviews, observations in the classrooms, focus group discussions, field notes and research journal kept during the research process. Responses from the interviews and group discussions are reflected verbatim, and they are grouped into themes and sub-themes. Six main themes and 16 sub-themes were identified during the thematic analysis.

#### **4.2 BACKGROUND OF THE COMMUNITIES IN WHICH THESE SCHOOLS ARE SITUATED (My observation)**

Two of the schools in which the research was conducted are situated on the Cape Flats of the Western Cape, and one on the West Coast. These are predominantly 'coloured' areas and are structures of the apartheid era, when people of colour were forcibly removed from Western Cape areas that had been proclaimed 'white'. They had to resettle on the Cape Flats. These areas are now notorious for gang-related violence, socio-economic deprivation, unemployment, poor substandard overcrowded houses, shacks or Wendy houses. Shebeens are plentiful in these areas and alcohol and drug abuse is rampant. Shebeen lords often control the child support grants for debts made by parents (often single mothers). Many fathers are in jail because of criminal activities and gangsterism. There are many single parents who live as part of extended families

in overcrowded, poorly maintained and often unhygienic dwellings. Very often only the mothers are employed (in low-paid jobs) while some fathers/men refuse to work. All these societal ills impact on the community and the learners at large. Learners very often have poor role models and are frequently ill-treated and neglected (Mc Vay, 2007; 18 with a Bullet, 2008).

**School A** is situated on the Cape Flats, in an area known for alcohol- and drug-related violence and gangsterism. The school is situated amongst small, overcrowded, closely built houses, with shacks and Wendy houses in between. The area is dirty with many unemployed men, women and children of all ages roaming the streets.

The school is a, dark, cold, concrete structure of poor quality, with many iron gates and fences. The building is frequently vandalised and burgled. School equipment is vandalised and damaged and telephone and electric copper cables are stolen regularly. Damaged, broken plugs hang from the walls, leaving the school without electricity. It is particularly difficult for the educators to teach without electricity during the dark, cold and wet winter months. The ceilings are broken from the burglaries. The classrooms are small and overcrowded, with the desks stretching from wall to wall to accommodate all the learners. This allows little space for movement or group-work.

There are obvious observable signs of poverty and neglect amongst the learners themselves, in their physical appearance. The school has only the minimum of educational equipment. There are insufficient writing materials, with huge shortages of textbooks and resource material. The Internet is mostly unavailable to these learners. Where it is available the computers are often damaged or stolen with no money for repairs. The school has a feeding scheme, which for many of the learners it is the only

substantial meal they will receive per day. Since parents are too poor to pay school fees or to make some monetary contribution, these schools have very little income for extra educational equipment.

**School B** is an older school, but its structure is of a better quality than that of School A. It also shows obvious signs of poverty and neglect, which are noticeable throughout the entire school community in the areas in which these schools are situated. This school has to deal with burglaries, gangsterism and vandalism on a regular basis. Shebeens are plentiful in this area, and alcohol and drug abuse is rampant. Children are neglected and abused due to all the social ills that are indicative of the community in which they are located. Unemployment and poverty are high in this community. Many fathers are in jail and most of the families live in overcrowded sub-economic council houses, back dwellings or Wendy houses. For many families the only income is the state-supported children's grant which many parents abuse.

The classes have the minimum of resources, insufficient textbooks/resource books and writing materials. There is almost no income from school fees, as the parents cannot afford to pay these fees. The number of learners enrolled at the school has reduced due to the relocation of younger families to new areas such as Delft. Although there are empty classrooms available at the school, the ones that are in use are overcrowded because of the educator pupil ratio. The school does not have the funds to employ extra educators.

**School C** is situated on the West Coast. During the time of apartheid 'coloured' people were resettled here and they worked in the factories that were erected in this area as part of the policy of separate development. However, contrary to the predictions of the

government of the time, very little growth or development has occurred in this area. Many factories have since closed down, thus causing unemployment to rise. The high unemployment rate in this area has resulted in poverty and neglect. Shebeens are plentiful and alcohol and drug abuse rampant. School C is a poor-quality asbestos building with overcrowded, small classrooms. Observable signs of poverty and neglect are noticeable on the learner's external appearance. The school runs a feeding scheme to feed the learners.

### **4.3 REFLECTION ON THE SCHOOLS (My observation)**

The schools that were part of the research have to function in extremely adverse conditions, with very little financial support from the government. The majority of the parents whose children attend these schools cannot afford to pay school fees. As a result of the poverty of the communities in which they are situated, and the minimal financial support from government, these schools are struggling to sustain themselves.

Various authors (Bronfenbrenner & Morris, 1998, cited in Landsberg et al., 2005; Lomofsky & Lazarus, 2001) have emphasised that insufficient human and material resources impact negatively on the learner with barriers to learning. In the schools that were part of my research, it was clear that learners with FASD are affected adversely by the poor socio-economic conditions under which education has to take place. The educators' inability to support these learners with FASD exacerbates the situation.

However, I experienced caring and dedicated educators and principals who try to do their best in the circumstance. They are often far more than just educators to these

learners and often have to act as mothers, fathers, social workers and psychologists. In many cases the only compassion and care many of these learners get is the care and support they get at school. Educators very often feel at their wits' end and powerless, yet they continue to try to make a difference in the learners' lives with what is within their means. (See Addendum F for extracts from the journal).

#### **4.4 THEMES THAT EMERGED FROM THE INTERVIEWS, OBSERVATION, RESEARCH JOURNAL, FIELD NOTES AND FOCUS GROUP DISCUSSIONS**

**Data gathered from the interviews, observations, reflective journals, field notes and focus group discussions was divided into six themes with 16 sub-themes to make it purposeful. Verbatim responses and illustrations are used below to depict the findings. The results of the findings will be discussed as illustrated in Figure 4.1 and Table 4.1 below.**

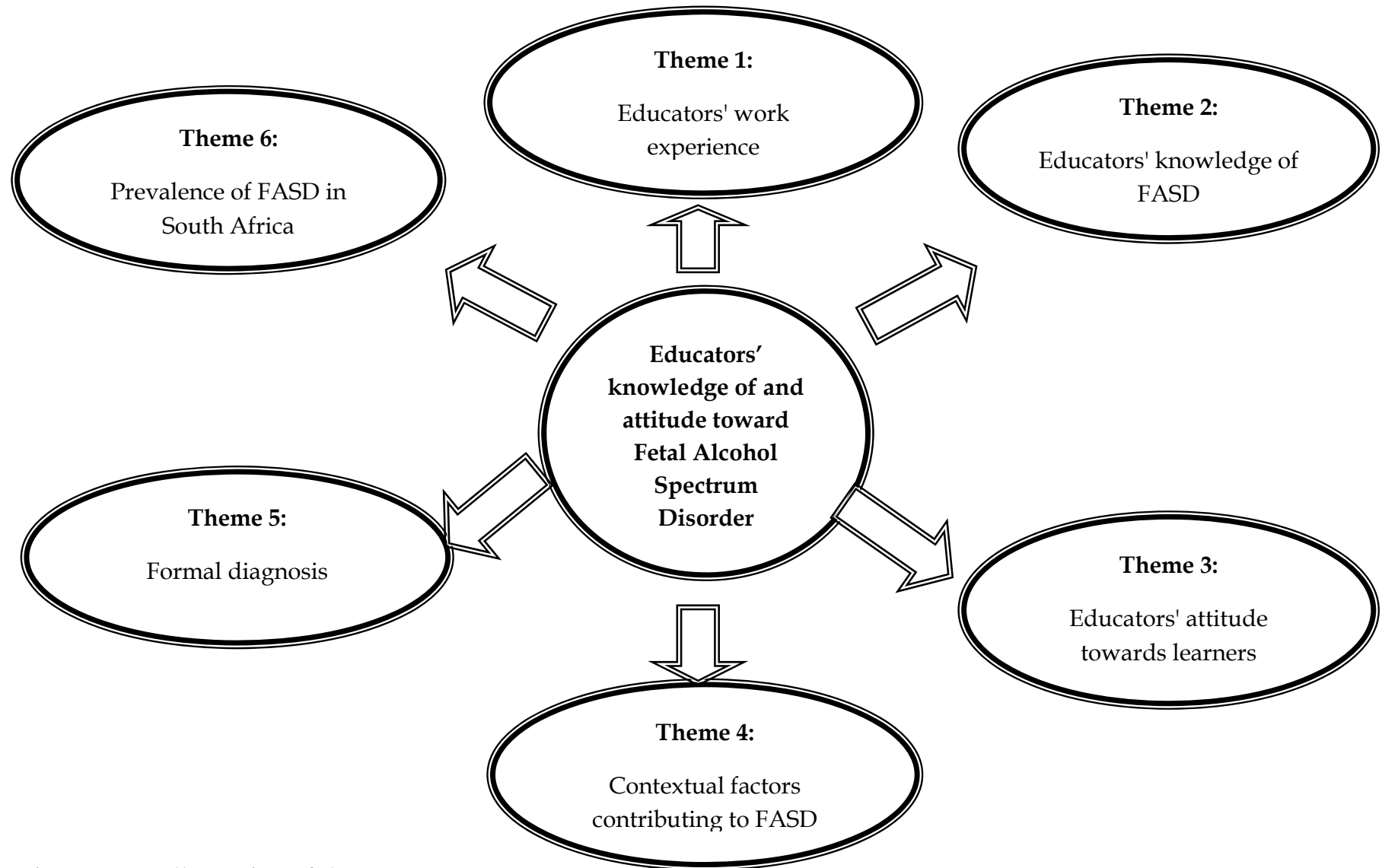


Figure 4.1: Illustration of themes

**Table 4.1: Illustration of themes and sub-themes**

MAIN THEMES	SUB-THEMES
1 Educators' work experience	
2. Educators' knowledge of FASD	<ul style="list-style-type: none"> <li>• General knowledge of FASD</li> <li>• Technical terminology</li> <li>• Sources of knowledge and misconceptions</li> <li>• Knowledge of effects of FASD</li> <li>• Knowledge of safe amount and timing</li> </ul>
3 Educators' attitude towards learners manifesting with FASD	<ul style="list-style-type: none"> <li>• Educators emotional reactions</li> <li>• Special school placement</li> <li>• Learners with FASD not able to do anything</li> <li>• Learners with FASD not able to learn</li> <li>• Classroom teaching and management</li> <li>• Behaviour</li> </ul>
4 Contextual factors contributing to FASD	<ul style="list-style-type: none"> <li>• Poverty and socio-economic conditions, a contributory factor to FASD</li> </ul>
5 Formal diagnosis	<ul style="list-style-type: none"> <li>• Formal diagnosis</li> <li>• Informal diagnosis</li> <li>• Parents behaviour and attitude</li> </ul>
6 Prevalence of FASD in South Africa	<ul style="list-style-type: none"> <li>• Educators' observations</li> </ul>

#### 4.4.1 EDUCATORS' WORK EXPERIENCE

All the participants were female educators, eight 'coloureds' and one black. Their teaching experience ranged from 11 to 32 years. Six of the nine participants had been teaching at only one school, which was their present school.

Participants' level of education ranged from a three-year teaching diploma to a postgraduate qualification.

"Ek het 32 jaar onderwysondervinding en 32 dertig jaar by dieselfde skool."

"Ek het 29 jaar onderwysondervinding en 29 jaar by dieselfde skool."

"Ek het 18 jaar onderwysondervinding en is 16 jaar by my huidige skool."

"I have 11 years' teaching experience and one and a half years at this school."

"Ek 19 jaar ondervinding en ek het hier begin onderwys gee en is nog steeds hier."

"Ek het 17 jaar ondervinding en is al 17 jaar by die skool."

"Ek het 14 jaar onderwysondervinding en is 13 jaar by my huidige skool."

"Thirty years' teaching experience and 30 years at this school."

"Ek gee nege en twintig en 'n half jaar onderwys en is steeds by dieselfde skool."

All of the participants were teaching at previously disadvantaged schools (former House of Representative schools) on the Cape Flats and in poverty-stricken, predominantly 'coloured' areas on the West Coast. The participants were educators in the foundation phase, intermediate phase and senior phase. All the interviews were conducted at their schools after hours. Seven of the nine participants were Afrikaans-speaking, one was Xhosa-speaking and one was English-speaking.

The interviews were conducted in the educators' language of preference. Two of the participants grew up in the area in which they were teaching and five of the



participants were still living in the same vicinity. The majority of the participants knew the area in which they were teaching very well, which means that they also knew the families of the learners relatively well.

#### 4.4.2 EDUCATORS' KNOWLEDGE OF FASD

All the participants had some knowledge of FASD, i.e. they knew that maternal alcohol consumption resulted in FASD.

“Wanneer ‘n vrou swanger is en baie alkohol gebruik.”

“ ‘n Kind wat ‘n ma blootgestel het aan alkohol tydens swangerskap.”

“Wanneer ‘n moeder baie alkohol gebruik het terwyl sy swanger was en gereeld alkohol gebruik gedurende haar swangerskap.”

“When a mother takes alcohol during pregnancy it causes FASD.”

“Yes I’ve heard about it, the child gets it from the mother if she was drinking alcohol while she was expecting her baby.”

“Wanneer ‘n vrou verwagting is en sy drank [gebruik en] dwelms en sigarette rook wat die fetus affekteer.”

“Gedurende swangerskap as ‘n moeder alkohol misbruik.”

“A mother who drinks alcohol during pregnancy.”

“A mother who takes alcohol while she is pregnant.”

#### 4.4.2.1 General knowledge of FASD

The educators had some knowledge of the physical anomalies such as small stature, small head and small face, as well as the learning and behavioural difficulties associated with prenatal exposure to alcohol.

“Ek het nie baie kennis nie, hul koppies is klein en nie reg gevorm nie en ogies ook nie”.

“Ek het nie baie kennis nie maar ek weet hulle is baie klein en hul koppies is baie klein.”

“Die kinders is agter fisies en is kleiner as ander kinders.”

“Koppie ’n driehoekige vorm.”

“I don’t know much but I have seen the characteristics.”

“Koppie is klein en kind het leerprobleme.”

#### 4.4.2.2 Technical terminology

The technical terminology such as FASD, ARBD and ARND was unfamiliar to the participants. They had heard the term ‘Fetal Alcohol Syndrome (FAS)’. They did not know that the syndrome entails a spectrum of disorders or a continuum of effects.

“Ek het geen idee waarvoor Fetale Alkohol Spektrum versteuring staan nie.”

“Nee, ek het nog nooit daarvan gehoor nie.”

“Is dit nie dieselfde soos FAS nie?”

“Nee is dit nie soos enige ander sindroom nie?”

“I only know what FAS is, but I’ve not heard of the others.”

“Nee ek weet nie waarvoor FASD staan nie.”

“No, I don’t know what it is.”

“Nee ek weet nie wat dit is nie.”

“Nee ek weet nie.”

They had no knowledge of CNS (hard and soft signs) or alcohol-related birth defects (ARBD).

#### 4.4.2.3 Sources of knowledge and misconceptions

Participants were unaware of the fact that only some learners with FASD will be recognisable through their physical anomalies or physical signs. Participants did not know that where physical features were recognisable, this aspect may become less distinctive as the learners reach adolescence. None of the respondents knew what primary and secondary disabilities were. They also did not know that FASD is the leading cause of intellectual disabilities. None of the participants had formal training in the teaching of learners with FASD. Participants had acquired their knowledge through books, articles and television programmes.

“Ek het geen formele opleiding gehad nie, wat ek weet is wat ek in boeke, tydskrifte en op televisie gesien het.”

“Nee geen formele opleiding, net wat ek in boeke gelees het.”

“Nee ek het geen formele kennis, net wat ek hier by die skool teëgekome het.”

“From books, I had no formal training.”

“Ek het informasie op die televisie gekry en met gesprekke met ander onderwysers, ek het geen formele opleiding gehad nie.”

“I got some information from the ACE course I was doing, but no formal training on how to teach these learners.”

“Het my informasie op televisie, [en in] koerante en tydskrifte gekry, maar geen formele opleiding gehad nie.”

“Ek het so ‘n bietjie daarvoor geles maar ek het geen formele opleiding ontvang nie.”

“My informasie gekry by waarneming van leerders, ek het ‘n dogter in my klas en albei ouers misbruik alkohol, geen formele opleiding.”

#### 4.4.2.4 Knowledge of the effects of FASD

The participants had some knowledge of the effects of FASD. They were able to name some of the major effects of the syndrome, such as learning, behavioural and concentration problems.

“Children are just too active. They don’t want to do anything, they just want to play.”

“Die leerders het groot leeragterstande, ook aanpassingsprobleme en konsentrasieprobleme; kan ook nie gesprekke voer nie, groot steurnis in klas.”

“Leerders is stadig, is opstandig of teruggetrokke, reageer nie normaal nie, konsentrasie is swak en [hulle] is vroetelig.”

“None.”

“Hulle kan niks doen nie en vergeet alles wat jy hul geleer het.”

“Hulle voltooi ook nie hul werk nie.”

“Hulle het leerprobleme en sukkel met akademiese werk, hulle vroetel heeldag en kan nie konsentreer nie, hulle toon geen akademiese belangstelling nie, hulle ontstig die klas.”

“Hulle is aggressief, het leerprobleme en werk stadig.”

#### 4.4.2.5 Knowledge of safe amount or volume and timing in consuming alcohol during pregnancy

All the participants knew that alcohol consumption during pregnancy causes FASD. Participants had different ideas on the amount, volume and timing of alcohol consumption during pregnancy. Some responded that alcohol was not allowed through-out the pregnancy. Others said a glass of wine was safe, while some said it was safe to consume alcohol in the first trimester of the pregnancy, and others said it was safe in the last trimester. One participant stated that her doctor said the following when she went for her check-up during pregnancy: "You are now three months pregnant and should from now on not consume any alcohol."

Other responses were:

"Ek dink nie swanger vrouens moet drink nie."

"Een glasier sal nie skade maak gedurende swangerskap nie."

"'n Glas per dag is die minste inname wat swanger vroue kan neem."

"Glad niks alkohol nie."

"One glass in the beginning of pregnancy."

"'n Ma moet glad nie drink nie."

"Een glasier wyn of sterk drank."

"One glass per day won't affect the fetus."

From the above responses there seem to be huge differences of opinion on how much, and when and if at all alcohol is safe to consume during pregnancy.

#### **4.4.3 EDUCATORS' ATTITUDE TOWARDS LEARNERS WITH FASD**

##### **4.4.3.1 Educators' emotional reactions**

All the educators expressed sympathy towards learners with FASD and felt that the learners were not responsible for their condition. They blamed the parents, the mothers especially, for the learners' condition and learning disabilities. Participants said that they got no support from these parents who were often uninvolved, uninterested, in denial about their child's learning problems and the reason for the problem, or who lacked the ability to realise the impact of the problem.

Educators said that about 60 percent of the learners in their classes experienced learning problems, especially in reading and mathematics. One participant remarked that she had a smaller class than the rest of the school, yet more than half the learners in her class had learning problems.

##### **4.4.3.2 Placement in special schools**

Participants said that most of the parents at their schools whose children had been referred to special schools for learning disabilities refused to acknowledge that their children had a learning problem and refused to give permission for their children to be placed at a special school. Parents often labelled special schools for learning barriers as schools for 'mad children' and remarked that their children were not mad. Some of the parents' remarks, according to participants, were the following:

*"My kind is nie mal nie en gaan nie na 'n mal skool toe nie."*

“Daar is niks verkeerd met my kind nie, hy is nes my ander kinders.”

All the participants agreed strongly that learners with FASD should be placed in special schools as the learners with FASD in their schools were not making any progress in mainstream schools, but were contributing to the poor academic results. They felt personally responsible for the learners' progress and believed that at the end of the year, with the class progressions and promotions, education authorities did not take these learning disabilities into consideration but expected all the learners to obtain good results.

“Die leerders is ver agter en sal nooit die werk kan inhaal nie. Ek moedig maar Aan.”

“Daar is kinders vir wie mens niks kan doen nie.”

“Hierdie leerders sal beter vorder in die spesiale skool waar die akademiese vereistes minder is as in die gewone skool.”

“Ouers besef nie wat die agterstand van hul kinders is nie, dis tyd dat hulle gekonfronteer word met die waarheid.”

“Parents are ignorant and does not understand the learning problems their Children are experiencing.”

#### **4.4.3.3 Learners with FASD are “not able to do anything”**

Participants expressed strong feelings about the learners not being ‘able to do anything’.

“Hulle kan niks doen nie.”

“Hulle kan nie lees, skryf of wiskunde doen nie.”

“Hulle kan niks onthou nie en is onbeskof en toon gedragsproblemmes.”

“Hulle het reeds twee maal herhaal en is 'n steurnis in die klas.”

“Ek voel gefrustreerd want die leerders sukkel akademies. Dit gaan moeilik.”

“Jy kan ekstra insit, jy maak nie veel deurbraak nie, ek is nie so bevoegd soos ek

sou wou wees nie.”

“They don’t concentrate, are lazy, and don’t want to do anything.”

“Hulle kan nie die werk doen, hulle is ’n groot steurnis in die klas.”

#### **4.4.3.4 Learners with FASD are unable to learn**

Educators felt that the learners are unable to learn:

“You teach them something now and they are unable to remember what they have learnt.”

“Hulle onthou moeilik, hulle is swak.”

“Hulle het lees- en wiskunde probleme wat hulle skolasties affekteer.”

“Hulle bly konkreet en wil net speel.”

“Hulle raak aggressief in die klas as hulle nie die werk kan doen nie.”

“They are hyperactive, they don’t focus, they are playful and it affects their academic work.”

Participants said that learners could not retain information, and that they lacked concentration.

#### **4.4.3.5 Classroom teaching and management**

All the respondents said that they treat learners with FASD the same as all the other learners in their classroom, which means they do not discriminate against any learner. According to Malbin (2002), “fair is not the same”.

“Ek behandel al die leerders dieselfde in my klas.”



“Ek prober meer aandag gee. Dit gaan moeilik in die groot klas, te veel leerders, ek het geen kennis om met die leerders te werk nie.”

“Ek prober almal onder dieselfde kam skeer, ek gee aandag en liefde.”

“I treat them the same as the others, give more attention.”

“So ver as moontlik probeer ek hulle dieselfde behandel, maar gee nie genoeg aandag nie, die klas is te groot en die kurrikulum maak nie voorsiening vir hul probleme nie.”

“Simpatiek – hul nie ignoreer nie en behandel hulle dieselfde as die ander leerders.”

The above means that the participants did not discriminate against the learners' ability to learn. However, participants made very little effort to differentiate the school work to coincide with the learners' potential or ability. Participants said that the education department demanded an amount and standard of work that had to be completed within a certain time. They also said that all the learners were expected to complete the same curriculum irrespective of whether they have the potential or not. Learners with FASD have to follow the same curriculum as all the 'normal' learners in the class with no support or differentiation.

#### **4.4.3.6 Behaviour**

Participants felt that these learners disrupted their classes, were destructive, and portrayed unacceptable behaviour – they were either hyperactive or too passive. Inappropriate sexual behaviour was also mentioned.

“Hy is so stil ek vergeet van hom in die klas.”

“Hy stap sommer uit die klas uit as hy wil, of loop heeldag op en af in die klas.

Hy sit nooit stil nie.”

“Hulle is net ’n groot steurnis in die klas en openbaar gedragsprobleme.”

“Hulle doen nooit hul tuiswerk nie, en gooi hul boeke en skryfmateriaal weg.

“These learners are lazy and rude.”

Participants remarked that they could not manage the behavioural and learning problems these learners exhibited. It was especially problematic in the overcrowded classes. Educators said they felt lost and they lacked the skills to help these learners, as none of them had any formal training in the education and management of learners with learning problems and FASD.

#### **4.4.4 CONTEXT**

##### **4.4.4.1 Poor socio-economic conditions and alcohol abuse a contributory factor**

All the participants agreed that poverty, alcohol abuse, poor socio-conditions and unemployment were factors that impacted negatively on the learners.

“If you look around here in this area than you can conclude that alcohol abuse could have an impact on the learners’ ability to learn.”

“Hier is volop sjebiens, en alkohol- en dwelmmisbruik is hoog.”

“Alkoholmisbruik is ’n groot probleem in die omgewing.”

“Alkohol- en dwelmmisbruik is ’n groot probleem, drank meer onder die ouer mense, maar die jongmense gebruik albei.”

“Mothers come to school drunk.”

Participants said that for many of the children at their schools the drug peddlers and alcohol ‘merchants’ were their only role models. They said that many children would agree and confirm the fact because of the power these people exert in the community

and their lavish lifestyle. Participants said that many of their past learners formed part of these syndicates.

“Armoede speel ’n baie groot rol in die gemeenskap.”

“Baie van ons ouers is werkloos of is enkelouers.”

“Baie van die vaders is in die tronk of werkloos. Dit is meestal die moeders wat werk.”

“Al die ouers kry kindertoelae wat hulle misbruik om drank te koop.”

“Van die leerders woon by hul oumas en oupas, die moeders is weg en vergooi hul aan drank, die pa’s sit in die tronk en baie gee nie om en het geen kontak met hul kinders nie.”

“Die meeste leerders kom uit oorvol arm huise of woon in Wendy-huise in die ouma of familie se agterplaas.”

“Baie leerders kom uit informele nedersettings waar daar geen water of toilette is nie.”

“Baie van die leerders word verwaarloos en mishandel, die groot meerderheid word deur die skool se voedingskema gevoed.”

“Many are single parents. Unemployment drug and alcohol abuse impact negatively on the learner.”

Because the majority of the participants grew up in the same area, have been working in the same school for many years, and are still living here, they are well acquainted with the problems which these communities have to contend with. These problems also affect the learners negatively.

#### **4.4.5 DIAGNOSIS OF FASD (Educators’ experiences)**

All the participants felt that early, formal diagnosis by a medical doctor of learners with FASD would be beneficial to both learners and educators. It would enable educators to

understand the learners instead of labelling them as rude, lazy and defiant. All the participants expressed the need to learn more about FASD. They particularly felt the need to learn how they could assist and support these learners. All the participants felt that there should be more awareness campaigns to inform mothers and fathers and especially young people about the dangers associated with alcohol consumption during pregnancy.

None of the participants included questions on prenatal alcohol consumption of parents during intake interviews on the learners' developmental history. None of the schools in which the research was conducted had admission interviews with the parents – the admissions are done by the administrative staff, and they do not have interviews with the parents. They only take the names and grades. (See addendum G for an extract from transcripts).

“Ek sal baie beslis meer wil weet oor FASD.”

“Ja beslis veral nou dat u my die vrae gevra het besef ek baie meer, en sal wil leer hoe om die leerders te ondersteun.”

“Dit was 'n 'wake-up call' nou dat u FASD met ons bespreek het – ek sal baie graag meer wil weet.”

“Nee, ons het geen toelatingsonderhoude nie.”

“Die sekretaresse doen die toelating en ons vra nie uit oor die ontwikkeling of ouers se inname van alkohol nie. Wat ons weet is wat ons self by ouers sien.”

#### 4.4.5.1 Formal diagnosis

None of the participants at the three schools had seen or received a report of a formal diagnosis of a learner with FASD.

“Ek het nog nooit ’n leerder wat diagnoos was met FASD in my klas gehad nie.”

“Nee geen diagnose gesien nie, maar wel van ander siektes.”

“Ek het ’n vermoede van ’n leerder wat moontlik FASD is en wou graag bevestiging hê, maar ek ken nie die prosedure om dit vas te stel nie.”

“Net ander mediese sertifikate, maar geen met FASD nie.”

“I have not seen any diagnosis for learner with FASD in all my teaching years.”

“Nee, geen.”

“Nee.”

“Nee, nog nooit so ’n mediese sertifikaat gesien nie, net vir ander siektes.”

“No, not one.”

#### 4.4.5.2 Informal diagnosis

Participants used informal identification methods to identify learners with possible FASD by making use of very basic information. Participants used knowledge of parental alcohol abuse and basic functional and physical characteristics such as small stature, small head and facial anomalies, learning problems, poor concentration and behavioural problems to identify learners informally as learners with possible FASD. Some mothers admitted or reported to parents that they had been using alcohol during pregnancy. Some mothers go to the schools smelling of alcohol.

“Jy kan sien aan hulle voorkoms, aan hulle oë en hulle koppe is klein en hulle is klein vir hul ouderdom.”

“Hulle is klein en hul koppies is klein.”

“Hulle konsentrasie is swak en [hulle] openbaar gedragsprobleme.”

“Hulle sukkel met leer, veral lees en wiskunde.”

“Ek het verskriklik baie gedrink toe ek met haar swanger was.”

“Ek het met hom gedrink want ek het huweliksprobleme gehad.”

“Ek het baie met hom gedrink, maar nou is ek bekeer, ek het nie geweet dat dit skade sal veroorsaak nie.”

“They are rude and can’t do any school work.”

#### 4.4.5.3 Parents’ behaviour and attitude

According to a participant a mother reported: “Dit was my keuse om te drink.” When asked by the participants whether she knew that it would be harmful to her unborn child she refused to reply. Participants also reported that they were well acquainted with parents who abuse alcohol regularly.

“They come to school smelling of alcohol.”

“Hulle kom skoolvergaderings toe dronk of ruik na drank of hulle besoek die skool dan is hulle dronk en onbeskof.”

“Ek het in die area grootgeword, ek weet hoe baie mans en vrouens drink, veral naweke, hier is niks anders vir hulle om te doen nie.”

“Ouers vernalaat hul kinders en sit in sjebiens.”

According to participants, learners themselves regularly reported on parental alcohol abuse. Sometimes caring neighbours, friends and involved family members would disclose parental alcohol abuse.

#### 4.4.6 PREVALENCE OF FASD IN SOUTH AFRICA

##### 4.4.6.1 Educators' observations

Participants did not know that South Africa has the highest prevalence of FASD in the world. They had varying ideas of the prevalence of FASD in their classrooms and in the Western Cape in general. They all agreed that it was the highest amongst the poor and of all the racial groups the highest amongst the 'coloured' community in SA.

"Dit is seker maar die hoogste onder die bruinmense as jy om jou kyk hoe hulle drink en die sjebiens wat volop is."

"Dit kom seker meer voor onder die bruinmense as jy sien hoe hulle veral naweke drink."

"Ja beslis 'n probleem onder die bruinmense in die area, ek het hier grootgeword."

"Ja veral meer onder die bruinmense. Van die ander rasse nie so seker nie."

"Ek skat so 20 uit 1 000 babas word met FASD gebore, miskien is dit minder."

"Ek dink so 30 uit 1 000 veral as ek dink hoe ons sukkel met die leerders om te leer, dis seker dit wat 'n rol speel."

"It is highest amongst the coloureds if you look at all the shebeens in the area."

"I think so 200 out of a 1 000 births."

"Ek dink 700 uit 1 000 of minder."

When participants were asked whether they thought that there were learners in their classrooms who presented with FASD the majority replied in the affirmative. Some estimated that there were between two and three learners with FASD in their classes, while others said between three and five. One participant in the senior class said there

were none and she stated that she had only recently heard of FASD. However, she had learners referred for special school placement at a school for skills. Participants were unaware that not all learners with FASD present with the facial anomalies and growth deficiency, as seen in learners with full FAS. When asked what the prevalence of FASD in South Africa was, some said 10 out of a 1 000, while others said between 10 and 40 per cent.

#### **4.5 REFLECTION ON THE PARTICIPANTS**

A few of the participants appeared unsure during the initial stages of the interviews and spoke quite softly, but as the interviews progressed they seemed to relax. They were all very willing to be part of the research and expressed their willingness to learn and know more because they are faced with so many learners who are struggling to cope at school. The majority of these educators work in overcrowded classes with 45 and more learners in their classes. The classes are not designed to accommodate so many learners. They all felt that they could not attend to all the learners' needs and said that it was often the weak learners who were neglected in school.

Findings revealed a sense of helplessness and hopelessness amongst participants where the learners with barriers to learning were concerned, especially the possible learners with FASD. The participants reported that they did not know how to support the learners and that they would rather have them referred to special schools. From the group discussions it appeared that participants teaching in the senior phase were not aware that the large number of learners they referred to the schools of skills each year were possibly learners with FASD. They acknowledged that the learners were struggling and that they could not read or do mathematics and had a history of



repeating every phase. Since the majority of these learners with pFAS do not exhibit the facial dysmorphic features of FAS, educators were unable to identify these learners as learners with pFAS although they presented with learning, behavioural and concentration problems.

#### **4.6 CONCLUSION**

In this chapter, I presented the themes that emerged from the various methods of data collection that were used in this research process. By using the constant comparative method of analysis, I clustered patterns that emerged from the various methods of data collection together to form themes. I will discuss the findings in Chapter 5.

The process of data collection and analysis was challenging. I value the information and experience gained through the eyes of the participants, as they are the people who have to address these challenges on a daily basis and they are powerless against poverty and the social ills with which these communities are confronted. The participants are only dealing with the symptoms of these ills and the causes are still left untreated and undiagnosed.

## CHAPTER 5

### DISCUSSION, RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

#### 5.1 INTRODUCTION

Fetal Alcohol Spectrum Disorder (FASD) is an extremely debilitating condition that inhibits the basic life skills people need in order to survive in today's world. It is regarded as the leading cause of intellectual and developmental disabilities in the Western world (Miller, 2006). Of all the substances being abused, including heroin and cocaine, alcohol produces the most severe neurobehavioural effects on the fetus (Kulp, 2002). Although there is no cure, the disorder is preventable. Too little information about FASD amongst the South African public might contribute to the disconcertingly high numbers of children being born with FASD.

Knowledge about the dangers of alcohol use during pregnancy may not guarantee maternal abstinence from alcohol during pregnancy, but it would allow mothers to make informed choices. Alcohol is often seen as a safe drug, as it is legal in most countries. This can lead to the phenomenon that the use of alcohol is readily accepted in society.

Educators in the lower socio-economic schools (poor communities) in South Africa are confronted with a large number of learners who are struggling to cope and perform successfully in mainstream education. These learners often drop out from school because they are unable to cope with the demands at school. Many of these learners might qualify for placement at schools of skills. Many of them might have FASD. There are however, insufficient schools of skills available in SA to accommodate all the

learners who are referred for placement annually. Some learners with FASD do end up in high school where they cannot cope due to insufficient support and a lack of understanding on the part of the educators. An inflexible curriculum could contribute to their eventually dropping out of school because of difficulties with the academic programme.

These large numbers of learners become a problem to themselves and society, as many of them will end up unemployed due to a lack of skills and insufficient education. They may become involved with the wrong crowds in the townships and add to Western Cape statistics on drug and alcohol abuse, gangsterism, violence and crime (18 with a Bullet). According to Streissguth (1997), Morrisette (2001) and May et al. (2005) FASD occurs three to five times more often than full FAS. The highest FAS prevalence rate recorded in South Africa (in De Aar) might then escalate to a disconcerting number of up to 610 babies out of 1 000 who could be born with FASD.

This research was developed to establish the extent of educators' knowledge of and their attitude towards learners with FASD, and to determine whether they are able to support these learners in mainstream education. Much research has been done and is still being done on the prevalence of FASD in South Africa.

In this concluding chapter, I will discuss the research findings. According to Babbie and Mouton (2001) research reports should reflect a variety of resources as evidence to represent the different dimensions of the research findings. Such an approach results in a 'thick description'. In this chapter, I will attempt to portray a thick description of the findings, comparing it to the literature I have reviewed.

## 5.2 DISCUSSION OF FINDINGS

**The research question was:** What is educators' knowledge of and attitude toward FASD? In response to this question the various themes that emanated from the data will be discussed. Qualitative research techniques were used for collecting and analysing data. In conducting qualitative research we seek to understand the worldviews of the people involved (Merriam & Associates, 2002; Ritchie & Lewis, 2003). This qualitative information was designed to make sense of and gain an understanding of the participants' feelings, attitudes and knowledge as reflected in the data. Six themes and 16 sub-themes gathered from the data will be highlighted in this discussion of the participants' contributions.

### 5.2.1 EDUCATORS' WORK EXPERIENCES

Participants were very familiar with the areas and the conditions in which they were working as they were all products of the past political history and had experienced apartheid in SA (Morrow, 1994). They grew up and were educated in similar or the same poor socio-economically deprived communities. All the participants were still living in areas that had been racially segregated in the apartheid era, where poverty, socio-economic deprivation and gangsterism were rife.

Participants had extensive work experience and at the time of the research a few were still studying to improve their qualifications. All the participants were general educators in the phases in which they were teaching. None of them had specialised

educational training or experience. They reported knowledge of the deprivation, poverty, abuse and neglect which the majority of the learners in their classes were experiencing. In the light of their many years of teaching experience, it could have been expected of the teachers to use their skills of teaching basic academic work to support the learners. It is possible that they wrongly ascribed the learners' learning difficulties to their (the learners') indifference.

According to Morrow (1994, p 45) many committed teachers have been defeated by the "climate of demoralization" that has spread amongst teachers and learners and by the lack of support. Participants seemed overwhelmed by the socio-economic problems and deprivation under which they were working and felt helpless and hopeless because they were unable to change society. They would therefore rather have the learners referred to special schools, thereby passing on the responsibility.

### **5.2.2 EDUCATORS' KNOWLEDGE OF FASD**

The findings of the processed information revealed that although the participants had some basic knowledge of FASD, they were unaware of the spectrum of the disorder. Participants did not know that FASD was the leading cause of intellectual disability in South Africa and the rest of the world. They all knew that FASD resulted from prenatal alcohol exposure. They had very basic knowledge of the characteristics of FASD which was limited to some facial anomalies, for example the eyes and a small head. On growth deficiency their knowledge was limited to small stature. With regard to the functional deficits participants knew the basic effects of FASD; they knew that the learners presented with behavioural, learning and concentration problems. Participants knew that the syndrome was not curable. This corresponds with similar findings from studies conducted by Mack (1995) and Caley (2006) in the USA.

Participants did not know that the physical characteristics were not visible in all learners with FASD or that where such characteristics were visible they became less discernible as the learner reached adolescence. They did not know that the syndrome entails a spectrum of disorders or a continuum of effects. Participants had varying ideas on the timing (when) and volume (how much) of allowed alcohol consumption during pregnancy. They did not know the different effects of the timing and the amount of alcohol consumed on the developing fetus. Therefore they did not know that learners with FASD are affected differently which Streissguth (1997) stated. Knowledge of this aspect could influence prevention strategies. School nurses in the USA wanted more information on the constellation of features associated with FAS (Mack, 1995; Caley, 2006).

The implications of educators not knowing that the abilities as well as the physical appearance of FASD learners vary because of the degree of central nervous system involvement, which in turn is influenced by the timing (when) and volume (how much) of the developing fetus. This lack of knowledge results in educators treating and educating all learners with FASD the same hence participant's feelings of helpless hopelessness as far as the teaching of learners with FASD is concerned. This can also be the reason why they felt that no matter how hard they tried to teach these learners the outcome was always unsuccessful. According to Rust and Bowden, (2001) the curriculum for learners with FASD will differ from learner to learner because of these differences.

Participants did not know what the primary and secondary disabilities of the syndrome were, and they also did not know about the central nervous system (hard and soft signs). They had no knowledge of the neurodevelopmental abnormalities that are so

pervasive of the syndrome. USA nurses could not identify risk factors and interventions for secondary disabilities (Caley, 2006). None of the participants had had formal training in the education of learners with special needs or learners who manifest FASD. Since they lacked the necessary knowledge and skills, they were unable to teach these learners appropriately. Participants did not know that South Africa and in particular the Western Cape had the highest prevalence of FASD in the world. This knowledge compounded the educator's negative feelings of helplessness and hopelessness as they felt that the problem was too huge to change or remediate.

In the previously-mentioned studies by Mack (1995) and Caley (2006), it was found that the respondents were also unprepared and unqualified to teach learners with FASD, and therefore lacked the knowledge and skills to teach these learners (Mack, 1995; Engelbrecht et al., 2003). Participants, both in my research and the aforementioned studies had acquired their knowledge through books, magazines, radio and television programmes but none from formal training. It can thus be concluded that the participants had a very limited understanding of the syndrome and that they were not fully aware of the educational implications for these learners and their future. A limited knowledge of FASD results in educators being unable to understand the learners, which causes negative labelling, blaming and shaming. It is important that teachers should have enough information on FASD to understand and support the learners with insight and compassion.

Participants acknowledged and confirmed that alcohol abuse was a problem in the areas in which they were teaching, and that the limited, poor education and low socio-economic conditions of the communities were factors that contributed to the prevalence of FASD. Participants did not know with certainty how many learners with possible FASD were in their classes. They confirmed extensive learning difficulties in their

schools. These were also confirmed by the WCED statistics on Numeracy and Literacy (WCED, 2006). The participants were also unaware of the huge impact these learners have on our education system. During the group discussions and the interviews participants agreed that FASD could be a contributory factor in the learning and behavioural difficulties and the high drop-out rate in the schools situated in the low socio-economic areas of the Cape Flats in which this research was conducted.

### **5.2.3 EDUCATORS' ATTITUDE TOWARDS LEARNERS WITH FASD**

Although all the educators expressed sympathy towards learners with FASD, it was clear that they were unable to support these learners. The majority of educators in SA are not trained for inclusive classrooms. Moreover, special educational needs do not form part of the pre-service training of teachers. Training in special education needs is offered mostly as an extra specialisation diploma (Mdikana et al., 2007). Therefore many educators in SA are not equipped or trained to teach learners with learning barriers or disabilities, which creates feelings of hopelessness and helplessness and creates anxiety amongst educators (Engelbrecht et al., 2003; Elhoweris & Alsheikh, 2006; Mdikana et al., 2007).

Educators' feelings of hopelessness and helplessness, of giving up, of being at their wits' end and of not knowing what to do, and the belief that whatever one does is not going to help in any case, create negative attitudes toward learners with barriers to learning or FASD. According to research on pre-service educators' and teachers' attitudes towards inclusive education it was found that educators' attitudes are critical to the successful implementation of inclusive education (Engelbrecht et al., 2003; Elhoweris & Alsheikh, 2006; Mdikana et al., 2007). These authors also found that



special education teachers were more supportive of inclusive education as they had training and experience in working with learners with disabilities or barriers to learning.

Elhoweris and Alsheikh (2006) also found that teachers who had training and experience in special needs education had a more positive attitude towards inclusion. General educators however were not supportive and had strong reservations about the education of learners with disabilities as they lacked the training in and experience of working with learners with disabilities or barriers to learning. This corresponds with the findings of the current study. Research by Elhoweris and Alsheikh (2006), Mdikana et al. (2007) and Engelbrecht et al. (2003) indicated a need for special educational skills because educators lacked instructional and management skills.

Participants in this research lacked self-confidence, and they were unprepared, inexperienced and not trained to teach learners with learning barriers (in this instance, learners with FASD). FASD is a strong predictor of learning disabilities or barriers, and it is therefore more stressful and problematic for educators to deal with such learners. This causes anxiety in the teachers. In a study conducted in SA by Engelbrecht et al. (2003) similar findings were made with regard to educators. Participants in this study said that the learners with learning barriers in their classes should be referred to special schools as they were only adding to their burden in overcrowded classes and were not gaining anything.

Participants described learners with FASD as being lazy, rude, defiant, disruptive, and destructive. They also said that these learners exhibit inappropriate behaviour. According to participants the learners with FASD in their classes are unable to learn or

do any school work and forget everything they are taught. Participants tended to blame the parents of these learners, as they either deny the fact that their child has a learning problem, or they are completely indifferent, ignorant and uninvolved as far as their child's education is concerned. Furthermore, they lack the capacity to understand the impact of the problem.

All the participants expressed the need to learn more about FASD and to find out how to support and educate these learners. From the above results it is obvious that the participants need support and training in the education of learners with FASD so that they can support these learners in mainstream education, as not all of them are eligible for special school placement. The same was found in the research done by Engelbrecht et al. (2003), Caley (2006), Mack (1995); Mdikana et al. (2007) and Elhoweris and Alsheikh (2006). All these authors indicated a need for support and training. All the educators expressed a need for support from parents and confirmed that it was stressful to educate learners with learning barriers (cf. Caley, 2006; Mack, 1995; Engelbrecht et al., 2003).

From the above findings we can conclude that learners with barriers to learning or with FASD are negatively affected at school due to lack of support from educators for their specific disability. In the schools where the research was conducted, the educators were unable to support and teach learners with FASD, because of inadequate skills or special needs training, or training in inclusive education. We can therefore conclude that the schools/educators do not provide the learners with a positive, congenial environment in which to thrive and experience new challenges that will enhance their development. Because of a lack of skills, human resources and material resources (DoE, 2001) educators are therefore experiencing negative attitudes toward learners with FASD (Lomofsky & Lazarus, 2001; Landsberg et al., 2005).

## **5.2.4 CONTEXTUAL FACTORS CONTRIBUTING TO FASD**

### **5.2.4.1 Poverty and socio-economic conditions a contributory factor to FASD**

All the participants agreed that the poor socio-economic conditions, unemployment and the resultant poverty played a major role in alcohol abuse in the respective communities in which the schools were located. Poverty especially was regarded as a major contributory factor to alcoholism. The participants, who were familiar with the areas in which they were teaching, all strongly emphasised that the living conditions in these areas were deteriorating. Participants strongly agreed that alcohol and drug abuse had become problematic and that the children were suffering and being neglected as a consequence. They stated that many of the children in their schools were being cared for by their grandparents because their parents neglected them and were involved in alcohol/drug abuse. However, as the grandparents mostly lived on a minimal old age pension from the state, their efforts did not alleviate the negative effects of poverty.

As mentioned previously in the research FASD can affect all races, classes and economic groups, but it is more prevalent amongst the poor and marginalised communities such as native or aboriginal communities in Australia, America, Canada, and South Africa (Boland, Burrill, Duwyn & Karp, 1998; May et al. 2000; Streissguth & Kanter, 2002; May et al., 2005;). These people are often disempowered (Viljoen et al., 2002; Birn & Molina, 2005). Research done by Mack, (1995) and Engelbrecht et al, (2003) on learners with intellectual disabilities and preschool teachers' knowledge of FAS has shown that poverty and minority status contributed to the prevalence of FASD

According to the participants the high unemployment rate in the relevant areas was due to the limited employment opportunities and the poor educational level of many of the parents. The participants all agreed that the social ills which result from poverty and deprivation impacted negatively on the learners. Participants also commented on the child state grant which the government made available to all children under the age of 14 to alleviate poverty. According to them many mothers abuse the grant and use it to buy alcohol instead of food and clothing for the children. In many instances the all-pay cards are confiscated and controlled by the shebeen lords for debts made by the parents. The feeding schemes at schools often constitute the only substantial meal many of the learners have daily. Participants demonstrated negative attitudes towards parents, resulting in blaming and shaming.

According to the findings, the general worldview of learners with FASD is compromised because of poverty, alcohol abuse, violence and gangsterism. Poverty deprives many of these learners of adequate environmental circumstances in which to thrive. They are deprived both intrinsically and extrinsically: intrinsically by the possibility of being exposed to prenatal alcohol and the resultant FASD, the risk of low birth weight, developmental delay and poor adjustment to school (Landsberg et al., 2005). Extrinsically they are deprived of good nutrition, adequate stimulation, and a lack of basic everyday necessities such as a secure home, warm clothing and nurturance (Bronfenbrenner & Morris 1998, cited in Landsberg et al., 2005).

### **5.2.5 FORMAL DIAGNOSIS**

According to the research findings, none of the participants had seen or received a formal medical diagnosis stating that a learner had FASD. Similar results were found in research by Mack (1995). Participants relied on informal identification, such as through

knowledge of prenatal alcohol consumption. They also relied on instances where mothers had disclosed alcohol consumption during pregnancy or on family members to report such behaviour. Participants made use of the basic characteristics of FASD, such as facial anomalies and small stature, knowledge of prenatal alcohol exposure, and functional deficits, such as learning and behavioural problems, to obtain a possible informal identification. A lack of formal diagnosis caused educators to make their own (often incorrect) diagnosis. Although it is unethical for educators to make the diagnosis, they do it in any case, and this causes negative labelling of learners. Formal diagnosis by appropriate practitioners can have positive results, as the learners' barriers to learning will be understood and will not be seen as behavioural problems or negative attitudes.

According to Clarren, Olson, Clarren and Astley (2000), Streissguth and Kanter (2002) and Kulp, (2002), it is important to diagnose FASD as soon as possible to prevent barriers to learning from developing or intensifying. This might present a very big and possibly impossible task in SA due to the high prevalence of this disorder and the financial constraints involved. However, potential births of children with FASD could be identified where possible. Clarren et al. (2000, p. 2) point out that "cases of women drinking purposefully during pregnancy to harm her child is rare." These authors also say that early diagnoses can be therapeutic to the biological mother if she is informed, as she will know that the affected child will get the appropriate support and she will be likely to prevent future births of children with FASD.

None of the participants had admission interviews with the parents of the learners in their classes and therefore no information was gathered on the learners' developmental history or whether alcohol was consumed during pregnancy. If parents volunteer to

disclose, it could provide an ideal opportunity to educate them and give guidance in an empathic and considerate manner.

It can thus be concluded that very little or no information is conveyed to the education system to confirm that FASD is a leading cause of learning barriers. Ignorance might therefore contribute to the mismanagement of learning problems in our schools where FASD can be a significant contributory factor. Learners with FASD might therefore be included in mainstream schools by default.

#### **5.2.6 PREVALENCE OF FASD IN SA**

The participants were well aware that alcohol abuse was a problem in the areas in which they were teaching and living. They were also aware of the large number of shebeens situated in these areas – they even knew which of the children’s families owned shebeens, were drug lords, and gangsters. Participants did not know that SA and the Western and Northern Cape had the highest prevalence of FASD in the world as they gave different estimates which ranged from between 10 out of 1 000 to 400 out of 1 000. They had no idea of the number of possible learners with FASD in their classes and estimated between two and three, four, five and none.

Consequently, educators seem unaware of the huge impact FASD might have on our education system in low socio-economic areas when considering the prevalence of FASD in South Africa. These estimates were completely wide of the mark in comparison to the findings from prevalence studies undertaken in SA. They all agreed that FASD could be a possible cause for the learning and behavioural problems in their

schools. They strongly agreed that alcohol abuse was probably the highest amongst the 'coloured' community.

### **5.3 LIMITATIONS OF THE RESEARCH**

Various limitations were experienced during this research project.

Participants seemed guarded in their initial responses. It would have been beneficial to have male participants as part of the research process. Most educators at primary schools are female. There were only a few male teachers at the participating schools and only one volunteered to be part of the research project. However, he withdrew because of school sports responsibilities.

I am not sure how much my involvement in the schools (the researcher as an insider), trying to learn more from the participants' points of view, impacted on the research findings, as I was working as a representative of the department of education at the time.

The research study focused primarily on educators' knowledge of and attitude toward learners with FASD. I experienced great difficulty in concentrating on alcohol abuse alone, as the participants always made reference to both alcohol and drug abuse because both are rampant and problematic in the areas in which they work.

## 5.4 RECOMMENDATIONS

Based on the findings of the research, various recommendations are made. They are presented and discussed below.

It is recommended that FASD be recognised as a potentially disabling condition. No research has been done on the prevalence of FASD in mainstream schools on the Cape Flats. Research has been limited to the wine farming areas of Wellington, Robertson and Stellenbosch, and other farms in the De Aar district (London, 1999; May et al., 2000; Viljoen et al., 2005; May et al., 2007). Research on the prevalence of FASD at schools in the poorer communities of South Africa could possibly shed light on the high percentage of learning problems experienced in these schools, especially in reading and mathematics. Research on the impact of FASD could also possibly explain some of the reasons for the huge school dropout rate in the low socio-economic schools at the end of primary school and the beginning of high school.

It is further recommended that admission interviews be conducted with parents to gain insight into the learners' developmental milestones, and to identify possible learning and socio-economic barriers which the learner might be experiencing as soon as possible for intervention and support.

Interventions at these schools could be geared toward supporting these learners where they need it most with regard to their developmental framework. Since FASD interferes with a learner's normal development and causes developmental delays, the learners find it difficult to negotiate on their own and need educators to guide and support them. It is therefore recommended that behavioural interventions, neurobehavioural



approaches and the advocacy model be employed to intervene on learners' behalf, so that they can be supported (Streissguth, 1997; Malbin, 2005).

Both pre-service and in-service training and information with regard to FASD and barriers to learning should be given to educators, especially those teaching in poor areas with a high rate of learning problems caused by developmental delay. Early intervention is crucial for the optimal development of learners with learning barriers and FASD, as it may prevent learning problems from escalating and could provide learners with the required support. Early intervention may also prevent secondary disabilities later in life (Clarren, S.K., Olsen, H.C., Clarren, S.G.B., & Astley, S.J, 2000; Streissguth & Kanter, 2002; Landsberg et al., 2005). With the right support and services learners with FASD can lead happy and productive lives.

It is recommended that NGOs and community organizations, public health centres, schools, factories and offices should inform their staff and the communities, and that this support should not come only from hospitals and clinics. Ministers of churches could be trained and be utilised to inform their parishioners about the dangers of prenatal alcohol abuse. Without intervention against the dangers of prenatal alcohol consumption, the problem will continue and escalate the cycle of poverty, abuse and neglect in the low socio-economic areas. Consequently, a vast number of South Africans will continue to live below the breadline and be dependent on handouts from the government as their potential skills go to waste (Donald et al., 2005).

Overcrowded classes in the poorer schools in SA add to learning problems. Support should be given to educators by way of smaller classes so that they in turn can help learners with FASD and other learning problems. Differentiated teaching could be beneficial.

Research into the possible correlation between criminal behaviour and FASD is recommended to ascertain what impact FASD might have on crime in SA.

As the participants continually referred to drug and alcohol abuse, it is evident that these problems go hand in hand. It is therefore recommended that future research be done in the low socio-economic areas to see what effect drug and alcohol abuse has on the learners in these areas.

## **5.5 CONCLUSION AND REFLECTION**

In conclusion I would like to reflect on the research outcomes. According to the ontological position we accept that the social world exists independently of individual subjectivity (Lincoln & Guba, 2002, cited in Mertens, 2005). This social world is only accessible via the respondent's interpretation, which may be further interpreted by the researcher. It is also accepted that different respondents will have different vantage points, which will result in different understandings (Ritchie & Lewis, 2003; Mertens, 2005). Through this research process I have tried to describe the participants' interpretation of their knowledge of and attitude toward learners with FASD.

I have reflected on the outcomes. I expected participants to be better informed on the aetiology, manifestations, prevalence and prognosis of FASD. From the research findings it is clear that very little or no support was given to learners with FASD, because participants had insufficient and inadequate knowledge and skills regarding FASD. The participants' lack of knowledge of FASD caused them to have negative feelings and attitudes toward learners and parents of learners with FASD, which

resulted in negative labelling and blaming and shaming. It also provoked feelings of inadequacy (lack of confidence) and anxiety in both learners and educators, which in turn had negative outcomes for both parties.

As far as the department of education is concerned, insufficient human and material resources, which are crucial to inclusion, according to White Paper 6 (DoE, 2001; Lomofsky & Lazarus, 2001), and an inflexible curriculum in the schools, especially in low socio-economic areas (seeing that learners with possible FASD mostly attend mainstream schools), illustrate that FASD is a hidden disability in SA, as no acknowledgement or support is given to learners with FASD. This is a cause for concern, especially since FASD is the leading cause of intellectual disability in the world and SA has the highest prevalence of this disorder.

I once again became aware of the sensitivity of the subject and the stigma attached to FASD. As alcohol is a legal drug in SA, and alcohol consumption and abuse are common, society seems to accept these phenomena unquestioningly. Not enough information on the dangers of alcohol abuse is known in SA, especially amongst the poor and the uneducated, as it is under-reported and under-diagnosed. FASD is a lifelong disability which impacts on human potential and puts a heavy social and economic burden on those with the disorder, as well as on their families. It affects whole communities and the country as a whole.

In the light of the above, it has become clear to me that learners with FASD should receive the necessary support in schools to enhance their potential as far as possible and to avoid secondary disabilities from occurring later in life. Early identification and

destigmatisation of FASD by involving hospitals, the education system, and clinics is important.

FASD should be recognised in SA as a potential and significant contributor to learning barriers in most of the low socio-economic schools. Educators should be given the skills to help learners with FASD, as they are very often the only significant role-players in the lives of such learners. Educators can make a meaningful difference to the future of learners with FASD, especially in view of the limited resources in South Africa. Hopefully what little information is conveyed will make a difference in someone's life.

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## ADDENDUM A

Navrae  
Enquiries **Dr RS Cornelissen**  
IMibuzo

Telefoon  
Telephone **(021) 467-2286**  
IFoni

Faks  
Fax **(021) 425-7445**  
IFeksi

Verwysing  
Reference **20080110-0018**  
ISalathiso



ap Onderwysdepartement \_\_\_\_\_

pe Education Department \_\_\_\_\_

Mfundo leNtshona Koloni \_\_\_\_\_

Mrs Patricia Scheepers  
65 Suikerbossie Street  
La Rochelle  
BELLVILLE  
7530

**Dear Mrs P. Scheepers**

**RESEARCH PROPOSAL: AN INVESTIGATION TO DETERMINE EDUCATORS' KNOWLEDGE AND ATTITUDE TOWARDS LEARNERS MANIFESTING FETAL ALCOHOL SPECTRUM DISORDER (FASD).**

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **1<sup>st</sup> February 2008 to 20<sup>th</sup> March 2008.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the Principal where the intended research is to be conducted.
9. Your research will be limited to the following schools:
10. A brief summary of the content, findings and recommendations is provided to the Director: Education Research.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

**The Director: Education Research  
Western Cape Education Department  
Private Bag X9114  
CAPE TOWN  
8000**

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen  
for: **HEAD: EDUCATION**

**DATE: 22<sup>nd</sup> January 2008**



**ADDENDUM B**

Ella Belcher

Language Editor and Translator

46 Brandwacht Street

Stellenbosch

Member of the South African Translators' Institute

☎ +27+21-8870572    📞 083 294 8393    📠 088-021-8870572

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**DECLARATION**

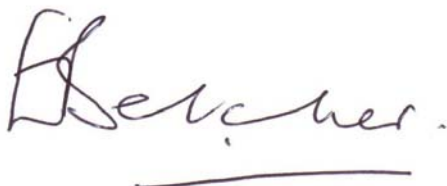
I hereby certify that the Master's thesis named below has been properly language edited:

Title of thesis

Educators' knowledge of and attitude toward Fetal Alcohol Spectrum Disorder

Candidate

Patricia Scheepers



A handwritten signature in cursive script that reads "Ella Belcher". The signature is written in dark ink and is positioned above a horizontal line.

ELLA BELCHER

Stellenbosch

12 August 2009

**ADDENDUM C****STELLENBOSCH UNIVERSITY****CONSENT TO PARTICIPATE IN RESEARCH**

---

**“Educators’ knowledge and attitude towards learners manifesting with Fetal Alcohol Spectrum Disorder (FASD)”**

You are asked to participate in a research study conducted by Patricia Scheepers, from the Department of Educational Psychology, Education Support, at Stellenbosch University. The results will be contributed to a research thesis. You were selected as a possible participant in this study because you have educated/taught learners with Fetal Alcohol Spectrum Disorder. I would like to know what your knowledge and attitude are towards learners with FASD.

**1. PURPOSE OF THE STUDY**

The purpose of the study is to find out what educators knowledge and attitude are towards learners manifesting with FASD. I hope that this information will contribute toward educational support for both educator and learner in mainstream education.

**2. PROCEDURES**

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

- 2.1 Give me (the researcher) permission to interview you at your school (after hours).
- 2.2 It will take about an hour of your time.
- 2.3 The appointment will be arranged by you at your convenience.
- 2.4 If it is not convenient for me to come to your school then an alternative arrangement will be made.

### **3. POTENTIAL RISKS AND DISCOMFORTS**

It is possible that some of the questions that I ask may make you feel uncomfortable. At no time is the questions meant to make you feel threatened, or that you are being judged'; they are only asked in such a way to get the relevant information.

### **4. POTENTIAL BENEFITS TO SUBJECTS AND/OR SOCIETY**

I hope that your participation in the study will help learners with FASD get the relevant support they need in mainstream schools and educators the skills they need to educate these learners. Hopefully this research will also lead to early identification of FASD learners. No remuneration (payment) will be made to participants.

### **5. PAYMENT FOR PARTICIPATION**

There are no costs associated with taking part in this study and you receive no payment to take part in the study.

### **6. CONFIDENTIALITY**

Any information that is obtained in this study that can be identified with you will remain confidential and will be disclosed only with your permission or as required by

law. Confidentiality will be maintained by means of keeping the information, i.e. the conversations/interviews, written and audio-taped, as well as the journal, in a safe, locked cabinet.

You have the right to review/edit the audio-tape used in this research. The purpose of the audio-tape is to validate the research. The audio-tape will allow me (the researcher) to listen to our conversation again, to ensure that I do not lose out on important information. All transcriptions will be coded into relevant themes (divided into relevant categories). The only persons that will have access to this information are the researcher, my supervisor and the examiners at the institution through which this research is conducted.

No names of participants or institutions will be disclosed in the publication of results.

## **7. PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study you can withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

## 8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Patricia Scheepers (principal investigator) at 021 - 910-2268 or 072 4320665, or Mariechen Perold (supervisor) at 021 - 8082307.

## 9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms M Hunter-Husselman at 021 - 8084623 at the Unit for Research Development.

<p><b>SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE</b></p>
---

<p><b>SCHOOL MANAGERS</b></p>
-------------------------------

The information above was described to me (the SCHOOL PRINCIPAL) by Patricia Scheepers in Afrikaans/English and I (the participant) I have a command of this language, or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby give my consent for the research study to be conducted at this educational institute \_\_\_\_\_ . I have been given a copy of this form.

**Name of Principal**

\_\_\_\_\_

**Name of Legal Representative (If applicable)**

\_\_\_\_\_

**Signature** \_\_\_\_\_ **of** \_\_\_\_\_ **Principal** \_\_\_\_\_

**Date** \_\_\_\_\_

**SIGNATURE OF INVESTIGATOR**

I declare that I explained the information given in this document to \_\_\_\_\_

(name of the subject/participant) and /or (his/her) representative \_\_\_\_\_

(name of the representative). (He/she) was encouraged and given ample time to ask me any questions. This conversation was conducted in (Afrikaans/English/Other) and no translator was used/this conversation was translated into \_\_\_\_\_ by \_\_\_\_\_.

**Signature** \_\_\_\_\_ **of**

**Investigator** \_\_\_\_\_ **Date** \_\_\_\_\_

**ADDENDUM D****STELLENBOSCH UNIVERSITY****CONSENT TO PARTICIPATE IN RESEARCH**

---

***“Educators’ knowledge and attitude towards learners manifesting with Fetal Alcohol Spectrum Disorder (FASD)”***

You are asked to participate in a research study conducted by Patricia Scheepers, from the Department of Educational Psychology, Education Support, at Stellenbosch University. The results will be contributed to a research thesis. You were selected as a possible participant in this study because you have educated/taught learners with Fetal Alcohol Spectrum Disorder. I would like to determine your knowledge of and attitude toward learners with FASD.

**1. PURPOSE OF THE STUDY**

The purpose of the study is to determine educators’ knowledge of and attitude to learners with FASD. I hope that this information will contribute toward educational support for both educators and learners in mainstream education.

**2. PROCEDURES**

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

2.1 Give me (the researcher) permission to interview you at your school (after hours).

2.2 It will take about an hour of your time.

2.3 The appointment will be arranged by you at your convenience.

2.4 If it is not convenient for me to come to your school then an alternative arrangement will be made.

### **3. POTENTIAL RISKS AND DISCOMFORTS**

It is possible that some of the questions that I ask may make you feel uncomfortable. At no time are the questions meant to make you feel threatened, or that you are being judged; they are only asked in such a way to get the relevant information.

### **4. POTENTIAL BENEFITS TO SUBJECTS AND/OR SOCIETY**

I hope that your participation in the study will help learners with FASD get the relevant support they need in mainstream schools and educators the skills they need to educate these learners. Hopefully this research will also lead to early identification of FASD learners. No remuneration (payment) will be made to participants.

### **5. PAYMENT FOR PARTICIPATION**

There are no costs associated with taking part in this study and you receive no payment to take part in the study.

### **6. CONFIDENTIALITY**

Any information that is obtained in this study that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of keeping the information, i.e. the



conversations/interviews, written and audio-tape, as well as the journal, in a safe, locked cabinet.

You have the right to review/edit the audio-tape used in this research. The purpose of the audio-tape is to validate the research. The audio-tape will allow me (the researcher) to listen to our conversation again, to ensure that I do not lose out on important information. All transcriptions will be coded into relevant themes (divided into relevant categories). The only persons that will have access to this information are the researcher, my supervisor and the examiners at the institution through which this research is conducted.

No names of participants or institutions will be disclosed in the publication of results.

## **7. PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study you can withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

**8. IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact Patricia Scheepers (principal investigator) at 021 - 910-2268 or 072 4320665, or Mariechen Perold (supervisor) at 021 - 8082307.

**9. RIGHTS OF RESEARCH SUBJECTS**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms M. Hunter-Husselman at 021 - 8084623 at the Unit for Research Development.

**SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE**

The information above was described to me (the participant) by Patricia Scheepers in Afrikaans/English and I (the participant) I have a command of am fluent in this language or it was satisfactorily translated to me (the participant). I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

\_\_\_\_\_  
**Name of Subject/Participant**

\_\_\_\_\_  
**Name of Legal Representative (If applicable)**

\_\_\_\_\_  
**Signature of Subject/Participant or Legal Representative**

\_\_\_\_\_  
**Date**

**SIGNATURE OF INVESTIGATOR**

I declare that I explained the information given in this document to

\_\_\_\_\_

(name of the subject/participant) and /or (his/her) representative

\_\_\_\_\_

(name of the representative). He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in (Afrikaans/English/Other) and no translator was used/this conversation was translated into \_\_\_\_\_by\_\_\_\_\_).

\_\_\_\_\_  
**Investigator** **Signature** **of**

\_\_\_\_\_  
**Date**

## ADDENDUM E

### **Semi-structured, open-ended interviews to be conducted with educators**

Educator's knowledge and attitude, towards learners with Fetal Alcohol Spectrum Disorder (FASD).

1. What is your current teaching position?
2. How many years' teaching experience do you have?
3. In what type of community is your school situated (rural, urban)?
4. What are the socio-economic conditions of this community?
5. What is your racial/ethnic group (educator)?
6. " " " " (learners)?
7. What would you consider the most negative communal effect in this community that impacts on the learners?
8. Do you know what Fetal Alcohol Syndrome (FAS) is?
9. " " " " Fetal Alcohol Spectrum Disorder (FASD) is?
10. What do you know about FASD?
11. How do you feel about FASD?
12. Where did you get your information?
13. Do you have learners in your class that have been diagnosed with FASD?
14. How do you know that?
15. Do you think that there are learners in your class with FASD?
16. How do you know that?
17. Are you able to diagnose/identify learners with FASD?
18. Who do you think is able to diagnose learners with FASD?
19. What diagnostic criteria are being used to identify learners with FASD?
20. Are you aware of parents/mothers of learners in your class who consume alcohol in an unhealthy manner?

21. How do you know that?
22. Do you have admission interviews with your parents on the developmental history of the learners?
23. If 'yes' does it include questions on prenatal alcohol consumption?
24. How well prepared are you to teach learners who may be diagnosed with FASD?
25. Name some of the problems that you experience in teaching learners with FASD.
26. Do you handle/treat possible FAS learners differently from other learners in your class?
27. How many learners have you taught in the past that were diagnosed with FASD?
28. " " " " " " " " you suspected as having FASD?
29. What do you think is the prevalence of FAS across the different racial/ethnic groups in SA?
30. What is the prevalence rate across the various socio-economic groups in SA?
31. During which period of fetal development is the risk of FASD higher for a pregnant woman to consume alcohol?
32. A conservative estimate of the prevalence of FAS in SA is approximately ..... per 1 000 births.
33. What is the minimal level of alcohol consumption that would place the fetus at risk for FASD?
34. Do you need to learn more about FASD to assist the learners?

**ADDENDUM F****ONDERWYSER-VRAELYS****VRAE RAKENDE FETALE ALKOHOL SPEKTRUM SINDROOM**

1. Wat is u huidige posisie in die onderwys?
2. Hoeveel jaar onderwysondervinding het u?
3. In watter area is u skool geleë (stedelik of landelik)?
4. Gee 'n beskrywing van die sosio-ekonomiese omstandighede van u skoolgemeenskap.
5. Van watter etniese groep is u?
6. Van watter bevolkingsgroep is die leerders?
7. Wat sou u beskou as die mees negatiewe gemeenskaplike en sosiale agterstand wat u leerders affekteer?
8. Kan u aan my verduidelik wat fetale alkohol sindroom is?
9. Weet u wat fetale alkohol spektrum versteuring is?
10. Wat is u kennis van FASD?
11. Hoe voel u oor FASD?
12. Waar het u u informasie gekry?
13. Dink u dat daar leerders met FASD in u klas is?
14. Hoe weet u dit?
15. Het u leerders in u klas wat gediagnoseer is met FASD?
16. Hoe weet u dit?
17. Kan u leerders met FASD identifiseer/diagnoseer?
18. Wie kan volgens u mening leerders met FASD diagnoseer?
19. Watter diagnostiese kriteria gebruik u om leerders te identifiseer?
20. Is u bewus van moeders van leerders in u klas wat alkohol misbruik?
21. Hoe weet u dit?

22. Het u toelatingsonderhoude met u ouers oor die ontwikkelingsmylpale van u leerders gevoer?
23. Indien ja, sluit u toelatingsonderhoud vrae in oor alkoholmisbruik gedurende swangerskap?
24. Voel u bevoeg om leerders met moontlike FASD te leer/onderrig?
25. Noem van die probleme wat u ondervind tydens die onderrig van FASD leerders.
26. Hanteer/behandel u moontlike FASD leerders anders as ander leerders in u klas?
27. Hoeveel leerders het u in die verlede onderrig wat met FASD gediagnoseer was?
28. Hoeveel leerders het u in die verlede onderrig wat u vermoed moontlik leerders met FASD was?
29. Wat dink u is die voorkoms van FASD in SA in die verskillende rasse groepe?
30. Wat dink u is die voorkoms van FASD in die verskillende sosio-ekonomiese groepe in SA?
31. Gedurende watter ontwikkelingstadium van die fetus is die moontlikheid dat die baba wat bloot gestel is aan alkohol met FASD gebore kan word?
32. 'n Konserwatiewe skatting oor die voorkoms van FASD in SA is ongeveer ..... per 1000 geboortes.
33. Wat is die minste inname van alkohol wat ongebore baba in gevaar sal stel vir die ontwikkeling van FASD?
34. Voel u dat u meer oor FASD wil weet om die leerders te ondersteun?

**ADDENDUM G**  
**ONDERWYSER-VRAELYS**  
**VRAE RAKENDE FETALE ALKOHOL SPEKTRUM SINDROOM**  
**(RESPONSE OP VRAE DEUR EEN RESPONDENT)**

1. Wat is u huidige posisie in die onderwys?
  - Graad 7 Senior KS opvoeder.
  
2. Hoeveel jaar onderwysondervinding het u?
  - 29 ½ jaar, en 29 ½ jaar by dieselfde skool.
  
3. In watter area is u skool geleë (stedelik of landelik)?
  - Stedelik.
  
4. Gee 'n beskrywing van die sosio-ekonomiese omstandighede van u skool gemeenskap.
  - Baie agterplaasbewoners, baie gesinne woon saam. Alkohol en dwelm misbruik, armoede, werkloosheid en misdad. Mans lê leeg, vroumense wat meesal werk. Baie sjebiens, kinders gaan sit ook in sjebiens. Drank en tik word verkoop.
  
5. Van watter etniese groep is u?
  - Bruin.
  
6. Van watter bevolkingsgroep is die leerders?
  - Bruin.



7. Wat sou u beskou as die mees negatiewe gemeenskaplike en sosiale agterstand wat u leerders affekteer?
- Drank- en dwelmmisbruik en natuurlik misdaad, armoede en werkloosheid.
8. Kan u aan my verduidelik wat fetale alkohol sindroom is?
- Wanneer 'n moeder baie alkohol gebruik het gedurende swangerskap, en gereeld alkohol gebruik het gedurende swangerskap.
9. Weet u wat fetale alkohol spektrum versteuring is?
- Nee, nie eintlik nie.
10. Wat is u kennis van FASD?
- Soos nommer 8. Die kind is agterlik fisies en verstandelik, gewoonlik kleiner as ander kinders. Is die spektrum nie soos die gewone sindroom nie?
11. Hoe voel u oor FASD?
- Die ma het die kind 'n onreg aangedoen. Ma is selfsugtig. Nie bevoegd om ma te wees nie. Gebruik nie geboortebepanning nie. As sy verslaaf is aan alkohol kan sy nie anders nie.
12. Waar het u u informasie gekry?
- Maar so in die rondte gehoor daarvan, televisie en boeke.
13. Dink u dat daar leerders met FASD in u klas is?
- Ja. Een ma het gesê dat sy baie gedrink het toe sy swanger was met 'n leerder in my klas. Sy het tot bekering gekom.

14. Hoe weet u dit?

- Ma het self erken.

14. Het u leerders in u klas wat gediagnoseer is met FASD?

- Nee geen.

15. Hoe weet u dit?

- Geen bewys ontvang van hospitale of ouers nie.

16. Kan u leerders met FASD identifiseer/ diagnoseer?

- Nee.

17. Wie kan volgens u mening leerders met FASD diagnoseer?

- Dokters en verpleegsters.

18. Watter diagnostiese kriteria gebruik u om leerders te identifiseer?

- Kinders wat kleiner en stadig is. Verskillende faktore, moet hul geskiedenis ken en hul ouers.

19. Is u bewus van moeders van leerders in u klas wat alkohol misbruik?

- Ja; ma wat erken het.

20. Hoe weet u dit?

- Ma het self gesê.

21. Het u toelatingsonderhoude met u ouers oor die ontwikkelingsmylpale van u leerders gevoer?

- Nee geen. Administrasie doen die toelating.
22. Indien ja, sluit u toelatingsonderhoud vrae in oor alkoholmisbruik gedurende swangerskap?
- Nee geen.
23. Voel u bevoeg om leerders met moontlike FASD te leer/onderrig?
- Nee. Ek probeer leerders aanmoedig en doen drilwerk maar dit help nie.
24. Noem van die probleme wat u ondervind tydens die onderrig van FASD-leerders.
- Konsentrasieprobleme, hulle loop rond en is 'n steuring in die klas. Steur ander leerders. Wiskunde en lees is swak, hulle kan nie vorder nie.
25. Hanteer/behandel u moontlike FASD leerders anders as ander leerders in u klas?
- Nee, behandel almal dieselfde.
26. Hoeveel leerders het u in die verlede onderrig wat met FASD gediagnoseer was?
- Geen.
27. Hoeveel leerders het u in die verlede onderrig wat u vermoed moontlik leerders met FASD was?
- 3 tot 4 per jaar.
28. Wat dink u is die voorkoms van FASD in SA in die verskillende rasse-groepe?
- Bruinmense. Ek dink dit is by ons mense die meeste.

29. Wat dink u is die voorkoms van FASD in die verskillende sosio-ekonomiese groepe in SA?

- Arm mense.

30. Gedurende watter ontwikkelings stadium van die fetus is die ontwikkeling van FASD gedurende swangerskap die grootste?

- Reg deur swangerskap.

31. 'n Konservatiewe skatting oor die voorkoms van FASD in SA is ongeveer ..... per 1 000 geboortes?

- 10 per 1 000

32. Wat is die minste inname van alkohol wat 'n ongebore baba in gevaar sal stel vir die ontwikkeling van FASD?

- 'n Glas per dag.

33. Voel u dat u meer oor FASD wil weet om die leerders te ondersteun?

- Ja baie beslis.

**ADDENDUM H**  
**EXTRACTS FROM JOURNAL**

I was again confronted in these areas with the utter social decay. Poverty, unemployment, drug and alcohol abuse and gangsterism are rife. How children suffer in these communities because of the above factors. How many fathers are in jail and mothers get involved with other men (run off in some cases) and leave the children in the care of grandparents.

Mothers, alcoholics leave older siblings at home to care for the younger ones while they go out drinking which results in their not being able to attend school. I had a few cases where social services removed children and placed them in foster care. Learners asking to be placed in foster care, to be removed from single, drunk alcoholic, drug abusive parent (mother/ father). Lack of motivation and role models for learners a high drop-out rate amongst learners. Many learners are not able to cope in mainstream schools and with the demands of the national curriculum.

Many learners that need educational support or special school placement, but not enough special schools to accommodate them, no support in mainstream schools for them, huge overcrowded classrooms with ill equipped demoralised educators. Poor schooling conditions both the structure (buildings) and poorly under equipped books and stationery. Schools plagued by break-ins and vandalism. Telephone and electricity often out of order due to regular vandalism at the schools.

Drug and alcohol abuse by junior and senior learners, shebeens/ drug dealers all over the community right next to the schools. Learners are often physically, emotionally and sexually abused.

The poor limited education of the parents themselves. Poor receptive and expressive language of the parents and as a result learner's have problems with communication.

More mothers than fathers work and support the family. In some cases everybody is unemployed and live on a government grant or an elderly pensioner's income. Learners witnessing violence, murders being committed in front of them and being victimized by gangsters if they speak or report to police. Very often the meal they get at school (feeding scheme) is the only meal they have for the day.