Liezl Myburgh - Full Thesis

Support strategies used by Foundation Phase teachers to enhance the social skills of learners with High Functioning Autism.

by

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A full dissertation submitted in fulfilment of the requirements for the degree of Master in Education

Presented to the Faculty of Education and Social Sciences at the Cape Peninsula University of Technology

July 2019

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DECLARATION

I, Liezl Myburgh, hereby declare that an investigation into the support strategies used by Foundation Phase teachers to enhance the social skills of learners with High Functioning Autism is my own work and that it has not been submitted for any degree in any other university.

Signed: ....

Liezl Myburgh (209003480)

Date: July 2019

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ABSTRACT

This research identified and addressed the main research question: "What support strategies do Foundation Phase teachers use to enhance the social skills of learners with High Functioning Autism (HFA)". The researcher selected three schools which provided specific social skills training for their teachers who work with HFA learners. By observing what support strategies these teachers deployed, the researcher was able to build a knowledge base which could be shared with many teachers across the Cape Province who are involved with HFA learners, but who have not had structured training in such inclusive education environments. Four major points of interest have emerged to answer the research question and provide assistance to teachers who are challenged by their lack of information. These four support strategies most used by the teachers to enhance the social skills in HFA learners included: group work, structured play, social stories and visual aids with verbal motivation. The efficacy of these strategies depended upon the District Based Support Teams offering specialised assistance; the significant role that parental involvement plays; the contribution made by peer learners in an inclusive classroom; and the potential of this research to act as a guideline manual for teachers in rural and remote areas. Vygotsky's socio-cultural theory and Bronfenbrenner's ecological systems theory were used as the theoretical frameworks underpinning this study as they focus on the links between social interactions, cognitive development and the enhancement of social skills of FP learners with HFA. A qualitative, interpretative case-study research approach was followed using data from interviews and observations which were inductively analysed. Five teachers from three different schools were purposively selected to take part in this study.

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LIST OF ACRONYMS/ ABBREVIATIONS

ABA	Applied Behaviour Analysis
APA	American Psychiatric Association
ASD	Autism Spectrum Disorder
CAPS	Curriculum and Assessment Policy Statement
DBE	Department of Basic Education
DIR	Developmental, Individual differences, Relationship-based model
DoE	Department of Education
DSM-III	Diagnostic and Statistical Manual of Mental Disorders 3rd ed
DSM-III-R	Diagnostic and Statistical Manual of Mental Disorders 3rd ed. revised.
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders 4th ed.
DSM-V	Diagnostic and Statistical Manual of Mental Disorders 5th ed
et al.	and others
FP	Foundation Phase
GSSI	Group-based Social Skills Interventions
HFA	High Functioning Autism
LSEN	Learners with Special Educational Needs
MAKATON	The Makaton language programme
NPO	Non-Profit Organisation
PECS	Picture Exchange Communication System
SIAS	The National Strategy on Screening, Identification, Assessment and Support
SNAP	Special Needs Adapted Program
SPID	Severe to Profound Intellectual Disability
TEACCH	Treatment and Education of Autistic and Communication related handicapped CHildren
WCED	Western Cape Education Department
ZPD	Zone of Proximal Development

CHAPTER 1

ORIENTATION OF THE STUDY

1.1 Introduction

This introductory chapter describes the research study presented in the dissertation and includes the background, importance and context of the study. It contains a description of the research approaches adopted and deployed in this study. Chapter 1 further introduces the purpose and goals, research question, clarification of terms, significance, limitations, assumptions and the organisation of each chapter within the dissertation. In order to sustain consistency and clarity throughout this research study, the terms used in the study are explained.

The researcher became interested in working with learners with barriers to learning when she was appointed as a Foundation Phase (FP) teacher at a school for Learners with Special Educational Needs (LSEN) in Paarl, in the Western Cape, South Africa. During the five years she worked full-time with learners who experienced various barriers to learning, the researcher became aware that the impairment of their social interactions made it difficult for High Functioning Autistic (HFA) learners to act in a socially acceptable manner; which is often frowned upon by society. Through these experiences, the researcher developed a passion for understanding and working with Autistic Spectrum Disorder (ASD) learners; especially those with HFA, and for making parents and the community aware of the potential for improving the lives and learning capacity of these specific learners.

The researcher soon realised that she had little knowledge regarding the educational challenges of working with learners with HFA learners because she had received no specific training on how to work with ASD learners during her undergraduate teacher training, nor from the Department of Basic Education (DBE) and the Western Cape Education Department (WCED). Although Autism South Africa and Autism Western Cape offered occasional, non-government workshops and training sessions, it was not always accessible to the researcher to attend such classes due to the location, duration and cost of the workshops.

The researcher chose to complete her B Ed Honours degree where the focus of her research project was on ASD which she purposefully selected with the aim of obtaining more knowledge about ASD learners and how to better equip herself to work with ASD learners.

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1.2 Origin and background of the study

Although the term HFA is not a formal diagnosis, it is used to distinguish the learners with ASD who are on a higher level of functioning and need less support (Ashley, 2007: 17). Although this research study focuses on HFA, a brief history and background of ASD is provided since learners with HFA experience the same deficits associated with ASD.

Eugen Bleuler, a Swiss psychiatrist, first coined the term 'Autism' in 1910 to refer to what he believed was one of the most important symptoms of schizophrenia (Verhoeff, 2013). This term was defined as "a definite withdrawal from the external word" (Beuler, cited in Kanner, 1973: 94). Leo Kanner adapted this term to 'infantile Autism' to describe the time when remoteness from affection with others manifested, which was similar to the emotional remoteness of Bleuler's schizophrenic patients (Kanner, 1973). Kanner described 'infantile autism' as a 'psychobiological disorder' (Verhoeff, 2013: 449). The term 'infantile Autism' became more official in 1980 when the Diagnostic and Statistical Manual of Mental Disorders (DSM-III, 1980) was published by the American Psychiatric Association (APA) and required an onset before 30 months (Verhoeff, 2013). The revised DSM-III (DSM-III-R, 1987) removed the use of the term 'infantile' and referred to the disorder as 'Autism'. According to the DSM-III-R (1987), 'Autism' was defined as problems associated with and arising from poor social interaction and communication: the term could be diagnosed during childhood and not infancy alone.

According to the classification in the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV, 1994), 'Autism Spectrum Disorders' were grouped together with four other related pervasive development disorders which included:

- Autism;
- Rett Syndrome;
- Childhood Disintegrated Disorder;
- Asperger's Syndrome; and
- Pervasive Developmental Disorder, not otherwise specified.

According to the Autism Society (2016), the term 'Autism' was redefined in the Diagnostic and Statistical Manual of Mental Disorders V (DSM-V, 2013) and replaced by the diagnosis of Autism Spectrum Disorder (ASD). The shift towards this new broad category of ASD occurred because of the lack of evidence to distinguish between 'Asperger Syndrome' (AS) and 'High Functioning Autism' (HFA) (Happé, 2011). The current criteria for ASD include deficits in social-emotional reciprocity, deficits in nonverbal communicative behaviours used for social interaction and deficits in developing, maintaining and understanding relationships (DSM-V, 2013).

The American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders V (DSM-V) (2013: 50) defines ASD (of which HFA is on the spectrum) as a neurodevelopmental, biologically determined disorder; characterised by a triad of impairments which involve social interactions, communication skills and imagination. Since ASD includes such a wide spectrum of difficulties, the researcher became interested in the particular support strategies that various FP teachers use to develop the social skills of their HFA learners.

The more the researcher informally inquired into this topic, the more she realised that many teachers have developed their own support strategies which they implement in their own classrooms. This lack of training and knowledge of how to work with HFA learners encouraged the researcher to explore this topic further with the potential of this research to act as a manual for teachers in rural and remote areas regarding support strategies to develop the social skills that these learners lack.

1.3 Importance of the study

Wilford (2013) posits that out of 15 million youth (0-18years) 150 000 possibly have Autism Spectrum Disorder (ASD) and that it is an under-researched mental health disorder in South Africa. Franz, Chambers, Von Isenburg & De Vries (2017: 723) state that no ASD pervasiveness studies were conducted in sub-Saharan Africa and that the quality and size of existing studies are limited. Franz et al. (2017: 723) are of the opinion that although an estimated 90% of individuals with ASD live in low- and middle-income countries, fewer than 10% of all ASD research projects were performed in these countries. Franz et al. (2017) state that less than 1% of global research on ASD learners was conducted on the African continent and no studies on early intervention or educational systems for ASD were performed prior to 2016. This gap indicates the need for research into support for such learners.

There are several policy documents in South Africa such as the White Paper 6: Special Needs Education (DoE, 2001), the Constitution of South Africa (1996), and the Policy on Screening Identification Assessment and Support (SIAS) (DBE, 2014), which explicitly support the inclusion of learners with special educational needs; including HFA learners. Both the White Paper 6: Special Needs Education (DoE, 2001: 11) and the Constitution of the Republic of South Africa (1996) section 29(1)(a) state that "every person has the right to basic education and these clauses protect all learners, whether they are disabled or not". Although Ford (2013: 8) states that learners with diverse learning needs should be "supplied with instructional methods and materials that are matched to their needs" and requires flexibility in the "adjusting of the curriculum based upon student needs", the SIAS (2014: 12) document identifies one of the barriers to learning as "inflexible curriculum implementation at schools".

The World Bank Report (2018: 22) states that professional development for teachers is "often inconsistent and overly theoretical": although effective teaching is dependent on the skills and motivation of the teachers. They state that "in Sub-Saharan Africa, teacher training is often too short to be effective and too low in quality to make a difference". Similarly, the Global Education Monitoring Report of 2017/18 (2017: 46) indicates there is "inadequate professional capacity development" in South African schools, accompanied by a "lack of support from the Department of Education". The White Paper 6 (DoE, 2001: 17), developed by the Department of Education in South Africa, acknowledges that "different learning needs arise from a range of factors, including physical, mental, sensory, neurological and developmental impairments, psycho-social disturbances, differences in intellectual ability, particular life experiences or socio-economic deprivation". Yet this policy document does not provide explicit guidelines or support strategies for working with HFA learners. de Jager and Condy (2017: 1) confirm this point of view by stating that: "… unfortunately, although sound in theory, the White Paper 6 policy is difficult to implement in schools". Rieser (2012: 136) states that HFA learners "… need teachers, peers and parents who understand them and their needs", to ensure that they are included in educational learning.

Unfortunately, this envisioned ideal is not realised because many teachers in 'mainstream' schools are not equipped or supported to accommodate ASD and HFA learners within mainstream classrooms. Ford (2013: 4) supports this by stating that not all "teachers are willing to include students with special needs in their classrooms". Although there is a dearth of national and international research into this complex field of social skill enhancement of ASD and HFA learners (Franz et al., 2017), there is little training available for teachers concerning the various support strategies that are available and which can be used to enhance social skills of ASD and HFA learners in the South African context. It is this lack of knowledge regarding the education of HFA learners that motivated the researcher to explore and investigate support strategies FP teachers can use to enhance social skills of these HFA learners.

1.4 Context of the study

The considerations when selecting sites for the data collection should include whether the sites were suitable for the research problem and take into account the researcher's resources such as time, mobility and skills (McMillan & Schumacher, 2014). The researcher had to identify three schools in various areas where HFA learners were educated in the FP. She had to determine whether the schools were close enough to be able to drive there for data-collection; taking time constraints into consideration, since she worked full-time. These sites were selected by evaluating the above-mentioned resources of the researcher; but also took into account the needs of the research

participants and their willingness to participate in this study (Okeke & Van Wyk, 2015). The actual sites are discussed in detail now.

The sites used for this research study, as shown in Table 1.1, included three diverse types of schools. School A was a full-service, rural, government primary school with an ASD resource class which catered for FP learners. School B was a privately funded non-profit ASD school in a rural town and included FP learners. School C was a government special needs school in an urban area which was built for the education of ASD learners. All three of these schools were purposively selected because they represented a variety of the types of schools that accommodate HFA learners in South Africa. Two of the schools were located in rural areas and one in an urban environment within the Cape Peninsula.

Table 1.1 Three diverse types of schools used for this study

School	School A	School B	School C
Type of school	A Government Full-service school with a Foundation Phase ASD resource class	NPO school	Government special needs school
Location of the school	Rural	Rural	Urban

1.5 The approach to the study

For this qualitative case study, two methods of data-collection were used. The researcher contacted each of the respective principals of the three selected schools in advance via Email to obtain permission to conduct the data-collection. She provided a detailed explanation of why their schools were selected, the importance of the study and what she planned to do with the collected data. During this conversation, the researcher offered her reasons for why she felt the specific teacher would be best suited to participate in this particular research study; since according to her, they met the pre-determined criteria for her study. The researcher sent each of the three principals the ethical clearances from Cape Peninsula University of Technology as well as the WCED. She forwarded her research proposal, together with the ethical clearances via Email. Since the WCED ethical clearance mentions that data collection is not allowed in the fourth term, the research was conducted in the respective schools from June-July 2017.

The principals introduced the researcher to the selected teachers who explained the procedures for data collection. She provided a detailed explanation to the teachers of why they were selected for this research study and what she planned to do with the collected data. Each of the five teachers was asked to sign a consent form, supplied by the researcher, to take part in the study. She

explained that each teacher taking part would remain anonymous and that they may withdraw from the study at any time without repercussions.

The principals and the research participants of Schools A and C agreed that the interviews would be completed during a free period during school hours and would be recorded. The interview with School B's teacher (T2) was conducted and recorded after school hours because she did not have free periods; due to the small size of the school and the limited number of teachers. The interviews of School A and B's teachers were conducted in Afrikaans because this was their preferred language and the home language of the researcher. These interviews were transcribed into Afrikaans and then translated into English by the researcher. All three of the interviews conducted in School C were in English and transcribed by the researcher.

All three of the observations were conducted during school hours and during periods where social skills were focused upon by the teachers. These observation sessions were pre-arranged with the teachers before the research was conducted. During all three of the classroom observations, each teacher introduced the researcher to the HFA learners before the lesson began. Thus, the researcher fulfilled the role of non-participant observer in the classroom, since she did not engage with the learners during the data collection, but the HFA learners were made aware of her presence. The researcher opted not to use video recording while observing the teachers because she felt that it may have an influence on data collection, and could have an impact on the behaviour of the learners with HFA. All three of the observations were captured by the researcher by writing on a pre-planned observation schedule. After the data were collected, the researcher made use of inductive data-analysis.

1.6 Purpose and goals of the research

The purpose of this study is to contribute to the limited information about various support strategies that FP teachers use for enhancement of social skills of HFA learners within the context of South African schools. Reiser (2012) states that early intervention that focusses specifically upon social skills are vital for HFA; therefore, the research was conducted with FP teachers.

The goals are to provide a detailed description of the deficits that HFA learners experience regarding social skills and the impact that it has on these learners. A subsidiary goal is to identify support strategies being utilised in various schools; to support these HFA learners to interact with others in a socially acceptable manner (Lowth, 2015).

1.7   The research title

Support strategies used by Foundation Phase teachers to enhance the social skills of learners with High Functioning Autism.

1.8   The main research question and the sub-question

The main research question is: What support strategies do FP teachers use to enhance the social skills of learners with HFA?

The research sub-question is: What challenges do FP teachers experience when supporting learners with HFA with social skills?

1.9 Clarification of terms

1.9.1   Autism Spectrum Disorder (ASD)

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V, 2013) states that ASD is classified as: "persistent deficits in social communication and social interaction across multiple contexts". The DSM-V (2013: 50) stipulates the following three main criteria for ASD:

- Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.

- Deficits in non-verbal communicative behaviours used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures to a total lack of facial expressions and non-verbal communication.

- Deficits in developing, maintaining and understanding relationships, ranging, for example, from difficulties adjusting behaviour to suit various social contexts; to difficulties in sharing imaginative play or in making friends to absence of interest in peers.

1.9.2   High Functioning Autism (HFA)

High Functioning Autism (HFA) is a condition within the "broad category of Autism Spectrum Disorder" (ASD) (Mazzone, Ruta & Reale, 2012: 1), and refers to learners classified in the DSM-V

(2013: 50) under the severity level 1 "requiring support". Therefore, the level of functioning in individuals with ASD can be determined by the level of "adaptive skills" which are necessary for a person with ASD to "function more independently in their environment" (Liss, Harel, Fein, Allen, Dunn, Feinstein, Morris, Waterhouse & Rapin, 2001: 219). Learners with ASD are referred to as high functioning when their level of "adaptive skills" development allows them to function more independently without constant supervision" (Liss et al., 2001: 219).

1.9.3   Special schools

According to the Department of Basic Education (2014: 8) "high levels of support provision will be available at special schools". The SIAS (DBE, 2014: 8) document states that special schools should accommodate learners "requiring specialist classroom/school organisation, facilities and personnel which are available on a high frequency and high-intensity basis". According to the Policy for the provision of quality education and support for children with severe to profound intellectual disability (DBE, 2017: 10), high educational support needs refer to "support that children with SPID (Severe to Profound Intellectual Disability) require in order to function optimally".

1.9.4   Full service/ inclusive schools

The SIAS (DBE, 2014: 8) document states that full service/ inclusive schools will provide moderate levels of educational support and are "inclusive and welcoming towards all learners in terms of their cultures, policies and practices". These schools "increase participation and reduce exclusion by providing support to all learners to develop their full potential irrespective of their background, culture, abilities or disabilities, their gender or race" (DBE, 2014: 8). The SIAS (DBE, 2014: 8) mentions that full service/ inclusive schools "will be strengthened and orientated to address a full range of barriers to learning in an inclusive education setting to serve as flagship schools of full inclusivity".

1.9.5   Foundation Phase

In South Africa, the term Foundation Phase refers to the first phase of formal education and stretches from Grade R to Grade 3. Within mainstream schools, the Foundation Phase accommodates learners with average ages varying from six to nine. For the purpose of this research study, the Foundation Phase not only refers to the ages of the HFA learners, but also takes their level of functioning into account.

1.9.6   Social skills

The term 'social skills' refers to the ability or skill to interact, communicate with, and act appropriately in different social contexts (Little, Swangler & Akin-Little, 2017). Since HFA learners experience a deficit in social skills, they may encounter "peer rejection, behavioural problems and low levels of

academic achievement" (McClelland & Scalzo, 2006). Because there are many social skills, the researcher identified the following seven social skills that learners with HFA struggled to master; so as to focus on in this research study: self-esteem, behavioural etiquette, conflict management, sharing, recognition of other's emotions, independence and managing own emotions.

1.9.7   Support strategies

Within the context of this research study, support strategies refer to the method of intervention used to address social skills. These support strategies consist of a combination of instructional methods, learning activities and materials that are used to facilitate the learning process of HFA learners (Lowth, 2015). Shepherd, Hoban and Dixon (2014: 150) stress that support strategies used for HFA learners must "clearly target, prompt and allow for the rehearsal of specific behaviours". Support strategies for social skill development of HFA learners should be "designed to teach children the skills necessary to navigate their social environment" (Rao, Beidel & Murray, 2008: 354).

1.10 Significance of the study

The researcher believes that the significance of this study is first of all important to FP teachers working with learners with HFA. It provides various support strategies that teachers can utilise for early intervention of learners with ASD; including HFA learners in their own classes. Second, these support strategies may be of value to teachers and schools, and parents as well as professionals who focus on social skills development of learners with ASD and HFA. Third, this study may be of use to the provincial WCED as well as the National Department of Education; to supply training and support in schools. Fourth, this study may be able to contribute to teacher training in general with regard to the enhancement of social skills for learners with HFA because it includes theory, support strategies and practical application of these strategies.

1.11 Limitations of the study

In this study there have been certain limitations of which the researcher is aware. Due to the time constraints with regards to traveling to the individual schools, the researcher selected three schools only; of which two were located in the Cape Winelands district and one in the city of Cape Town district (as will be described in Chapter 3). The small number of schools that hosts HFA learners further limited the site selection. The study was limited by exploring the phenomenon in the Foundation Phase and no other school phases. Because this study focused specifically on social skills enhancement of HFA learners, the researcher had to co-ordinate the data collection time according to the sessions where teachers worked on social skills development. The researcher had

to adjust the times of the data collection according to each research participant's availability; as agreed to by the principals. This adjustment was a challenge since she was a full-time educator herself.

1.12 Assumptions of the study

A reasonable assumption was made that all schools accommodating HFA learners had some kind of support system in place. It was assumed that the five teachers partaking in this study had experience working with learners with HFA in the FP. Further assumptions were made regarding the data collection process. It was assumed that the research participants would be able to provide various support strategies they used to enhance the social skills of their learners with HFA. It was assumed that the research participants would be willing to partake in this research and submit honest responses.

1.13 Organisation of thesis

Chapter 1: Introduction to the research

This introductory chapter orientated and formulated the importance and significance of the research problem. The chapter described the research study presented in the dissertation. It included the background, importance and context of the study. It contained a description of the research approaches used in this study and introduced the purpose and goals, research question, clarification of terms, the significance of the research, and the limitations and assumptions of the study.

Chapter 2: Literature review and theoretical framework

Chapter 2 presents the literature review and theoretical framework for this study, related to High Functioning Autism. It provides literature on both national and international support strategies used specifically to enhance the social skills of learners with HFA, described in Chapter 2.

Chapter 3: Research Design and Methodology

This chapter outlines the research approach, design and methods used.

Chapter 4: Results and Discussion

Chapter 4 presents the results and discussion of the research.

Chapter 5: Conclusion and recommendation

This chapter draws conclusions from the research and provides recommendations for future research.

CHAPTER 2

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to present the theoretical frameworks that informed and guided this research. Two theories are used to frame this study and anchors the research within the literature review and sets boundaries within which the research takes place. The literature review provides the researcher with important information and a background to the research. The literature review ensures and demonstrates that the researcher is not duplicating or neglecting existing research.

2.2 Theoretical frameworks

Vygotsky's socio-cultural theory and Bronfenbrenner's ecological systems theory were used for the interpretation of the empirical part of the research of this study, as they focus on the link between social interactions and general child development. These theories will be used to explain the results of the empirical research and the researcher provides literature on each of these theories.

2.2.1 Vygotsky's socio-cultural theory

Vygotsky was a Russian psychologist who developed the theory of cognitive development, also known as the socio-cultural theory, in the early twentieth century (Walker & Berthelsen, 2008). Vygotsky's socio-cultural theory focuses on the link between social interaction and cognitive development (Grum, 2012: 113). The socio-cultural theory highlights the importance of social learning in the upbringing and education of children with disabilities and guides the researcher in exploring current support strategies that teachers use for social skill development with learners with HFA (Rodina, 2007). From a social perspective, Vygotsky was of the opinion that the primary difficulty with a disability is its social implications; not the sensory/neurological impairment itself (Kozulin & Gindis, 2007: 335). Grum (2012: 114) states that this theory is based on the idea that "human development is the process of a child mastering their experiences in their social environment". The literature review explores the deficits of social skills and the effects this lacking may exert upon the development of the HFA learner.

Internalisation is a fundamental concept in Vygotsky's theory which refers to how a child "actively reconstructs external, shared operations on the internal plane" through interactions with others (Fernyhough, 2007: 226). ASD is characterised by challenges regarding communication, social skills

and interaction with others. This literature review explores the effects that the above mentioned impairments have upon the internalisation of the HFA learner.

The Vygotskian view on disability is that a child's shortcomings are not to be viewed as abnormal but should be viewed within their discrete social context (Walker & Berthelsen, 2008). This social context suggests that children experience different social situations and levels of development but that when they are brought together, they "weave together a mix of abilities to realise everyday life activity" (Fleer & March, 2015: 806). According to Vygotsky (in Cole, John-Steiner, Scribner & Souberman, 1978), parents and teachers should focus on the learners' strengths and not their disability. When children perform tasks with the guidance of a more capable peer or adult who assumes most of the responsibility of carrying out the task, over time, the child may start to take more responsibility for completing the task independently (Lantolf, 1994). Scaffolding and the ZPD require peers or adults to co-construct knowledge with the child through guidance (Kozulin & Gindis, 2007).

Within this Vygotskian framework, children are more capable of learning under the guidance of a designated adult or peer (Kozulin & Gindis, 2007). Kozulin and Gindis (2007) claims that such guidance, given to a child by an adult or more capable peer, may be referred to as 'scaffolding'. Scaffolding is deployed within this study by observing peer support as a support strategy to enhance the social skills of HFA learners. Walker and Berthelsen (2008: 37) state that scaffolding, along with a child's independent learning, allows the child to: "stretch their existing competencies in areas such as self-regulation of behaviour, cooperation with others and using memory and language". Scaffolding occurs when parents and peers provide continual guidance as well as meaningful relations to the child and build up their self-worth and confidence (Grum, 2012).

Vygotsky's socio-cultural theory includes the Zone of Proximal Development (ZPD) and the ZPD will therefore be discussed in this study (Rodina, 2007). The ZPD is described by Vygotsky (in Cole, John-Steiner, Scribner & Souberman, 1978: 86) as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers". Roskos and Christie (2001) concur by stating that the ZPD is the distance between the actual development and potential development. The actual development of the child can be described as what that child can do independently at a certain time (Tappan, 1998). When scaffolding occurs within the child's ZPD, it promotes learning and development (Walker & Berthelsen, 2008).
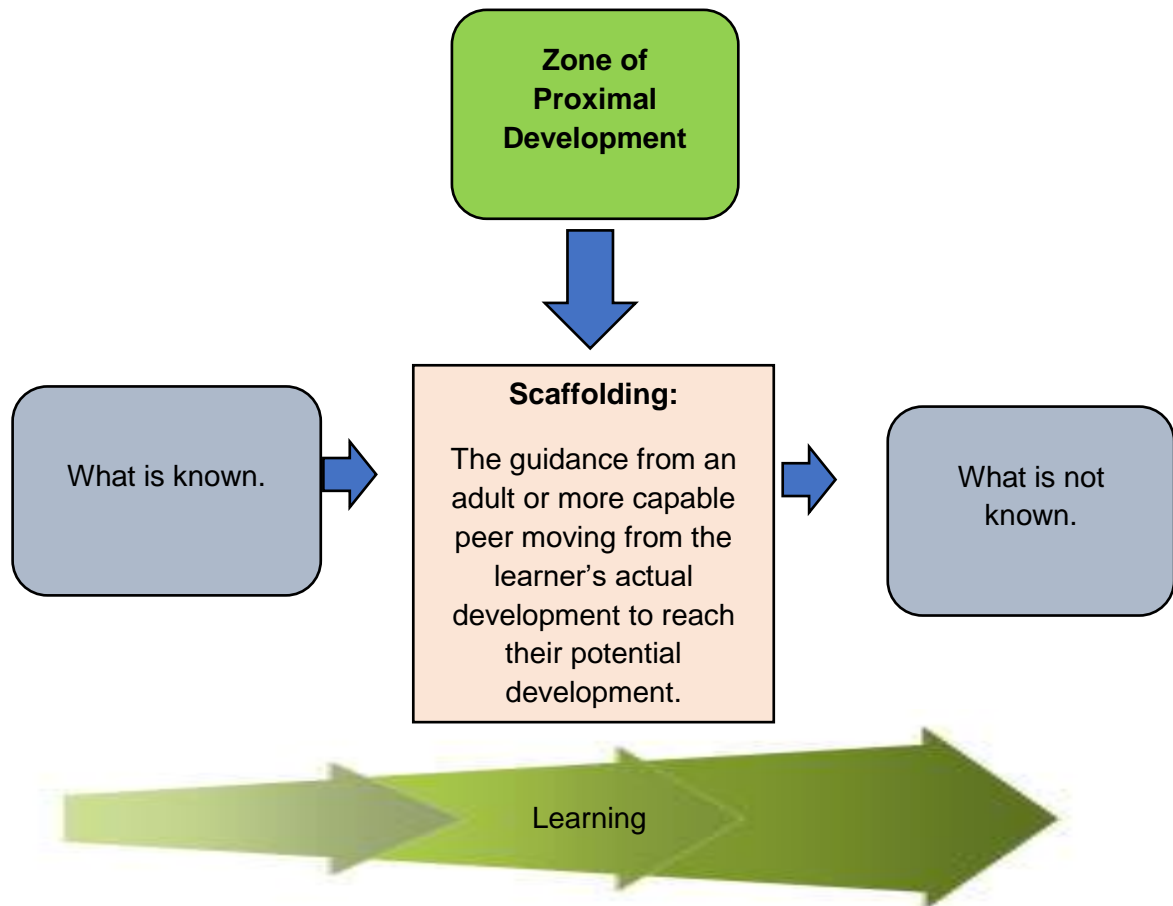
Figure 2.1 Displays scaffolding and the ZPD (adapted from McLeod, 2012)

2.2.2 Bronfenbrenner's ecological systems theory

Bronfenbrenner was an American psychologist who developed the ecological systems theory that views development within a complex system of relations affected by multiple levels of the surrounding environment (Tissington, 2008). Bronfenbrenner (1979) developed this theory to structure and explain how everything in a child's environment affects their growth and development.

The ecological systems theory is based on the influence that different environments have on our behaviour throughout our life. Bronfenbrenner (1975: 39) states that an ecological perspective focusses upon development as an "interactive function between the developing organism and the enduring environments or contexts in which its life is lived out". This theory describes five different systems, each with its own influences on the development of a child (Berk, 2000) as described in Figure 2.1. Bronfenbrenner's ecological attitude helps account for the effects of "different environmental systems" upon the holistic development of the HFA learners in the FP; regarding social skill development (Paquette &Ryan, 2001: 1). These five systems within the ecological systems theory include the "microsystem, mesosystem, exosystem, macro system and

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chronosystem" (Bronfenbrenner, 1994: 39). Figure 2.2 displays the five systems in the ecological systems theory of Bronfenbrenner (1979).
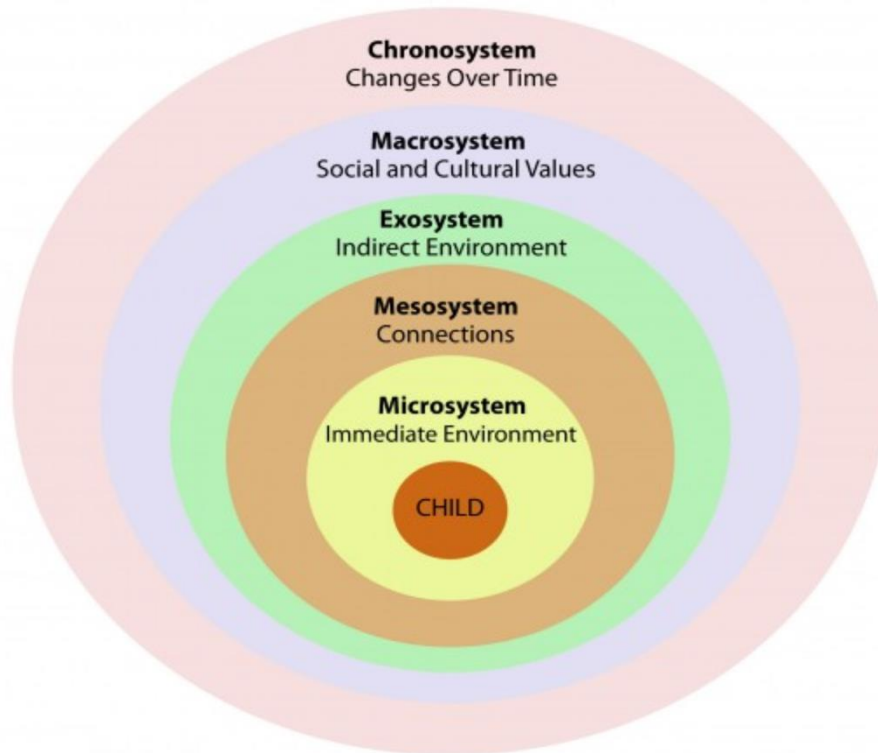
Figure 2.2 Bronfenbrenner's ecological systems theory (Watson, 2013)

This research will examine only the micro- and mesosystems since these systems are the focus of the study. These two systems occur when learners with HFA intersect with their environments, peers and teachers.

The microsystem is the innermost level and entails: "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics" (Bronfenbrenner, 1979: 22). The structures within the microsystem contain the child's family, school, neighbourhood and/or childcare. The role-players within the structures of this system include parents, immediate family, peers or teachers (Tissington, 2008). This model suggests that children acquire knowledge and skills through person-to-person interactions with all of the above mentioned role-players in the microsystem: which explains its relevance to this particular research (Berk, 2000). When investigating the various support strategies, as in Chapter 4, it is found that the microsystem is a key aspect of the research because it will include the teachers and possibly peers. Parental involvement and support within the microsystem, such as supervising, encouragement and helping with homework, may impact the academic performance of the child (Taylor & Gebre, 2016).

The mesosystem can be described as the interaction and relations of structures within the microsystem, and the connections between context (Tissington, 2008). Berk (2000) defines the

mesosystem as the connection and interaction between the structures of the child, such as their parents, teachers, family and peers and is included in this study to investigate the effect that these interactions have on HFA learners. Tissington (2008) is of the opinion that these interactions in the mesosystem can include the support strategies created by the teacher for specific educational needs of the child. When these support strategies provided by the teachers are encouraged and implemented at home, it creates reciprocal interactions within this system. According to Taylor and Gebre (2016: 211) the "mesosystem influences provide some of the clearest examples of the potential of how teacher–student relations may intersect with other social contexts (home) in ways that are relevant to students' personalized learning". The mesosystem highlights the implications that the key social environments such as the home, school and peers and social relations have on the personalized learning and behaviour of the child (Taylor & Gebre, 2016).

2.2.3 The interaction and intersection between Vygotsky's socio-cultural theory and Bronfenbrenner's ecological systems theory.

When considering these two theories, a key similarity is the interaction of relationships. As learners with ASD experience difficulty in understanding and maintaining relations (DSM-IV, 2013) because of a deficit in social skills, these two theories become particularly relevant in this research. According to Taylor and Gebre (2016), the development and maintenance of positive relations and friendships with peers can influence the social skills of the child. Interactions between the child and their immediate environment must be frequent in order for the microsystem to be optimized for development (Bronfenbrenner, 1994).

Scaffolding is a temporary support framework that is used to connect meaning to a difficult concept, such as social skills for learners with ASD and can be removed when the child can independently master the task successfully. The support strategies that the teachers utilize for social skills enhancement can be seen as scaffolding in the ZPD. The teachers, parents or more capable peers, assist the learner with ASD through this ZPD. These role-players and their interactions form part of the micro- and mesosystem but are vital to the ZPD because scaffolding cannot be accomplished without them. A learner with HFA needs to be guided through the ZPD by the teacher or more capable peer; in order for the selected support strategies to enhance their social skills. The elements of these two theories are used to gain insights into the influences the ecological systems have on the socio-cultural development of learners with HFA when working through the ZPD to enhance their social skill. Figure 2.3, created by the researcher, is used to visualise the interaction and intersection between these two theories and how they link to this research.

Learner with HFA

Bronfenbrenner's ecological systems theory

Vygotsky's socio-cultural theory

Microsystem:

The interaction between role-players which includes the teachers, parents and more capable peers when aiming to enhance the social skills of learners with HFA

Guidance from role-players

Z P D

Guidance from role-players

In this study, FP teachers use support strategies to scaffold the social skills of learners with HFA to guide them through the ZPD

Mesosystem:

The interaction and relationships between the structures, such as the school - and home environment, when enhancing the social skills of learners with HFA.

These support strategies include:

Group work, structured play, social stories, visual aids with verbal motivation, published programmes and a reward system.

Social skills include:

Self-esteem, behavioural etiquette, conflict management, sharing, recognition of other's emotions, independence and managing own emotions.

Figure 2.3 The interaction between the two theories and this research project

2.3 Literature review

This literature review focuses upon three aspects of ASD:

> 2.3.1   High functioning Autism (HFA)

> 2.3.2   Social skills

> 2.3.3   Support strategies

Each of these aspects is individually discussed.

2.3.1 High Functioning Autism

The distinction between ASD and HFA can be described as the level of support that is needed and an in-depth description of HFA and severity levels of ASD will be discussed. According to Lowth (2015), HFA forms part of the umbrella term ASD, and is used to indicate the level of adaptive skills that allows for more independent functioning.

Because ASD is described as a spectrum disorder which entails individuals with the same diagnosis of ASD which can "vary according to level of associated learning disability, but that a fundamental difficulty with social interactions is common to all people with ASD": which includes learners with HFA (Parsons & Mitchell, 2002: 431). Children on the high-functioning end of the spectrum may become well-adjusted adults, living normal lives and have careers, enjoying relationships and be independent with the proper help and education from educators, parents and facilitators (Lowth, 2015). The Strategy on Screening, Identification, Assessment and Support (SIAS) document categorises ASD under "neurological and neuro-developmental impairments" (DBE, 2014:8). However, learners with HFA may still experience certain challenges such as sensory processing, interpreting emotions or some may even struggle to form lasting relationships, but will be able to adjust in society (Sicile-Kira, 2009).

Notbohm (2005) suggests that ASD is a neuro-developmental disorder where sensory processing challenges might be the most important link to the behaviour of these children. Sensory processing influences different aspects of individuals with HFA and especially "communication and social interactions" (Sicile-Kira, 2009: 4). Rieser (2012) extends this argument by adding that learners with HFA do rely on routine, structure, repetition and may have special requirements, and there is evidence that proves that these learners can develop and achieve academically. Learners with HFA "need teachers, peers and parents who understand them and their needs", and it is feasible to place these learners in "mainstream classes" (Rieser, 2012: 136). In South Africa, the DBE (2014)

indicates that visual loss, hearing loss, speech and language difficulties, intellectual disabilities, physical disabilities, psychological disorders and neurological disorders are some of the main barriers that learners on the ASD spectrum face; which includes learners with HFA (DBE, 2014).

Learners with HFA rely upon routine, structure, repetition and may have special requirements but with scaffolding, guidance and early interventions, most of these learners with HFA can develop and achieve academically (Rieser, 2016). Black, Wallace, Sokoloff and Kenworthy (2009: 1613) state that ASD is associated with a "highly variable cognitive profile". Notbohm (2005) agrees by mentioning that the level of development among children with HFA can be unpredictable and that no two people with ASD will be exactly the same because of the wide spectrum. Because of this wide ASD spectrum, this study investigates which support strategies are being used to enhance specific social skills of various learners with HFA in different areas and schools in the Western Cape. These learners with ASD and HFA must become contributing members of society: to accomplish that goal, scaffolding social skills through guidance from the role-players of the microsystem is vital (Tilstone & Lyn, 2004). Individuals with HFA have difficulty in relating to others and interpreting their intentions and thoughts (O'Nions, Tick, Rijsdijk, Happé, Plomin, & Viding, 2015): these support strategies are a necessity if learners with HFA are to become responsible citizens who are able to interact socially and in a suitable manner with others.

The DSM-V (2013: 52) provides three levels of severity to indicate support for ASD individuals (Table 2.1). These three levels are:

Table 2.1 Severity levels of ASD (DSM-V, 2013: 52)

Severity level	Social communication	Restricted, repetitive behaviours
Level 3 Requiring very substantial support	Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning; very limited initiation of social interactions and minimal response to social overtures from others.	Inflexibility of behaviour, extreme difficulty coping with change, or other restricted/repetitive behaviour markedly interfere with functioning in all spheres. Great distress/difficulty changing focus or action.
Level 2 Requiring substantial support	Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions and reduced or abnormal response to social overtures from others.	Inflexibility of behaviour, extreme difficulty coping with change, or other restricted/repetitive behaviours appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress and/or difficulty changing focus or action.
Level 1 Requiring support	Without supports in place, deficits in social communication cause noticeable impairments. Has difficulty initiating social interactions and demonstrates clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions.	Inflexibility of behaviour causes significant interference with functioning in one or more contexts. Difficulty switching between activities. Problem of organisation and planning hamper independence.

2.3.2 Social skills

Social skills are the skills necessary to engage in constructive social interactions and to establish 'effective' and "positive relationships with peers" (Walker & Berthelsen, 2008: 25). Landsberg, Krüger and Swart (2016: 149) state that social skills are "interpersonal skills that enable learners to interact successfully with other people". Rao, Beidel and Murray (2008: 354) are of the opinion that examples of social skills include: "smiling and making eye contact, asking and responding to questions, and giving and acknowledging compliments during a social exchange". For children to be diagnosed with ASD, they must display all three of the following specified criteria regarding social skills: deficits in (i) social-emotional reciprocity, (ii) nonverbal communicative behaviours and (iii) developing, maintaining and understanding sound human relations (Tager-Flusberg, 2016).

Deficits in social-emotional reciprocity can range from abnormal social approach and failure of orthodox back-and-forth conversation, to reduced sharing of interests, emotions, or affect, to failure to initiate or respond to social interactions (DSM-V, 2013). Deficits in nonverbal communicative behaviours used for social interaction can range from poorly integrated verbal and nonverbal communication, to abnormalities in eye contact and body language or deficits in understanding and use of gestures, to a total lack of facial expressions and nonverbal communication (DSM-V, 2013). Deficits in developing, maintaining and understanding relations can range from difficulties adjusting behaviour to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers (DSM-V, 2013).

Landsberg et al. (2016) suggest that because of the uniqueness of each learner with ASD, the teacher needs to know the individual and identify their specific need for social skill interventions. Brink (2012) supports this statement and adds that there should be good communication between teachers, parents and learners in order to give the learner with HFA the best support possible. Due to lack of understanding, the intentions, thoughts and emotions of others, individuals with HFA typically struggle to form and maintain friendships and/or relationships, initiate play or exhibit acceptable social interactions (O'Nions et al., 2015). Lowth (2015) states that individuals with ASD, high or low functioning, may have various levels of linguistic skills which may range from absence of speech, to some who can use complex, grammatically correct speech but sometimes with odd content, which can influence their social interactions with others.

For the purpose of this research, seven social skills that learners with HFA struggle with, were selected to investigate, consisting of: self-esteem, behavioural etiquette, conflict management, sharing, recognition of other's emotions, independence and managing own emotions. The literature on each of these social skills is now discussed.

2.3.2.1 Self-esteem

Learners with HFA may be able to communicate verbally but may experience difficulty in expressing language, maintaining topics, interpreting what is said or taking turns in conversation (Kransy, Williams, Provencal & Ozonoff, 2003). According to McCauley (2009: 5) learners with HFA "may have the capacity to reflect on peer perceptions when evaluating their self-worth". Social engagement presents as a challenge, so these learners with HFA may become socially isolated or rejected by peers, which can lead to negative social experiences such as loneliness and victimization (Walker & Berthelsen, 2008). Learners with HFA may be at a greater risk of developing a low self-esteem and depression, because they are more aware of the social deficits they experience

(Vickerstaff, Heriot, Wong, Lopes & Dossetor, 2007). Wittrock (2012) supports this statement by adding that many individuals with HFA experience low self-esteem.

2.3.2.2 Behavioural etiquette

Anderson, Maye and Lord (2011: 381) suggest that behavioural inadequacies among learners with HFA may include: "symptoms of hyperactivity, irritability, aggression, oppositional conduct, self-injury, depression, anxiety, and other socially unacceptable behaviours". More than 25% of learners with ASD presented self-injurious behaviours which are highly disruptive and have damaging consequences to the individual, the family, friendships and society (Soke, 2015). These behaviours may be accentuated by continued social rejection and heightened stress levels that present as comorbid features of ASD (Clarke, Hill & Charman, 2017). Learners with HFA may experience difficulty acting in a socially acceptable manner or lack basic behavioural etiquette such as habits of greeting someone, thanking or eating correctly in public (Sicile-Kira, 2009). This social skill will be included in this study since these types of social behaviours are vital if learners with HFA's behaviour are to become socially functional.

2.3.2.3 Recognition of other's emotions

To recognise and understand the emotions of others, 'multi-sensory processing' is required (Kuusikko, Haapsamo, Jansson-Verkasalo, Hurtig, Mattila, Ebeling, Jussila, Bölte & Moilanen, 2009: 398). Sicile-Kira (2009: 3) is of the opinion that "sensory processing may have the largest influence on individuals who experience ASD"; regardless of their level of functioning. The deficit that learners with HFA experience regarding understanding social cues, may present challenges in reading people's facial expressions or interpreting their body posture (Kuusikko et al., 2009). Reyes (2013) asserts that these learners with HFA find it difficult to comprehend the significance of others' emotions and lack the knowledge to interpret signs or react to the emotional state of another person. To be able to build lasting relations and meaningful friendships, it is vital to enhance emotional competence (Epp, 2008).

2.3.2.4 Managing own emotions

According to Reyes (2013), learners with HFA demonstrate difficulties in emotional competence and poor capacity to regulate emotions. Reyes (2013) states that these learners with HFA may have difficulty understanding their own and others' emotional states, and show a lack of insight into their responses to emotional experiences. Poor behavioural regulation of learners with HFA is reported

by teachers and parents (Thede, 2010). Wilkinson (2008) believes that support strategies should focus on controlling the behaviour of the child and equip the learner with HFA to manage their emotions independently. When a learner with HFA cannot sufficiently control their own emotions, it can have serious repercussions on their social interaction (Gross, 2007).

2.3.2.5 Conflict management

Many learners with HFA find it difficult to react to a conflict situation in a socially responsible manner (Tobias, 2014). Deficits in social interactions are a defining characteristic of ASD, and can have a negative impact on managing conflict situations with others, and may lead to failed peer relation; at school and at home (McCoy, Holloway, Healy, Rispoli & Neely, 2016). According to Nadel and Muir (2005), these difficulties learners with HFA experience regarding conflict management, might be due to poor self-regulation. Dijkhuis, Ziermans, Van Rijn, Staal and Swaab (2017: 897) state that self-regulation refers to: "cognitive and behavioural processes through which an individual maintains levels of emotional, motivational, and cognitive arousal". When learners with HFA acquire the skill of self-regulation, it can promote positive adjustments within social settings and lead to positive social relations (Dijkhuis et al., 2017).

2.3.2.6 Sharing

Learners with HFA may exhibit "limited abilities when sharing attention and experiences" with peers during play (Maddox, 2010: 3). Lane and Ledford (2016: 69) support this view by stating that learners with social deficits such as HFA "may not recognize when, how and with whom to share and do not engage in typical sharing behaviours". These learners with HFA experience difficulty with more complex social interactions such as sharing with friends or classmates, which may lead to negative peer relations (Rowley, 2008). Friendships that learners form are influenced by "shared play, shared activities and openness in sharing thoughts, feelings, and experiences" (Bauminger, Solomon, Aviezer, Heung, Gazit, Brown & Rogers, 2008: 136). In contrast, learners with HFA find it difficult to form and maintain lasting friendships (DSM-V, 2013).

2.3.2.7 Independence

Since social interactions are one of the core deficits experienced by learners with HFA, their interactions with others are limited by their level of independent functioning (Lantz, Nelson & Loftin, 2004). Learners with HFA find it difficult to switch from one activity to another without the guidance of others or visual reminders; thus limiting their independence (Walker & Berthelsen, 2008). Lillemyr,

Søbstad, Marder and Flowerday (2011) are of the opinion that the guidance a learner with HFA receives from a teacher or more capable peer guides them through the ZPD in order to become more independent in utilizing various social skills in their daily life.

2.3.3 Support strategies

Since HFA learners experience deficits in social interactions, which leave them vulnerable to rejection from peers and society (Reichow & Volkmar, 2009). There is substantial international research into improving social skills with HFA learners (Radley, O'Handley, Battaglia, Lum, Dadakhodjaeva, Ford & McHugh, 2017). Social skills are vital for the "interpretation of the intentions of others" and a lack of these social skills may leave learners with HFA at a disadvantage during social interactions (Hotton & Coles, 2016: 68). This challenge forms the crux of this research: the researcher has explored six support strategies: group work, structured play, social stories, visual aids with verbal motivation and reward system that FP teachers in the Western Cape, South Africa, have used in an attempt to enhance the social skills of their HFA learners.

2.3.3.1 Group work

In the field of autism, 'group work' is the support strategy that is most widely used to address social impairments with the aim of enhancing social skills of the HFA learners (Gates, Kang & Lerner, 2017). Hotton and Cole (2016) are of the opinion that when 'group work' is utilized as a support strategy for HFA learners, it can help to develop both their social interactions and communication abilities. Radley et al. (2017: 234) agree with this statement by adding that 'group work' may be considered a more efficient support strategy than individualised support because it includes "observational learning and feedback and allows for similar deficits to be addressed across participants". Gindis (1999) refers to 'group work' as a support strategy that can be used to guide HFA learners through the ZPD; by receiving support from peers and educators. DeRosier, Swick, Davis, McMillen and Matthews (2011) claim that when 'group work' is implemented as a support strategy to enhance social skill development of learners with HFA, it should focus on daily social engagement as well as forging long-term social relations.

2.3.3.2 Structured play

This support structure is described by Aronstam and Braund (2016: 2) as play that has clearly defined goals and rules and it is "curriculum driven, teacher-initiated and teacher-dominated". Within this context, the teacher guides the HFA learners to engage in the structured play session to address a specific aspect of social skill development. According to Hännikäinen (2010: 108) the "development

of play takes place in a social interaction in which the guidance of an adult has an important role". Play might be restricted for HFA learners, as they play in a "less varied, elaborated, sustained and integrated manner" than their typically functioning peers (Lantz et. al, 2004: 8). Lantz et al. (2004: 9) argue that within structured play, the adult "guides and directs the groups 'interactions".

The process of 'playing' is an important aspect of the social development of HFA learners because it is linked to social competency later in life (Lantz et al., 2004). Lillemyr et al. (2011: 46) support the centrality of play in social skill development and adds that play is "an essential component in the socio-cultural theory of Vygotsky" because structured play creates opportunities for teachers and peers to help guide learners with HFA through the ZPD towards social competency. In order for the development of social skills to take place, HFA learners cannot simply play with more capable peers (Licciardello, Harchik & Luiselli, 2008). Aronstam and Braund (2016: 2) posit that structured play has clearly defined goals and rules, and that this support strategy is "curriculum driven, teacher-initiated and teacher-dominated". Teachers need to set clear goals which they aim to achieve through the play activity in order to achieve the enhancement of social skills (Licciardello et al., 2008).

2.3.3.3 Social stories

Because social skills are complex, HFA learners often experience difficulty with social interactions (Quirmbach, Lincoln, Feinberg-Gizzo, Ingersoll & Andrews, 2008). According to Kokina and Kern (2010: 182) social stories was "first introduced in 1993 by educational consultant and former teacher Carol Gray and are primarily aimed at assisting individuals with ASD with their social difficulties". Crozier and Tincani (2007: 1803) are of the opinion that a social story is a "short story written for an individual that describes a specific activity and the behaviour expectations associated with that activity" and includes two to five descriptive sentences. Many social narratives are written to explain the meaning of problematic situations to the students and emphasize the relevant details: addressing students' difficulties (Kokina & Kern, 2012: 813). Leaf, Oppenheim-Leaf, Call, Sheldon, Sherman, Taubman, Mceachin, Dayharsh, and Leaf (2012: 282) aver that social narratives can be role-played for specific social skill intervention; where the **"teacher describes a skill, provides a rationale for why the participant should display the skill, describes the cues and characteristics of situations in which the participant should display the skill, divides the skill into smaller behavioural components, models the skill, and role plays the skill with the participant"**.

Because of the difficulty with social interactions "social stories are based on the strengths of children with autism because they are visual, situation-specific, offer explicit information and tend to have short learning intervals with immediate effects" (Quirmbach et al., 2008: 300). These stories are developed to address specific behaviours and activities that focus on social skill enhancement (Tappan, 1998).

'Social stories' have been used successfully to enhance various social behaviours such as screaming, aggression and grabbing toys (Scattone, Tingstrom & Wilczynski, 2016).

Leaf et al. (2012) state that social stories describe the desired behaviour that HFA learners should display in specific social situations and how these displayed behaviours can affect others around them. They are typically short, individualised stories that consist of two to five sentences (Crozier & Tincani, 2007). Social stories differ from instructional stories in that they are written using the first-person language; to emphasize the perspective of the HFA learner (Bozkurt & Vuran, 2014). When using social accounts for social skill enhancement, the teacher may read the story out loud, or, where possible, the learner may read it themselves. The teacher can then ask the learners questions about the story and role-play the social skills that have been addressed in the story (Leaf et al., 2012). Using social stories is an inexpensive support strategy that teachers can develop themselves to address a variety of social skills used in various situations for HFA learners (Quirmbach et al., 2008).

2.3.3.4 Visual aids with verbal motivation

Hodgdon (2011) states that 'visual aids', used together with 'verbal motivation', may enable HFA learners to communicate and complete tasks more independently since they respond better to visuals rather than spoken words. Francis, Mellor and Firth (2009) support this statement that HFA learners respond well to visual support and adds that 'visual aids' have been used as a support strategy to enhance various social skills of these learners. Grandin (1995: 30) who was diagnosed with HFA, promotes the use of visual supports together with 'verbal motivation' by stating: "Spatial words such as 'over' and 'under' had no meaning for me until I had a visual image to fix them in my memory". 'Verbal motivation' can be used to reinforce the 'visual aids' in order to outline the task given to HFA learners and promote spoken language (Roa & Gagie, 2006).

Using pictures as a tool for communication can be viewed as a visual aid. According to Ganz, Boles, Goodwyn and Flores (2014: 3), learners with ASD exhibit deficits in using "broad vocabulary, complexity of sentence structure, responsiveness to social stimuli, flexibility in conversation and use of descriptive language". Lantz et al. (2004: 9) state that "visual aids such as visual schedules or choice boards provides important communication and behavioural cues for learners". These aids can include a visual display of daily learning programmes or routines by using pictures and may sometimes include minimal wording. Pictures can be used together with verbal motivation to reinforce the command or task given (Rao & Gagie, 2006).

There are many ways of using 'visual aids' as support strategies for HFA learners which can be utilised in the classroom and at home (Mah & Tsang, 2016). Some visual aid supports include a

visual daily routine or schedule, as in Figure 2.4; where visuals structure the environment and provide meaning to words or everyday objects (Meadan, Ostrosky, Triplett, Michna & Fettig, 2011).
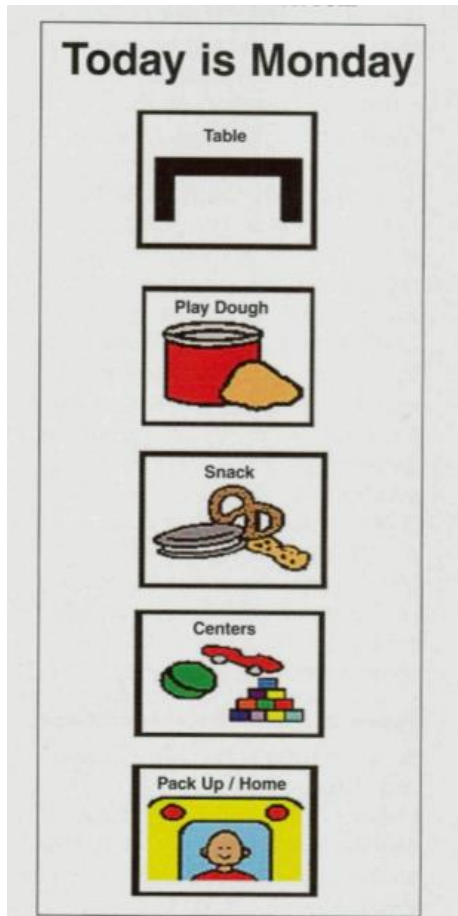
Figure 2.4 An example of a daily schedule constructed by using visual aids (Meadan et al., 2011: 30)

2.3.3.5 Reward system

Using a 'reward system' for HFA learners in everyday activities may increase motivation to exhibit orthodox social behaviours (Schreibman, Dawson, Stahmer, Landa, Rogers, McGee, Kasari, Ingersoll, Kaiser, Bruinsma, McNerney, Wetherby & Halladay, 2015). According to Stavropoulos and Carver (2014: 1) HFA learners are "less intrinsically motivated to attend to and engage with others" and respond better to a reward system when "anticipating positive outcomes". These rewards can range from a treat when behaving in a socially acceptable manner to being rewarded for completing a task (Schreibman et al., 2015). The teacher may reward the HFA learner by praising an action or modelling a social skill and can be used to reinforce various other support strategies (Radley et al., 2017). This support strategy is accessible, adaptable and affordable to teachers.

2.3.3.6 Published programmes

Within the context of this research, 'published programmes' refer to the internationally and nationally published programmes used within South African schools; as described by Autism South Africa (ASA, 2015). According to Lord and McGee (2001: 143) these programmes for HFA learners can focus on various areas of development such as: "cognitive and communication skills, rudimentary social skills, toilet training and behavioural problems" and "academic skills".

Many of these programmes are expensive and require training and tools such as laptops, tablets and internet which are not easily available in all South African schools. According to Ryan, Hughes, Katsiyannis, McDaniel and Sprinkle (2014) the most researched published programmes for social skill interventions for HFA learners include:

Applied Behaviour Analysis (ABA);
Treatment and Education of Autistic and Communication Handicapped Children (TEACH);
Floortime;
Picture Exchange Communication System (PECS);
Makaton; and
Special Needs Adapted Program (SNAP).

These programmes are studied and valued because they are relevant to the education of HFA learners in South African schools. A brief discussion of each one is provided.

Applied Behaviour Analysis (ABA) is a support programme that focuses upon meaningful and positive change in behaviours (Reichow, 2012). ABA can be used for HFA learners to reduce inappropriate behaviour and to increase communication, learning and social skills (McCormick, 2011). According to Reichow (2012), the ABA programme makes use of rewards, because positive behaviours are more likely to be repeated when rewarded.

Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH) is a support programme that is inclusive and multi-disciplinary in nature (Panerai, Zingale, Trubia, Finocchiaro, Zuccarello, Ferri & Elia, 2009). TEACCH is based on the interaction among various key role-players such as family, community, services and professionals (Panerai et al., 2009). This programme focuses on issues such as "social development, cognitive development, behavioural aspects and academic achievement" (D'Elia, Valeri, Sonnino, Fontana, Mammone, & Vicari, 2014: 616).

Floortime is a strategy that is part of the Developmental Individual-differences and Relationship-based model (DIR), which was developed to empower the families of learners with ASD to partake in the development of their children throughout each day (Greenspan & Wieder, 2006). Within the RDI model, Floortime is used as a support strategy to specifically focus on social skills development for HFA learners, because the aim of this intervention programme is to "encourage appropriate, interactive play and socialisation" (Ryan et al., 2014: 98). Parents or teachers can utilise this programme by participating in the play activity with the HFA learner because the intervention is driven by adult-directed modelling and prompting of emotions, actions and appropriate social behaviours (Ryan et al., 2014).

The Picture Exchange Communication System (PECS) programme can be utilized to enable learners with HFA to "initiate communicative interactions within a social framework" (Jurgens, Anderson & Moore, 2009: 67). This programme can be used for giving instructions to HFA learners by providing visual support to reinforce these instructions (Banire, Jomhari & Ahmad, 2015). According to the findings of Lerna, Esposito, Conson and Massagli (2014), PECS training can promote the long-term development of socio-communicative skills of HFA learners.

Makaton is a programme that was developed in the United Kingdom, and has been implemented internationally as a communication programme (Estrella, 2013). Makaton consists of simple signs, symbols and speech to help individuals with communication difficulties to identify people, objects and actions (Estrella, 2013). According to Banire, Jomhari and Ahmad (2015) Makaton is an effective programme that can be used to enhance the social communication of learners with HFA because these visuals require less cognitive effort than in other programmes. According to Estrella (2013) the Makaton programme enables HFA learners to communicate with role-players from within their microsystem in various social settings.

Special Needs Adapted Programme (SNAP) was developed in Cape Town, South Africa by Annalies van Rijswijk and has been accredited by Autism South Africa (Brink, 2012). SNAP mainly makes use of visual aids and technology such as e-learning, tablets, laptops and computers (Brink, 2012). The SNAP programme encourages parents to be part of their children's education; partaking in the planning of the programme and the parents are taught intervention techniques (Brink, 2012). This support programme provides one-on-one sessions and offers training and therapy in social skill development for learners with ASD who experience behavioural problems, emotional problems and difficulty with social interaction (SNAP, 2017).

2.4 Chapter Summary

This chapter explores two theories that have been used to frame this research. The theoretical frameworks explored the most recent literature on ASD, HFA, support strategies and various programmes that assist teachers and parents with the social skill development of learners with HFA.

Chapter 3 discusses the research design, approach, the data collection strategies and the methodology.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the research design and the research question. There is a discussion of the research approach, methodology and design, site selection, sample, data collection techniques, data analysis method, trustworthiness and ethical considerations. A summary of this chapter is provided to conclude Chapter 3.

The research design can be described as a plan of how the sites, samples and data collection were selected to ground the credible results of this research (McMillan & Schumacher, 2015). The researcher selected a qualitative research design which was appropriate for promoting the efficient and successful functioning of the research and to ensure that all of the "components work harmoniously together" (Maxwell, 2013: 2). A more in-depth discussion of the research design is provided in paragraphs 3.2 and 3.3. The researcher was cognisant of the fact that the main purpose of a qualitative research design is to provide credible answers to the research questions (McMillan & Schumacher, 2015). The research design was selected by identifying the purpose of the study as well as the nature of the research question, as indicated in Chapter 1 (Blaikie & Priest, 2017).

3.2 Research paradigm

A research paradigm is described by Okeke and Van Wyk (2017: 21) as a set of "basic beliefs" that guides the researcher's "assumptions, propositions, thinking and approach" throughout the research. Maree (2016) is of the opinion that the research paradigm can either be positivist, interpretive or critical; depending upon the philosophical assumptions of the researcher. The researcher utilised an interpretive paradigm for this research which describes and explains human behaviour and laid emphasis on how individual views and experiences of phenomena differ (Cohen, Manion & Morrison, 2018). An interpretive paradigm supports Bronfenbrenner's theory that frames this research; by acknowledging that people are influenced by their environment (Patton, 2014). An interpretive paradigm was used for this research to understand and explore which support strategies FP teachers used to enhance the social skills of HFA learners along with the challenges the teachers experienced.

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3.3 Research approach

According to Fan and Fielding-Wells (2016) there are multiple research approaches; which include qualitative, quantitative and mixed methods. Thanh and Thanh (2015: 25) suggest that "interpretivists tend to favour qualitative methods such as case studies". Cohen et al. (2018: 287) define some of the purposes of qualitative research including: "description, explanation, reporting, creation of key concepts, theory generation and testing". This particular study falls within the field of Social Science where the emphasis is on working with human perceptions and emotions: it therefore requires qualitative research (Grima-Farrell, 2017).

This qualitative research describes and analyses the individual and collective social interactions of respondents' beliefs, thoughts and perceptions (McMillan & Schumacher, 2015). In using a particular strand of qualitative research, the researcher collected rich descriptive data to develop an understanding of the researched phenomenon in a specified context (Maree, 2016). The data collection methods that the researcher used to triangulate the data for this qualitative research included observations and interviews (Flick, 2018). The research can be described as a qualitative study embedded within an interpretive case study.

3.3.1 Case study

Grima-Farrell (2017: 72) describes the case study design as an "exploration of a bounded system or case over time through detailed, in-depth data-collection" that is not determined by the number of sites or research participants involved in the study. Since this research required an in-depth understanding of one specific phenomenon that included multiple sources, a uniquely suited form of case study design was adopted and adapted for the purpose (Yin, 2018).

The researcher utilised the interpretive case study method to conduct an in-depth investigation into the support strategies that FP teachers deployed to enhance the social skills of HFA learners and the challenges they experienced (Ledford & Gast, 2018). Within the interpretive case study, the researcher "does not set out to test any theory", but rather aims to understand everyday accounts and why they have occurred (Blaikie & Priest, 2017: 46). The researcher used an interpretive case-study design, because the research participants included in this study, involved five FP teachers from three various schools, working with HFA learners. They were selected to help answer the main research question as well as the research sub-question. The case study opens up the possibility of giving a voice to the voiceless, such as the teachers who work with these HFA learners, who receive little support or guidance (Maree, 2010).

When utilising a case study, there are advantages, but this design may open itself up to certain challenges and disadvantages. These advantages, and possible challenges of the case study, as portrayed by Cohen et al. (2018) are set out in more detail below.

3.3.1.1 Advantages experienced while utilising the case study methods

This case study provided insights into other, similar situations and cases; assisting the interpretation of other similar cases. This case study has been written in a way that is easy to understand and interesting to follow as a sequential and unfolding research narrative: it should therefore be particularly accessible. This case study recognised the complexity and embedded quality of the various support strategies that FP teachers used for the enhancement of social skills for HFA learners; along with the challenges they faced on a daily basis. The insights of this research could be directly interpreted by teachers, carers and parents with HFA learners and utilised by them. This case study could serve multiple audiences (Cohen et al., 2018).

3.3.1.2 Challenges experienced while using the case study method

The data collected for this study were difficult to organise: the researcher had to select the best way to structure and display the data through vignettes and verbatim responses. It was a challenge for the researcher to remain focussed, unbiased, personal and subjective throughout the data collection period. These challenges were addressed through the use of structured data-collection tools. The results may not be generalizable, because the data collection was conducted in the Western Cape within selected schools, and the results may vary for the rest of the country.

3.4 Site selection

The selected schools included: a full-service government primary school with an ASD resources class, a non-profit school for ASD and a government special needs school. These schools were widespread around the Cape Peninsula and the researcher drove long distances to collect the data.

These three diverse schools and the five teachers were selected for the data collection of five interviews and three observations. Table 3.1 below provides details of the schools and teachers used in this research.

Table 3.1 Schools and teachers involved in this research

Site	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5
School	School A	School B	School C	School C	School C
Type of school	A resource class in a full-service government school	NPO school	Government special needs school	Government special needs school	Government special needs school
Data-collection method	Interview and observation	Interview and observation	Interview and observation	Interview	Interview
Location of the school	Rural	Rural	Urban	Urban	Urban

The researcher purposively selected these three schools in different locations, urban and rural; all are different types of schools as described in Table 3.1. These schools offer varying levels of support in the aim to minimise learners' barriers to learning. The Education White Paper 6 (DoE, 2001) states that learners who require 'low-intensive support' need to receive this support in mainstream schools while learners who require 'moderate support' should receive support in 'full-service' schools. Support in 'special schools' are for learners who require 'high-intensive educational support' (DoE, 2001). In this study, an Autism specific government school was used as a sample since it falls under the term 'special schools'. The researcher selected these three different schools to determine whether there were similarities and differences in the support strategies for social skill development and its implementation.

During collection of data at School C, T3 alone was observed; due to the limited time available. All five of the research participants were interviewed. Each of the teachers of the respective schools used their own learning programme; because there is no set curriculum for learners with ASD. The Education White Paper 6 (DoE, 2001) introduced a comprehensive range of educational support services where schools were gradually divided into mainstream schools, full-service schools or inclusive schools and special schools. The researcher purposively selected three sites only to visit; due to time restrictions. T1 from School A, T2 from School B and T3 from School C were interviewed and observed: these school environments are briefly discussed.

- School A and T1 in a full-service government primary school

In order to establish whether different types of schools approached support strategies for social skills in similar ways, the researcher included a government full-service primary school in this study. An ASD resource class, located in School A, and a full-service government primary school, situated in Malmesbury, a rural town 65 km from Cape Town, were included in this study.

This resource class fitted the criteria for this study, since they worked with learners with HFA in the FP. The Guideline for Full Service/ Inclusive Schools (2010: DBE) states that at a full-service school "special emphasis will be placed on inclusive principles, which include flexibility in teaching and learning and the provision of education support to learners and educators". This resource class receives support from its District Based Support Team (DBST), whose role includes "management structure at district level, the responsibility of which is to coordinate and promote inclusive education through: training; curriculum delivery; distribution of resources; infrastructure development; identification, assessment and addressing of barriers to learning" (DBE, 2014: 7). The SIAS (DBE, 2014: 7) document stipulates that the DBST "must provide leadership and general management to ensure that schools within the district are inclusive centres of learning, care and support".

Although the resource class is affiliated with the Government's Full-service mainstream school, it is located with the Grade R classes across the road from the mainstream school. There is a jungle gym and playing area. T1 of the resource class is supported by a class assistant and there are eight HFA learners in the class. The classroom is spacious, well laid out and there are clear working spaces and stations for various activities. The classroom is well equipped with a variety of learning materials and visual aids which creates an inviting learning environment.

- School B and T2 in a Non-Profit Organisation (NPO)

School B is located in Paarl, 62 km from Cape Town, which is in a rural environment. This is a small school founded by parents and professionals which focuses specifically upon learners diagnosed with ASD. This school is a NPO and not funded by the WCED: therefore, the researcher included this school in her sample. She wanted to establish whether this NPO school makes use of different innovative support strategies for social skill development of FP learners with HFA. The staff of this school include: five qualified teachers, three facilitators, one class assistant, a bio-kineticist, a speech and occupational therapist, a music therapist as well as the secretary. The school has 36 enrolled learners; of which 28 are boys and 8 are girls. Most of the enrolled learners are drawn from previously disadvantaged communities. The learners in this small private school are grouped by ability rather than age; as is the case of mainstream schools. Because Teacher T2 had 6 learners only in her class, the rest of the FP learners would on occasion join them for morning assembly. In the classroom of T2, which the researcher visited, there is one teacher (T2). But, because of the small number of learners, the other Foundation Phase class sometimes joined this class for morning ring.

The actual classroom is small, equipped with a television and learning materials. The classroom is visually stimulating and the daily programme is displayed on the wall with laminated pictures and is clearly visible to all the learners in the class. The school ground are neatly maintained, small in size

with a physical play area that includes a cemented area to utilise for physical gross motor activities, such as riding a bicycle.

- School C and Teacher (T3) in an Autism specific government special school

School C is situated in Rondebosch which is an urban environment; part of the Metropole Central Education District (MCED), located in the southern suburbs of Cape Town. School C is the oldest of five Autism specific government schools in South Africa; making provision for learners with ASD. It was the first school in the world that was custom-built for learners with ASD. This Autism-specific government school is funded by the WCED. School C hosts, and pays for, many local and national training programmes for parents, and teachers of ASD learners, which amongst others, include: Treatment and Education of Autistic and Communication Handicapped Children (TEACCH), TIMIAN, MAKATON, Picture Exchange Communication System (PECS) and a two week ASD course. Many of these workshops are conducted by private people and not the WCED. Although the local teachers do not have to attend these workshops, they do have many discussion and focus group discussions regarding these trainings. This school hosts an Outreach team from the WCED which works throughout the Boland area with ASD diagnosed learners; not only within this school.

The school grounds are spacious; with 1,5 hectares and a playground with three small hostels/housing units on the premises that can accommodate 35 ASD learners each. The school accommodates 145 ASD learners and has 74 staff members.

The classroom of Teacher 3 (T3) was spacious, neatly structured and well equipped. Although the learners in Teacher T3's classroom varied in age from seven to nine, they were grouped according to their own personal ability to manage their school environment. T3's classroom has an interactive whiteboard and projector: the work stations are well organised and clearly set out. The class rules, daily programme, names of learners, theme for the week and instructions are visually displayed throughout the classroom. This stimulating physical environment, interventions and support structures provide and creates a pro-active and inviting learning environment for all the learners in the classroom.

3.5 Sample

In order for the researcher to select the best suited sampling method, various standard forms were investigated. According to Okeke and Van Wyk (2017) types of sampling include: probability sampling, no-rule sampling and purposive sampling. Probability sampling occurs when "each member of the population has the same probability of being chosen for the research". The various types of this sampling method comprise cluster sampling, systematic sampling, random stratified

sampling, stage sampling, simple random sampling and multi-phase sampling (Cohen et al., 2018: 214). No-rule sampling is used to represent the homogeneous population and has no rules in selecting participants (Okeke & Van Wyk, 2017).

Purposive sampling is frequently used in qualitative studies as a technique to identify and select "information-rich cases for the most effective use of limited resources" (Palinkas, Horwitz, Green, Wisdom, Duan & Hoagwood, 2015: 534). Purposive sampling requires the identification and selection of individuals or groups that are experienced or knowledgeable concerning the specific phenomenon investigated in the study (Flick, 2018). Taking all these points into consideration, purposive sampling was selected as the preferred type of sampling method for this specific kind of research project. It was used to identify the five research participants to ensure that they were equipped to answer the research questions; providing unique, rich and current data (Okeke & Van Wyk, 2017).

The researcher worked in association with the principals of the respective schools and met each one of the research participants face-to-face; in order to build sound relations and explain the purpose of the research (Hammett, Twyman & Graham, 2015). The researcher purposively selected one participant from School A, one participant from School B and three participants from School C. The five selected participants used for this research were five FP teachers working with learners with HFA in various types of schools. Both School A and School B, each had one FP classroom only for ASD learners: one participant from each of these two respective schools was selected. School C had more teachers working with HFA learners in the FP: three teachers were selected to "include a sufficient number" of research participants in order to appropriately represent the sample (Cohan et al., 2018: 219). Table 3.2 is used to indicate the biographical information of the five research participants that took part in this study.

Table 3.2 The biographical information of the research participants

Sample	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5
Gender	Female	Female	Female	Female	Male
Age	20	25	30	27	30
Years of teaching after graduation	2	3	6,5	3	9
Years working specifically with ASD learners	2	3	6,5	2	9

All of the teachers were grouped together in the above table since the advantage of this grouping method may indicate patterns or similarities within the sample (Cohen et al., 2018) The biographical information provided in Table 3.2 displays the participants' years in education as well as their years of experience working with HFA learners; which indicates that the sample is knowledgeable in terms of the phenomenon that is being investigated. Table 3.2 displays the genders, to indicate that both male and female participants were included. The research participants were selected because of their experience and their ability to help answer the research questions. This information is displayed to validate the selection of the research participants in this study (Du Plooy-Cillers et al., 2014).

3.6 Data collection methods

When making use of an interpretative case study design, data collection can include various instruments such as "interviews, focus-groups, past records and observations" (Leedy & Omrod, 2010: 137). McMillan & Schumacher (2015) encourage the use of data from a variety of sources: so the researcher collected data by means of interviews and observations. An in-depth discussion of these two data-collection methods provides more detail in 3.6.2 and 3.6.3.In order to provide a deeper insight into how the data were collected, Table 3.3 displays the times, dates and data-collection methods used for each research participant within this research.

Table 3.3 Chronological data-collection schedule

Data-collection	Initial meeting and introduction	Interview	Observations	Site
Teacher 1	23 May 2017	1 June 2017	1 June 2017	School A
Teacher 2	30 May 2017	31 May 2017	6 June 2017	School B
Teacher 3	22 June 2017	29 June 2017	29 June 2017	School C
Teacher 4	22 June 2017	29 June 2017	29 June 2017	School C
Teacher 5	22 June 2017	29 June 2017	29 June 2017	School C

3.6.1 Pre-testing of the data-collection instruments

The researcher conducted a pilot study to pre-test the data-collection instruments before collecting data commenced; which helped the researcher to determine whether the instruments were suitable to collect rich data relevant to this study and to "detect possible flaws" (Dikko, 2016: 521). According to Majid, Othman, Mohamad, Lim and Yusof (2017: 1074) it is helpful to the researcher to "pilot the interview questions and adjust the interview guide accordingly before embarking into major study". The pilot testing of the interview schedule was undertaken at the LSEN school where the researcher worked at the time; to establish whether the data-collection instruments could provide sufficient data to answer the research questions and to enhance the value and credibility of this study. During the pilot study, individual interviews were conducted before classroom observations were started. The adjustments that were made to the interview schedule are depicted in Table 3.4.

Table 3.4 The changes made to the interview schedule due to pre-testing

Question number	Initial question	Adjusted, final question used
6	What improvement in the development of social skills of the learners after implementing these specific support strategies have you experienced?	What improvements have you experienced in the development of social skills of the learners after implementing these specific support strategies?
8	In your opinion what can be done by the Department of Education and Government to fully equip teachers with support strategies to enhance the social skills of these Autistic learners?	In your opinion, what can be done by the Department of Education and Government to fully equip teachers with support strategies to enhance the social skills of these learners?
9	What challenges do you face when working on the social skills of High Functioning Autistic learners?	What are the main challenges you face regarding support strategies to enhance the social skills of your learners with High Functioning Autism?
10	No question.	Do you feel parental involvement plays a part in enhancing social skills of Foundation Phase learners with High Functioning Autism?

The wording and language structure of questions 6, 8 and 9 were adapted; after the pre-testing of the interview question. After a discussion with the researcher's co-supervisor, she decided to add question 10, because it could provide deeper insights into the research phenomenon. Question 10 could have been answered as a 'Yes' or 'No', but, because the researcher made use of open-ended questions, she could ask probing questions to expand the response if needed (Flick, 2018).

The researcher made use of the following strategies during the pre-testing of the interview schedule (Chenail, 2011: 257).

Each of the two participants was asked to sign informed consent forms before the pre-testing of the instruments began.

The researcher asked the same questions as determined for the main research.

The researcher asked the two participants for feedback and to identify any questions which were difficult to understand. She recorded the time each of the interviews took to complete, and established that each interview took approximately one hour.

The researcher then investigated whether the answers provided sufficient data to answer the central research question.

She then adjusted and revised the questions to avoid any ambiguous, unnecessary or difficult wording.

Before conducting the main research, interview questions along with the observation schedule were checked by her supervisors for language, wording and relevance (Majid, et al., 2017).

The pre-tests of the observation schedule were conducted in two classrooms with ASD learners, both at the school that the researcher was teaching at that time, because these classes had "the same characteristics as those in the main study" (Dikko, 2016: 522). After consulting her supervisors, the only change made to the observation schedule was the relocation of one element of focus. The researcher removed the words "parental support" from the observation schedule and added it as question 10 in the interview schedule, because this would have been difficult to observe, but a necessary element of the research.

3.6.2 Interviews

The various types of interviews found in qualitative research include: qualitative research, informal conversational, general interview guide approach, standardised open-ended, closed fixed-response, cultural, personal (structured), unstructured, focus group , in-depth, telephone and internet (Okeke & Van Wyk, 2017). Within this research, the purpose of the interview data collection tool was to develop "detailed, subjective understandings" of the investigated phenomenon (Hammett et al., 2015: 139). The researcher accomplished the above-mentioned by using structured, open-ended, one-on-one interviews with each of the five teachers.

The researcher created an interview schedule containing ten questions, selected to gather rich, in-depth data for this interpretative case study research (Cohen et al., 2018). The final interview schedule containing the ten research questions used for this research is included as Appendix 1. The advantages, along with the challenges that the researcher experienced using interviews as a data-collection method, are discussed in more detail.

3.6.2.1 Advantages of using open-ended, one-on-one interviews for this study.

One-on-one interviews allowed the researcher to develop detailed, subjective understandings of the reality and challenges that the teachers experienced while using support strategies to enhance to social skills of HFA learners (Hammett et al., 2015). Two of the interviews were conducted in the teachers' home language, Afrikaans, since this was the language they felt comfortable with: they were subsequently translated into English (Flick, 2018).

The interview schedules included pre-determined, open-ended, questions which were prepared before the interviews took place. These questions were the same for all five of the participants: "thus increasing the comparability of responses" (Cohen et al., 2018: 510). The open-ended questions provided more individualised responses from the teachers, because this method enabled the researcher to ask follow-up questions when needed. These follow-up questions ensured that rich data were collected to help answer the research question (Flick, 2018). These interview schedules guide the researcher in structuring and organising the collected data after the interviews were completed; promoting the data-analysis (Du Plooy-Cilliers et al., 2014).

3.6.2.2 Challenges experienced while using open-ended, one-on-one interviews for this study

The scheduling of interview times presented a challenge because the availability of the researcher and the teachers had to be considered (Palinkas et al., 2015). Since all of the interviews were conducted during school hours; in the respective classrooms of the individual teachers, it was not private and some interruptions did occur (Flick, 2018). Some of the interruptions were due to the school bell that rang to indicate the change of periods: the interview was paused for a few seconds until the bell stopped. During the second question of the interview with T5, the teacher was called out to help calm down one of the older learners at the school who was being aggressive towards other learners. After the incident, the researcher re-started the interview from the beginning, in order to give the teacher time to collect his thoughts, and to ensure his focus was on the interview questions.

In some instances it was a challenge to keep the teachers on track, since they became distracted by another thought or experience while answering the presented question. The researcher made use of probing questions to keep the answers relevant to the questions being asked (McMillan & Schumacher, 2015). The one-on-one interviews were time-consuming because each interview lasted between forty-five minutes and one hour (Du Plooy-Cilliers et al., 2014). There was a considerable amount of data collected during the five interviews: all of the data had to be transcribed, translated (in two of the cases) and analysed which consumed a great deal of time (Flick, 2018).

3.6.3 Observations

Observations were selected as the other method employed for collecting data for this research to generate "first-hand reports" on the researched phenomena (Flick, 2018: 314). Cohen et al., (2018: 542) concur by adding that observations can provide the researcher with "rich, contextual information" and "enables first-hand information to be collected". There are various types of observations; which can range from highly structured, semi-structured to unstructured (McMillan & Schumacher, 2015). The researcher decided to use highly structured observations because she developed an observation schedule in advance to determine which information should be focussed on and collected during the observations (Cohen et al., 2018).

According to Maree (2010) the four types of observations that can be used in qualitative research include: complete observer, non-participant observer, participant as observer and complete participant. During the classroom observations, the researcher "remained uninvolved" and did not influence the dynamics of the setting and focussed on her role as a "non-participant observer" (Maree, 2010: 85). Her presence was pointed out to the HFA learners to avoid distraction and interruptions, but she chose not to become involved in any of the classroom activities (Du Plooy-Cilliers et al., 2014). The researcher conducted individual, highly structured observations as a "non-participant observer" in three of the teachers' classrooms (Flick, 2018). This was due to the limited time that was available to the researcher. The observation schedule is attached as Appendix 2.

3.6.3.1 The advantages of being a "non-participant observer" during the observations, while using a pre-developed observation schedule:

The researcher was able to observe and experience the support strategies that the FP teachers used in their natural environment. These first-hand observations enlightened the researcher on which of these support strategies the teachers focused on to enhance specific social skills amongst her HFA learners (Du Plooy-Cilliers et al., 2014). The researcher was a "non-participant observer" it enabled her to directly observe and record these support strategies. Another advantage was that

being a "non-participant observer" enabled her to identify some of the challenges the teachers experienced, while being unobtrusive (McMillan & Schumacher, 2015). The time spent observing each classroom lasted for approximately two hours, which allowed the researcher to gather rich data to help answer the research question (Grima-Farrell, 2017). These conditions contributed to the validity of the study and the researcher was able to triangulate the data from the interviews and the observations (Wagner, Kawulich & Garner 2012).

3.6.3.2 The challenges experienced while being a non-participant observer

The focus of the "non-participant observer" was on the teachers and not the HFA learners. Since learners on the ASD spectrum tend to have a "higher prevalence of social anxiety disorder", it was the ethical responsibility of the researcher not to disrupt the HFA learners; hence the observations were not video-taped (Cage, Di Monaco & Newell, 2018: 473). Cohen et al. (2018: 125) support this sensitive idea and add that HFA learners are part of the "vulnerable group", and "should a child show any sign of discomfort or stress, the research should be terminated immediately" (Cohen et al., 2018: 125). To promote the success of the research and to respect the HFA learners, the researcher had to physically record every detail regarding the support strategies that the teachers used in their classroom, on the observation schedule. Another challenge was to determine a suitable time for conducting the observations, since these observations had to be done during school hours at a time when social skills were being addressed (Flick, 2018).

3.7 Data Analysis

Qualitative data analysis cannot be reduced to specific techniques, since it is a dynamic process that links problems, theories and methods together (Bryman & Burgess, 2002). Cohen et al. (2018: 643) state that "there is no simple formula" for the analysis or presentation of qualitative data and that "how one does it should abide by fitness and purpose". During the data-analysis, the researcher read and re-read the data and organised the analysed data into emerging categories and themes. These categories and themes were not imposed on the data prior to the data-collection, therefore an inductive data-analysis was used (McMillan & Schumacher, 2015). The researcher made use of the general process of inductive data analysis of qualitative research, as suggested by McMillan and Schumacher (2015), by using three phases that she adapted to fit her research; as displayed in Table 3.5.

Table 3.5 The three phases of inductive data-analysis used for this research project
(Adapted from McMillan& Schumacher, 2015).

Phase 1	The researcher prepared all the data (the structured, open-ended, one-on-one interviews and highly structured "non-participant" observations) by transcribing the interviews into English, and giving them back to the original teachers for checking the accuracy of the translations and transcriptions. The researcher then read and re-read the collected data from the interviews and observations to enable her to organise the data by breaking it down into smaller and more meaningful units (Flick, 2018). As the data-analysis consisted of "segments or units organised into a system that is predominantly derived from the data", it implied an inductive data-analysis (Henning, van Rensburg & Smit, 2007: 126). During the inductive data-analysis the categories that emerged were coded as such (PSS – peer support strategies, R – recourses, BE – behavioural encouragement, T - HFA training, PS - parental support, C -Curriculum and DNL - Differences in the needs of each learner). The smaller themes were coded (gw - group work, sp - structured play, ss - social stories, vavm - visual aids with verbal motivation, pp - published programmes and rs – reward system).

Phase 2	Looking at the codes, the researcher began to discover patterns and similarities within the data, and she was able to group the data into smaller units of meaning developing into categories and themes for each research question (Henning, van Rensburg & Smit, 2007: 126):
	
	1. Main research question: The following three categories with various themes emerged:
	
	   1.1 (PSS) Peer support strategies with three themes: (gw) group work, (sp) structured play, (ss) social stories;
	   1.2 (R) Resources with two themes: (vavm) visual aids with verbal motivation, (pp) published programmes; and
	   1.3 (BE) Behavioural encouragement with one theme: (rs) reward system.
	
	2. Research sub-question: The following four categories emerged with no additional themes:
	
	   2.1 (T) HFA training;
	   2.2 (PS) Parental support;
	   2.3 (C) HFA curriculum; and
	   2.4 (DNL) Differences in the needs of each learner.
	
	These categories that emerged were used in order to identify linkages and relationships to theory and the literature review provided in Chapter 2.

Phase 3	The presentations of the findings were through the use of vignettes, evidence from the interviews and observations, Tables, Figures with constant reference to theory and current literature (Cohen et al., 2018).The researcher discarded some of the initial themes including: music therapy, board games, technology and persona dolls as they did not provide substantial enough data that would help the researcher answer the research questions.

3.8 Trustworthiness

The terminology for trustworthiness in qualitative research, suggested by Lincoln and Guba (1985) propose the following four criteria which they believe are considerations for ensuring trustworthiness: internal validity, reliability, transferability and confirmability. Maree (2010) states that it is generally accepted that trustworthiness can be increased by using multiple methods of data collection: therefore, the researcher utilised interviews along with observations for collecting data; aiming to increase the validity of the findings. A detailed discussion of each of these four criteria and their implementation during this study follows.

3.8.1 Internal validity

Du Plooy-Cilliers et al. (2014: 258) describe validity as: "the accuracy with which the researcher interpreted the data that was provided by the participants". The researcher promoted validity by collecting the data in the natural setting of the FP teachers working with HFA learners, which were their classrooms and schools; in order to collect credible, in-depth responses relevant to the research phenomenon (Cohen et al., 2018). De Vos (2011) describes credibility as "the truth value" which seeks to represent the "phenomenon being investigated, fairly and fully". The credibility of the collected and analysed data were measured by "the meaning and interpretation of the results of the data collection" and by ensuring that in the process of collecting data "instrumentation [is] sound": the researcher pre-tested the data-collection instruments (Cohen et al., 2018: 246). She then cross-checked the responses provided by the teachers during the structured, open-ended, one-on-one interviews, which was then compared against the collected data from the classroom observations (Flick, 2018).

The validity of the findings is increased by the accuracy of the findings from the teacher's perspective: the transcribed interviews were returned to the research participants, as this is a strong form of member validation (Patton, 2014). They were asked to check and clarify whether the transcribed and translated interviews were accurate and whether the researchers' "interpretations adequately reflected the participant's viewpoint" (Flick, 2018: 240).

Shenton (2004: 68) recommends "including any personal and professional information relevant to the phenomenon under study": in accordance with this guideline, the biographical information of the research participants was displayed in Table 3.2, in order to indicate and validate their capability of providing rich data to help answer the research question. The researcher included a chronological record (Table 3.3) of the dates and time spent on the interviews and observations; along with the sites where the collection of data took place, in order to provide a deeper insight and perspective of

when and where the data was collected for this study. Tools which enabled data to be collected, and inductive analysis of data, ensured the presentation of clear, reliable findings that makes sense to the population for whom the study was intended as well as the specialised community of academics (Flick, 2018).

3.8.2 Reliability

Reliability focuses on correlation of data collected by the researcher and "what actually occurs in the natural setting" of the FP teachers and the support strategies they use to enhance the social skills of HFA learners (Cohen et al., 2018: 270). Reliability in qualitative research does not strive for uniformity in the findings of two different researchers, but seeks accuracy and comprehensiveness of the researched phenomenon (McMillan & Schumacher, 2015). The similarities and differences between the support strategies used by the FP teachers working with HFA learners, along with the various ways in which the teachers applied these support strategies, were noted throughout the data-collection process.

Yin (2018) suggests that there may be a lack of objective reliability in qualitative studies. Different teachers of HFA learners may employ different pedagogical and methodological strategies: the researcher had to increase the reliability of the study by using a structured, pre-determined interview schedule, "with the same format and sequence of words and questions for each" one of the teachers (Cohen et al., 2018: 273). To promote the reliability of the data, interviews were open-ended; allowing teachers to demonstrate their unique use of support strategies with HFA learners for social skill enhancement (Du Plooy-Cilliers et al., 2014). The same observation schedule was used for all three of the teachers, which substantiates the reliability of this research. By ensuring, as far as possible, that the "findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher" (Shenton, 2004: 72) the researcher aimed to promote the reliability of the research project.

3.8.3 Transferability

The core function of transferability is to determine whether the findings obtained from this research and its "set of circumstances in specific context also apply to other instances in other respective contexts" (Flick, 2018: 86). Because this small, unique case study included five FP teachers only, working with HFA learners in the Cape Peninsula, the research may be duplicated and transferred to other contexts, such as other provinces and teachers in other phases that seek to enhance the social skills of HFA learners.

3.8.4 Confirmability

According to Korstjens and Moser (2018) confirmability "is concerned with establishing that data and interpretations of the findings are not figments of the inquirer's imagination, but clearly derived from the data". Lincoln and Guba (1985) suggest the following categories that can be used by the researcher to develop an audit trail, to increase confirmability: raw data, data reduction and analysis products, data reconstruction and synthesis products, process notes, materials relating to intentions and dispositions, instrument development information. The instrument for collecting data was pre-tested by means of a pilot test. The researcher first collected the raw data, then sorted the data in order to structure the data. After these steps were completed, the inductive analysis of data commenced as portrayed in Figure 3.1. The collected data were summarised, then developed into categories and themes. According to Anney (2014), the concept of confirmability can be increased by including triangulation; so a discussion on how triangulation was conducted in this study.

3.8.5 Triangulation

Triangulation is used in the social sciences to "explain more fully, the richness and complexity of human behaviour" from various standpoints (Cohen et al., 2018: 264). Cohen et al. (2018: 265) indicate the following types of triangulation:

- Time triangulation: takes into consideration the factors of change and observations over time, and seeks the similarity of data collected during that time;
- Space triangulation: makes use of cross-cultural techniques;
- Combined levels of triangulation: uses more than one level of analysis;
- Theoretical triangulation: draws upon alternative or competing theories in preference to utilizing one viewpoint only;
- Investigator triangulation: engages more than one observer, and the data are discovered independently by more than one observer;
- Methodology triangulation: uses either the same methodology on different occasions, or different methods on the same object of study;
- Paradigm triangulation: different paradigms used in the same study;
- Instrument triangulation: different data-collection instruments;
- Sampling triangulation: different samples and sub-samples.

This study was a qualitative case study, so the researcher made use of theoretical triangulation and instrument triangulation. Theoretical triangulation was achieved in this study because a conceptual

framework was used; which included Bronfenbrenner's ecological systems theory and Vygotsky's socio-cultural theory. Since the researcher conducted five structured, open-ended, one-on-one interviews and three classroom observations, the instrument was triangulated. Through the triangulation of the data, the credibility of the study was increased.

3.9 Ethical considerations

According to Hammersley and Traianou (2012) the five main ethical issues in educational research include: minimising harm, respecting autonomy, protecting the research participant's privacy, offering reciprocity and equal treatment. The way that the researcher addressed each of these ethical issues throughout this research is now discussed in more detail.

Minimising harm: The researcher aimed to cause no harm to any of the research participants in any way during the observation and interview process; by taking their time and privacy into consideration. Respecting autonomy: Each of the participants, including the principals of the respective schools, were fully informed by the researcher about what was expected of them during the study, before the study began. This was done to empower them to make an informed decision about participating in this research. The researcher respected each research participant's decisions throughout the study by answering all their questions regarding the research. All participants were informed that they may leave the study at any point if they wished to. Protecting the research participants' privacy: The researcher ensured that all the participants that took part in this study remained anonymous and that their personal information was kept confidential. Offering reciprocity: The researcher treated all of the participants with respect, and used member checking, so that any bias was minimized. The researcher tried not to disrupt the participants' lives, by scheduling with them times for collecting data; no-one was obliged or prevailed upon to undertake any work against their expressed will. Equal treatment: No research participant was discriminated against in any way during this study. Nor were they discriminated against after the study was complete.

The researcher applied and obtained ethical clearance from the Cape Peninsula University of Technology where the researcher was provided with an ethical clearance number and given permission to conduct this study. An application was sent to the Western Cape Education Department (WCED) requesting permission to conduct research in the respective schools. The researcher subsequently received an ethical clearance letter from the WCED. All participants were briefed before the data collection process started and were asked to sign consent forms; which they did. The teachers were provided with letters of permission to give to the parents/guardians of their

learners with HFA; informing them of the proposed research and requesting their permission. All three of the schools had their own general consent forms that allowed for research to be done in their schools; therefore, new parental consent was not necessary. The informed consent letters were signed by all five of the research participants and were collected by the researcher before the data collection was conducted.

3.10 Chapter Summary

Chapter 3 introduced and discussed the research questions, research paradigm, research approach, site selection, sample, data collection methods, data analysis, trustworthiness and the ethical considerations for this research. In Chapter 4, the presentation, analysis and discussion of data from this investigative research follow.

CHAPTER 4

RESULTS

4.1. Introduction

This research aims to identify various support strategies used by Foundation Phase teachers to enhance social skills of learners with HFA. The main research question of this study was formulated as:

- What support strategies do Foundation Phase teachers use to enhance the social skills of learners with HFA?

Once identified, the research problem led to the following research sub-question:

- What challenges do FP teachers experience when supporting learners with HFA with social skills?

4.2. Main Research Question

Table 4.1 indicates the most significant themes to the least significant themes. Each support strategy will be discussed in more detail.

Table 4.1 Support strategies

Categories:	Themes: (Support strategy)	Teacher 1		Teacher 2		Teacher 3		Teacher 4	Teacher 5	TOTAL
		Interview	Observation	Interview	Observation	Interview	Observation	Interview	Interview	
Peer support strategies	Group work	X	X	X	X	X	X	X	X	9
	Structured play	X	X	X	X	X	X			6
	Social stories			X	x	X	X			4
Resources	Visual aids with verbal motivation		X		X		X	X	X	5
	Published programmes	X					X	X	X	4
Behavioural encouragement	Reward system					X	X			2

When looking at the categories derived from the data of the structured, open-ended interviews together with the observations, 'peer support strategies' was the most regularly used support strategy employed by the five FP teachers; with the aim of enhancing the social skills of learners with HFA. Within this category of 'peer support strategies' three themes became apparent: group work, structured play and social stories. The second highest category was 'resources'; consisting of two themes: visual aids with verbal motivation and published programmes. The final category, 'behavioural encouragement', presented one theme: 'reward system'.

Each of these three categories is discussed as well as their various themes in more detail, starting with the most prominent category: peer support strategies. This section has been structured by providing evidence from the data collected, juxtaposing it with references to international and local literature as well as by pointing out connections to the theoretical framework.

4.3. Category 1: Peer support strategies

Lev Vygotsky's generation of the notion of 'peer support' is known as the Zone of Proximal Development (ZPD). According to Vygotsky's ZPD's theory, a child (with HFA) "who receives the proper assistance from an adult or a more advanced peer, is capable of much more learning than on their own" (Gindis, 1999: 336). Vygotsky states that such scaffolding brings to the fore abilities that have been developing latently, but not yet made patent; which reveal the child's otherwise hidden potential (Gindis, 1999). Vygotsky's ZPD and scaffolding theories, proved foundational in the way teachers worked with their learners.

During this research, the researcher purposefully selected the following seven social skills (Chapter 2, Section 2.3.2) on which to focus: self-esteem, behavioural etiquette, conflict management, sharing, recognition of other's emotions, independence and managing own emotions. According to the DSM-V (2013: 69) neuro-developmental disorders such as Autism Spectrum Disorder (ASD) can cause a "range of developmental deficits that varies from very specific limitations of learning or control of executive functions to global impairments of social skills or intelligence". Although there are many ideas of what social skills are, Wolstencroft, Robinson, Srinivasan, Kerry, Mandy and Skuse, (2018: 1) define the term as "behaviours that are performed in a social context and entail person to person engagement". Social skills are necessary for people to interact in a socially acceptable manner and to build positive relations (Orton, 2011).

Table 4.2 Peer support with a variety of social skills

Investigated social skills	Self-esteem	Behavioural etiquette	Conflict management	Sharing	Recognition of other's emotions	Independence	Managing own emotions	Total social skills addressed
Groupwork	X	X	X	X	X	X	X	**7**
Structured Play	X	X	X	X	X	X		**6**
Social Stories	X	X	X	X	X			**5**

The support strategy that was the most extensively used, was theme 1.1 'Group work'.

4.3.1 Category 1: Peer support strategies – Theme 1.1 Group work'

White, Keonig, and Scahill (2007) state that one of the key features of Autism Spectrum Disorders (including HFA) is a deficit in social skills. According to Gates, Kang and Lerner (2017:16) "Group-based Social Skills Interventions (GSSIs) are the most widely used approach to address social impairment and foster social skills development" in learners with HFA. The results of this study align with the findings from Gates et al. (2017). Group work was the only support strategy used to address all seven social skills that forms part of this study: self-esteem, behavioural etiquette, conflict management, sharing, recognition of other's emotions, independence and managing own emotions. The five teachers in this study, however, used group work in varying degrees to address the seven social skills.

The research conducted by the Ontario Centre of Excellence for youth and child mental health (2001: 3) indicated that even when using GSSIs, "total improvement of social skill deficits does not occur, and difficulties with social skills persist even for those who receive good treatment". Gresham (1984) supports the above statement when stating that even if learners with HFA are exposed to typical peers in order to enhance their social skills, this may not be sufficient to help them acquire these skills. Laushey and Heflin (2000) state that learners with HFA need assistance in learning how to imitate acceptable social behaviour and may experience social isolation because of this deficit in social skills. Yet evidence for the effectiveness of group work support strategies is limited (Wolstencroft et al., 2018).

To structure the results of this 'group work' section, the researcher has chosen to discuss each teacher and provide examples from both the interview and the observations for each of the social skills. T1 – T3 are discussed referring to observed examples inside Vignettes, while T4 and T5 alone were actually interviewed. The data discussed relate only to the interview statements made by these teachers.

Teacher 1 (T1)

During the interview and observation of T1, the researcher could not find examples of the following social skills: **self-esteem, behavioural etiquette, recognition of other's emotions,** and **managing own emotions.** There were examples, however, of: **conflict management, sharing** and **independence**. Evidence of each of these aspects are now provided by analysing Vignette1.1.

Vignette 1.1

Morning ring began with the nine learners singing songs. The teacher had developed a routine whereby each learner took a day to manage this experience. On this particular day, one boy chose to sing three religious songs.

After this activity T1 continued with a group work session where she discussed Ants. She had a jar of ants and a magnifying glass which she put on the carpet and the learners had fun observing them.

An example of **independence** was when learners were expected to manage the group work's morning ring by selecting the songs for that day. This learner managed this task efficiently and independently. Following on from this experience, T1 moved to the next activity which was talking about 'Ants': during this session, examples of **conflict management** and **sharing** manifested**.**

During the interview, which occurred after the observation, T1 shared how she managed conflict and encouraged sharing among her learners:

> … I have two learners who are constantly fighting. I placed them at the 'sharing table' so they have to learn to take turns and not interrupt each other. They have to work there until they can share and only then are they allowed to come back to their own desk and use their own things.

> … sharing has improved a lot with group work. We struggled a lot with the learners to share in the beginning of the year, they did not want share or give anything to each other. This sharing has improved a lot during the year.

Teacher 2 (T2)

During the interview and observations the researcher discovered that T2 taught in such a manner that she covered all the social skills.

Vignette1.2

Example 1:

In a group, T2 told her learners a story about a girl who grabbed another girl's lollipop and took it for herself and walked away with it. She then role modelled this experience using one of the learners in the class. Following this T2 asked the learners, as a group what the emotions the learners would be feeling and why she would be feeling that. She followed up with a discussion asking if this was acceptable behaviour or not.

Example 2:

After the first break, the High Functioning Autism (HFA) class of T2 went outside with the mainstream Grade R class, to do some gross motor activities as a group. The more independent Grade R learners were paired with a 'buddy' for an HFA learner during this activity.

T2 got all the learners to mirror her when she stretched, crossed her midline and jumped up and down. Afterwards the learners and their 'buddies' played on the gym equipment. One of the HFA boys pushed in front of the Grade R 'buddy' to get to the slide and did not say sorry.

Both these examples correspond with the findings of Laushey and Heflin (2000: 184) that direct instruction from the teacher can be useful for "teaching specific social skills", since individuals with HFA do not tend to "acquire skills through incidental learning". During these group work examples, most of the peer support strategies direct instructions were given by T2 to help guide the learners with HFA and Grade R learners towards what was regarded as socially acceptable behaviour. Example 1 was a relevant example of how T2 explicitly encouraged **self-esteem** in her learners when she accorded each of them an opportunity to say how they would feel if someone took their lollipop without permission. Talking about their experiences built the learners' self-esteem since T2 expected the learners to value each other's verbal contributions. Walker and Berthelsen (2008: 34) are of the opinion that learners with HFA "may be socially isolated": this rejection from peers can lead to a lack of self-confidence and cause anxiety or disruptive behaviour (Koegel & Frea, 1993).

Although T2 was aware that learners with HFA have difficulty interpreting non-verbal language in social situations (Lowth, 2015), she attempted to use group work to role model the specific social skill of **behaviour etiquette.** In Example 1, T2 encouraged her learners to discuss whether taking the lollipop was acceptable behaviour or not. Orton (2011) states that over time the strategy of training socially 'savvy' children how to work and play with their HFA classmates has been effective. This strategy was evident in Example 2 where T2 used specifically selected Grade R learners to act as support 'buddies' to the learners in the HFA class.

According to Laushey and Heflin (2000: 183) it is "necessary for students with HFA to have some exposure to typical peers in order to foster the learning of appropriate social skills". In Example 2, T2 invited the Grade R mainstream learners to participate in a group physical activity with her HFA learners. In order to enhance appropriate social skills with her learners with HFA, she created a 'buddy' system with the Grade R learners. An example of **conflict management** appeared, however, when one of the boys with HFA pushed in front of his Grade R buddy to reach the slide and failed to apologise.

In the interview, T2 told the researcher that her learners were beginning to understand that they have to **share** with other learners in her class. This lesson can be seen in the way the learners responded to Example 1 when they shared their stories of how they would feel when someone took their lollipop without permission.

T2's use of peer support during group work reflects Vygotsky's ZPD (Gindis, 1999) within the socio-cultural theory. T2 demonstrated the physical activities with the support of the more advanced Grade R class learners. On this topic of sharing and peer support, T2 confirmed that some of the social skills that were focussed on during group work did have a positive influence on her learners.

> … jy kon die verandering sien nadat hulle saam met die Graad R klas begin speel het. In die begin was dit baie moeilik, juis oor die sosialisering, maar ek kan die vordering sien wat gemaak is deur om saam met die Graad R klas te werk. Hulle begin al hoe meer besef dat hulle met ander klasse se leerders moet deel.

> … you could see the change when they are playing with the Grade R class. In the beginning it was difficult because of the socialisation, but I can see the improvement we got by doing the group work with the Grade R class. They are realising more that they have to share with the other classes' learners.

Recognition of other's emotions was a social skill that was evidenced in both Example 1 and 2. In Example 1 the learners had to communicate how that girl would feel whose lollipop had been taken. In Example 2 that particular boy had to apologise to the boy he pushed and say how he would feel if others pushed in front of him. These are both examples of **managing their own emotions**.

When looking at the emotional reactions and how learners with HFA struggle to manage their own emotions in Examples 1 and 2, the findings align with how Loth, Gomez and Happé (2008) describe the 'theory of mind' challenges, which include difficulty in understanding another's perspectives, intentions, motivations and beliefs. Portman (2007) is of the opinion that 'theory of mind' allows a person to be able to comprehend and interpret social interactions in the world around them. When looking at these learners with HFA, it becomes evident that these "deficits in theory of mind lead to

challenges in understanding other's emotions and, at times, may lead to a lack of empathy" (Epp, 2008: 28) and grants an insight into how they interpret a situation and react the way that they do. Lantz et al. (2004) support the above statement and explain that learners with HFA can often find it difficult to interpret and predict the thoughts and feelings and behaviours of other children. It was clear when looking at both Examples 1 and 2 of T2's learners that "poor communication skills can limit their reciprocity in play" as was the case during this study.

In Example 1, T2 expected learners independently to role model the activity of taking some else's lollipop. This was an appropriate example of how T2 developed the social skill of **independence** in her learners. Elliot and Gresham (1993) believe social skills include the ability to stand up for oneself, to be responsible, to show empathy towards others and to have self-control. In Example 2, T2 addressed these social skills. While T2 aimed to address independence during group work, Lantz et al. (2004) believe that it is necessary for learners with HFA to learn how to identify social problems independently and to resolve them in real-life situations for the long-term effectiveness of social skill interventions that focus on self-reliance and self-worth.

Teacher 3 (T3)

T3 managed her seven learners with HFA by using a regular, repetitive routine which she had deployed since the beginning of the year. For this study, the researcher visited her class in the third term and noted that the learners were confident in this repetitive routine and enjoyed taking the lead for that particular week. During the group work, the researcher did not observe any **conflict management**, **recognition of other's emotions** nor any **managing of one's own emotions,** nor did these arise during the interview. This calmness may have been because the class was used to this well-organised classroom structure.

Vignette1.3

> In T3's class each learner had a chance to be the leader for the week. This role included managing the morning ring and assisting the teacher throughout the day with any administrative or teaching/learning tasks.
>
> On this particular day, the class captain began the morning ring session. He asked his classmates to say what day it was, and how the weather was. After this he said "We are going to dance with this song today". He opened the lap top and selected the Just Dance music programme, then selected the Justin Bieber song. This played on the large interactive whiteboard with him in front of the class facing the whiteboard with his back to the class. He comfortably led the group without any help from T3.

By allowing classmates to take leadership roles every week, T3 encouraged **behaviour etiquette** amongst her learners. T3's learners were used to this style of classroom management where they learnt to be respectful of each other when they were the leader in this role. T3's approach reflected Sotelo's (2009) belief that routine and good classroom management is a necessity when it comes to the enhancement of behavioural etiquette of learners with HFA.

By **sharing** the leadership role, learners with HFA learnt to respect each other and not hurt each other's feelings. According to Reyes (2013: 9), social skill interventions often include "how and when to interrupt, discussing sensitive subjects, recognizing feelings and dealing with making mistakes". T3 focussed on these social skills, particularly the need to be respectful of other's opinions when they were sharing with the group. When the leader asked his group questions about the weather, he referred to T3's visual cue cards and asked further questions such as: What is appropriate clothing for this season? He held up pictures of different clothing items and asked each of his class mates whether these items were appropriate for that particular season. Learners were used to sharing their information in a respectful manner and discussed each question.

Vignette1.3 is an example of the teacher encouraging learners to function **independently** in the class. Because T3 was aware that her learners with autism may experience task initiation challenges (Wertz, 2012), she equipped her learners to function independently by modelling the morning-routine with them as a group and explained what was expected of the learner in charge of the morning-ring. This particular learner in Vignette 3, independently used the laptop and found his choice of music for that day. It was interesting to note that Justin Bieber was about to visit South Africa, so the selection of music was timely. T3 allowed learners to manage the morning ring, ask their own questions and manage learners' responses.

Teacher 4 (T4)

Due to the fact that T4 was not observed, the undermentioned data refers to an interview held with T4 focussing on group work.

> … when we go to the playground it's as a group, it's integrated in every little thing you do.

Bellini (2004) believes anxiety is a common feature in learners with HFA. He (2004: 79) posits that "social-anxiety, panic and obsessive-compulsive rituals are the most common anxiety symptoms of this population". Because of this anxiety that the HFA learners, T4 mentioned that she went to the

playground with her class as a group to lower their anxiety and to boost their **self-esteem**. She further stated that she made use of group work in an unfamiliar setting to make the learners feel safe and in turn, aimed to boost their self-esteem by using group work interventions.

> … even a Maths lesson would have social skills in it, because one learner would just say: 'Can I have a red pencil?' without asking or calling his friends name, saying 'friend, can I please borrow a pencil?' and not just command it.

During the interview, T4 reported that she used a Mathematics lesson, which was conducted in a group, to integrate the social skill of **behavioural etiquette**. Even though T4 knew that "students with HFA may have difficulty imitating appropriate social behaviours" (Laushey & Heflin, 2000: 183), during her interview, T4 mentioned that she explained to the class why it was not socially appropriate to command a pencil, but acceptable to ask in a friendly manner.

Teacher 5 (T5)

While learners were out of the class making bread in the kitchen, the researcher sat in T5's class and conducted the interview with him. During the interview, there were no examples of how he encouraged**, conflict management or managing own emotions**. T5 mentioned that his class had many successes regarding social skills in general, not just by using group work, but by integrating different support strategies.

As an example of teaching **behaviour etiquette** within a group, T5 stated:

> … I am teaching acceptable social interaction skills on how to make friends.

As far as **recognition of other's emotions** is concerned, he stated that:

> … I teach my learners about different types of bullying during morning ring. We will do that in the classroom as a group activity.

T5 addressed the social skill of **self-esteem** by pointing out that:

> … simplifying and using your own context and your own experiences definitely helps the children. They understand that they are not that unique from everybody else, because most of them struggle with the same things, but not really anybody talks about that problem.

T5 encouraged **sharing** by stating:

> … the children have to be involved and get more answers coming out from their side as well. They will give their own personal experiences and then we relate the personal experiences to other children in the class and bounce questions around.

T5's strategy to enhance the **behavioural etiquette** of his learners focussed on how to behave, in an acceptable manner, to be able to make friends. His focus on behavioural etiquette, which was to be able to make friends, is supported by Sotelo (2009: 8) who states that "social competence for individuals with autism spectrum disorders is essential for successful integration into society, the development and maintenance of meaningful friendships, and long-term positive outcomes".

T5 used incidental teaching when it came to developing his learners' **self-esteem**. He did this by sharing his own experiences of rejection during morning ring to show them that this happens to everybody and that they are not alone. This strategy of addressing their self-esteem was used with the aim of minimising their "risk for social isolation and peer victimisation" (Gates et al., 2017: 165).

Because social impairment is one of the defining features of HFA (DSM-V, 2013) learners, T5 made use of the morning ring to addressing **recognising of others' emotions** within the topic of 'bullying'; with the aim to decrease these above-mentioned risks cited by Gates et al. (2017). Because T5 was aware that "social acceptance is not always the outcome for children with disabilities" (Walker & Berthelsen, 2008: 34) he promoted sharing during the morning ring by asking learners to **share** their own experiences with the group as well.

Ogilvie (2008: 4) is of the opinion that "inclusion is a belief that students with special needs can and should be educated in the least restrictive environment and have access to the same learning experiences as their peers without special needs". T5's education of internet-safety of his learners is aligned with Ogilvie's (2008) definition of inclusion. Vygotsky (in Cole, John-Steiner, Scribner & Souberman, 1978) states that in order to develop complex functions, social interactions are critical. This view of Vygotsky's was reflected in T5's teaching as he worked within the ZPD to promote his student's development by using technology that they already knew, and expanding their knowledge and safe usage at school and at home (César & Santos, 2006). In today's society the internet is a part of their daily lives at school and even at home. Because of this, T5 taught his learners **independently** to surf the web at school and at home in a safe manner. T5 forms part of the micro-system of the learner according to the ecological systems theory of Bronfenbrenner (1994) and through teaching internet-safety he expanded their social experiences with others and guided them how to communicate in an acceptable and safe manner via the internet and social media.

Summary of this section

During the analysis of data under the theme of 'group work', the researcher found that group work was used as a "bridge" to integrate various support strategies. The critical role teachers, learners and peers play in the "development of the learner with disabilities" (Grum, 2012: 114) was clearly observed during this research. Reichow and Volkmar (2009) state that group interventions are frequently used with HFA learners and can be combined with the other forms of social skills training; as seen throughout the analysis of the data that emerged from this group work theme. It is apparent that the teachers were aware of the critical role they play in enhancing the social skills of their learners by using group work and sometimes integrating it into other support strategies. Teachers and peers were utilized by giving continual guidance as well as supporting HFA learners to build meaningful relations and bolster their self-worth and confidence. Group work was the most commonly used support strategy by all of the teachers to address more than one social skill at a time as, for example, when identifying others' emotions and managing your own emotions or behavioural etiquette and sharing together.

4.3.2 Category 1: Peer support strategies – Theme 1.2 Structured play

Structured play is described to by Aronstam and Braund (2016: 2) as play that has clearly defined goals and rules. They (2016: 2) claim that structured play is "curriculum driven, teacher-initiated and teacher-dominated". This support strategy of 'structured play' was used by the various teachers in this study to address a total of six specific social skills: self-esteem, behavioural etiquette, conflict management, sharing, recognition of other's emotions and independence. The theme of "structured play" was the second most used support strategy. The view of Vygotsky (in Cole, John-Steiner, Scribner & Souberman, 1978) regarding play is that it facilitates cognitive development. He states that children practise what they already know when playing, and that they learn new things by constructing new knowledge through playing.

In order to structure the results for this theme of "structured play", the researcher chose to provide examples for each social skill that was addressed. The responses of Teachers 1, 2 and 3 only are discussed in detail; with evidence from the Vignettes. T4 and T5 did not mention that they made use of structured play during their interviews. No observations were conducted for these two teachers: they will not be included in this "structured play" section. Not all of the teachers used structured play strategies to address all of the social skills, but when looking at the collected data, structured play was used to address six out of the seven social skills.

Teacher 1 (T1)

While analysis of the previous theme clearly demonstrated how group work was used by T1 to enhance **conflict management, sharing** and **independence**, the data, focussing on structured play from the interview and observations of T1 was analysed and demonstrated examples of **behavioural etiquette**, **recognition of others' emotions**, **sharing** and **independence.** Evidence of each of these addressed social skills is now provided by analysing Vignette 2.1.

Vignette 2.1

Example 1:

During this structured play session, T1 divided the class into two groups. The one group of learners played board games with each other on the carpet without T1 guiding them.

The other group of learners got another chance to look at the ants with a magnifying glass, seeing as they did not get a chance during group work. During structured play an incident occurred where one of the learners grabbed the magnifying glass that was used for the lesson to view ants from the other learner and he did not want to share it with his classmates. T1 used this incident to address the above-mentioned social skills with her two groups.

Vygotsky, in his socio-cultural theory, stresses the importance of social learning, working in groups and peer support during the upbringing and education of children with disabilities (Rodina, 2007). Lantz et al. (2004) agree with this theory of Vygotsky's (Rodina, 2007) that positive interactions with peers during play can develop the social behaviour of learners with HFA. T1's strategy when using structured play echoed these beliefs: during the interview she stated that she used board games to address **behavioural etiquette:**

> … games and playing are good ways to learn that they need to take turns. We practise to say 'Please' and 'Thank you' like they should say it. The learners learn best through playing, so we thought we could incorporate learning in play.

Francke and Geist (2003: 126) posit that learners with HFA may have an "aloof manner" and experience difficulty when it comes to socialising or sharing objects with others. T1 stated that she used an incident during another structured play session to address **sharing**:

> … let's give Uno [pseudonym] a bear and then I said, look Andrew [pseudonym], Uno has no bears, let's give him one.

Vignette 2.1 is a good example of **recognising others' emotions** when the one learner grasped the magnifying glass from his classmate and did not want to share it. T1 was aware that some learners with HFA can experience "difficulties in emotional competence, including poor regulatory capacity" (Reyes, 2013: 1) and she addressed this incident as soon as it happened. T1 asked the learner how he thought he would feel if someone took the magnifying glass from him without permission. He had to identify the sadness he made his friend feel and he had to apologise and share the magnifying glass; so that everyone could have a chance to look at the ants. They gave each other a hug and carried on.

The example in Vignette 2.1 of how T1 addressed **independence** during structured play, was by giving the one group board games to play without the constant supervision of the teacher. It was valuable to observe that the group of learners with HFA was able to play the board game, big snakes and ladders, independently. This example of independence, may have been because during a discussion with T1 after the classroom observation, she mentioned that at the beginning of the year, she established what learners could do and then explored what their potential may be. This reflects DSM-V (2013: 56) which states that "individuals with lower levels of impairment may be better able to function independently". Vignette 2.1 is an example of how T1 first structured the group by understanding their potential, which is seen as scaffolding in the socio-cultural theory of Vygotsky (Walker & Berthelsen, 2008) used to promote learning through the ZPD, then gave these learners a chance to play independently.

Teacher 2 (T2)

During the data analysis of the interview and observation of T2, structured play was used to encourage learners to be **independent** and to raise **self-esteem**; as depicted in the following Vignette 2.2.

Vignette 2.2

> The teacher used structured play to demonstrate to the learners how to brush their teeth. Each of learners received a doll and had to identify the doll's mouth by saying or showing, depending on their ability, and had to then identify their own mouth. T2 used visual cards to explain the five steps of how to brush their teeth. They practised these five steps by using the dolls in an imaginary way. They had to hold the toothbrush in the correct manner and pretended to brush the doll's teeth. T2, and the class assistant, supported the learners with the correct grip and motion. When the learners finished this structured play session with the dolls they went to brush their own teeth. Since there was only one basin the learners went individually to brush their own teeth. The visual cards were displayed above the basin, in a step-by-step sequence to guide them. The aim of this activity was to equip the learners with the skill of brushing their teeth independently at school and at home.

Vignette 2.2 shows how T2 used structured play to encourage her learners to be able to brush their teeth **independently** in the classroom as well as at home. T2 incorporated imaginary play because she was aware that learners with HFA "can struggle to play imaginatively" (Lantz et al., 2004: 8). She enhanced the learning by providing visual, physical and verbal support during this session "given that students with autism need assistance in learning how to imitate and model" (Laushey & Heflin, 2000: 184). T2 knew that it may be difficult for some of her learners with HFA to execute an everyday activity such as brushing their teeth. The learners' aversion towards the 'taste, smell, texture' of the toothbrush and the toothpaste, in this instance, may be difficult because these senses are "common and may be a presenting feature of autism spectrum disorder" (DSM-V, 2013: 54).

It was pleasing to observe that T2 included all her learners in this activity; whether they were verbal or non-verbal, by allowing them either to show or say where their own mouths were. She boosted their **self-esteem** by focussing on each learner's ability and by constantly praising them during the whole session. One specific learner was non-verbal and hard of hearing, so T2 supported her further by verbalising the instruction and showing her a picture of a mouth on a card, so that she could follow what was presented on the card. T2's holistic approach is supported by Hännikäinen (2012: 104) who believes that "a good combination of care, education and teaching can promote a child's positive self-image, expressive and interactive skills and the development of thinking".

Teacher 3 (T3)

No example of **behavioural etiquette, conflict management, independence** or **managing own emotions** was found with regards to structured play during the observation and interview of T3. In

Vignette 2.3 it can clearly be seen how T3 focussed on **sharing**, **recognition of other's emotions** and **self-esteem** during structured play.

Vignette 2.3

During the structured play session, T3 took the lead and announced to the learners that they had to sit on the carpet in a group. She paired the learners up in the group setting. All of the learners in her class were able to communicate verbally. She handed each learner a picture which displayed an emotion. They had to turn to their classmate and show them their picture and their classmate had to say which emotion was displayed. Some of the learners did not identify the correct emotion, and she motivated them to try again. T3 followed up the identification of the emotion by asking each learner to share how they would react if they saw someone displaying that emotion.

T3 was aware that "major difficulties in social interaction have consistently been identified as a central feature of autism" (Reichow & Volkmar, 2009: 150), therefore, the social skill of **recognition of other's emotions** was the main focus during this structured play session. T3 gave each learner an opportunity to say what emotion he or she thought was shown to them. According to Levykh (2008: 83), the ZPD theory acknowledges that learning can lead to development and that "emotions are a vital part of human learning and development". By using this aspect of the Vygotsky's ZPD (Walker & Berthelsen, 2008) to enhance their abilities to recognise others' emotions, T3 aimed to equip her learners with this necessary social skill to be able to build relations and react in an appropriate way towards others' emotions.

Learners' **self-esteem** was encouraged by T3 since she gave everyone an opportunity to **share** his or her answer with the class and motivated them to participate in the activity. Guthrie (2013: 4) is of the opinion that "believing in yourself is more closely linked to achievement than any other motivation throughout school". T3's approach correlates with the view of Guthrie (2013) that when a learner believes that he or she cannot do something, the attempt to succeed fails. T3 did not correct the learners in a condescending way, but rather guided them by using a soft tone of voice and motivated them to try again.

T3 mentioned, in her interview, that she was aware that her learners struggled with their **self-esteem**:

> … and with the higher functioning [autistic learners] is that they realise that they can't do it [carry out certain tasks given to them] and they rather shy away and their ego's take a massive dive. They really battle to have that self-confidence to do it.

Learners with HFA can find it difficult to **share**, especially when "engaging in activities directly involving one or more peers and showing something to someone else" (Bass & Mulick, 2007: 727). Therefore, T3 motivated her learners to show their pictures to their classmates. One boy in particular, did not want to show his picture to his classmate, and T3 explained why it would hurt his classmate's feelings. The effectiveness of the gentle manner in which T3 motivated her learners was evident: the boy who did not want to show his emotion in Example 1, eventually took part and showed his emotion to his friend. As previously stated, T3's classroom structure and routine was well managed: the learners were respectful towards their peers and allowed them to share which emotion they identified and how they would react when seeing someone display that emotion.

Summary of this section

During the analysis of data under the theme of 'structured play', it was pertinent to note that Teachers 1, 2 and 3 predominantly used structured play to enhance their learners' self-esteem and to promote recognition of other's emotions. Structured play was used in group forms with specific aims. During the observations, it was clear that learners struggled with play and that the teachers structured these sessions in such a way that each learner was included in the activities.

4.3.3 Category 1: Peer support strategies: Theme 1.3 Social stories

Orton (2011: 1) believes that imperfect social skills can lead to "failed peer support acquisition and maladaptive social behaviour later in life". Many researchers, including Vygotsky (in Cole, John-Steiner, Scribner & Souberman, 1978), share Orton's view: therefore, it is critical for all stakeholders to encourage and promote social skill development in learners with HFA. One of the support strategies used with regards to social skills development is social narrative, which was the third most used support strategy in the 'peer support' theme of this research. Learners with HFA cannot all be taught in the same manner: it "is not a single condition, but a spectrum disorder" where every child's educational strengths and needs should be looked at individually (Walker & Berthelsen, 2008: 35). A social story is described by Crozier and Tincani (2007: 1803) as "a short story written for an

individual that describes a specific activity and the behaviour expectations associated with that activity". Tappan (1998: 143) states that stories are key components in education to "teach values and virtues"; as seen in this social stories theme.

O'Nions et al. (2015: 2) state that "learners with HFA reflect disturbances in the ability to relate to others and understand their thoughts and intentions". Although T1, T4 and T5 made no reference to the use of stories, T2 and T3 in contrast, did make use of social stories; as reflected in the following vignettes:

Teacher 2 (T2)

The analysis of Vignette 3.1 demonstrated how T2 used social stories to strengthen **behavioural etiquette**, **sharing** and **recognition of another's emotions**.

Vignette 3.1

The teacher started by asking her learners to sit on the carpet as a group. She then told the class a story that took place in the 'winter', because that is the season that they were in and so that they could relate to the circumstances. The story was about a little girl who was walking in the rain and did not have an umbrella. Her friend that walked by had a big umbrella, but did not share the umbrella with her. The little girl asked her friend in a polite manner if she can also walk under the umbrella and the friend said "Yes". They walked together to school, sharing the umbrella. The teacher asked the learners various question, such as: Was the friend with the umbrella wrong or right? How did the girl feel when she was walking in the rain? What would you do if you have an umbrella and your friend is walking in the rain without one? How would you ask someone to use something of theirs?

Each one of the learners was given an opportunity to share their answer with the class. Some of the learners said that they would not share their umbrella, because it was theirs. T2 explained to them that it could hurt other peoples' emotions when they do not want to share. She explained to the learners why it was important for them to say "Please" and "Thank you" when asking for something.

When examining Vignette 3.1, T2 addressed **behavioural etiquette** by asking learners what they would say when they had to borrow something from someone else. After the answering session, she explained the importance of "Please" and "Thank you": she was aware that ASD "is characterized

by persistent deficits in social communication and social interaction across multiple contexts, including deficits in social reciprocity" (DSM-V, 2013: 31).

T2 seemed to be aware that her learners with HFA typically struggle to exhibit appropriate social skills, (Orton, 2011). T2 used the social story to talk about **sharing** with others and to give each of her learners the opportunity to share their answers with the class. The aim of enhancing this specific social skill of sharing with others, was in line with the standpoint of Vygotsky who emphasises the value of equipping learners to function in a socially acceptable manner with children who do not have special educational needs and to promote inclusion (in Cole, John-Steiner, Scribner & Souberman, 1978).

Bronfenbrenner's bio-ecological model describes that learners are influenced by various systems: in this case, the teacher who falls into the micro-system (Rietveld, 2010). T2 had a direct influence on her learners: she used this knowledge to ask certain questions from the social story that was specifically aimed at **recognition of another's emotions.** Tappan (1998) is of the opinion that "stories can help to make sense of our lives and create a desire to do good". T2's strategy with this social story was in line with the view of Tappan (1998): she aimed to create an awareness of acceptable social interaction among her learners.

Teacher 3 (T3)

In contrast to T2, T3 focussed on **self-esteem** and **conflict management** when she utilized social stories as a teaching strategy. There were no clear examples of: **behavioural etiquette, sharing and recognition of other's emotions**, **independence** or **managing own emotions**. Evidence of how the two above-mentioned social skills were addressed by using social stories is provided by analysing Vignette 3.2.

Vignette 3.2

During a social stories intervention, T3 assigned various social scripts to the learners that they had to act out in groups of three with the teacher reading the script for them and they had to act out what she was saying. The different scenarios included themes such as: bullying, stealing and telling a lie. The two roles for the learners included:

1. Two learners acted out the scene
2. One learner would ask questions like: What would you do in a situation like this? How would you react towards someone if they did this to you? (The teacher provided these questions).

The aim of this structured play exercise was to try and guide the learners how to handle a conflict situation like this in their own lives. Each learner was given a chance to act out the scenario and answer a question.

One specific learner did not want to act out the scene, because he was self-conscious. The initial activity was to only act out the scenario and to ask questions, but T3 made a compromise for this specific learner by giving him the role of directing the script to try and include him in this activity. T3 decided to be inclusive and gave all of the groups this opportunity to direct the script, promoting independence and self-confidence. This directing role was rotated so that others could develop similar leadership skills and make all the learners feel part of the group.

T3 used an intervention for addressing **self-esteem** by assigning social scripts to her learners who were paired in groups of three. Because T3 was aware that the "self-esteem of individuals with special educational needs are lower than their peers with normal development" (Girli, 2007: 25) she made adjustments to the task, to include all of the learners in the activity. When one of the learners did not want to act out the script, T3 compromised in a subtle way to make him feel comfortable by allowing him to direct the script with the aim of enhancing their self-confidence. T3 then rotated this directing role amongst the learners so that no-one felt left out and that others could develop their leadership skills. This learner who did not initially want to act out the script, did eventually take part after he felt more self-assured and after directing the script, and taking the lead.

There are various aspects of social skills that social stories can be used to address such as a "skill, event, concept, or situation" (Kokina & Kern, 2010) but T3's main focus with this social story was to help the learners with **conflict management** in real-life experiences (Crozier & Tincani, 2007). T3 was aware that her learners may have the knowledge of how to handle conflict situations but may experience difficulty combining their knowledge with their actions in real-life situations, which

correlates with Vygotsky's social cultural theory, which includes the ZPD (Levykh, 2008). For this reason, she made use of social stories to portray conflict situations in simple words; providing students with "practical, tangible social information" to enhance their social understanding which will lead "to improvements in behaviour and social functioning" within a conflict situation (Kokina & Kern, 2010).

Summary of this section

During the analysis of data under the theme of 'social stories', it was interesting to observe how T2 and T3 used it as a support strategy to address different social skills such as: **behavioural etiquette, sharing and recognition of other's emotions, self-esteem** and **conflict management**. Each of the research-participants used the social story in a different way, for example T2 read the story to her learners, where T3's learners were required to act out the story and received an opportunity to direct the script. The researcher found that both T2 and T3 used group work or pairing of learners when deploying social narrative. During interviews with these two teachers, both commented that they wrote their own social stories according to their topic of the week.

4.4 Category 2: Resources

The second category in this research, 'resources', includes two themes: visual aids with verbal motivation and published programmes. According to Bronfenbrenner's ecological systems theory (1994) there are five different systems that influence learners. The focus in this research is on the microsystem and the macrosystem. The microsystem can be described as the "direct environment, such as family, friends, teachers, classmates, neighbours and includes face-to-face interactions, activities and social experiences" which correlates with Vygotsky's ZPD theory (Bronfenbrenner, 1994: 40). Bronfenbrenner (1994: 41) describes that the macrosystem includes aspects such as "cultural beliefs, customs and belief systems".

In order for HFA learners to function in a socially acceptable manner, they needed a continual supportive environment from the two above-mentioned systems of Bronfenbrenner (Walker & Berthelsen, 2008: 34). When taking into account the microsystem described by Bronfenbrenner, it is critical for all of these role-players to work in a supportive way to help the child to reach his/her full potential through the ZPD that is within the socio-cultural theory of Vygotsky (in Cole, John-Steiner, Scribner & Souberman, 1978). According to Donaldson and Stahmer (2014: 262) "applied behaviour

analysis is a scientific approach for discovering environmental variables that reliably influence socially significant behaviour": these variables reflect the macrosystem of Bronfenbrenner's theory.

Table 4.3 Resources to address a variety of social skills

Investigated social skills	Self-esteem	Behavioural etiquette	Conflict management	Sharing	Recognition of other's emotions	Independence	Managing own emotions	Total social skills addressed
Visual aids with verbal motivation	X	X			X	X	X	**5**
Published Programmes		X				X		**2**

4.4.1 Category 2: Resources - Theme 2.1 Visual aids with verbal motivation

According to the American Psychiatric Association (DSM-V, 2013), social communication impairment is one of the distinctive characteristics of HFA. Because this disorder has an influence on all areas of development, it is critical to focus on all of the disciplines for effective intervention (Donaldson & Stahmer, 2014). Sotelo (2009: 3) states that learners with HFA are often deficient in the "use of nonverbal communication such as gestures, emotional expression and imitation": visual aids are used together with spoken language as a support strategy for intervention.

Kluth and Darmody-Latham (2003) suggest that visual aids should be deployed in addition to spoken language when dealing with learners with autism. Mah and Tsang (2016: 393) endorse this use of visual aids by stating that "current research supports the use of visual aids or picture cues as being an effective technique to teach children with autism at home and at school". Dr. Temple Grandin (1995: 30) who was himself diagnosed with HFA, promotes the use of visual supports by stating: "Spatial words such as over and under had no meaning for me until I had a visual image to fix them in my memory". Examples of how T1 – T4 used the 'visual aids with verbal motivation' theme will be described below. Evidence from their interviews and observations are provided.

Teacher 1 (T1)

Analysis of the interview and observation of T1 yielded examples of how she used visual aids with verbal motivation when focussing on: **behavioural etiquette, self-esteem** and **independence.** The researcher could not find examples of **recognition of another's emotions, conflict management,**

managing own emotions or sharing. Evidence of how **behavioural etiquette**, **self-esteem** and **independence** were addressed is provided by analysing Vignette 4.1.

Vignette 4.1

During the life-skills lesson, the topic was 'How to cough in the appropriate manner'. T1 asked the class to sit on the carpet and supported this request by showing a picture of children sitting on a carpet. She asked them to pretend to cough and praised them for taking part. She then took out visual aids and put them on the board and discussed each of the four pictures in sequence. The whole class took part as T1 showed each picture. The learners copied the picture for example: making a fist, putting your fist in front of your mouth, washing your hands and throwing the paper towel in the dustbin.

When looking at Vignette 4.1, T1 touched on **behavioural etiquette** by showing the learners that they cannot throw their paper towels where they want to, but that they should be respectful of others and throw their used paper towels into the dustbin. T1 was aware that HFA "causes impairment in the way individuals process information" (Roa & Gagie, 2006: 26): she used a visual aid to help learners to advance from understanding the instruction of throwing the paper towel into the dustbin, to doing it independently.

T1 praised learners for taking part in the classroom during the activity; where they had to pretend to cough. T1 praised learners to enhance their "motivation to participate and learn and feel valued, as included members of a specific peer group" (Rietveld, 2010: 18). The way that T1 motivated her learners, irrespective of their difficulties, echoed the view of Vygotsky that each of her learners should be educated, not as an autistic child, but as a child (Fleer & March, 2015: 804). T1 knew that these learners would find it difficult to imitate an action such as coughing; she praised their participation to boost their **self-esteem,** so that they would feel a sense of accomplishment (Lantz et al., 2004).

T1's main focus with this life-skills lesson was to guide learners to cough in a socially appropriate manner. The DSM-V (2013: 56) states that learners with HFA "have difficulties organizing practical demands without aid, and are prone to anxiety and depression". T1's aim of this social skills development lesson was to equip her autistic learners to function as independently as possible; so that they could feel a sense of belonging and to minimize their social anxiety. T1 verbalised the steps and employed visual aids to assist her learners with the understanding of how to cough in a socially acceptable way.

Teacher 2 (T2)

The analysis of data in terms of the interview and observation of T2 produced examples of how visual aids with verbal motivation were used to address: **independence, recognition of other's emotions and managing own emotions**. There were no clear examples of how this support strategy was used to address: **behavioural etiquette, sharing, self-esteem or conflict management.** Evidence of the three above-mentioned examples are analysed by using Vignette 4.2.

Vignette 4.2

Example 1:

When the researcher entered T2's classroom, the daily routine of the learners was visually displayed on the wall that was legible and neither too colourful nor distracting. Throughout the observation, T2 used short sentences to verbalise what the learners would be doing (for example: morning ring) and showed the same picture that was on the daily routine wall. It seemed like the learners knew where to go and what to do when they saw the picture. There were also pictures of food, toilet, sleeping, water etc on the wall that non-and preverbal learners could use to be independent by communicating their needs.

Example 2:

T2 conducted an activity where she showed a picture of a simple face displaying an emotion to the learners, and they had to verbally identify the emotion shown. Some of the learners struggled with this activity because of their lack of speech, and they could choose a matching picture that displayed the same emotion. T2 used simple, short sentences with her learners to confirm the emotion verbally.

After this activity was completed, it was time for the learners to eat their lunch. One of the boys got very angry when another learner sat on his chair, and T2 gently spoke to him and showed him pictures of how to cool off and manage his emotions. He could choose one of the activities (walking outside, playing with the toys or colouring). He pointed to walk outside and the class-assistant took him outside to walk.

The way in which T2 addressed **independence** in her classroom was to have the visual aids of the daily routine on the wall, so that the learners knew what activity was going to be done. She reinforced this support by showing the learners an identical picture to the one that was on the wall to confirm what they would be busy with. Because "one-third to one-half of children with autism do not use

speech functionally" (Mirenda, 2003: 203) there were different visuals on the wall; allowing learners who could not verbalise their needs independently to show or point: e.g. food, water, bathroom etc. Non-verbal learners were afforded the opportunity to match an emotion with a picture that displayed the same emotion.

The approach used by T2 illustrated that she was aware of the fact that her learners might lack the "ability to engage with others and share thoughts and feelings or emotions": she used pictures to display the specific emotion that they had to identify during this activity (DSM-V, 2013: 54). This visual exercise helped learners to **recognise the emotions of another.**

When analysing Example 2 of Vignette 4.2, the 'Vyogtskian' theory referring to the ZPD states that teachers should establish the "actual level of development" of learners and establish their "level of potential development" (Tappan, 1998: 144). T2 knew the level of potential development of this specific learner who became angry: she gave him options where he could **manage his own emotions**. He was able to choose an alternative activity to calm down.

Teacher 3 (T3)

During analysis of data emerging from T3, there were no examples of how **conflict management managing own emotions, sharing, recognition of other's emotions, behavioural etiquette** or **self-esteem** were focussed on by using visual aids and verbal motivation. There were, however, examples of how T3 used visual aids and verbal motivation as support strategies to address **independence** in her classroom. Evidence of using visual aids and verbal motivation as support strategies can be found in the analysis of Vignette 4.3.

Vignette 4.3

T3 rewarded one of the boys in her class for his good behaviour, by allowing him to have individual time on a computer in her classroom. To assist this learner to log onto the computer, T3 has pasted visual aids and words of this process on the wall, next to the computer. At the same time T3 verbally explained each step by pointing to the visual aids, words and the computer.

The researcher observed how this learner referred back to the visual aids and words and was able to work independently on the computer.

T3 rewarded one of the boys in her classroom with individual time on the computer. She supplied visual aids and words to help guide the boy to work on the computer; creating an environment where he could work **independently**. The support strategy that T3 used discussed in this Vignette is supported by Floyd, Canter, Jeffs and Judge (2008: 92); stating that technology and visual aids can "benefit children with increased opportunities for socialization, communication attempts and interaction, increased self-esteem and confidence, as well as developing language and communication skills". T3 added simple words with the visual aids to encourage literacy skills together with verbal motivation and guidance.

Teacher 4 (T4)

T4 was not observed but evidence from the interview provided two examples of how she used visual aids with verbal motivation as a support strategy in her classroom. During the interview, no examples of how she addressed **conflict management managing own emotions, sharing, recognition of other's emotions, behavioural etiquette or self-esteem** were found. She did, however, mention that she used this support strategy to address **independence.**

> … show them how to mop with a broom with visual support.
>
> … when we do a baking lesson, I would do it with them the first time and show them and explain it to them for example: Why is this flour different to that flour? How to measure water and that you need to bend down and look at the line to make sure it's one litre. If you look at it from above, you won't look at it properly. So it's a lot of role-playing and visual support so they can see and basically copy what you are doing and remembering it and doing it over and over again.

Summary of this section

The theme "Visual aids with verbal motivation" yielded examples of how **self-esteem**, **behavioural etiquette**, **recognition of other's emotions**, **independence** and **managing own emotions** were addressed by Teachers 1 – 4. They effectively deployed visual aids and pictures as cues and verbal motivation to assist learners to connect meaning to pictures and words which empowered them to communicate their needs. All four teachers exploited this theme to promote independent learners.

4.4.2 Category 2: Resources: Theme 2.2 Published programmes

Some of the most widely-used published programmes in South African schools, developed specifically for learners with ASD include: Treatment and Education of Autistic and Communication

related handicapped CHildren (TEACCH), as well as The Special Needs Adapted Programme (SNAP) (Ryan et al., 2014). During individual interviews, T1, T4 and T5 mentioned that they used published programmes such as the Picture Exchange Communication System (PECS) and The Makaton language programme (MAKATON) for their teaching. During observation of T3, she used some visuals from the PECS programme. They explained that these published programmes helped their learners to gain better understandings of concepts, instructions and empowered them to communicate more independently. The researcher found examples of how teachers used the PECS and MAKATON programmes: TEACCH and SNAP are thus not included in this section.

To structure the results of this theme of how teachers used published programmes to support their learners, evidence from the interviews and classroom observations is provided.

Teacher 1 (T1)

The only example of how T1 made use of this support strategy, using published programmes to promote **independence**, occurred during her interview; where she stated:

> … I also use Makaton's sign-language. We use [show] simple commands like 'sit' and 'finished' and 'no' and you have to use your whole body when you are talking to them like this.

T1 used this published programme's sign-language to re-enforce her spoken words; to give the learners who struggle with spoken language more direct instructions which they could visualise and carry out independently.

Teacher 3 (T3)

The way in which T3 addressed **independence**, is provided by analysing Vignette 5.1.

Vignette 5.1

When the researcher entered T3's classroom, the visuals from the PECS programme were on the classroom wall to demonstrate the toilet routine which the learners followed. The PECS visuals were structured in sequence and showed the steps of the toilet routine. An identical PECS visual toilet routine was on the bathroom wall to guide the learners through the steps necessary for hygiene.

T3 had made her own visuals of what the learners had to take with them when going to the bathroom (soap, towel, toilet paper).

T3 used this published programme to visualise the toilet routine because she knew that her learners may experience "attachment to routines" and comprehend visual instructions better than spoken words (Mah & Tsang, 2016: 393). T3 provided her learners with visuals from PECS in order to follow the toilet routine; so they could become **independent** in this task.

The approach that T3 used aligns with Bronfenbrenner's microsystem where the teacher works towards a certain goal. In this case, T3's goal was to enhance the independence of her learners by using "published programmes" with regards to their toilet routine (Mischo, 2014).

Teacher 4 (T4)

The only example of how T4 used 'published programmes' as a support strategy occurred during her interview: there was no evidence of this in her classroom. There were, however, no examples of how she used this support strategy to address the following social skills: **recognition of other's emotions, self-esteem, conflict management, behavioural etiquette, managing own emotions or sharing**.

T4 mentioned that she was aware that her learners struggled with **independence** when it came to communication:

> … that is also why we use the visual structure Makaton, where they can put their sentences together or use pictures so that they can build sentences to explain what they need or what they want.

T4 used Makaton to supplement the existing speech of the learners to enhance independent communication. Roa and Gagie (2006: 27) is of the opinion that learners with ASD "experience tremendous difficulty in processing language": so that processing and using visual support made it easier for them to communicate independently.

Teacher 5 (T5)

T5 was not observed: therefore, evidence of his use of 'published programmes' as a support strategy is provided from his interview alone. He did not mention that he used this support strategy to address **recognition of other's emotions, self-esteem, conflict management, behavioural etiquette, managing own emotions or sharing**.

> … if they are using any communication methods to other children then we will use some aspects of the "PECS" system and then they can communicate using that. Some [more advanced] classes are using a "PECS" file, but instead of pictures they are using words and building your sentences like that, so they can communicate more effectively like that.

Sotelo (2009: 2) supports Vygotsky's view of the importance of social competency within the socio-cultural theory by stating that "social competence for individuals with autism spectrum disorders is essential for successful integration into society". The way in which T5 used the PECS file to equip his learners to communicate more **independently** with others and become more socially competent correlates with the above statement.

Summary of this section

All four teachers used some parts of published programmes, integrating them with other support strategies. Examples of how this support strategy was used to address social skills, focussed on **independence only**. Most of the research participants mentioned that there was no training provided by the Department of Education, and that training and acquisition of published programmes were expensive. This factor might be an indication of why there were so few examples of how they used this support strategy to enhance social skills of learners.

4.5. Category 3: Behavioural encouragement

Within the third and final category in this research, there is only one theme: Reward system. César and Santos (2006: 333) are of the opinion that schools face new challenges in "avoiding exclusion through the promotion of inclusive practices". This attitude suggests that teachers need to make provision for learners with special needs in their classrooms and prepare them for inclusive education in the mainstream.

Black, Wallace, Sokoloff and Kenworthy (2009) refer to studies that indicated learners with HFA are more impaired by their social interactions than their cognitive abilities in every-day life. According to the ZPD of Vygotsky, children are more capable of learning and developing their potential when they have a parent or teacher to guide them (Gindis, 1999: 334). Vygotsky (in Cole, John-Steiner, Scribner & Souberman, 1978: 86) describes this 'Zone' as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peer".

Grum (2012: 111) supports this by stating that "classroom teachers need to make the development of social competence a priority for children with special needs". When examining this theme, examples of how T3 aimed to address social competence by developing a 'reward system' are provided by looking at her interview and observation. T3 was the single research participant who provided examples of a 'reward system': none of the other teachers are included in this section.

Table 4.4 Resources to address a variety of social skills

Investigated social skills	Self-esteem	Behavioural etiquette	Conflict management	Sharing	Recognition of other's emotions	Independence	Managing own emotions	Total social skills addressed
Reward System	X	X		X	X			**4**

4.5.1 Category 3: Behavioural encouragement - Theme 3.1 Reward system

Teacher 3 (T3)

During the interview with T3, she mentioned that she developed her own two reward systems. First, T3 used the reward system to focus on **behavioural etiquette** by stating:

> …it's not necessarily social in a way, it's more of a behavioural thing, but it supports their social skills, because it encourages them to act appropriately or what we deem as appropriate.

When examining the use of this reward system, T3 used the reward system to "assist in the development of successful interactions" (Sotelo, 2009: 11) to enhance **behavioural etiquette.** Second, T3 used another reward system with popcorn to address: **sharing** and **self-esteem.** Vignette 6.1 provides an example of this.

Vignette 6.1

T3 implemented an enlightening reward system that focussed on **sharing** and **self-esteem** with the aim of making friends. She gave each of her learners an equal amount of popcorn at the beginning of each week. Every time a learner complimented a classmate or shared something in the correct context, T3 rewarded that learner with an additional popcorn cornel.

T3 did not deduct any cornels, since this was not a competition to see who had the most cornels, but simply a reward system designed to socialise learners. T3 mentioned that on a Friday all the learners added their cornels together and the class made popcorn. All of the popcorn was divided equally amongst the class.

During the observation, it was interesting to notice that most of the learners attempted to complement their classmates. One of the learners shared a piece of bread with his friend sitting next to him. His friend responded by saying: 'Thank you for the food'. Both of the boys received a popcorn cornel and T3 praised them for their kind gestures. The praise that they received from T3 was a way of validating their good actions, enhancing their self-esteem and entrenching acceptable behavioural patterns.

An example of **sharing** occurred when one boy shared his piece of bread with his friend sitting next to him. The friend complemented this gesture by verbalising gratitude. The way in which T3 developed this rewards system corroborates the view of Donaldson and Stahmer (2014: 262) that "learning is the result of consequences that follow a behaviour". She encouraged these behaviours of sharing by rewarding a popcorn cornel for good social behaviour.

T3 enhanced her learners' **self-esteem** by praising their actions and giving them compliments for their good social interaction. T3 was aware that her high functioning learners with HFA may "express

poor social support and more loneliness than their typically developing peers" (White, Keonig & Scahill, 2007: 1858): she aimed to enhance their self-esteem and used this reward system to equip them to make friends.

Summary of this section

During the inductive analysis of data under this theme, it was observed that T3 developed her own two reward systems; each one focussing upon different aspects of social skills development (sharing and self-esteem). T3's class seemed to be well adjusted to these reward systems, and participated well throughout the observation period to earn their popcorn cornels. When they received a cornel, some of the learners smiled and seemed proud of what they had accomplished. The researcher did not experience the making and sharing of the popcorn.

4.6 Research Sub-Question

What challenges do FP teachers experience when supporting learners with HFA with social skills?

This research was conducted with five Foundation Phase teachers; as described in Chapter 1 and 3. After inductively analysing the data of the individual interviews, it became evident that the teachers faced various challenges working with learners with HFA. From this data, four categories emerged: HFA training, parental support, the need for an HFA curriculum and differences in the needs of each learner. Each category is now discussed and evidence provided within each category. Table 4.5 provides the categories that have been arranged from the most significant challenges to the least significant challenges.

Table 4.5. Categories of challenges experienced by teachers when teaching HFA learners

Category	HFA training	Parental support	HFA curriculum	Differences in the needs of each learner
Teacher 1 (T1)	X	X	X	
Teacher 2 (T2)	X		X	
Teacher 3 (T3)	X	X		X
Teacher 4 (T4)	X	X		
Teacher 5 (T5)	X	X	X	
Total	5	4	3	1

4.6.1. Category 1: HFA training

During each individual interview, the researcher asked the participants if they had received any HFA training from the government (DBE and/or WCED) within the last five years. Table 4.6 reflects responses from T1-T5. The data indicated that the most significant challenge faced by all five of the teachers within this Research Question 2 was the lack of HFA training.

Table 4.6 HFA training received by teachers from DBE and/or WCED within the last five years

Teachers 1-5	T1	T2	T3	T4	T5
Have you received any HFA training provided by the DBE and/or WCED within the last five years?	No	No	No	No	No

HFA training provided by the government was the most significant challenge that all five of the teachers faced when working with learners with HFA. During the interviews, T1 and T2 did not expand further on the issue of HFA training provided by the government: they are not included further

in this section. The following responses were obtained from T3-T5 regarding HFA training provided by the government.

(T3) … we have not received any sort of formal training from the government as such, I don't know if they realise how important social skills are for our kids … I think it would be nice to also have, not only training on how to deal with the learners, but also to have a standard of what we expect.

(T4) … I think lots of teachers come into Autism and they think they have got an idea, but they don't … I think there is a shortage of government training and development, especially in Special Needs Schools.

(T5) … if the Education Department and the Government want to get involved and give us the right target to work with and have the ideas, they need to come and show us. Our strategies that we are doing are quite good and often they come and take our ideas and say that it's theirs, but if they can come and give us some ideas and some opinions and bring us some professionals to teach us that will be great.

Murungi (2015: 3183) states that in order for learners with disabilities to be accommodated in the educational system, "teacher's requisite training to enable them to respond to the diverse needs of all learners within the general education system". According to the SIAS (DBE, 2014: 9) document there must be "training and mentoring of teachers, managers and support staff" working with learners with disabilities within Inclusive Education. When looking at the quotation from the SIAS (2014) document, there should be training for teachers but this data indicates that none of the research participants received HFA training provided by the DBE and/or WCED within the last five years.

4.6.2. Category 2: Parental support

During the interviews, T1, T3, T4 and T5 mentioned that they experience parental support as a challenge. John-Akinola and Gabhainn (2015: 42) state that "parents' participation in school has been attributed to it having a positive influence on pupils, with most of the literature associating parental participation in school with educational outcomes such as pupil academic achievement". When reflecting upon responses from teachers, it was salutary to note that the challenges they face regarding parental support was that parents did not co-operate with the teachers in practising and addressing the acquired social skills at home. The responses indicated that enhancement of social skills was inhibited when the parents did not support learning at home.

(T1) ... I find it very difficult with the parents, because you need that reciprocating relationship and it is not always there and then the learners are not treated consequently then it gets difficult.

(T3) … if they [parents] are not on board with what you do in school, they are going to undermine or undo what you want to implement at school.

(T4) … the support from parents is a big problem we sit with, because in Autism it's so difficult. In school they will be able to do a certain task independently, but at home it's totally different … when it's holiday, getting back you can see nothing has been done and that's the problem we sit with. I feel like we can do so much more and achieve so much more if things are being done at home.

(T5) … if the parents are not reinforcing the social skills that we teach them at home, it's almost like to context doesn't matter anymore. So they can learn all these great social skills at school and interacting with friends and do their work properly, asking for things they need, but if it's not followed through at home then the children are essentially not learning anything.

Bronfenbrenner (1979) affirms that a learner's ability to acquire new skills depends upon the lessons learned in school and interaction between learners' home and school systems. This statement of Bronfenbrenner (1979) accords with challenges presented by teachers regarding parental support.

4.6.3. Category 3: HFA curriculum

This category was the third most significant challenge that teachers faced. According to the SIAS (DBE, 2014: 7) document: "curriculum differentiation involves processes of modifying, changing, adapting, extending and varying teaching methodologies, teaching strategies, assessment strategies and the content of the curriculum. It takes into account learners' levels of functioning, interests and backgrounds". During the respective interviews with T1 and T5, they both mentioned that there is no set HFA curriculum, which is a challenge they face daily.

(T1) … there is no real set out curriculum from the Department of Education for Autism. This makes it really difficult, because we have to construct all of our programmes ourselves.

(T5) … if schools are given certain guidelines and a curriculum that can help them to sort of educate the learners in the right direction that will help a lot.

During interviews with T2 and T5 regarding HFA curriculum, both mentioned that social skills are not focussed on sufficiently in their learning programme. T2 stated that she did not have the authority to change the contents of the learning programme provided to her by the District Based Support Team (DBST), which is part of the WCED.

> (T2) … where we would like to implement things in our daily planning which we think might help the learners, they [referring to the WCED] do not feel the same … so sometimes they [WCED] expect things from us, and not necessarily regarding social skills, but they do not focus so much on social skills, but rather on language or maths. Social skills are important, but there is little space on our daily programme, on paper, according to their schedule.

This challenge that T2 faced of not being able to adapt her daily planning, is highlighted by Murungi (2015: 3168) who states that "all children can be educated and regardless of the settings or adaptations necessary, all students should have access to a meaningful curriculum and outcomes".

T5 mentioned that the learning programme that he implemented in class, did not emphasize social skills, but rather focussed on academic performance in other subjects.

> (T5) … it [learning programme] needs to be more focussed on social skills. We are running out of time with that, because there is also pressure from other subjects saying they must try and teach them more Maths or English and things.

This data indicated that the challenges teachers face within this category were that there was no set curriculum for learners with HFA; nor did learning programmes focus on social skills. Teachers lacked the authority to make the adaptions that they felt were necessary to support the social skills of their HFA learners.

4.6.4 Differences in the needs of each learner

This category had one response only and was the least significant challenge identified within this Research Question 2. T3's response alone is provided within this section.

> (T3) … I think it's the vast differences between each of them, because they all have such different needs …we have got an idea of what we want and we have a plan of what we want, but sometimes we never get to it …you have got to just teach the way they learn.

T3 knew that each individual HFA learner in her class had different needs with various social skills: this observation is endorsed by Sicile-Kira (2009) who are of the opinion that learners with HFA might experience different needs in the classroom and will therefore need support in different areas of development.

Summary of the Research Sub-Question

The predominant challenge that all five of the research participants faced was that no HFA training was provided by the DBE and/or the WCED tailored specifically to equip teachers to address social skill enhancement of learners with HFA in the classroom. Although there are many workshops and training from the DBE and/or WCED, they do not address the needs of the teachers who work with HFA learners. Teachers indicated that parental support is another challenge that they experience when parents do not support the social skill development at home. The teachers mentioned that the progress of the learners' social skills is lost if parents do not participate in development and enhancement at home. The HFA curriculum comprised a challenge for teachers but for various reasons such as (i) not having an HFA curriculum, (ii) not being able to make adaptions to the learning programme, as it is more focussed on academic skills than social skills. The least mentioned challenge was made by T3 only and manifests as differences in needs of each individual with HFA in her classroom. These differences in needs imply that not every child benefits from the same support strategy, and the teacher needs to know various support strategies they can use for social skill development in different contexts and with different learners.

4.7 Summary of Chapter 4

This chapter presents the findings of the study in response to the main research question: "What support strategies do Foundation Phase teachers use to enhance the social skills of learners with HFA?" All five of the teachers relied upon a variety of support strategies for various aspects of social skill development. The support strategy predominantly used by all of the teachers was "group work" which was the single support strategy used to address all of the seven social skills looked at in this research. This 'group work' support strategy was used on its own but was incorporated into other support strategies such as structured play and social stories. All of the support strategies addressed more than one social skill, except for 'published programmes' which was used to focus upon the social skill –'independence'.

When examining all of the analysed data, 'independence' was the particular social skill that was addressed the most throughout this research. The second most addressed social skill was 'behavioural etiquette'. The two social skills that were focussed on the least, were 'managing own emotions' and 'conflict management'.

When studying the research sub-question regarding challenges that the teacher faced when working with learners with HFA, four categories emerged. These challenges included (i) The lack of HFA training from DBE, (ii) Parental support, (iii) HFA curriculum and (iv) The different needs of learners. Some parents did not support teachers in the follow-through of social skill training at home

which restricted the effectiveness of what they do at school and presented as a challenge. Because teachers were working with HFA learners with individual needs that differed from child to child, it was difficult for teachers in this study to address the individual needs of each and every child in the classroom. The teachers were welcoming during observations and constantly improvised to include all learners in their learning process.

Chapter 5 is used to interpret the findings of the research and provide recommendations to conclude this research.

CHAPTER 5

DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

The two aims of this study were first, to explore and investigate the support strategies FP teachers use for social skill development of HFA learners; and second, to discuss the challenges these teachers face with regards to enhancing the social skills of their HFA learners.

Chapter 5 sets out the research questions, a summary of the findings and a critical review of literature and, methodology in terms of the theoretical framework. Four major points of interest have emerged as foci for examining the support strategies used by teachers to enhance the social skills of HFA learners. This chapter concludes with an overview of the study as a whole.

5.2 Discussion

Within this discussion, a brief summary of the findings of Chapter 4 is provided.

The data displayed in Figure 5.1 indicate the three categories (refer to Chapter 4, Table 4.1 for the in-depth discussion of the categories and themes) and themes as support strategies that were used to answer research question 1 of this thesis. The first category displayed below in green comprises "peer support strategies", with the following three themes: group work, structured play and social stories. The second category displayed in blue constitutes "behavioural encouragement", and has two themes: visual aids with verbal motivation and published programmes. In the third category, "Resources", displayed in pink, presents one theme only: "reward system".
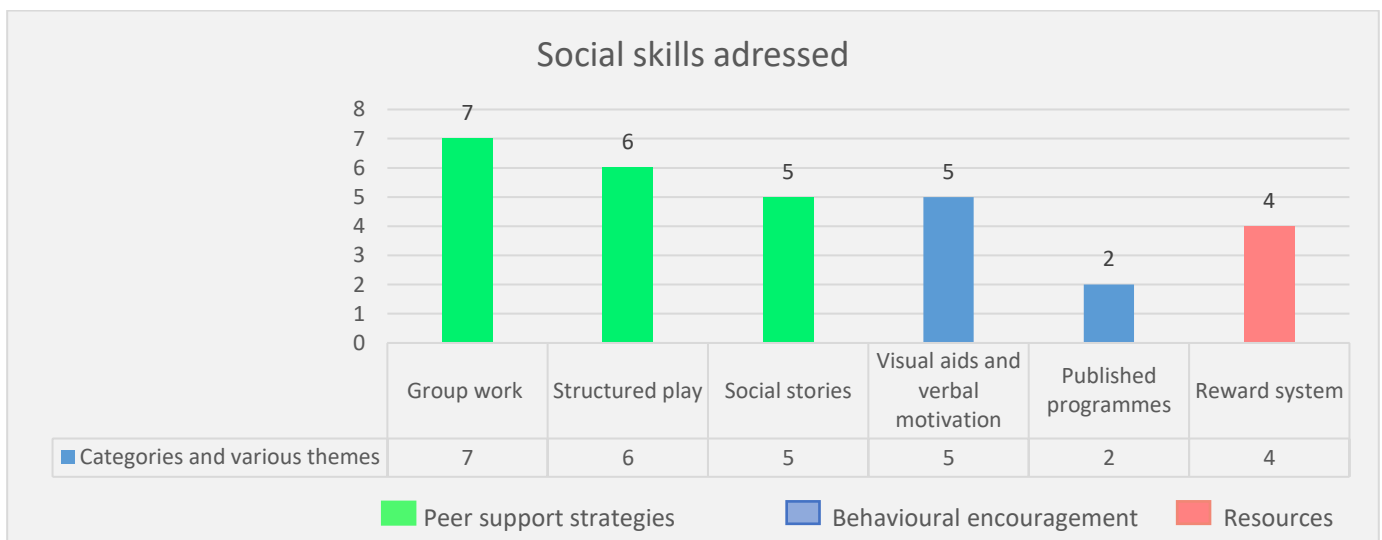
Figure 5.1. Social skills addressed.

The "peer support" strategies (Chapter 4, Section 4.3 category 1) were utilised most frequently and reflected Vygotsky's socio- cultural theory because they provided positive interactions with peers to support, promote and facilitate social skill enhancement of HFA learners through the ZPD (Wolstencroft et al., 2018).

As Chapter 4 introduced and critically discussed the above summarised significant results obtained from the inductive data-analysis, the following four points of discussion were derived from this study:

- The importance of educational inclusion and curriculum for HFA learners;
- The teacher's role in the social skill enhancement of HFA learners;
- The impact of parental and community involvement and support; and
- Peer support and acceptance of HFA learners.

Each one of these four points of discussion are now discussed by the researcher in order to expand the findings. Evidence from national and international literature, policies and theory are provided in order to connect practice with theory. The researcher focused on Vygotsky's socio-cultural theory and Bronfenbrenner's ecological systems theory (in Chapter 2, Table 2.3) as these two theories reflect the link between social interactions and general child development.

5.2.1 The importance of educational inclusion and curriculum for HFA learners

Reagan (2012) states that a mutual benefit of including HFA learners in inclusive school settings is exposure to typically developing peers and vice versa. Reagan (2012) found that the social competence of HFA learners improved in inclusive classrooms, since they tend to model the behaviour of their peers.

According to Taylor and Gebre (2016: 206), "Bronfenbrenner suggests that students learn and develop through their person-to-person interactions with parents, teachers, and peers", which indicates the important role that educational inclusion of HFA learners has on their development. When considering the challenges that many HFA learners face daily, they require "supportive educational programming throughout their academic tenure" in order to function successfully in an inclusive setting (Sansosti & Sansosti, 2012: 918). Landsberg et al. (2016) concur by stating that without instructional programmes for students with ASD and no clear guidelines and protocols for teachers to follow, the inclusion of HFA learners in inclusive settings is restricted.

The Constitution of the Republic of South Africa, Section 29(1)(a) (1996) states that everyone has the right to basic education. According to Murungi (2015: 3161), the focus of basic education should

be on "literacy, numeracy, skills relating to one's health, hygiene and personal care, and social skills such as oral expression and problem solving". The SIAS (2014: 5) document supports this description of basic education by stating that the focus must be on helping learners "attain knowledge, skills and competencies". In order for this basic right to education and the inclusion of learners with disabilities, the schooling system and curriculum should empower learners by developing their individual strengths and enabling them to participate critically in the process of learning (DoE, 2001). The White Paper 6 (DoE, 2001: 20) document stipulates that "the curriculum must therefore be made more flexible across all bands of education so that it is accessible to all learners, irrespective of their learning needs". The SIAS (DBE, 2014: 7) document defines these curriculum adaptations for learners with special educational needs as "changing, adapting, extending and varying teaching methodologies, teaching strategies, assessment strategies and the content of the curriculum". These policies stipulate the need for curriculum adaptations to promote inclusive education: the data of this study indicated that there was no curriculum provided by the government for learners with ASD in South African government schools. T1 stated that their daily programme, which was provided by their local District Office, "do not focus so much on social skills, but rather on language or maths". T4 asserted that although the main focus of the Education Department is on Literacy and Mathematics, their school adapted their learning programme to focus more on social skill development. T5 agreed stating that "there is not really a social skills book that we can follow or anything at the moment that we are aware of to support the special needs environment": they decided to adapt their school's learning programme to include social skills in their daily activities. When asked about the main challenges he faced, T5 included the lack of an ASD curriculum and mentioned that "if schools are given certain guidelines and things that can help them to 'sort-of-educate' the learners in the right direction, that will help a lot".

The researcher was aware that there was no standardised curriculum or learning programme provided by the government for ASD leaners in South African schools: therefore, an interview question was included to establish where the teachers drew their support strategies that they used in their classrooms. This yielded the following responses:

> (T1) … I have also done a lot of research and I test what works …many times I see that certain things work for a certain class, but not for my class so I try and use Google.

> (T2) … a lot of research and many hours. I struggled for very long …mostly creative thoughts as it is very "hands-on" work and in the moment we will think up a plan. If we see that something does not work and we have to adjust and carry on.

> (T3) … I learnt a lot of things [social skills techniques] just through the trainings, through the psychologist, reading up on a lot of stuff and also from previous teachers … finding what worked for them or just ideas that they came up with.

> (T4) … sometimes they [WCED] have got ideas, sometimes they don't and then you as a teacher need to go and look for resources on the internet or I will go to the library and go look for books.

> (T5) … we've got quite a nice network of teachers here, so if there are problems we pick up on or areas we need to work on we sort of ask the teachers that are around us …I find a lot of my content on the internet that I can work with.

The findings indicated that all five of the teachers who took part in the study, were obliged to make use of external resources and research in order to obtain support strategies they could use to enhance the social skills of their HFA learners. This obligatory dependence upon external resources emphasises the grave lack of curriculum and support which has a negative impact on the perceptions and attitudes that teachers experience towards these HFA learners in their classes. Teachers had to conduct extra searches for support strategies without guidance from government (Busby, Ingram, Bowron, Oliver & Lyons, 2012).

5.2.2 The teacher's role in the social skill enhancement of HFA learners

According to the SIAS (DBE, 2014) document, the teacher plays a crucial role in the successful implementation of inclusive education in the school setting. Tyler and Gebre (2016: 210) state that within the microsystem of Bronfenbrenner's theory, teachers can enhance the "self-confidence and social skills and enhance peer relations" of these HFA learners, by providing opportunities in the classroom. The DBE (2014: 34) stipulates that the teacher's role is to include learners with special needs in mainstream schools and to have "a conceptual understanding of inclusion and the diverse needs of learners, including those with disabilities". T1 mentioned that she had privately paid for and "done a lot of trainings, because at first I was not very familiar with Autism", in order to equip herself to provide for the educational needs of her HFA learners. The SIAS (DBE, 2014: 34) document states that teachers must change their "attitudes, behaviour, teaching methods, curricula and environments" in order to accommodate all learners; regardless of their barriers.

The White Paper 6 (DoE, 2001) document was specifically formulated to effect inclusive education nationally; together with the training of teachers this legislation was meant to provide quality education and support to learners with special needs in South African schools. The White Paper 6

(DoE, 2001: 50) document states that educators are required annually to receive 80 hours of in-service education and training; to be structured in such a manner "that they include the requirement to complete courses relating to policies and programmes put forward in this White Paper". Murungi (2015) supports this view by adding that teachers require training to enable them to provide assistance to the wide range of needs of each individual learner. He (2015: 3183) specifies that in order for teachers to accommodate the special needs in their classrooms, the inclusive education system "demands flexibility and availability of resources" to equip teachers to move towards an inclusive classroom.

T1 felt that what is said to work in theory and what actually works in the classroom are not always the same: "if we get all of this training, it only equips us to do things in a different manner, but at the end of the day it does not solve the problem". In relation to this comment, T4 complained that she felt that "there is no set out strategy that works for every HFA child. In the books and trainings they say it does, but I mean when it comes to working with them it's different". Landsberg et al. (2016: 22) agree with the view of T1 and T4; stating that if teacher development is to have a significant impact on their understanding, thinking and practice of inclusion, the trainings need to "address the day-to-day concerns of the teachers", to enable transferability from theory to practice.

All of the above-mentioned national policies outline the importance of teacher training in order for future teachers to fulfil their role in the shift towards inclusive education: yet the findings of this research project suggest that none of the teachers received any appropriate form of ASD training from the WCED or the Department of Education. The following data indicate the teacher's responses regarding training provided by the WCED and government to equip them to fulfil their role as educators of HFA learners:

> (T3) … we have not received any sort of formal training from the government as such, I don't know if they realise how important social skills are for our kids. I don't think they [WCED] see it [social skills] as an important thing as such …I think they want them [HFA learners] schooled- they still have this idea of mainstream and that you have to have Matric to be successful.

When scrutinising the main role of teachers working with HFA learners, the SIAS (DBE, 2014) and the White Paper 6 (DoE, 2001) documents set out the fundamental role that training and skills development of teachers should play in building a successful inclusive educational system in South Africa. Yet evidence from this study showed, that in practice, the policies are not followed through by actions.

5.2.3 The impact of a HFA child on the parents

HFA learners have different needs to those of their typical developing peers: it is critical for parents and their community to understand these needs and to provide support in the micro- and mesosystems where they function within Bronfenbrenner's theory (Rieser, 2012). Karst and Van Hecke (2012: 247) state that these demanding needs of raising a child with HFA may lead to "decreased parenting efficacy, increased parenting stress, and an increase in mental and physical health problems", when compared to parents raising typically developing children. Karst and Van Hecke (2012) add that many parents with learners on the autism spectrum experience significant financial strains, higher than average divorce rates and a lower overall well-being of the family. According to Hassall and Rose (2005: 73) the family of a HFA child has to effect a shift; away from seeing a child with a disability as a burden on the family, towards constructive inclusion of the child's unique needs; to ensure a well-balanced family dynamic.

The findings of this study indicate a regression when parents are not actively involved in the intervention of social skills at home. T1 (Chapter 4) mentioned this regression with regards to the toilet training of one her learners, because parents did not reinforce the practice at home. The DBE (2010: 14) states that "parents who are unable to understand their children's emotional and/or behavioural problems may in some cases aggravate their children's barriers". Karst and Van Hecke (2012) concur; by stating that when there is neither acceptance nor support from parents, it may jeopardise the interventions and progress made with the child.

This study produced the following results concerning the importance of parental involvement:

> (T2) … I find it very difficult with the parents, because you need that reciprocating relationship and it is not always there …when the learners are not treated consequently it gets difficult.

> (T5) … the parents has to be involved with the learning programme or skills that are being taught at the school. If the parents are not reinforcing the social skills that we teach them at home, it's almost like the context doesn't matter anymore. …so they can learn all these great social skills at school and interacting with friends and do their work properly, asking for things they need, but if it's not followed through at home then the children are essentially not learning anything.

All of these above-mentioned stresses and strains may negatively impact the entire micro-system (Bronfenbrenner, 1975) of the HFA learner; since some of the parents may be unwilling or not yet able to accept that their child has special educational needs, because of the stigmatism that is associated with these learners and their families. Acceptance of these HFA learners within their family and their communities is important, since, according to Jordan (2003: 349), Vygotsky's theory

indicates that "play is important is because it allows children to learn and practise new skills in safe and supportive environments". The findings, literature and theory all stress the importance of the parents, family and community's knowledge and acceptance of HFA to ensure the functionality of the entire family.

5.2.4 Peer support and acceptance of HFA learners

Since Vygotsky's socio-cultural theory (in Cole, John-Steiner, Scribner & Souberman, 1978) is built on the belief that knowledge is constructed by a combination of previous experiences and social interactions in authentic surroundings, the social acceptance of HFA learners and guidance through the ZPD by typically developing peers could be a valuable support strategy. Fleer and March (2015: 806) support this opinion of Vygotsky's by adding that "all children have different social situations of development, and when all children are brought together in the same social context (i.e. not separated out into institutions) they weave together a mix of abilities to realise everyday life activity". Schlieder, Maldonado and Baltes (2014: 28) describe peer support for HFA learners as "providing access to peers in an authentic social context, social skills acquisition is facilitated through mentoring by more socially competent classmates". According to Locke, Rotheram-Fuller and Kasari (2012: 1896) the role of these "peer buddies" is to "provide assistance, instruction, feedback, and reinforcement" in social settings for learners with ASD.

The findings of this study indicate that typically developing peers in the Grade R class played a role in the enhancement of social skills of T1's HFA learners. The findings of Simpson and Bui (2016: 162) support this observation by indicating that when HFA learners were given opportunities to engage with typically developing peers, there were improvements in their overall social development and adaptive behaviour. Simpson and Bui (2016) assert that HFA learners may not indicate social skill enhancement when specific strategies and trainings have not been provided for peers prior to interaction and support. According to T5 the "parents and siblings must be more involved" since they play an active role in ensuring that these HFA learners can function socially in society. It is important to educate these typically developing peers on the social difficulties that these HFA learners experience before they are assigned as peer supporters, in order for them to accept and embrace these learners as their peers (Schlieder et al., 2014).

Many HFA learners experience social difficulties and isolation, and are at risk for developing comorbid disorders such as depression and anxiety (DSM-V, 2014). Because of the difficulty that HFA learners experience with regards to social skills, there is often a perception that they do not belong or can adapt to social settings (Wittrock, 2012). The "peer buddies", who are typically

developing peers, form part of the HFA learner's micro- and mesosystems (Bronfenbrenner, 1975) and teachers commonly select these learners since they are "academically strong, regular school attendees, prosocial and considered self-confident leaders in the classroom" (Locke et al., 2012: 1896). Because these "peer buddies" are typically developing peers, these "peer buddies" are often selected for being learners who excel in social settings. The acceptance and friendship of a "peer buddy" with a HFA learner may enhance the self-esteem of the HFA learner and encourage more social acceptance from typically developing peers in school and home settings (Wittrock, 2012).

5.3 Recommendations

This study highlights the fact that knowledge, training and acceptance of HFA learners, together with the use of support strategies by all parties involved, play a crucial part in the social skill enhancement of HFA learners. Based on the findings of this study, the following recommendations are proposed for teachers, the WCED and DBE and for future research:

5.3.1 Recommendations for **teachers** to use support strategies to enhance the social skills of HFA learners.

- Since HFA often exhibit restricted, repetitive and stereotypical patterns of behaviour, interests, and activities (DSM-V, 2013), it is recommended that teachers know each individual HFA learner in their class in order to become aware of the possible reasons for these behaviours, such as over-stimulation, irritability, aggression, self-injury, depression, anxiety, stress or frustration, in order to assist and support the HFA learner (Anderson et al., 2011).

- It is recommended that teachers explain the differences that the HFA learners experience to their typically developing peers, in order for them to accept and embrace these HFA learners as their peers.

- Since HFA learners experience difficulty in social settings, it is recommended that teachers introduce their HFA learners to typically developing peers who are trained to be "peer buddies" promote their social skills by guiding them through the ZPD in a protected environment (Vygotsky, in Cole, John-Steiner, Scribner & Souberman, 1978).

- It is recommended that teachers equip themselves with a variety of support strategies to focus on social skills development; since not all support strategies work for all HFA learners because of the differences and level of social functioning of each learner.

- It is recommended that teachers familiarise themselves with what social skills are, in order to enable them to integrate social skills into their daily academic work, since valuable unplanned learning opportunities may arise and should be addressed.

- It is recommended that teachers become familiar with pedagogical and content knowledge concerning the various support strategies, and should test these interventions to establish which are useful for their specific circumstances and applicable for the HFA learners in their classroom.

5.3.2 Recommendations for the **WCED and DBE** to support teachers working with HFA learners.

- It is recommended that district officials recognise the unique nature and demands of HFA learners, and demonstrate sensitivity to the challenges that teachers face in terms of content, pace and pedagogy. The district officials cannot apply the same criteria as expected from mainstream teachers.

- It is recommended that DBST's develop training and employ a "peer buddy" system to minimalize exclusion and isolation of the HFA learners in the inclusive education system: HFA learners present "deficits in social interactions and the developing, maintaining and understanding of relationships" (DSM-V, 2013).

- Since teachers experience a lack of guidance on how to enhance the social skills of HFA learners, it is recommended that learning programmes are created and professional training workshops are offered which provide guidelines, support strategies to teachers working with these HFA learners in their classrooms.

- It is recommended that ASD/HFA specific training be provided to teachers, which focuses on how to address the varied challenges in a regular school setting.

- Since the White Paper 6 (2001) and the SIAS (2014) policy documents promote inclusion of HFA learners in mainstream schools, it is recommended that all teachers receive training from the WCED ASD teams, to inform them of the complex nature of enhancing the social skills of HFA learners. By providing such training, the teachers will be better able to develop individual support plans through the use of specific pedagogical approaches.

- Although training is currently being provided by the various WCED teams to assist carers, classroom facilitators, classroom assistants and parents, it is recommended that such training be extended beyond the metropolis to rural and remote areas.

- On the ASD spectrum, a gap exists for the HFA learners that are not high functioning enough for mainstream schools, and not sufficiently low functioning to be assigned to special schools. Therefore, it is recommended that ASD schools such as Vera and Alpha in the Cape metropolitan areas be established in other Education Districts.

5.3.3 Recommendations for further **research**.

- For this specific case study, the sample size of five teachers and three various types of schools were sufficient in terms of time and depth. However, for conducting a more in-depth study, a larger sample size and more schools are recommended.

- It is recommended that multiple classroom observations be conducted, since teachers create a variety of experiences, which are often spontaneous, and may lead to more accurate and in-depth insights.

- It is recommended that teachers be provided with an interview schedule before the interview is conducted, as this may enable them to eliminate misinterpretations or misunderstandings of the questions.

- It is recommended that this research forms part of a larger research project which focuses on investigating the support strategies teachers use to enhance the social skills of HFA learners; not only in the Foundations Phase, but on various ages and grades.

- It is recommended that the following support strategies: music therapy, board games, technology and persona dolls, be further investigated: they were discarded in this research due to the lack of data relevant to the specific research questions. The researcher acknowledges that these are valuable support strategies that could be useful in our South African school context.

5.4 Conclusion

This research project emphasised support strategies that five FP teachers used to enhance the social skills of their HFA learners. To date, there has been a dearth of research in this particular area. Although at present, there is no manual or practical guide to assist teachers of HFA learners, this research has the potential to act as a manual for teachers in rural and remote areas to assist teachers of HFA learners. Therefore, one of the aims of this research is to fill this knowledge gap.

The objectives of all parties involved in the education of HFA learners should be on developing interventions and support strategies which can be used to assist HFA learners in the enhancement of social skills in the South African context. Teachers should be equipped with the appropriate resources and support strategies that can be utilised to develop the social skills of HFA learners. The following four conclusions were drawn to answer the research question and provide assistance to teachers who are challenged by their lack of information.

First, the findings indicated that for successful inclusion of HFA learners in school settings, the WCED and DBE needs to provide adequate and appropriate knowledge-based training to teachers as described in the Norms and Standards document; making them aware of the many support strategies that can be used for the enhancement of the social skills of HFA learners in the FP. Such awareness enables teachers to assess and work with these HFA learners according to their needs and level of functioning. This research emphasises the important role of the District Based Support Teams, which offer specialised educational, occupational, speech and psychological support services to teachers, who will in turn, be better equipped to develop individual support plans, including the development of social skill training, for their HFA learners.

Second, the findings of this study reflect the significance of Bronfenbrenner's insight that "human development takes place through complex interactions". In terms of this research, complex interactions were discerned between the HFA learner and their microsystem and mesosystem, which includes their families, peers, school and community (Taylor & Gebre, 2016: 209). In this research, it became evident that not all families sustained the policies and programmes instituted by teachers and specialists at schools: parental involvement was crucial for the success of the support strategies used for social skill enhancement. As "Bronfenbrenner suggests that students learn and develop through their person-to-person interactions with parents, teachers, and peers" (Taylor & Gebre, 2016: 206), it indicates the significant role that parental involvement plays in the follow-through and efficacy of support strategies and social skill interventions at home and highlights the need for parents to be involved in the educational process. It was apparent that HFA learners needed acknowledgement, awareness and acceptance from the community.

Third, theories, literature and the findings of this study underline the positive impact that typically developing peers can have on the social skills enhancement of HFA learners. These findings are in line with Vygotsky (Rodina, 2007: 15), who stressed that "interaction with peers is one of the most important socio-cultural conditions for development and socialization among children with disabilities". It is therefore important to inform and educate these typically developing peers on the substantial impact they can make on the inclusion and sense of acceptance, personal motivation and self-confidence of their HFA peers through the ZPD.

Fourth, to date, there are no curricular documents guiding teachers with the content or pedagogy for the successful enhancement of the social skills of HFA learners. In mitigation, it should be stated that no such definitive curriculum may ever be possible, in term of such a heterogeneous group of learners on the autistic spectrum. However, what may be possible, as highlighted in this research is the significance of inclusion, parental and community involvement and the positive impact of peers in developing the individual dignity of HFA learners, so that they can reach their full potential and live balanced and fulfilling lives as part of society, and not be rejected because of social deficits.

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APPENDICES

Name(s) of applicant(s):	Liezl Myburgh
Project/study Title:	Support strategies used by Foundation Phase teachers to enhance the social skills of learners with High Functioning Autism.
Is this a staff research project, i.e. not for degree purposes?	Yes / **No**
If for degree purposes:	Degree: M.Ed Supervisor(s): Prof. J. Condy Dr. E. Barnard
Data-collection instrument	Interviews
Type of interview	Open-ended, one-on-one interviews.

What is your understanding of the word "social skills"?
What is your opinion on social skills development of learners with High Functioning Autism?
What strategies do you as a teacher use to enhance social skills of these learners with High Functioning Autism?
Where did you come across these strategies that you currently use?
Do you as a teacher use different support strategies with different learners? If so, how do you determine which strategies to use on which learners?
What improvements have you experienced in the development of social skills of the learners after implementing these specific support strategies?
What support and/or resources do you as a teacher receive in order to implement these strategies for enhancing the social skills of these learners?
In your opinion, what can be done by the Department of Education and Government to fully equip teachers with support strategies to enhance the social skills of these learners?
What are the main challenges you face regarding support strategies to enhance the social skills of learners with High Functioning Autism?
Do you feel parental involvement plays a part in enhancing social skills of foundation phase learners with High Functioning Autism?

APPENDICES

APPENDIX 2: OBSERVATION SCHEDULE

OBSERVATION SCHEDULE					
School:			**Teacher:**		
Observation checklist				**Observation of support strategies used by teacher for social skill development**	
Teacher engagement	**YES /NO**	**Classroom culture**	**YES/NO**	**Social skills strategies**	**Field notes and general comments**
Eye contact				Music therapy	
Welcoming towards learners				Visual aids such as using tablets, laptops, computers	

Touches learners				Taking turns	
Short sentences				Cool vs not cool	
Tone of voice				Video games	
Inclusion/exclusion of learners in activities				Structured play to promote social functioning	
Visual support for learners (pictures, visual time-table)				Role playing	
PECS				Storytelling	
TEACCH				Group work	

_____

MAKATON	No.		Demonstrations and identification of emotions	
Hand gestures	No.		Problem solving	
			Helpfulness	
			Communicating with others	
			Other	

APPENDIX 3: CONSENT FROM THE CAPE PENINSULA UNIVERSITY OF TECHNOLOGY

For office use only	
Date submitted	17 Jan 2017
Meeting date	n/a
Approval	P/Y√/N
Ethical Clearance number	EFEC 1-2/2017

FACULTY OF EDUCATION

RESEARCH ETHICS CLEARANCE CERTIFICATE

This certificate is issued by the Education Faculty Ethics Committee (EFEC) at Cape Peninsula University of Technology to the applicant/s whose details appear below.

1. **Applicant and project details (Applicant to complete this section of the certificate and submit with application as a <u>Word</u> document)**

Name(s) of applicant(s):	Liezl Myburgh		
Project/study Title:	Support strategies used by Foundation Phase teachers to enhance social skills of high functioning Autistic learners.		
Is this a staff research project, i.e. not for degree purposes?	No.		
If for degree purposes the degree is indicated:	Master's in Education (M.Ed.)		
If for degree purposes, the proposal has been approved by the FRC	Yes.		
Funding sources:	None.		

2. **Remarks by Education Faculty Ethics Committee:**

This Master's research project is granted ethical clearance valid until 2 February 2019.		
Approved: X	**Referred back:**	**Approved subject to adaptations:**
Chairperson Name: Chiwimbiso Kwenda **Chairperson Signature:**		**Date: 03 February 2017**
Approval Certificate/Reference: EFEC 1-2/2017		

EFEC Form V3_updated 2016

APPENDIX 4: CONSENT FROM THE WESTERN CAPE EDUCATION DEPARTMENT

Western Cape Government

Education

Audrey.wyngaard@westerncape.gov.za
tel: +27 021 467 9272
Fax: 0865902282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

REFERENCE: 20170406 –9856
ENQUIRIES: Dr A T Wyngaard

Ms Liezl Myburgh
95 De Akkers
Hadley Street
Oak Glen
7535

Dear Ms Liezl Myburgh

RESEARCH PROPOSAL: Support strategies used by Foundation Phase teachers to enhance the social skills of learners with High Functioning Autism.

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 **18 April 2017 till 30 June 2017**
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 A.T Wyngaard 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 list of schools as forwarded to the Western Cape Education Department.
10.   A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11.   The Department receives a copy of the completed report/dissertation/thesis addressed to:
         The Director: Research Services
         Western Cape Education Department
         Private Bag X9114
         CAPE TOWN
         8000

We wish you success in your research.

Kind regards.
Signed: Dr Audrey T Wyngaard
Directorate: Research
DATE: 07 April 2017

APPENDICES

APPENDIX 5: RESEARCH PARTICIPANT CONSENT FORM

Cape
Peninsula
University
of Technology

Faculty of Education
Ethics informed consent form

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Category of Participants (tick as appropriate):

Principals		Teachers	X	Parents		Lecturers		Students	
Other (specify)									

You are kindly invited to participate in a research study being conducted by Liezl Myburgh (EFEC 1-2/2017) from the Cape Peninsula University of Technology. The findings of this study will contribute towards (tick as appropriate):

An undergraduate project		A conference paper	
An Honours project		A published journal article	
A Masters/doctoral thesis	x	A published report	

Selection criteria
You were selected as a possible participant in this study because: .

- You are a teacher who are using support strategies to help improve social skills for high functioning Autistic learners in the Foundation Phase.
- You are a teacher at schools/institutions who teach high functioning learners with Autism in the Western Cape.

The information below gives details about the study to help you decide whether you would want to participate.

Title of the research:
Support strategies to enhance social skills of high functioning learners with autism in the Foundation Phase.

A brief explanation of what the research involves:
This research investigates support strategies used by Foundation Phase teachers to enhance social skills of high functioning Autistic learners. As a teacher, the researcher experiences on a daily basis how Autistic learners in her Foundation Phase classroom experience challenges regarding their social interaction skills. This observation has triggered the researcher to try and understand how teaching and learning experiences in the classroom can be adapted in order to improve and to enhance these social interaction skills. Due to the fact that there is limited research literature available regarding support strategies used by Foundation Phase teachers of high functioning as well as low functioning Autistic learners, the researcher aims to contribute with this research study to the existing but limited literature in this regard.

school/institution where the participant works. The researcher will inform the research participants in advance of the dates of the interview and observation. All of the interviews and observations will be conducted by the researcher. The interviews and observations will be conducted on the same day.

Potential risks, discomforts or inconveniences
The researcher aims to conduct the observation in the classroom where the research participant teaches and the observation will be conducted early in the morning with the learners in the class present. The researcher will give an informed consent form to all of the parents/caretakers of the learners in the class before the data-collection begins.

You are invited to contact the researchers should you have any questions about the research before or during the study. You will be free to withdraw your participation at any time without having to give a reason.

Kindly complete the table below before participating in the research.

Statement	Tick the appropriate column	
	Yes	No
1. I understand the purpose of the research.	✓	
2. I understand what the research requires of me.	✓	
3. I volunteer to take part in the research.	✓	
4. I know that I can withdraw at any time.	✓	
5. I understand that there will not be any form of discrimination against me as a result of my participation or non-participation.	✓	
6. Comment:		

Please sign the consent form. You will be given a copy of this form on request.

~~[signature]~~	31/05/2017
Signature of participant	Date

Researchers

	Name:	Surname:	Contact details:
1.	Liezl	Myburgh	082 313 9848
2.			
3.			

Contact person: Liezl Myburgh	
Contact number: 082 313 9848	Email: lmyburgh1@gmail.com

APPENDIX 6: PARENTAL CONSENT FORM

Faculty of Education
Ethics informed consent form

Cape Peninsula University of Technology

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Category of Participants (tick as appropriate):

Principals		Teachers		Parents	x	Lecturers		Students	
Other (specify)									

You are kindly invited to participate in a research study being conducted by Liezl Myburgh (EFEC 1-2/2017) from the Cape Peninsula University of Technology. The findings of this study will contribute towards (tick as appropriate):

An undergraduate project		A conference paper	
An Honours project		A published journal article	
A Masters/doctoral thesis	x	A published report	

Selection criteria
You were selected as a possible participant in this study because:

- You are a foundation phase learner with ASD at a school in the Western Cape.

The information below gives details about the study to help you decide whether you would want to participate.

Title of the research:
Support strategies to enhance social skills of high functioning learners with autism in the Foundation Phase.

A brief explanation of what the research involves:
This research investigates support strategies used by Foundation Phase teachers to enhance social skills of high functioning Autistic learners. As a teacher, the researcher experiences on a daily basis how Autistic learners in her Foundation Phase classroom experience challenges regarding their social interaction skills. This observation has triggered the researcher to try and understand how teaching and learning experiences in the classroom can be adapted in order to improve and to enhance these social interaction skills. Due to the fact that there is limited research literature available regarding support strategies used by Foundation Phase teachers of high functioning as well as low functioning Autistic learners, the researcher aims to contribute with this research study to the existing but limited literature in this regard.

Procedures
One semi-structured, open ended interview will be done individually with each research participant and one individual observation will be conducted in a classroom at the

school/institution where the participant works. The researcher will inform the research participants in advance of the dates of the interview and observation. All of the interviews and observations will be conducted by the researcher. The interviews and observations will be conducted on the same day.

Potential risks, discomforts or inconveniences
The researcher aims to conduct the observation in the classroom where the research participant teaches and the observation will be conducted early in the morning with the learners in the class present. The researcher will give an informed consent form to all of the parents/caretakers of the learners in the class before the data-collection begins.

You are invited to contact the researchers should you have any questions about the research before or during the study. You will be free to withdraw your participation at any time without having to give a reason.

Kindly complete the table below before participating in the research.

Statement		Tick the appropriate column	
		Yes	No
1. I understand the purpose of the research.		✓	
2. I understand what the research requires of me.		✓	
3. I volunteer to take part in the research.		✓	
4. I know that I can withdraw at any time.		✓	
5. I understand that there will not be any form of discrimination against me as a result of my participation or non-participation.		✓	
6. Comment: I give permission for my child being part of your Research			

Please sign the consent form. You will be given a copy of this form on request.

~~[signature]~~	30	05	2017
Signature of participant	Date

Researchers

	Name:	Surname:	Contact details:
1.	Liezl	Myburgh	082 313 9848
2.			
3.			

Contact person: Liezl Myburgh	
Contact number: 082 313 9848	Email: lmyburgh1@gmail.com