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**Knowledge, Attitude and Practices of Foundation Phase Teachers in  
Mainstream Schools on Referring Learners with Occupational  
Performance Challenges to Occupational Therapy**

**Research Dissertation for Masters of Occupational Therapy  
(MOccTher)**

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**Date:** 15 November 2019

## DECLARATION

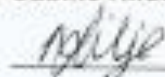
I, Sabine Hildemarie Swart, student number 10263782 hereby declare that:

1. this dissertation, "*Knowledge, Attitude and Practices of Foundation Phase Teachers in Mainstream Schools on Referring Learners with Occupational Performance Challenges to Occupational Therapy*" is submitted in accordance with the requirements for the Master's degree in Occupational Therapy at University of Pretoria.
2. I understand what plagiarism is and am aware of the University's policy in this regard.
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## **ETHICS STATEMENT**

The author, Sabine Hildemarie Swart, whose name appears on the title page of this dissertation, has obtained, for the research described in this work, the applicable research ethics approval.

The author declares that she has observed the ethical standards required in terms of the University of Pretoria's Code of ethics for researchers and the Policy guidelines for responsible research.

Ethics Number: 405/2019

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## **Abstract**

Teachers are usually the first persons to identify learners with occupational performance challenges that are struggling in the classroom and then recommending a referral to occupational therapy (OT). Through clinical experience, the researcher often felt that the teachers were unsure when to refer learners, causing the learners to be either under-referred or over-referred. After doing an extensive research it was found that there was limited research available focusing on the referral process of learners to occupational therapy. By doing this study, the researcher wanted to determine the knowledge, attitude and practices foundation phase teachers in mainstream schools had on referring learners with occupational performance challenges, to occupational therapy. A quantitative descriptive study design was used to collect and analyse the data. Data collection was done through a questionnaire that was developed by the researcher. Schools were sampled through purposeful sampling method. From the schools that gave consent, all the foundation phase teachers were given a questionnaire to complete. Eight schools agreed to participate in the study and a total of 128 questionnaires were handed out. The teachers were given one week to complete the questionnaire before the researcher collected the questionnaires again. A total number of 50 completed questionnaires were collected. Data was analysed using the statistical programme R. From the analysed data it was found that the teachers had the necessary knowledge to identify the occupational performance challenges that learner experience in their classrooms. The teachers had a good relationship with the therapists at their school and were for the referral to OT. The teachers, however, were not confident in their ability to make the referral to OT as they did not know if the learner was a candidate for an appropriate referral. They would want to receive training assisting them with identifying learners themselves and build their confidence. It was determined that the teachers used the wait-and-see approach when referring learners. The teachers also said that parents had the ultimate responsibility to take their children to an OT for an assessment and OT intervention. However, this study found that parents defer from taking action. This indicated the therapists need to educate the parents on the role of the school-based occupational therapy.

### **Key Terms:**

Knowledge, Attitude, Practices, Foundation Phase Teacher, Occupational Performance Challenges, Referral

### List of abbreviations

ADHD	Attention Deficit Hyperactivity Disorder
ADL	Activities of Daily Living
AOTA	American Occupational Therapy Association
CAPS	Curriculum and Assessment Policy Statements
DBST	District-Based Support Teams
DoBE	Department of Basic Education
ECD	Early Childhood development
ELSEN	Education for Learners with Special Education Needs
GDE	Gauteng Department of Education
Grade R	Reception Year
HPCSA	Health Professional Council of South Africa
IADL	Instrumental Activities of Daily Living
LD	Learning Disability
LSEN	Learners with Special Educational Needs
MEC	Member of Executive Council
NCS	National Curriculum Statement Grade R-12
OT	Occupational Therapy
OTASA	Occupational Therapy Association of South Africa
OTPF	Occupational Therapy Practice Framework
PEO model	Person-Environment-Occupations model
SASA	South African Schools Act
SBOT	School-Based Occupational Therapist

SBST	School-Based Support Teams
SIAS	Policy on Screening, Identification, Assessment and Support
VMI	Visual-Motor Integration
WFOT	World Federation of Occupational Therapists
WP5	Education White Paper 5
WP6	Education White Paper 6

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# 1. Chapter 1 – Introduction

## 1.1 Introduction

According to the World Federation of Occupational Therapists (WFOT) the role of an occupational therapist (OT) working with learners is to “enable, support and promote full participation and wellbeing of students by supporting strengths and finding solutions reducing or removing learning activity limitations and participation restrictions.”<sup>1</sup> The goal of a school-based occupational therapist (SBOT) is thus to assist a learner to improve his occupational performance in order for him to reach success. Multiple studies have found that SBOT makes a difference in a learner’s occupational performance and is regarded as effective in assisting learners.<sup>2-4</sup>

In South Africa, before a learner can be seen by an OT, they need to be referred. In most cases the teachers are the ones identifying the learner with occupational performance challenges and then make the necessary recommendation for a referral to OT the parents or a referral to OT.<sup>2,4-5</sup>

In practice, colleagues and I found that teachers either under-referred or over-referred children to OT. Teachers expressed uncertainty in relation to criteria for suitability of referral to OT, reasons why the child is not performing in the classroom and lacked the knowledge on how to assist the learner. Conversely, it was noted that teachers referred more than half of their class for OT evaluations. This scenario indicates uncertainty from the teachers and that the referral procedure to OT needs to be investigated as this is the first step in assisting a learner to receive the necessary intervention.

Every child has the right to a quality basic education. In South Africa, according to the Education White Paper 5 (WP5) on Early Childhood Education, early childhood development (ECD) is the period from birth to 9 years.<sup>6</sup> The foundation phase, Grade R to 3, falls in this age group as the learners in the foundation phase are typically aged between 5 to 9 years. The focus of WP5 is to ensure that the learners in this age group receive quality education as the years in the foundation phase are vital for laying the building blocks for education and future success in life.<sup>6-7</sup>

Teachers working in the foundation phase play an important role in the learners’ lives as they teach them the vital skills needed for future educational successes. It is thus important that the foundation phase teachers can identify the learners experiencing challenges with their occupational performance, which would present as difficulties with reading, writing, concentration and participating in the classroom, and then after making the identification to make appropriate referrals to assist the learners.

In a scoping review that was done in 2017 on the current knowledge of teachers on the role of the OT in preschools it was found that most studies were based in America (60.9%), Canada (17.4%), Australia (8.7%), Israel (8.7%) and Germany (4.3%) and services were mostly delivered in mainstream schools.<sup>3</sup> The few studies that have been done in South Africa focused on the collaboration between teachers and therapists or on the perceptions of the teachers of the therapist. When reviewing the literature, limited studies were found that focused on the referral process from teachers to occupational therapy.<sup>2,4</sup>

The results of a study done in KwaZulu-Natal, it was found that South African teachers felt that they did not have the necessary knowledge to identify learners with occupational performance difficulties and were unsure which learner qualified for an OT evaluation.<sup>4</sup> A study that was done in Gauteng, found that teachers were mostly satisfied with the services the OTs delivered at school and saw it as an effective way in assisting learners that were struggling.<sup>2</sup> This study also found that the teachers' knowledge of OT and the referral process was dependent on the amount of collaboration and the relationship the teachers have with the therapist. A study done in Gauteng found that if a school had limited access to an OT, meaning no therapist at the school or poor communication with the therapist, the teachers had limited knowledge of the role of SBOT, which in turn caused them to make no or inappropriate referrals.<sup>2</sup> As from the results of both of the studies done in KwaZulu-Natal and Gauteng, it can thus be concluded that collaboration between the teachers and therapists is important for effective referrals to take place.<sup>2,4</sup>

Another aspect that affects appropriate referrals to OT is the knowledge that teachers have on the role of OT in the school setting. A study in Nashville, USA found that 72% of public school teachers had limited knowledge of OT and the contributions that therapy made to the learners.<sup>8</sup> This has been found in multiple other studies as well, including studies done in KwaZulu-Natal and Gauteng, South Africa.<sup>2,4-5,9-10</sup>

## **1.2 Problem statement**

In my clinical experience and after discussing this topic with other SBOTs, it was found that teachers either under-refer or over-refer learners to OT. Previous research indicated that teachers have limited knowledge on the role of the SBOT.<sup>2,4</sup> Teachers also struggled to identify the occupational performance challenges learners in their classroom might have that negatively affected their performance.<sup>4,8,10</sup> No studies could be found that focused on the referral process or practices of foundation phase teachers in the South African context.<sup>2</sup>

Early intervention is when the learner receives the necessary intervention at an early stage, before the challenges become too prominent. Studies have shown that early intervention treatment is more effective than intervention at a later stage.<sup>11</sup> Early intervention can only take place if there is early identification of the occupational performance challenges. The learners only receive early intervention if a teacher recognises the occupational performance challenges at an early stage, and makes the necessary referrals. It is thus important that the teachers are able to recognise the occupational performance challenges that learners in their classroom experience and make the necessary referrals early on.

The problem is that there is limited information available on the knowledge, attitude and practices of foundation phase teachers on referring learners to OT who are experiencing occupational performance challenges so that they can receive the necessary intervention.

### **1.3 Research Question**

What are the knowledge, attitude and practices of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy?

### **1.4 Aim and Objectives**

#### **1.4.1 Aim**

The aim of the study is to determine the knowledge, attitudes and practices of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy.

#### **1.4.2 Objectives**

- To determine the **knowledge** of foundation phase class teachers in mainstream school on occupational performance challenges of learners.
- To determine the **attitude** of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy.
- To establish the **practices** foundation phase class teachers in mainstream schools use on referring learners with occupational performance challenges to occupational therapy.

### **1.5 Type of study and Method**

#### **1.5.1 Type of Study**

The research design used in the study was a quantitative, descriptive design.

Quantitative research is done when the researcher wants to systematically explore, test or describe variables in numerical or statistical form.<sup>12</sup> In this study the researcher wanted to determine the teacher's knowledge, attitudes and practices on referral to OT and describe the results in statistical form.

Descriptive research designs are used when more information is needed about characteristics in a specific field by describing a picture of the phenomenon on certain situations as it occurs naturally.<sup>13</sup> A descriptive design examines a situation as it is and explores possible associations among occurrences.<sup>12</sup> In the study the researcher did not manipulate the variables, nor tried to determine a relationship between the variables. The researcher simply wanted to identify the characteristics of a single sample which were the foundation phase class teachers.<sup>13</sup> The variables in this study are knowledge, attitudes and practices.

### **1.6 Method of Data Collection**

The data collection process was done by means of a questionnaire that the researcher developed. The reason that a questionnaire was chosen as it was a quick and affordable way to obtain data from a large group of people. The researcher decided to use a paper-based questionnaire as research has shown that the response rate with a paper-based questionnaire was better than a web-based questionnaire.<sup>13</sup>

A paper-based questionnaire was handed out to foundation phase teachers of selected schools and the teachers were given a week to complete the questionnaire. The reason for giving the teachers a week to complete the questionnaire was so that the teachers could complete the questionnaire when it suited them best in their busy schedule. A sealed box was left in the teacher's lounge or with the HOD in which the teachers placed the completed questionnaire. After a week, the sealed box with the completed questionnaires was collected. The data was captured and then statistically analysed. From the analysed data, the results of the study were compiled and conclusions were made.

### **1.7 Significance of the Study**

As described in the WP5 on Early Childhood Education, ECD is when the child between the ages of birth to 9 years develops the necessary concepts, skills and attitudes that lay the groundwork for lifelong learning. These skills include the development of language, perception-motor skills that are needed for reading and writing, basic number concepts and, problem-solving skills.<sup>6</sup> The foundation phase falls within this age group of early childhood development. As it is important for a learner to develop these necessary skills that lay the foundation for successful academic performance in the future, it is vital for a foundation phase teachers to be able to identify and recognise the learners that are experiencing

challenges in developing these skills as it hinders them from building a good foundation for future learning. It is beneficial to the learner that the teacher addresses these challenges as soon as identified so that for early intervention can take place. Early intervention can be defined as a variety of activities that learners engage in that were designed to promote the development of the learner.<sup>14</sup> Studies has found that early identification and interventions, with especially learning disabilities, lead to 70% improvement of the learners at risk. These studies have found that early intervention leads to improved academic performance, and improves the learners' self-esteem and self-concept.<sup>11</sup> OT is an early intervention service and can take place in the school setting.

The role of a SBOT is to identify a learner's strengths in the educational environment and the factors that prevent him from participating in educational activities, routines and environments.<sup>1,15</sup> The focus of the SBOT is on the educational participation of a learner.<sup>1,9</sup> For the learner experiencing difficulties, to be able to achieve success, it is important that there is collaboration and communication between the teachers and OT working at the school.<sup>4,8-9</sup>

However before an OT can do an evaluation to identify the strengths and weaknesses of a learner to be able to assist him, the learners need to be referred first. It is important that the referral is made as soon as the learner with occupational performance challenges is identified so that early intervention can take place.

From personal experience working as an SBOT and from what was found in research, the foundation phase teachers are normally the first persons who notice that a learner is struggling and not reaching his full potential while participating in educational activities.<sup>2,4-5</sup> The teacher then makes the recommendation for an OT referral to the parents who contact the therapist, or recommends the learner directly to the therapist. It is thus important to know if the teachers are aware of what to look out for in a learner to be able to refer to OT and if they have the necessary knowledge to know when and how they can refer a learner.

Limited research has been done focusing on the referral process of learners to OT in mainstream schools in South Africa.<sup>2</sup> It is unknown what the referral processes of different schools to OT are. The attitude of the foundation phase teachers in the South African context, specifically Tshwane, Gauteng, is unknown about referring learners to OT. It is unknown if the foundation phase teachers have the necessary knowledge to identify the occupational performance challenges that learners are struggling with.

By doing this study and answering the research question one would be able to identify the knowledge and attitude teachers in South Africa have regarding referring learners to OT in

mainstream schools as well as the referral procedure that different teachers and schools use. The significance of the results would be that with the results of the study, it will be determined if OTs need to advocate more for their role in the mainstream school setting as well as if teachers need further education on the role of the SBOT or training on how to identify occupational performance challenges in learners in their classrooms. By advocating for the role of OT in the school setting and educating teachers on occupational performance challenges learners experience, the teachers will be able to identify learners earlier and the learners will receive early intervention.

## **1.8 Definition of Terms**

### **1.8.1 Occupational Performance Challenges**

Occupational performance is the ability to execute daily activities. It is the “dynamic experience of a person engaged in purposeful activities and tasks within an environment”.<sup>16</sup> These activities are made up of activities of daily living, education, work, social participation, leisure, and play. Occupational performance is achieved by the successful interaction between the person, environment and activity.<sup>17</sup> Occupational performance challenges are when there is an imbalance in the relation between the person, environment or activity. This causes the person to have difficulties with executing his daily activities.

Educational activities consume between six to eight hours a day. Examples of these activities are writing, reading, doing mathematical exercises, participating in gross motor activities as well as concentrating in the classroom and socially engaging with friends.<sup>9</sup> If a learner has problems with participating in one or multiple of these activities and they affect his performance in the educational context to such extent that the teacher notices, she will most likely consider a referral to OT.

### **1.8.2 School-based Occupational Therapy**

The role of OT in the school setting is to support access to and participation in daily activities of learning according to the American Occupational Therapy Association (AOTA).<sup>8</sup> The SBOT supports their academic achievement and promotes positive behaviours for learning.<sup>18</sup>

The process of SBOT is that learners need to be referred to the OT first. The main role of the SBOT is to evaluate and give intervention to the referred learner. After receiving a referral, the school-based occupational therapists (SBOT) must first complete an evaluation. In the evaluation the therapist assesses the referred learner and compiles a list of his/her strengths and areas of concern. With this list the SBOT must then determine the best possible individualised intervention plan which needs to be discussed with the teacher and parents of

the learner.<sup>19</sup> The SBOT must educate the teachers and parents on the occupational performance challenges that the learner is experiencing and must collaborate with the teachers and parents when deciding on the short term and long term goals of the intervention plan.

### **1.8.3 Foundation Phase Teachers**

In South Africa the foundation phase is made out of the school years Grade R to Grade 3. Learners in this phase are typically aged between 5 – 9 years. In the foundation phase, education focuses on three main learning areas: literacy, numeracy and life skills.<sup>20</sup> The foundation phase is a four year period. The next stage is the intermediate phase. The teachers in the foundation phase are responsible to teach and educate the learners. The teachers of the foundation phase are the teachers that are responsible for the learners in their class and need to teach them literacy, numeracy and life skills. The teachers are the ones compiling and signing the report card each term as well as the ones responsible for maintaining contact with the parents of the learners in their classroom. It would then also be the teacher who most likely will identify the occupational performance challenges in a learner and make the appropriate referrals.

### **1.8.4 Mainstream Schools**

Mainstream schools are schools in which the curriculum has been set out by the Department of Basic Education (DoBE).<sup>21</sup> The education in mainstream schools is also not regarded as 'special' education by teachers. Mainstream schools can also be called ordinary schools.<sup>22</sup>

In South Africa, there are two types of mainstream schools, namely public and independent schools.<sup>23</sup> Public schools, also known as government schools, are controlled by the state.<sup>24</sup> <sup>25</sup> Independent schools, which can also be called private schools, are privately owned but registered with the provincial education department.<sup>25</sup>

Throughout the study the terms mainstream schools, government schools and private schools were used. The study included both government and private mainstream schools in the data collection process.

### **1.8.5 Knowledge**

Knowledge is “the information, understanding and skills that you gain through education or experience. With regards to education and teaching it is “the state of knowing about a particular fact or situation”.<sup>26</sup>

In the research study the knowledge that was determined was the understanding that the teachers have about the occupational performance challenges learners experience in the classroom.

### **1.8.6 Attitude**

**Attitude** is defined as “the way you think and feel about something or somebody; the way that you behave towards somebody or something that shows how you think and feel”.<sup>26</sup>

In the study the attitude of the teachers was determined with regards to referring learners to occupational therapy. This means that the researcher wanted to determine the way the teachers feel and think about referring a learner to occupational therapy.

### **1.8.7 Practice**

Practice is “a way of doing something that is the usual or expected way in a particular organization or situation”.<sup>26</sup>

Practice in this research study is the methods and processes that teachers used and still will continue to use when referring learners to occupational therapy.

### **1.8.8 Referral**

Referral is “ the act of sending somebody who needs professional help to a person or place that can provide it”.<sup>26</sup>

In the study, referral would be in regards of teachers recommending the identified struggling learners to occupational therapy to receive an assessment and possible intervention. The teachers cannot directly refer a learner to occupational therapy but must make the recommendation to the parents of that specific learner first. The focus of the study is however the referral part of the teachers identifying the learner in their classroom and then making the recommendation of a referral to OT.

## **1.9 Outline of the Study**

The outline of the study is as follows:

Chapter 1 gives the introduction and the background of the study as well as the significance of the study. The research question, aim and objectives are also presented in this chapter.

Chapter 2 is the literature review that was done.

Chapter 3 presents the research methodology and the method of how the research was conducted. It determines the sampling population and explains the sampling procedure with

the inclusion and exclusion criteria. This chapter explains how the questionnaire was developed and piloted and how the pilot study was conducted. The data collection process and analysis of the data is also presented in Chapter 3.

Chapter 4 presents the research findings and analysed data under the headings of the research objectives.

In Chapter 5 the research findings are discussed and the research question and objectives are answered.

Chapter 6 presents the final conclusion of the study. The significance and limitations of the study as well as the recommendations are given in this chapter.

## **2. Chapter 2 – Literature Review**

### **2.1 Education**

According to the Oxford English Dictionary, education is defined as “ a process of teaching, training, and learning, especially in schools or colleges, to improve knowledge and develop skills.”<sup>26</sup> Another definition of education according to the Occupational Therapy Practice Framework (OTPF) is that education consists of “activities needed for learning and participation in the educational environment.”<sup>27</sup>

The definition of education from the dictionary defines the process of learning that takes place at schools and the goal of education of improving knowledge and developing skills. The definition of OTPF is used by occupational therapists and focuses on activities utilised for learning. Both definitions were added as the process and goal of education, as well as the activities used are important factors in the educational process.

While academic domains and achievement are important factors of education, it must be remembered that they are not the only important aspects. Education must be looked at holistically which includes looking at developing a child’s independence, personal responsibility and social development in their community.<sup>21</sup>

### **2.2 Education in South Africa**

In South Africa education falls under the responsibility of the Department of Education (DoE). The DoE have developed multiple White Papers to improve the education in South Africa. One of the White Papers that were developed was the White Paper 5 (WP5) on Early Childhood Education that focuses on meeting the challenge of early childhood development in South Africa. The WP5 was developed to ensure that every child has the ability to develop his/her full cognitive, emotional, social and physical potential by implementing the early childhood development (ECD). The ECD refers to a “comprehensive approach to policies and programmes from children from birth to nine years of age with active participation of their parents and caregivers to enable the children to grow and thrive physically, mentally, emotionally, spiritually, morally, and socially.”<sup>6</sup>

The two main role players that partake in education are teachers and learners.

#### **2.2.1 Teachers**

Teachers, also known as educators, are facilitators of education. The Employment of Educators Act no.79 of 1998 defines an educator / teacher as “any person who teaches, educates or trains other persons or who provides professional educational services, including professional therapy and educational psychological services, at any public school,

departmental office or adult basic education centre and who is appointed in a post on any educator establishment under this Act.”<sup>28</sup> Throughout this study the term teacher will be used. The study focuses on foundation phase teachers. These are the teachers who teach Grade R – Grade 3. The foundation phase will be explained under the heading foundation phase.

### **2.2.2 Learners**

The term learner is used in the South African school context as well as throughout the study. According to the South African Schools Act of 1996 (SASA) a learner is defined as “a person receiving education or is obliged to receive education in term of this act.”<sup>23</sup> According to the Act, it is compulsory for a learner to attend school from the first day of the school year in the year that learner turns 7 years of age until the learner is turns 15 years or Grade 9.<sup>23</sup>

In South Africa the schools system is divided up into the foundation phase (Gr R – 3), intermediate phase (Gr 4 – 6), senior phase (Gr 7 – 9), and further education and training phase (Grade 10 – 12). Each phase has different programme requirements.<sup>29</sup> In this study, the focus is on the teachers and learners of the foundation phase.

### **2.2.3 The Foundation Phase**

In South Africa, the school years starting at Grade R – Grade 3, are grouped together and called the foundation phase. The foundation phase falls under the Department of Basic Education (DoBE) and is seen as part of early childhood development. The DoBE is the national department responsible for basic education.<sup>29</sup> According to the DoBE early childhood development is referred to as “the processes by which children from birth to nine years of age grow and thrive physically, mentally, emotionally, morally and socially”.<sup>7</sup> In the foundation phase, education focuses on three main learning areas: literacy, numeracy and life skills.<sup>20</sup> It is thus important that children receive optimal opportunities to develop their skills and reach their potential from a young age.

The White Paper 5 (WP5) on Early Childhood Education was written in May 2001 with the aim of addressing the challenges of early childhood development (ECD) in South Africa. One of the focuses of this paper was to implement a compulsory Reception Year (Grade R) for all learners by 2010. This would mean that learners would now have ten years of compulsory school education, starting from Grade R – Grade 9.<sup>6</sup> A learner can attend Grade R if he will turn 5 years old or older, by 30 June within the school year.<sup>25</sup>

#### **2.2.4 The Curriculum of the Foundation Phase**

The document 'Regulations Pertaining to the National Curriculum Statement Grades R-12' (NCS) specifies the requirements needed to complete the foundation phase in a public or independent school offering the NCS.<sup>20,29</sup> A learner needs to have the following subjects:

- 1) One official language at Home Language level
- 2) One official language at First Additional Language that is not the same language as the Home Language level
- 3) Mathematics
- 4) Life skills, which consists of Beginning Knowledge, Creative Arts, Physical Education and Personal and Social Wellbeing<sup>29</sup>

In South Africa the Curriculum and Assessment Policy Statements (CAPS) is used to assess the learners. To be able to pass a grade and move onto the next grade within the foundation phase, a learner must achieve the following requirements for Grade R:

- 1) Adequate Achievement (50-59%) in one official language at Home Language level
- 2) Moderate Achievement (40-49%) in Mathematics

Independent schools might have higher requirements, but these should have been determined in consultation with parents of the school involved. All learners, as far as possible, should progress from Grade R to Grade 1 if they are the correct age. Throughout the year the Grade R's learner's skills and knowledge in participation in daily should be closely monitored at an on-going basis and the progress must be noted using holistic rubrics.<sup>29</sup>

For learners to progress from Grade 1 to Grade 2, and Grade 2 to Grade 3, they need to meet the following requirements:

- 1) Adequate Achievement (50-59%) in one official language at Home Language level
- 2) Moderate Achievement (40-49%) in the second required official language at First Additional Language level
- 3) Moderate Achievement (40-49%) in Mathematics<sup>29</sup>

A learner must repeat a grade if they do not meet the minimum requirements needed to pass a grade in the foundation phase. In all four years of the foundation phase a learner is only allowed to repeat a grade once. The reason for this is to prevent the learner from being enrolled in the foundation phase for longer than five years. A learner repeating a grade must be offered adequate additional support to be able to meet the minimum requirements to be

able to pass the repeating grade at the end of the schooling year.<sup>29</sup> These learners are often the learners that are referred to OT to receive additional support.

It is important when teachers realise a learner is underperforming to address this problem as soon as possible. This is especially true in the foundation phase as these are the years in which the learners lay the foundation for their future education.<sup>6</sup>

### **2.2.5 Schools in South Africa**

The South African Schools Act (SASA) of 1996 identified two categories of schools: independent and public schools.<sup>23</sup>

Independent schools are privately governed. Independent schools must be registered with the provincial education department.<sup>25</sup> According to the SASA an independent school can be registered if the standards of the school are not inferior to the standards set for public schools, and the admission policy of the school does not discriminate.<sup>23</sup> Private schools were included in this category.<sup>24</sup>

Public schools are state controlled<sup>24-25</sup> and often referred to government schools. A public school must be established by the Member of Executive Council (MEC) for education of that province.<sup>25</sup> As this study was conducted in Tshwane, the public schools selected were established by the MEC for education of Gauteng.

Throughout the study, the term private and government schools were used as they are more commonly known.

The education in South Africa can also be divided into mainstream education and special education or also known as education for learners with special education needs (ELSEN). In the Consultative Paper no.1 defines mainstream education as forms of education that are not regarded by practitioners as 'special'. The term 'ordinary school' can also be used interchangeably for mainstream school.<sup>22</sup>

With the shift towards inclusive education, which be explained in 2.2, the WP6 focused on implementing three different schools for learners with barriers to learning. The different schools are:

- Ordinary schools are also referred to as mainstream schools. The curriculum for these types of schools has been set out by the government. These schools usually are for learners who need low-intensive support.<sup>21</sup>

- Full service schools are schools that are equipped and supported to provide for a full range of learning disabilities.<sup>21,30</sup> These schools are for learners that need moderate to high levels of support.
- Special schools, also referred to as schools for learners with special educational needs (LSEN), are for learner who need high intensive support as they have a particular impairment or disability.<sup>21,30</sup> Learners in mainstream schools follow the curriculum set out by the government. LSEN schools follow a specialised educational programme.<sup>22</sup>

The study focuses on learners in mainstream schools and uses this term throughout the study.

### **2.3 Inclusive Education**

In recent years, a great shift in the world has been made to inclusive education. Inclusive education focuses on the right of all children and young learners to be included and to receive quality education, irrespective of their differences and dispositions. The inclusion embraces the values of equality, diversity and social justice.<sup>20,31</sup>

South Africa is a country that also followed suit. As some learners experience barriers to learning, they struggle to meet the requirements set out by the NCS. Thus in 2001 the DoBE developed an Education White Paper 6 (WP6) on Special Needs Education: Building an Inclusive Education and Training System. In this paper inclusive education is set out as acknowledging that all children can learn, and that some learn different than others and have different learning needs. These different learning needs need to be respected and acknowledged as they are equally valuable. All learners need to be supported and thus it is important to enable education structures and learning methods to meet the needs of all learners.<sup>20,30</sup> Inclusive education is about empowering learners through developing their strengths and letting them participate in the process of learning.<sup>30</sup>

It is important to understand that some learners might require more intensive and specialised forms of support to reach their full potential<sup>30</sup>, so the DoBE developed the Policy on Screening, Identification, Assessment and Support (SIAS). The purpose of policy was to have a standardized procedure to identify, assess and provide programmes for learners who require additional support to enhance their participation and inclusion in school.<sup>32</sup> In this document they refer to learners who have difficulties performing in educational activities as learners with barriers to learning. The aim of developing the SIAS was to improve the access learners have to quality education, especially those experiencing difficulties.<sup>32</sup> It helps to identify learners with barriers to learning, the support that they need and the specific support

programme that needs to be developed to assist the learner experiencing difficulties.<sup>32</sup> The policy developed a set of forms and procedures to be followed, once a learner experiencing barriers to learning, was identified. The forms are to be used by teachers, School-Based Support Teams (SBST) and District-Based Support Teams (DBST). OT is one of the support services.<sup>32</sup> According to OTASA the SBOT assists the SBST with the screening of learner's handwriting in order for them to apply for concessions during examinations.<sup>19</sup>

A study done in 2014 found that only 34% of principals reported being satisfied with the support given to them by the DBST.<sup>33</sup> This is worrisome, as it could be assumed that many learners needing additional support are not receiving the necessary assistance. This is when teachers have to refer learners privately, to ensure the learners receive the help they need.<sup>2</sup> Another reason why teachers in mainstream government schools have to refer privately is that the DoBE does not employ OTs at mainstream schools. OTs are only employed by the school at LSEN schools.<sup>34</sup> Thus teachers in mainstream schools do not have an OT colleague that could assist them. The teachers need to make use of private OTs for assistance.

## **2.4 School-Based Occupational Therapy**

### **2.4.1 Role of School-Based Occupational Therapists in Schools**

The definition of OT according to the OTPF is “the therapeutic use of everyday life activities (occupations) with individuals or groups for the purpose of enhancing or enabling participation in role, habits, and routine in home, school, workplace, community, and other settings.”<sup>27</sup> The World Federation of Occupational Therapists (WFOT) defines the role of occupational therapy as “to enable, support and promote full participation and wellbeing of students by supporting the strengths and finding solutions, reducing or removing learning activity limitations and participation restrictions.”<sup>1</sup>

Occupational therapy services are available to all people who experience any difficulties with participation in their daily occupations<sup>1</sup>, this would include learners struggling with participating with their educational activities.

For a learner to succeed at school, he needs to be school ready. According to UNICEF, a simple definition of school readiness is that “a child who is ready for school has the basic minimum skills and knowledge in a variety of domains that enables the child to be successful in school. Success in school is determined by a range of basic behaviours and abilities, including literacy, numeracy, ability to follow directions, working well with other children and engaging in learning activities.”<sup>35</sup> It is the role of the SBOT to assist a child that is struggling

in any of the above mentioned domains which cause the child to experience difficulties with succeeding in school.

The role of occupational therapy in a school setting is to support access to and participation in daily activities of learning<sup>8</sup> as described by the American Occupational Therapy Association (AOTA). The SBOT supports a learner's ability to participate in daily school occupations or activities for them to be able to fulfil their role as a student.<sup>18,27</sup> To ensure this, the OT supports their academic achievement and promotes positive behaviours for learning.<sup>18</sup> Optimal results for service delivery are when the therapy is given in the natural environment. The natural environment for service delivery for a SBOT is the environment of the learner, which would be at school, in the classroom, the gym or cafeteria.<sup>8</sup>

Occupational therapy services in schools promote activities of daily living (dressing and eating), positioning (sitting appropriately in class), sensorimotor processing, fine motor performance<sup>36</sup>, psychosocial function, and life skills training.<sup>3,37</sup> These services contribute to the development or improvement of the learner's academic and functional school performance.<sup>9,37</sup> The SBOT is client-centred, solution focused, strength-based occupation-based, collaborative and context-based, educationally relevant and evidence-based. Occupational therapy can support all levels of the education system ranging from kindergarten to tertiary educational opportunities and vocational training.<sup>1</sup>

Occupational therapists are educated in assessing and addressing performance issues in one or all of the areas of performance that affect a person's ability to participate in occupations and activities. Thus an occupational therapist can address the educational performance areas that limit a learner from engaging in and reaching academic success.

The results of different studies have shown that all learners benefited from occupational therapy, regardless of experiencing difficulties or not<sup>3,38</sup>, this is especially true with intervention with fine motor outcomes.<sup>36</sup> This indicates the value of school-based occupational therapy and the benefit that the learners, especially those experiencing difficulties can have from receiving occupational therapy.

#### **2.4.2 The Role and Scope of School-Based Occupational Therapy in South Africa**

According to the Occupational Therapy Association of South Africa (OTASA), the role of a school-based occupational therapist (SBOT) and scope of practice is to deliver therapy services in a school-based environment that are in agreement with the Health Professional Council of South Africa (HPCSA) professional board for Occupational Therapy and Medical Orthotics standard and policies. The therapist must maintain annual registration and follow the code of ethics of the HPCSA as well as be responsible for their own professional

development. The SBOT must inform, educate and train parents, teachers and other therapists in the multidisciplinary team.<sup>19</sup>

After receiving referrals from teachers or parents, the SBOT must assess learners using appropriate assessment tools and determine the learner's levels of function with regards to performance areas, performance components and performance context. After the assessment the therapist must compile a list of the learner's strengths and areas of concern and determine the best possible intervention plan.<sup>19</sup> After the assessment the SBOT must compile an individualised intervention plan for each learner with short-term and long-term goals. The SBOT can also present intervention with certain learners by means of group therapy which focuses on gross motor, fine motor, and visual perceptual skills groups to further enhance the learners school functioning.<sup>19</sup>

In South Africa the SBOT deliver a service to mainstream schools, are working in the private sector and are not employed by the DoE. The OTs employed by the DoE are working in special schools. The fact that the therapist working in mainstream schools are working out of private practice could potentially negatively affect service delivery. Often parents are not able to afford OT services and then the learners do not receive the necessary intervention. The knowledge that parents are not able to afford OT services could also prevent teachers from making necessary referrals.

## **2.5 The Relationship between Teachers and Occupational Therapists**

When teachers have to refer privately and with the increase in school-based occupational therapy service delivery, it is vital that collaboration between the two takes place. This is important as it affects the learner's achievement of success inside and outside the classroom.<sup>8,38</sup>

There have been many different definitions of what collaboration means. One definition by Friend and Cook is that "collaboration is a specific style of interaction between professionals of equal status to engage in a process of working towards a common goal".<sup>9</sup> The foundation of effective collaboration is communication as well as shared respect and appreciation for each other roles. Another definition is that "collaboration means that professionals with different expertise, perspectives and experiences work together as equals to develop an approach to intervention".<sup>10</sup> According to this definition a big aspect of collaboration is sharing experiences with other professions and learning from each other. The process of collaboration is also important as it is when team members, such as teachers and therapists, share their knowledge, expertise, and unique perspectives to identify the needs of the learners and develop an appropriate intervention strategy.<sup>8</sup> If collaboration is successful,

supportive partnerships develop between professionals so that they can be able to provide the best intervention possible and support achieving the educational goals set out for each individual learner.<sup>10</sup> The collaboration between teachers and SBOTs is important as they both have valuable inputs into the intervention plan of the learners. Teachers have daily contact with the learners and can see the challenges that the learner is facing from an educational viewpoint. The SBOT can assist the teacher and learner through their knowledge of different performance factors that can cause the learner to underperform and how to best address these performance challenges.

One of the main aspects of collaboration is communication. It is thus important for therapist and teachers to have regular and effective communication which is important in building a relationship. The teachers must build a relationship with the therapist. They must be able to trust the therapist and realize that the therapist is there to assist them and not judge or expose them on their short comings. They must trust that the therapist takes their knowledge, skills and values into account when providing therapy. Lastly, the teachers must also trust that the therapist has the necessary skills and knowledge to help the child or the learner.<sup>15</sup>

In the therapeutic process, therapists often still use the pull-out method as intervention. This is that the therapist takes the learner out of the classroom to give one-on-one therapy. This is still the case in most schools in South Africa. The teachers then often feel excluded from the therapy process and are unsure what is being treated and how to effectively help the child in the classroom as well as becoming frustrated with the lack of information given by the therapist.<sup>10</sup> Thus when using this method of intervention it is very important that effective communication takes place. Another reason why effective and open communication must take place is to ensure the teacher and therapist have the same perceptions of what they think is important to be working on, as both parties play an important role in supporting the learner.<sup>9</sup>

Multiple studies have found that teachers wish to have a formal and more consistent form of communication with the therapist.<sup>9,39</sup> Due to the high workload of the therapist or the therapist being an external person coming in to the school, communication was often very informal and short, happening in school hallways. Teachers felt that this was not an effective way of communicating. If there was a more structured way of communicating, teachers were able to ask more questions and discuss learners with the therapist. In one study, the teachers reported, that if the OT was employed by the school, they would be more comfortable communicating with and approaching the therapist, as the therapist would be seen as part of the staff and not an external person coming in.<sup>4,10</sup>

Another challenge that teachers reported was that if the parents took the learner to receive therapy outside of the school premises, they had even less knowledge about the intervention process. They would then only receive reports and recommendations from the therapist in the form of the report and often they did not understand what was expected from them to do with the learner in the classroom or recommendation given by the therapist was not possible to implement in the classroom. This was very frustrating for the teacher as they then would feel directly responsible if the learner did not make any progress and then would feel inadequate.<sup>10</sup> This shows the importance of effective communication between therapists and teachers and the vital role it plays to reaching success with the therapeutic progress. As teachers spend most of the day with the learner it is important for therapists to communicate with them, as the teachers can share vital information about the learner that is beneficial to the therapeutic process.

In a study that was done in Ontario, it found that if teachers and therapists had a positive collaborative relationship, the teachers had an increased awareness of the impact occupational therapy intervention has on the skill development of the student.<sup>9</sup> Thus if teachers saw the value of occupational therapy intervention in the school setting, they were more likely to refer and work as a team with the therapist to support the learners.<sup>2,8,10</sup>

The results of multiple studies on the teacher's perceptions of occupational therapy and their practices; it was found that teachers did not have the necessary knowledge and understanding of the role of the OT and how much the occupational therapist actually has to offer in the school setting.<sup>8,10</sup> This negatively affected the collaboration between the teachers and therapists. Due to the lack of understanding of the role of the occupational therapists and their scope of practice, the teachers often lacked the confidence in making decisions to refer students for an occupational therapy evaluation.<sup>2,4,10</sup> The teachers felt that if they had a better understanding of the occupational therapist's role they would feel more comfortable referring a child to OT as well as explain to the parents the reason and importance of the referral.<sup>2,10</sup> It is thus very important for occupational therapists to not just assume the teachers have knowledge of the role of occupational therapy in the school setting. The OTs must educate the teachers on what their role is and how and when they can assist different learners. It was found that the more teachers understood about the process of occupational therapy and had contact with the therapist they became more willing to not only look at their learners from an educational standpoint but also from an occupational standpoint.<sup>10</sup> The teachers became more enthusiastic and less defensive of the input received from the therapist, and were more likely to refer a child, as well as became more receptive to the recommendations for the learners made by the OT.<sup>8,10</sup>

## 2.6 Occupational Performance of Learners

In the study the researcher used the Person-Environment-Occupations model (PEO model) as described in “Occupational Therapy for Children” by J Case-Smith and the article “The Person-Environment-Occupation Model: A trans-active approach to occupational performance” by M Law, B Cooper, S Strong, D Stewart, P Rigby and L Letts to define the occupational performance of learners.

Occupational performance is “the accomplishment of the selected occupation resulting from the dynamic transaction among the client, the context and environment, and the activity or occupation.”<sup>27,40-41</sup> The three main areas of occupational performance are the person, the environment, and the occupation. The PEO model states that occupational performance is the result of the dynamic, trans-active relationship between the person, environment and occupations. According to the PEO model, the stronger the interaction between the three areas, the more optimal the outcome of occupational performance.<sup>40-41</sup>

To be able to understand occupational performance, the three aspects need to be looked at separately first.

### Person

A person is a unique being that across time and space participates in roles that are important to them.<sup>40</sup> The person relies on a set of skills, both learnt and innate, to be able to participate in occupational performance.<sup>41</sup>

The PEO model assumes that the qualities of an individual affect how the person interacts with their environment and engages in his occupational performance.<sup>41</sup>

In the study, the person is the learner that actively engages in educational and non-educational activities during the school day. To successfully participate in educational and non-educational activities, the learners’ individual abilities such as his fine motor and gross motor coordination, concentration, visual perceptual and visual-motor integration, planning skills and social skills need to be developing normally.<sup>40</sup> If this is not the case, it could negatively affect his occupational performance and make participating in educational and non-educational activities challenging.

### Environment

Participation and engagement in occupations takes place within the social and physical environment situated within context.<sup>27</sup>

The physical environment is the natural and concrete surroundings in which the activities occur.<sup>27</sup> For a learner the physical surrounding will be in the classroom, cafeteria, gymnasium, and outside recess area and sport fields.<sup>40</sup>

The social environment is the actual relationships, presence of, and expectations other people, groups or populations that an individual has.<sup>27</sup> For a learner this would mean the relationship he has with his parents, teachers and friends. The learners' parents and teachers expect the learner to receive good marks in school and pass his grade to be able to complete school. A learner experiencing any problems in his physical or social environment can negatively affect his occupational performance in educational activities.

Context is not as tangible as the physical and social environment but still has a big impact on occupational performance.<sup>27</sup> The different types of contexts are cultural, personal, temporal and virtual. Cultural context which are the customs, beliefs and standards expected and accepted by the society of an individual. Personal context are the demographic features of a person such as age, gender, level of education, and socio-economic status. Temporal context is time bound. They include the time of year, the stage of life of a person and the duration and rhythm of an activity. Virtual context is the interactions that occur in simulated, real-time, or near-time situations that have no physical contact.<sup>27</sup>

For the study, the environmental factors that can influence the occupational performance of a learner are his parents and the occupational therapist. Parents can affect occupational performance of a learner by providing a nurturing or non-nurturing environment. A nurturing environment would include parents accepting recommendations made by teachers and seeking out additional intervention such as occupational therapy services, if the learner is found not succeeding at school.

Another environmental factor is that the occupational therapy services for learners are only provided in the private sector. Thus if the parents are struggling financially, they would not be able to afford the necessary help needed. Another factor is that not all schools have access to occupational therapy and thus some learners do not get referred and don't receive the necessary intervention.

### Occupations

The PEO model suggests that occupations are not simply occupations alone but are comprised of activity, task and occupation. Law et al defined these three as follows:

- Activity is seen as the single entity of a task. It is defined as “a singular pursuit in which a person engages as part of his daily occupational experience.”<sup>41</sup> For a learner an activity in his educational environment would be writing.
- Task is defined as “a set of purposeful activities in which a person engages.”<sup>41</sup>
- Occupation is defined as “groups of self-directed, functional tasks and activities in which a person engages over the lifespan.”<sup>41</sup>

Thus according to Law et al, an example of an activity of a learner would be writing. The task of the learner would be to complete a written test or assignment and the occupation of the learner would be the role of the learner and all the activities and tasks that he has to participate in to fulfil his role.

Education is one of the main occupations of a child. The definition of education according to the OTPF is “activities needed for learning and participating in the educational environment.”<sup>27</sup> Education is one of the key performance areas of a human being<sup>9</sup> and is one of the main activities for a child between the age of 3 and 18 years. Their identity is that of a learner, attending school is and engaging in educational and non-educational activities. These activities give them meaning and are important to them.

Occupations are influenced by the interaction between client factors, performance skills and performance patterns.

Client factors are “specific capacities, characteristics, or beliefs that reside within the person and that influence performance in occupations”.<sup>27</sup> They include the values, beliefs and spirituality of a person as well as the body functions and structures that a person has that can influence occupational performance.<sup>27</sup>

Performance skills are “goal-directed actions that are observable as small units of engagement in daily activities. The actions are learned and developed over time and situated in specific environments and contexts.”<sup>27</sup> Performance skills are thus the skills that a person needs to execute an activity. For a learner these would be the skills needed to participate in class, concentrate and listen to the teacher, engage socially with his peers, and complete assignments and homework.

Performance patterns are “the habits, routines, roles, and rituals used in the process of engaging in activities that can either support or hinder occupational performance.”<sup>27</sup>

Any imbalance between the interaction of the client factors, performance skills and performance patterns causes the learner to experience difficulties participating in his educational occupations. When a learner experiences difficulties participating in his

occupations it will negatively affect occupational performance. These challenges will then be noticed by his teacher.

In this study occupational performance difficulties arise if a learner is experiencing difficulties in an activity, such as writing and reading; an task, such as writing a test or completing an assignment; or an occupation, such as completing his daily routine, or interacting with friends.

The PEO model looks at the relationship between the person, environment and occupations and how these three aspects continue to interact between them. Thus if there is an imbalance between the three aspects it would negatively affect the occupational performance. The occupational performance of a person can be changed and improved by identifying the issues in each of the aspects that is causing the imbalance and then addressing the aspect to improve the interaction between the three aspects.<sup>41</sup>

The PEO model is used to analyse and identify the factors in the person, the environment or the occupations that cause occupational performance challenges. An OT intervention can then focus on changing any of the three aspects to improve occupational performance.<sup>40</sup> The aim of the SBOT is to maximise the occupational performance of a learner by supporting the interaction between the learner's abilities, the environment and the educational occupations. This is done to achieve meaningful participation within the educational context.<sup>42</sup>

## **2.7 Common problems addressed by the occupational therapist in the school setting:**

Common areas that occupational therapists treat include visual perceptual skills, visual motor skills, motor planning and sequencing, bilateral coordination, eye-hand coordination and other predetermined skill areas that hinder effective participation in scholastic activities in each individual learner.<sup>43</sup> These common areas are part of the person with regards to the PEO model.

### **Visual-motor integration (VMI)**

Visual-motor skills start to develop early in a child's life. It begins to develop when children start to manipulate objects as babies and then later it develops to scribbling, drawing and writing as the child grows.<sup>44</sup> VMI is the transference of visual perception into motor functions. It refers to the integration of visual, perceptual and motor skills and includes well-coordinated finger-hand movements needed for fine motor skills.<sup>45</sup> VMI is dependent on visual discrimination, fine-motor ability, and the ability to integrate visual-cognitive and motor processes.<sup>46</sup> Various studies have shown that visual-motor integration is related to cognitive

performance and is one of the most important activities for the preparation of writing skills. Poor visual-motor integration skills could negatively affect the way in which the learner copies letter and numbers of the board which can lead to poor handwriting skills. Problems in maths, writing, spelling and reading as well as spacing between word, letter and shape recognition can also be observed.<sup>45</sup>

### **Visual perception skills**

Perception involves cognition and sensory awareness and it is the ability to make sense of sensory stimuli. There are different types of perception:

- Visual perception is the total process responsible for the reception and cognition of visual stimuli. It is the process of recognition, understanding, interpreting, and giving meaning to what is seen by the higher levels of the central nervous system.<sup>44</sup> The interpretation of a visual stimuli is a mental process that involves cognition to give meaning to the visual stimuli, and includes visual attention, memory, discrimination, and imagery.<sup>46</sup>
- Visual-spatial perception is the ability to perceive and respond to the size, distance or depth aspects of the environment.<sup>44</sup>
- Depth perception is the understanding of how far apart things are.<sup>37</sup>

An underlying visual perceptual problem can negatively affect a learner's performance in school-related activities. Examples of such are handwriting, getting ready for school and completing school projects due to eye-hand coordination, spatial relations and visual closure problems. Studies have shown that learners who experience difficulties in school-related activities had a greater chance to present visual perception problems than their peers.<sup>46</sup> These problems will present as difficulties with reading, spelling, handwriting and maths.<sup>40</sup>

### **Motor skills - Motor planning and sequencing**

Motor control is the ability to regulate or direct the mechanisms essential to movement.<sup>37</sup> Motor problems present as one or more of the following: Poor coordination, timing, sequencing, bimanual control, force production, balance, sensory processing, and motor planning. Motor learning is the way how people learn and retain motor skills.<sup>37</sup>

Poor or underdeveloped motor skills and learning can hinder various aspects of a child's development. Studies have found that the transition to formal schooling is a stressful, demanding and challenging period in a child's life and good motor ability can assist with making the transition easier. Thus for children with problems in their motor abilities the transition can be even more stressful.<sup>47</sup> Researchers also have indicated that fine motor

skills, perceptual-motor abilities and the basic motor skills play an important role to master as they are a vital factor in the learning process.<sup>47</sup> Movement is also seen as a foundation for the brain to integrate brain function for academic work by stimulating the brain.

Research studies have also found that there is a link between motor skills and the social and emotional adjustment at school. Learners with motor difficulties often don't participate in social activities at school such as playing ball games or other gross motor activities with fellow learners during recess. They tend to be more fearful, move more slowly and avoid any type of gross motor activities.<sup>48</sup> This behaviour can lead to loneliness and low self-esteem of a learner.

In one research study done in South Africa it was found that learners with good performance in their motor skills showed better adaptation skills in grade 1. Learners with poor visual-motor integration, poor visual-spatial perception, low muscle tone, and poor kinaesthesia in Kindergarten showed higher prevalence of disruptive behaviour in grade 1. Learners with low muscle tone and poor kinaesthesia in Kindergarten showed more anxious-withdrawal behaviour.<sup>48</sup>

One aspect of motor skills is **muscle tone** which is important for motor control and executing a motor action. Muscle tone is the resting state of a muscle which allows movement in and out of position with ease, fluidity and variety of movement if it is normal.<sup>37</sup> Learners with low muscle tone find it difficult maintaining a static position for a prolonged period of time such as sitting at their desk. They often complain of fatigue or have decreased speed during common performance tasks such as writing.<sup>48</sup> In occupational therapy the goal is not to change the muscle tone of learner but rather assist the learner with improving his performance in activities.<sup>37</sup>

**Motor planning** plays also an important aspect in achieving success in scholastic activities. Motor planning is the cognitive process of selecting and programming an appropriate motor response. It starts with creating an idea of what exactly the motor task is that needs to be performed, sequencing this idea and then executing this sequence in an efficient way.<sup>48</sup> A child that has good motor planning skills can have goal-directed actions and participate in academic activities with ease. A learner with poor motor planning can negatively affect and limit a child's behaviour and participation in scholastic activities.

### **Hand function**

Hand function is an important aspect of how we as humans interact with our environment, objects, materials and other humans on a daily basis. The effective use of our hands

depends on the interactions between hand functions, postural control, cognition, social-emotional function and visual perception. Patterns of hand function include reaching towards an object to either grasp it or put it away, grasping an object with the hand or holding onto it, carrying or transporting an object from one place to another, voluntary release when wanting to let go of an object at a certain place, in-hand manipulation which is changing the position of the object in the hand and bimanual skills of using both hands together or sequentially to participate in an activity.

In the school setting successfully participating in scholastic activities requires effective hand functioning and good fine motor skills. In Kindergarten children use their fine motor skills through most part of their day. They use it in play activities such as building with blocks and puzzles, manipulating toys during pretend play, outdoor play activities such as playing on the jungle gyms and in the sand pit as well as in completing craft activities using scissors, crayons and finger paints. It was found that children in the foundation phase setting spend about 45% to 55% of their day participating in fine motor activities. Typical fine motor activities that foundation phase child participate in are paper-and-pencil tasks such as writing, cutting with scissors, folding papers, using glue and tape as well as manipulating their clothes' zippers, buttons or shoelaces, opening and closing their pencil cases, bags and lunch boxes as well as computer and keyboarding skills.<sup>37,49</sup>

The most common occupation that is affected by poor fine motor skills in a learner is handwriting. In a learner's role, handwriting is a daily activity that they partake in to complete assignments, homework, classroom activities and tests. A learner struggling with handwriting will then find it difficult to achieve success in school activities. Handwriting is thus one of the main reasons for referral to occupational therapy. In a study it was found that 75% of an OT caseload consists of learners with handwriting difficulties.<sup>43</sup> As handwriting consumes a big part of a learner's school day it is important that they master this skill. Handwriting is a complex skill that involves word synthesis, organization, memory, problem-solving, language, ideation and motor function. It also includes fine motor skills such as in-hand manipulation, grasping and bilateral coordination as well as visual-motor integration, visual perception, attention and sensory processing.<sup>43</sup> It is important to address handwriting difficulties as they can negatively affect the learner's performance in scholastic activities. The teachers can give poor marks due to not being able to read what the learner wrote in assignments and tests or bad quality of work. The learner has a slow handwriting speed and is not able to copy all the notes in class in time or does not finish work in time. He might copy notes but then will be unable to read them at a later stage, or he might only write shortened answers or incomplete written responses as it takes too much concentration and effort to write. A learner can refuse to write at all, causing him to develop this skill even less.<sup>37</sup>

Occupational therapists can assist in improving handwriting and hand function in general in learners as they have the knowledge to identify the underlying issues that affect handwriting skills and hand function and treat the problem areas accordingly.<sup>43</sup>

### **Sensory integration**

The definition of sensory integration is “the neurological process that organizes sensation from one’s own body and from the environment and makes it possible to use the body effectively within the environment. It is the entire sequence of the central nervous system events from reception to the display of an adaptive environmental reaction”.<sup>50</sup> It is also termed as the “organization of sensation for use” which means that the child actively selects the sensations most useful at the time and organizes them in a way that will accomplish goals. When the processes are going well, the child can make an adaptive response which is when the child can organize a successful, goal-directed action on the environment. By making an adaptive response the child can successfully meet the challenges presented in the environment.<sup>37</sup> Some children have difficulties with sensory integration and that creates challenges in life with participating in everyday activities. The different types of sensory integration problems are sensory modulation problems, sensory discrimination and perception problems, and sensory seeking behaviour.

Sensory modulation is when a child generates appropriate responses to incoming sensory stimulation.<sup>37</sup> Problems with sensory modulation can cause a child to under-respond or over-respond to sensory stimuli. Under-responding is when the child does not respond to or register the stimuli in his environment. Over-responding is when the child is highly sensitive to the sensory stimuli in his environment and it causes him to be sensory defensive. Sensory defensiveness can be tactile, auditory or visually defensive.

Sensory discrimination and perception are responsible for the organization and interpretation of the sensory stimuli. Discrimination is the brain’s ability to distinguish between different sensory stimuli, and perception is the brain’s process of giving meaning to the sensory information.<sup>37</sup> Children with difficulties in this have problems organizing the sensory information adequately and that causes them to have difficulties discriminating between two stimuli. An example of this is children who struggle identifying the difference between a “b” or “d”. Children also have problems with tactile discrimination in which they cannot correctly interpret the tactile information they are receiving.

Sensory seeking behaviour is when children seek out intense stimulation in a specific sensory modulation. The reasons they do this is create additional sensory input to

compensate for weak processing, to regulate their arousal level, or to modulate over- or under-responsiveness.<sup>37</sup>

Sensory integration difficulties may limit the quality of children’s participation in occupations that they want to participate in or society dictates. Research studies have shown that sensory integration problems negatively affect all of children’s performance areas, which includes education, thus it needs to be addressed by the occupational therapist within the school-setting. An OT will use sensory integration based therapy when addressing the sensory difficulties, which is a programme of intervention involving meaningful therapeutic activities characterized by enhanced sensation, especially tactile, vestibular, and proprioceptive, and active participation, and adaptive interaction.<sup>50</sup>

### Attention Deficit/Hyperactivity Disorder (ADHD)

Table 1 shows the diagnostic criteria for ADHD as written in the DSM-5

**Table 1 Diagnostic Criteria for ADHD<sup>51</sup>**

A. A persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, as characterized by (1) and/or (2):	
<p>1. <b>Inattention:</b> Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities:</p> <ul style="list-style-type: none"> <li>▪ <b>Note:</b> <i>The symptoms are not solely a manifestation of oppositional behaviour, defiance, hostility, or failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.</i></li> </ul> <ol style="list-style-type: none"> <li>a. Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities.</li> <li>b. Often has difficulty sustaining attention in tasks or play activities.</li> <li>c. Often does not seem to listen when spoken to directly.</li> <li>d. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in</li> </ol>	<p>2. <b>Hyperactivity and impulsivity:</b> Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities:</p> <ul style="list-style-type: none"> <li>▪ <b>Note:</b> <i>The symptoms are not solely a manifestation of oppositional behaviour, defiance, hostility, or a failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.</i></li> </ul> <ol style="list-style-type: none"> <li>a. Often fidgets with or taps hands or feet or squirms in seat.</li> <li>b. Often leaves seat in situations when remaining seated is expected.</li> <li>c. Often runs about or climbs in situations where it is inappropriate. (<b>Note:</b> In adolescents or adults, may be limited to feeling restless.)</li> <li>d. Often unable to play or engage in leisure activities quietly.</li> </ol>

<p>the workplace.</p> <ul style="list-style-type: none"> <li>e. Often has difficulty organizing tasks and activities.</li> <li>f. Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort.</li> <li>g. Often loses things necessary for tasks or activities.</li> <li>h. Is often easily distracted by extraneous stimuli.</li> <li>i. Is often forgetful in daily activities.</li> </ul>	<ul style="list-style-type: none"> <li>e. Is often “on the go,” acting as if “driven by a motor”.</li> <li>f. Often talks excessively.</li> <li>g. Often blurts out an answer before a question has been completed.</li> <li>h. Often has difficulty waiting his or her turn.</li> <li>i. Often interrupts or intrudes on others.</li> </ul>
<p>B. Several inattentive or hyperactive-impulsive symptoms were present prior to age 12 years.</p>	
<p>C. Several inattentive or hyperactive-impulsive symptoms are present in two or more settings (e.g., at home, school, or work; with friends or relatives; in other activities).</p>	
<p>D. There is clear evidence that the symptoms interfere with, or reduce the quality of, social, academic, or occupational functioning.</p>	
<p>E. The symptoms do not occur exclusively during the course of schizophrenia or another psychotic disorder and are not better explained by another mental disorder.</p>	

ADHD is regarded as the most common childhood neurological disorder.<sup>40</sup> It is believed to affect 5.29% of children and adolescents worldwide or approximately at least one learner in every classroom.<sup>52</sup> The diagnosis for ADHD is on the increase. The reason for this is believed to be the better defined diagnostic criteria and physicians being more aware of the diagnostic criteria.<sup>40</sup> Inappropriate levels of inattention, hyperactivity, and impulse are symptoms of ADHD. This negatively affects activities of daily living such as academic performance as well as peer and family relationships.<sup>52</sup>

Inattention is when the learner fails to attend to details, has difficulties sustaining attention during an activity such as playing or writing a test, struggles to actively listen to instructions or conversations, has difficulties organising tasks, and is most likely to avoid activities that require sustained attention. Such a learner would be easily distracted in the classroom environment and be often forgetful in his daily activities.

Hyperactivity is when the learner is constantly fidgeting, finds it extremely difficult to remain seated when it is expected to do so (in a classroom), has difficulties playing or working quietly, excessive talking and is seen as constantly “on-the-go”.

Impulsivity is when the child cannot wait for his turn, is constantly and unnecessarily interrupting the teacher as well as blurting out answers before the question is asked.<sup>40</sup>

A learner presenting with one or multiple of these symptoms will have difficulties performing in the classroom and meeting all of his scholastic demands. It is very important that when the teachers notices this kind of behaviour to address it with the parents and make the necessary referrals to assist the learner. Occupational therapy can assist with providing multiple strategies to the classroom with the learner with ADHD to promote achieving success. These strategies are environmental adaptations, social skills training, self-management techniques, and intervention to enhance sensory modulation.<sup>40</sup>

### **Learning disabilities (LD)**

In literature the definition of learning disability (LD) has been widely argued. As learning disabilities are complex there are many misperceptions of what a learning disability is. There is a consensus that learning disabilities are neurologically based, involve cognitive processes and affect learning. It refers to disorders that impact learning but are not primarily due to disorders such as intellectual disability or hearing impairment.<sup>53</sup>

The definition of a learning disability in the Curriculum 2005 of the Department of Education is “a range of difficulties with receiving, processing, expressing or retrieving information, any of which possibly affect the learner’s ability to function effectively in one or more areas, such as spelling, grammar, following directions, spatial relations and numbers”.<sup>20</sup> Another definition of a learning disability is “a disorder in one or more basic psychological processes involved in understanding or using spoken or written language and it manifest itself in an inadequate ability to listen, think, speak, read, write, spell or to do mathematical calculations”.<sup>20</sup>

Learning disabilities are problems that cause the child to have difficulties mastering school tasks, process information, and communicate effectively. Specific learning disabilities include auditory processing, language disabilities, and perceptual impairments. The National Joint Committee on Learning disabilities refers to learning disabilities as “a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities”. Most children with LD have either average or above average intelligence, are not blind or deaf as well as having been provided with appropriate learning opportunities but yet still have a big discrepancy between his academic potential and educational performance.<sup>40</sup>

A learner with LD can display one or more behaviours in the following:

- Disorders in motor function
- Educational disorders

- Disorders of attention and concentration
- Disorders of thinking and memory
- Problems with speech and communication
- Auditory difficulties
- Sensory integration and perceptual disorders
- Psychosocial problems

A learning disability causes the learner to not achieve according to their potential. It makes participating in school-related activities a challenge. Due to the challenges that the children are facing, there is a need for occupational therapy.<sup>9</sup>

### **3. Chapter 3 – Method**

#### **3.1 Introduction**

The focus of the study is on the referral of learners to occupational therapy by their teachers. The aim of the study is to determine the knowledge, attitudes and practices of foundation phase teachers working in mainstream schools on referring learners with occupational performance challenges to occupational therapy.

In the previous chapter we discussed the limited amount of research that is available discussing the referral process of learners to OT by teachers.

The researcher developed a questionnaire that was handed out for completion to foundation phase teachers of selected schools. The data was then statistically analysed and results were compared. In this chapter the research methodology that was used is discussed to determine the knowledge, attitude and practices of foundation phase teachers on the referral to occupational therapy.

#### **3.2 Study Area**

The study was done in Tshwane, Gauteng, South Africa. The reason that this area was chosen is that it is the most accessible to the researcher. Tshwane was the area that the researcher resides in and has multiple SBOT school connections that assisted with the identification of schools. There are also enough mainstream schools, with a variety of private and government schools, that meet the standards of the sampling procedure to ensure a big enough sample size.

#### **3.3 Sample Population**

The sample population was foundation phase class teachers working in mainstream government and private schools in Tshwane, Gauteng, South Africa. These teachers are responsible for educating Grade R to Grade 3. The reason why the focus was on these teachers was that learners in these grades learn the foundation blocks for their future education.<sup>6</sup> If a learner experiences occupational performance challenges while participating in educational activities within this age group, it is important for the teacher to identify them and refer them to occupational therapy to address these challenges before major complications in the learner's educational performance develops.

#### **3.4 Sample Size**

During a meeting with the statistician it was determined that a minimum of 50 foundation phase teachers should be sufficient for the sample size. This number ensures there are a

variety of teachers that will complete the questionnaire to be able to generalise the results. From the sampling procedure 22 schools in the Tshwane area were identified to participate in the study.

### **3.5 Inclusion / Exclusion Criteria for Schools**

#### **3.5.1 Inclusion Criteria**

The schools that were included in the research study were private and government mainstream schools in Tshwane, Gauteng, that had a grade R class affiliated with the school.

To be included in the research study, the schools had to have a connection with an occupational therapist. The connection with the OT could be one of the following:

- the OT must be appointed by the school
- it can be an external OT employed by a private practice or having her own private practice that makes use of the facilities at the school to see learners
- it can be an external OT that sees learners outside the schools premise that the teachers refer to.

#### **3.5.2 Exclusion Criteria**

The study had the following exclusion criteria:

- Any LSEN school or special schools
- Any mainstream school that did not have a Grade R class
- Mainstream schools that had no contact with an OT
- Intermediate phase teachers
- Foundation phase teachers that were employed as music teachers, teaching assistances, sports teachers, remedial teachers or temporary teachers.

### **3.6 Sample procedure**

The sampling method that was used to select the schools for the study was purposive sampling. To select schools that have a connection with an OT, the researcher contacted SBOTs working in the Tshwane area through different media platforms, such as WhatsApp groups and Facebook groups, to determine what schools they had a connection with.. The SBOT connection with a schools means any schools they receive referrals from or at schools that they deliver OT services to such as seeing the learners on the school grounds. The SBOTs were able to identify 22 different mainstream schools in the Tshwane areas that

matched the inclusion and exclusion criteria of the study. The reason for contacting the SBOTs to identify the different schools was as there is no information available on the different Tshwane schools' websites or information pages that assisted in determining if they make use of occupational services or not.

Before the identified schools were contacted, permission from the DoE and Faculty of Health Sciences Ethics Committee was received. See Annexure A and Annexure B for the permission letters.

The principals and HODs from the schools were contacted and sent a letter of invitation which also served as the informed consent letter. See Annexure C for the Letter of Invitation sent to the principals. From the 22 schools, the principals or HODs of 8 schools agreed to participate in the study.

From the selected schools that gave consent, all the foundation phase teachers that matched the inclusion and exclusion criteria, were selected and asked to complete the questionnaire. The number of foundation phase teachers thus varied at each school as it depended on the number of foundation phase class teachers that were employed. The informed consent from that the foundation phase teachers had to sign was on the cover letter of the questionnaire. Thus if the teachers signed the cover letter, they gave their consent to participate in the study.

### **3.7 Data Collection Instrument**

A self-developed questionnaire was used to collect data. It was decided to use a paper-based questionnaire that will be handed out at the schools. The reasons for deciding on a paper-based questionnaire was because it is easy to complete and it was found that the response rate is better than the response rate when using web-based surveys.<sup>13</sup> The researcher developed the questionnaire. The goal of the questionnaire was to collect data to be able to answer the objectives in the study and obtain accurate and complete information from the participants within reasonable time and resources.<sup>13</sup> After doing extensive research on the process of developing a questionnaire, the researcher used the following steps to design the questionnaire as described by Gillham.<sup>54</sup>

#### **a) Determining what the questionnaire will measure. What are the key topics?**

The aim for developing the questionnaire was to get results to be able to answer the research objectives. The objectives of the study were the key topics in the questionnaire.

The key topics are:

- a) Knowledge of teachers on occupational performance challenges of learners
- b) Attitude of teachers on referring learners to occupational therapy
- c) Practices teachers use when referring learners to occupational therapy

#### **b) Formulation of questions**

Each key topic was addressed individually. To obtain answers about the knowledge and practices of teachers, questions about facts and behaviour were asked. Questions about opinions, beliefs and judgements were asked when addressing the attitudes of teachers. The researcher made use of open- and closed-ended questions. In open-ended questions the participant had freedom to answer the questions. In closed-ended questions participants choose their answers from responses given to them by the researcher. By knowing what type of close-ended questions were asked, determined what kind of responses were needed.<sup>54</sup>

Before formulating the questions, the researcher looked at similar studies to evaluate how those questions were written. After formulating as many questions as possible on the different key topics, a process of elimination was undertaken in order to include only the necessary questions in the questionnaire that would best answer the research objectives.. While formulating the questions the researcher payed attention to the following guidelines:

- The questions have to be simple, short and straight to the point. This was done so that the participant does not have too much information to read.<sup>13,55</sup>
- The questions must be written in the language of the level of the participant and no ambiguous words must be used that could be misinterpreted by the participants.<sup>13,55</sup>
- Leading and double-barrel questions need to be avoided to get true answers from participants and avoid confusion.<sup>13,55</sup>
- Questions need to be stated in an affirmative manner.<sup>13</sup>

After formulating as many as possible questions on the different key topics, a process of elimination was done to add only the necessary questions in the questionnaire to answer the research objectives.

#### **c) Generating response options**

The response options were drafted the same time as the questions were written. This was done to ensure that the questions and response options matched.<sup>54</sup>

As the collected data was quantified, measurement scale needed to be determined for the close-ended questions. The measurement scales that were used were nominal, ordinal and ratio scales. Nominal scales are responses that can be separated into mutually exclusive categories that cannot be specified. Emotions can be classified like this.<sup>13</sup> Ordinal scales are responses that are categorised and ranked or assessed incrementally.<sup>13</sup> Ratio scales are responses that can be ranked and categorized, and the difference between the ranks can be specified.<sup>13</sup>

To measure the attitude of the teachers the Likert scale was used. The Likert scale is a scale that consists of a number of declarative statements on the topic with five or seven response options for each statement.<sup>13</sup> These statements range from a strong negative to a strong positive feeling as it is assumed that the strength or intensity of the participants experience is on a linear continuum.<sup>56</sup>

While drafting the response options the following points were taken into consideration:

- Participants must be presented with an appropriate amount of response options when choosing their answers
- All the response options need to have a verbal label and not left open blank to ensure that all the participants have the same understanding and interpretation of the different options given.<sup>57</sup> For example when using a rating scale, the responses must not only have two polar opposites labels such as strongly agree and strongly disagree but have indication points in between such as agree, neutral and disagree to ensure participants have the same understanding.
- The response options must be balanced by having a clear midpoint as not to confuse the participants. The midpoint clarifies what all the other response options mean and what significance they carry.<sup>57</sup>

In order to obtain the participants' in-depth opinion on the matter rather than only specific answers, a few open-ended questions were included in the questionnaire.

#### **d) Questionnaire layout**

The arrangement of the questions plays a vital role in success of the questionnaire and achieving a high response rate. The questions need to be arranged in a logical and relevant manner to the participant.<sup>13</sup>

The first page of the questionnaire is a cover letter in which the researcher explains what the research study is about and what is aimed to be achieved through this study. It stated that ethical clearance and informed consent was received as well as having a contact number of the researcher. It was emphasised that informed consent needed to be given by the teachers to participate in the study. It also was made clear that the answers given by the participants will remain anonymous and thus that fact was emphasized that they should nowhere write their name / signature or the name of the school on the questionnaire. The cover letter was written in very simple, clear and concise language so that the respondents understand what the study is about.

The easier and more interesting questions should be asked first and the more sensitive questions asked last. The participants are more likely to respond to the sensitive questions when they are asked last.<sup>13</sup>

The researcher ensured that the questionnaire did not get too long, as in too many pages, as this would have been demotivating for the participants. The maximum tolerance of a questionnaire is between 4-6 pages or 20-25 minutes to complete<sup>13,54</sup> It is more helpful to try and mix up the response options as not to bore the participant when answering the questions. If the participants answer the same scales over again, they often stop to think about what they are doing.<sup>54</sup> The first draft questionnaire before completion of the pilot study is included in Annexure D.

The following flow diagram outlines the steps that were taken to develop the questionnaire as set out by Gillham.<sup>54</sup>

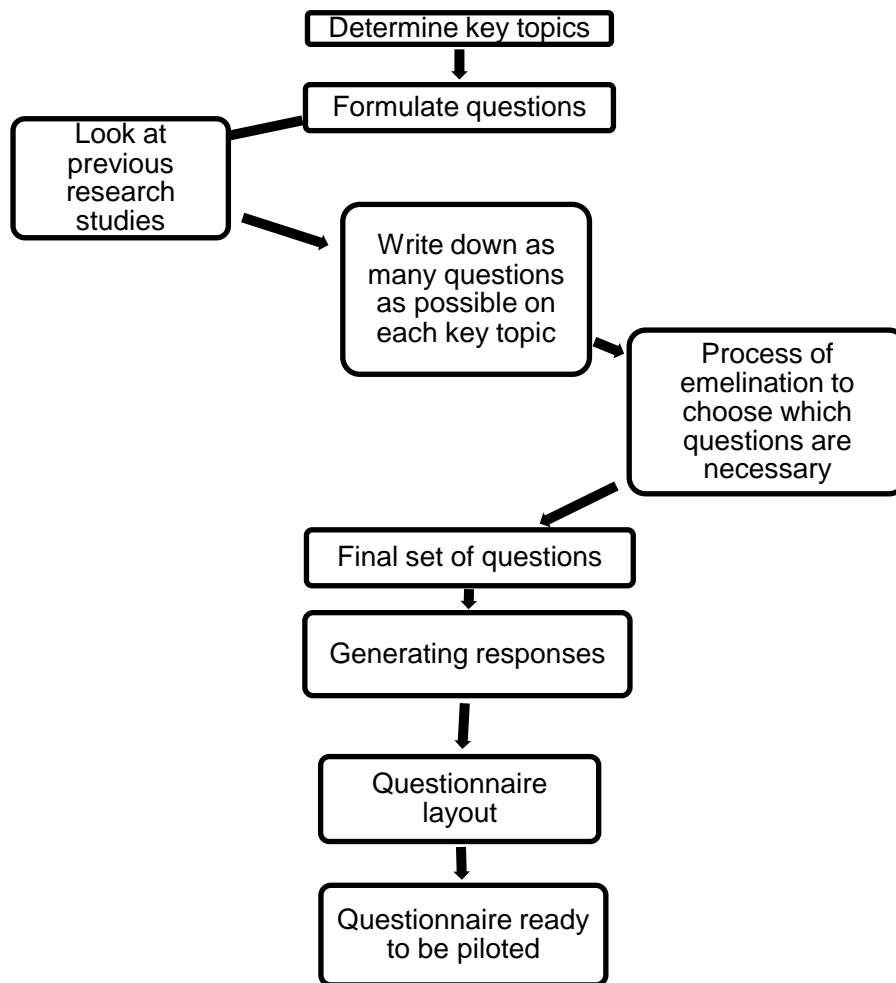


Figure 1 Development of Questionnaire

### 3.8 Pilot Study

After the questionnaire was drafted it was necessary for it to be piloted before distributing. The aim of piloting the questionnaire was to discover mistakes, misunderstandings and unnoticed assumptions. During the pilot stage the researcher saw how the participants understood the questions and if any changes needed to be made. All the aspects of the questionnaire were assessed. This included the cover letter, questions and responses as well as the layout.<sup>13,55</sup>

The process of piloting the questionnaire consisted of two phases.

#### 3.8.1 Phase 1 – Review by panel

To improve the quality of the questionnaire, the first draft of the questionnaire was handed out and reviewed by a panel of four people. The panel consisted of two teachers who fit the

sampling criteria and two SBOTs who are experts in the paediatric field. They were given an evaluation form (see Annexure E for the Questionnaire Evaluation Form) to evaluate and analyse the questionnaire. They were asked to assess the questions, the response options, the length and lay out of the questionnaire. The focus of the assessing the questions was to see if enough questions were asked to cover the key topics, if the questions made sense and were easily understandable. The focus of answering the response options was to see if the responses matched all the questions or if more responses needed to be added. They were also given permission to make changes on the questionnaire itself. This step of the piloting process also ensured content and face validity of the questionnaire.<sup>58</sup>

The panel reviewed the questionnaire and gave the researcher feedback by completing the questionnaire evaluation form as well as making changes on the questionnaire. After receiving feedback, necessary changes to the questionnaire were made. The changes that they recommended were mostly grammar errors or sentence structure. They are discussed in Table 2.

**Table 2 Recommended changes to be made to the questionnaire**

Question	Reason for change	Recommendations	Final question on questionnaire
<i>Reviewer: School-based Occupational Therapist (SBOT)</i>			
1.7	Give more space to answer	Extend line	Added more space to response option 5
3.19	Wording of question	In which term do you feel you make the most referrals	“In what term do you make most of your referrals?”
3.38.1	Grammar with response option 5	Change the to - too	“The process of referral is too complex”
Cover letter	Grammar in first sentence of paragraph 7	Change you - the	“Thank you for taking the time...”
<u>General comments:</u> Good questionnaire			
<i>Reviewer: School-Based Occupational Therapist (SBOT)</i>			
1.4	Grammar of question	Institution where your qualification was	“Institution where qualification was

		received	received”
3.5	Question and response option don't match	Make question into a statement or change response option to yes / no answer	“Would you agree that your relationship with the therapist is positive?”
3.18	Wording of question does not make sense	Take out the second “new” of the question	“In the new school year, do you inform the class’ new teacher of the learners that you have previously identified as struggling?”
3.19	Grammar of question	Take out “feel like”	“In what term do you make most of your referrals”
3.29	Question and response option don't match	Make question into a statement or change response option to yes / no answer	“Would you agree that you are more hesitant of making a referral to OT if you know there is limited parent involvement?”
3.30	Wording of question	When recommending referral to parents call it an evaluation	Changed question to: “How often do you recommend a learner for an OT evaluation and then the parents are against the referral?”
	Question unnecessary as not paying for referral but therapy treatment and evaluation given	Take out question: “In your opinion who should be responsible for paying for the OT referral?”	Took out question
Cover letter	Paragraph 2 - grammar	Change are – is “he/she are under-performing”	Changed: “he/she is under-performing”
Cover letter	Paragraph 2 – last sentence does not	Change wording of sentence	“As limited research has been done regarding this topic it is important to create a knowledge base in order to identify if

	make sense		changes need to be made with regards to current practices to ensure learners receive the necessary help that they need.”
Cover letter	Paragraph 5 - grammar	Change be – take in first sentence	“Completion of the questionnaire will take about...”
Cover letter	Paragraph 5 – wording of sentence	Remove “to” at the end of the third sentence	“...that you feel are not appropriate.”
<p><u>General comments:</u> the questionnaire is a good length. More questions regarding the knowledge of teachers need to be added.</p> <p>Added question 3.27 What do you look out for in a learner to be able to recommend a referral to OT?</p>			
<i>Reviewer: Grade 1 Teacher</i>			
<p>Only general comments given. The cover letter is well put and informative. The questionnaire is very informative and important. The layout is very user friendly and easy to understand.</p>			
<i>Reviewer: Grade R Class Teacher</i>			
3.4	Question is good but do all the teachers know what a screening is?	Add an extra question asking if all teachers know what a screening is.	Added 3.3 Do you know what the term OT screening refers to?
3.12	What if teachers discuss the learner with more than one person as this is what she does.	Add to question “more than one option”	Added to question: (more than one answer can be appropriate)
3.15	Question and answers: Teachers don’t use the term report grades or grades	Use “outcome of assessment”	<p>Question: “Do you base the need of referral to OT on the outcome of assessments of the learner?”</p> <p>Response option 2 – Referral not necessary if passing assessments</p> <p>3 – Referral not based on</p>

			assessments but on classroom performance
3.18	Wording in question do not make sense	Use: In the new school year, do you inform the class' new teacher of learners that you have identified as struggling previously?	"In the new school year, do you inform the class' new teacher of the learners that you have previously identified as struggling?"
3.19	Add more response options as the referrals always depend on the group of children each year	Add: "Not sure" "No specific term identified"	Added more response options 5 – Unsure 6 – No specific term identified
3.25	Not enough space given to answer questions	Add another line	2 more lines were added which can be used to answer question
3.26	Do not use word "reasons" in question	Replace "reasons" with "areas" or "concerns"	"What are your top three concerns that learners struggle with you to refer them to OT?"
3.29	Do not use "school performance" in question as this term is too broad	Rather use the word academic work or change the question to "if there is limited parent involvement?"	"Would you agree that you are more hesitant of making a referral to OT if you know there is limited parent involvement?"
3.30	Change wording of question	"How many parents have been against your recommendation for an OT referral?"	"How many parents have been against your recommendation for an OT referral?"  Response option 1 – None, 5 –All parents

3.31	Wording of question	“How would you identify learners in your class that need to be referred to OT?”	“How do you identify learners in your class that need to be referred to OT?”
3.32	Grammar in response option 3	Add “a”	3 – If a learner has problems I refer....
3.34	Wording in question  Add extra response for when teachers are unsure	Add “the learner” to question  Add “Are you not sure what to do”	“... and the learner is still struggling in class...”  Added response “4 – I am unsure of what to do”
4.6	Change question as teachers don’t use “grades”	Replace grades with outcome if assessments	“A learner who is struggling in class but receiving satisfactory outcomes with assessments still needs to be referred.”
4.7	Explain what is meant by concentration medication more	Add “using prescribed medication by a Dr or neurologist etc.”	A learner using medication prescribed by a neurologist, doctor or paediatrician for concentration does not need to be referred.”
Cover letter	Paragraph 2 – sentence 4: grammar	Replace “is done on” with “has been done regarding”	“As limited research has been done regarding this topic...”
Cover letter	Paragraph 3 – sentence 2: grammar	“principal” needs to be “Principal”	“... As well as the Principal of your school.”
Cover letter	Paragraph 5 – sentence 4: wording	Remove “to” at end of sentence or change sentence to “... appropriate to you.”	“... that you feel are not appropriate.”
Cover letter	Paragraph – sentence 5:	Remove sentence as this has been said	Sentence was removed

	repetitive sentence	before	
Cover letter	Paragraph 7 – sentence 1: wording	Replace “you” with “the”	“Thank you for taking the time...”
Cover letter	Informed consent – not enough space for signature	Add more space for signature	More space was added for signature
<p><u>General comments:</u> Questionnaire is good and not too long.</p> <p>In the questionnaire at times the term occupational therapy was written with capital letters, other times in small letter and at times just OT was written. It needs to be consistent throughout the whole questionnaire. Not all teachers know what OT stands for so if that is used have a comment explaining what OT stands for.</p>			

From their general comments given, the panel was satisfied with the questionnaire and deemed it as a good questionnaire that was not too long, easy to answer and covering all three topics. Majority the changes that were recommended were grammar changes.

The recommendations were made to the questionnaire. After having a discussion with the statistician, the questionnaire was turned into a data capture format. This ensured fast and effective data capturing. The second draft of the questionnaire was completed and can be found in Annexure F.

### **3.8.2 Phase 2**

In this phase the second draft of questionnaire was given to three teachers that met the sampling criteria. The three teachers completed the questionnaire and the results were captured and analysed. It was seen that the layout of the questionnaire made the data capturing fast and effective. The data captured could be analysed and results were received from the data to be able to answer the research objectives. No further changes needed to be made to the questionnaire as seen after completing this phase of the pilot study. The teachers who participated in the pilot and the results obtained from their questionnaires were not included in the final results. The questionnaire was now ready to be distributed for data collection in the selected schools.

The final draft of the questionnaire is the same as the second draft that can be found in Annexure F.

### **3.9 Data Collection Process**

The data collection process was done at the selected mainstream private and government schools in Tshwane, Gauteng. The researcher attempted to have a meeting with the foundation phase teachers before data collection but this was not always possible due to time constraints and the teachers' busy schedules. It was chosen to hand out the questionnaire at the schools during school hours as this is the natural environment for teachers. The questionnaire could then be completed in the meeting time or after the meeting and during school hours as not to create extra work for the teachers after school hours. Another reason for handing out the questionnaire during school hours is that the teachers are still in the teaching mind-set, which makes it easier for them to think about their learners and answer the questions as truthfully as possible.

Before the data collection process could begin, approval from Faculty of Health Sciences Ethics Committee, permission from the Gauteng Department of Education (GDE), and permission from the principals of the selected schools had to be received.

Approval from the Faculty of Health Sciences Ethics Committee was received with the additional condition that permission from the Department of Education was obtained before data collection started. The approval letter from the Faculty of Health Sciences Ethics Committee can be found in Annexure A.

Permission from the Gauteng Department of Education (GDE) was received for the government schools selected in the sampling procedure but with the conditions that data collection took place in 2019 and not in the fourth school term. The permission letter of the GDE is attached as Annexure B.

At this point the selected schools were contacted. They were sent an email with the permission request form (Annexure C). From the 22 schools that were contacted, consent from the principal or HOD was received from eight schools. After consent was received, the researcher started with the process of handing out the questionnaires. With some schools the researcher was able to meet with the teachers to explain the study and personally hand out the questionnaire to the teachers. With other schools the researcher met with the HOD of the foundation phase and explained to study. The questionnaires were then left with the HOD who handed them out to the various foundation phase class teachers. With other schools, the researcher just had correspondence with the HOD via email and the questionnaires were left at the reception of the schools. The HOD then distributed the questionnaires. After collecting the questionnaires it was seen that the responses of the teachers were not affected by the method of handing out the questionnaires. It was seen that

the teachers response rate were the same where the researcher had a meeting with the teachers and when the questionnaires were only left at reception. This showed that the different methods of handing out the questionnaires did not affect the participation of the teachers.

The questionnaires as well as the sealed collection box were left at the school for one week. After one week, the researcher collected the questionnaires again. Some of the schools asked for an extension with the time as the teachers were not done completing the questionnaires.

Table 3 shows the schools that participated in the study. It shows how many questionnaires were handed out at each school and how many were completed once they were collected again.

**Table 3 Questionnaire completion by selected schools**

<b>Schools</b>	<b>Private / Government</b>	<b>Meeting</b>	<b>Questionnaires handed out</b>	<b>Questionnaires completed</b>
School 1	Private	Meeting with teachers	15	13
School 2	Private	Meeting with teachers	8	2
School 3	Private	Meeting with HOD only	16	7
School 4	Government	Meeting with HOD only	27	8
School 5	Private	Meeting with teachers	11	6
School 6	Government	No meeting, only email correspondence with HOD	20	7
School 7	Government	Meeting with HOD only	20	4
School 8	Government	No meeting, only email correspondence with HOD	11	9
<b>Total</b>			<b>128</b>	<b>56</b>

A total of 56 questionnaires were completed. From these completed questionnaires four consent forms were not completed by the teachers and had to be taken out of the total. A further 2 questionnaires had to be taken out as during data capturing as they were not completed by class teachers as stipulated in the inclusion criteria. This left the researcher with a total of 50 completed questionnaires.

After having discussions with the statistician and the researcher supervisor it was decided that 50 questionnaires was a big enough sample. Also as the sample consisted of four government and four private schools, the sample was diverse enough.

### **3.10 Data Management**

The questionnaires that were collected were all placed in the same box. The questionnaires were separated from the other questionnaires collected at the same school as to prevent the identity of the school to be known. The box was marked with the researcher's name, student number and title of the study. All the informed consent letters signed by the principals and HODs were placed in the box as well as the feedback given and completed questionnaires from the pilot study. The box was sealed with tape and brought to the Occupational Therapy Department of the University of Pretoria where it will be stored. The address is of the OT Department is:

Faculty of Health Sciences  
School of Healthcare Sciences  
Prinshof Medical Campus  
H W Snyman South Building 5-17  
Bophelo Road 31  
GEZINA  
0002

The data can only be accessed by other persons if granted permission by the supervisor or the researcher.

### **3.11 Data Analysis**

After collecting the questionnaires from the schools, the researcher captured the quantitative questions data using an excel spreadsheet. The spreadsheet was then forwarded to the statistician. She analysed the data using a programmed called R. R is a language and environment for statistical computing and graphics. It provides a great range of statistical and graphical techniques to analyse data.<sup>59</sup> After the statistician analysed the data, she provided the researcher with descriptive statistics. The descriptive statistics are used to explain and summarise data using organised visual representations to give the data meaning.<sup>13</sup> The analysed data was given to the researcher in the forms of charts and tables. The researcher used these charts and table to answer the research objectives and research question.

The questionnaire contained a few qualitative questions. The researcher analysed the qualitative questions using categorisation. The researcher looked at all the responses given by the foundation phase teachers for each separate question. The responses were group into categorise identified by the researcher. The researcher then sent the categorise to the statistician who analysed the qualitative data using programme R.

### **3.12 Reliability and Validity**

To ensure reliability and validity in the study, rigour was used to develop the questionnaire. Rigour is described as striving for excellence, attention to detail and meticulous accuracy.<sup>13</sup> When the researcher developed the questionnaire, a rigorous process was used to formulate the questions and generate the response options.

Reliability is to ensure that the measuring instrument used, in this case it was the questionnaire that the teachers completed, generated the same results each time.<sup>58</sup> This was ensured by handing out the same questionnaire to all the teachers.

The questionnaire also went through a two phase piloting process. In the first phase the questions, response options, general outlay and the length of the questionnaire were analysed. Feedback was given to the researcher and the necessary changes were made. In the second phase the questionnaire was given to three teachers to complete. Their questionnaire was analysed and it was seen if the results could be used. After the pilot process was complete, the same questionnaire was handed out to each foundation phase teacher at the schools that participated in the study. The process of piloting the questionnaire ensured reliability as well as content and face validity.

### **3.13 Ethical Considerations and Confidentiality**

The ethical considerations that were taken into account were the following:

- Ethical approval had to be obtained by the Faculty of Health Sciences Research Ethics Committee of the University of Pretoria before contacting the schools selected in the sample procedure
- Permission from the Department of Education of Gauteng had to be obtained to contact the government schools selected in the sampling procedure
- Informed consent had to be received from the principals or HOD of the foundation phase of the selected schools to be able to hand out the questionnaires to the foundation phase teachers and leave the questionnaire box at the school for the period of one week.
- The foundation phase teachers that participated in the study had to sign the attached informed consent form in order for the researcher to use their answers as data in the study

The following ethical principals were taken into account:

#### Principle of respect for people

Informed consent from the Faculty of Health Sciences Research Ethics Committee of the University of Pretoria and the principals or HODs of the school, and permission from the DoE

of Gauteng was received. The questionnaire that was handed out had a cover letter which explained the nature and reason of the study. The cover letter was also an informed consent letter that the teachers signed.

#### Principle of justice

Confidentiality was maintained by having the only form of identification of who completed the questionnaire, the participants' signature. This was on the cover letter which could be removed from the questionnaire. The teachers did not answer any questions or write down any information that would make the name of their school known. By doing this, the teacher and the school remained anonymous.

The data that was collected and analysed was only used to answer the research objectives. The researcher did not use the data for personal or professional gain.

#### Principal of beneficence

The nature and results of the study did not cause any harm to the teachers or the schools that gave consent as confidentiality was ensured.

The information that was obtained in the study can be used to further improve the relationship between teachers and OT as well as the referral of learners to OT. By improving the relationship between the teachers and the knowledge of the teachers on the referral process it would mean that more learners experiencing occupational performance challenges will be identified and appropriate referrals will be made to OT. Thus more learners will be assisted in reaching their full academic potential.

## 4. Chapter 4 – Results

### 4.1. Introduction

The aim of Chapter 4 is to present the information obtained from the completed questionnaires after it had been statistically analysed and categorized. The data obtained was divided into the background information of the teachers and the research objectives of the study. The study had three research objectives that had to be answered. The research objectives were as follows:

- To determine the **knowledge** of foundation phase class teachers in mainstream school on occupational performance challenges of learners.
- To determine the **attitude** of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy.
- To establish the **practices** foundation phase class teachers in mainstream schools use on referring learners with occupational performance challenges to occupational therapy.

### 4.2. Background Information of the Foundation Phase Teachers

Of the eight schools that participated in the study, 50 teachers reported that 25 (50%) of them worked at a government / public school and 25 (50%) worked in a private school / independent school.

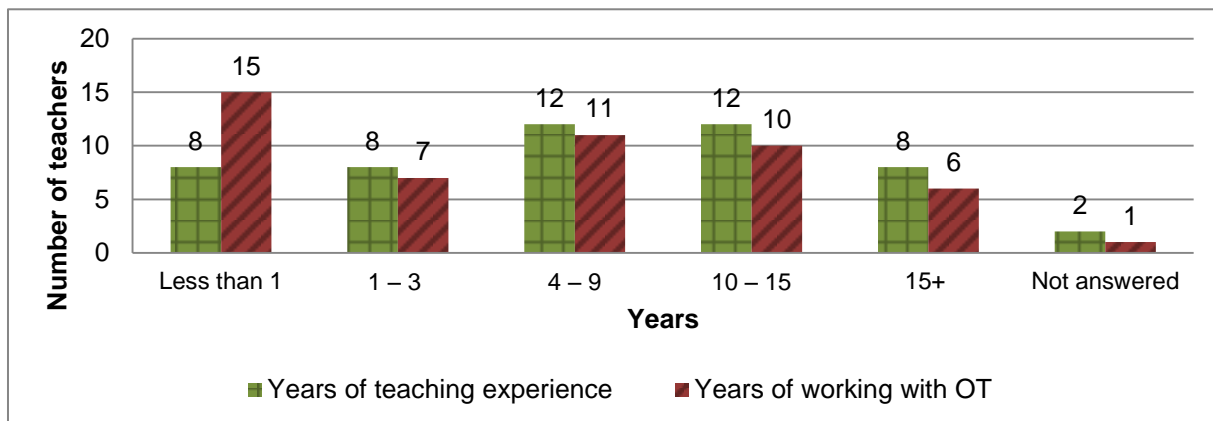
All of the 50 (100%) foundation phase teachers were female and the mean age of the teachers were 33(9) years. Majority of the teachers (41) (82%) received a degree and the other 9 (18%) received a diploma, in-service training or another form of education.

*Grades foundation phase teachers were teaching:*

In the study, the foundation phase class teachers that completed the questionnaire majority of the teachers were teaching Grade 2. There were 9 (18%) teaching Grade R; 11 (22%) teaching Grade 1; 14 (28%) teaching Grade 2; and 12 (24%) teaching Grade 3. There were 4 (8%) teachers that taught multiple grades.

*Teaching experience of the foundation phase teachers:*

Figure 3 compares the years of teaching experience that the foundation phase teachers had with the amount of experience they had with working with an OT.



**Figure 2 Comparison of years teaching vs years working with the OT**

As can be seen in Figure 3 it can be seen that by comparing the years of teaching experience with the years of experience of working with an OT, it can be said that the participants in the study had less experience working with an OT as they had experience of working as a teacher. There were 15 (30%) teachers said that they had less than one year experience of working with an OT. It can be said however that all the teachers had experience of working with an OT throughout their teaching career.

*Class sizes of the foundation phase teachers:*

There were 21 (42%) teachers that reported having a class size of 26 – 30 learners. There were 14 (28%) teachers that mentioned that they had a class of more than 30 learners. The other 16 (32%) teachers mentioned that they had a class size of between 10 – 25 learners.

#### **4.3. Research Objective on Knowledge of Occupational Performance Challenges**

The following research objective was addressed:

*To determine the **knowledge** of foundation phase class teachers in mainstream school on occupational performance challenges of learners.*

All 50 (100%) foundation phase teachers had previously heard of OT and had referred a learner in the past. There were 33 (66%) teachers that reported that a therapist had previously explained OT to them.

When asked if the teachers had received any training in identifying learners for referral to OT, 25 (50%) teachers responded that they had not received any training. Only 10 (20%) teachers noted that they had previously received training from an occupational therapist. The other forms of training that the teachers had received were categorized from the qualitative data. They mentioned the following forms of training:

- Training was receiving training through some modules during their studies at the University but mentioned that the training was only to some extent
- Training received by attending workshops
- Training received from the HOD at their school
- There were 2 (4%) teachers have an additional degree in educational psychology and they reported that this assisted them with identifying learners for a referral to OT

Out of the 50 teachers, 43 (86%) teachers said that their school worked with a specific OT and they knew who the therapist was. In most cases (70%) the therapist was an external OT using the school's facility. Only 5 (10%) teachers responded that they did not know how the therapist is associated with their school. There were 7 (14%) teachers that reported the therapist is appointed by their school and 4 (8%) teachers said that the OT is a therapist that worked outside the school grounds.

From the data analysed it was found that 42 (84%) teachers knew what the term screening meant, however only 14 (28%) teachers responded that the therapist had done a screening in their classroom before. From the 14 teachers that said the OT had done a screening in their classroom before, 4 (8%) teachers said the OT did one every term, a further 4 (8%) teachers mentioned that the therapist does a screening once a year, and 6 (12%) teachers said that the therapist had only done one screening before. This meant that 35 (70%) teachers answered that the OT had never done a screening before.

When wanting to refer a learner to OT, 36 (72%) teachers said that their school had a set procedure to follow. Only 5 (10%) teachers mentioned that they did not know if their school has a set procedure to follow and 9 (18%) teachers reported that their school had no set procedure to follow when wanting to refer a learner.

Out of the 50 teachers, 39 (78%) teachers said that they did not make use of any set tests or forms. There were 9 (18%) teachers that reported having tests and forms that assist them with identify learners for a referral to OT. The procedures that the teachers followed when identifying a learner and wanting to refer to OT are discussed under 4.4 Practices.

When asked how the teachers identified learners with occupational performance challenges in their class that needed to be referred to OT, qualitative data was analysed using categorisation.

- Most teachers looked at the overall performance and the behaviours of the learners during classroom activities as well as made observations in the class while they were participating in various activities such as perception work, carpet time and working at their desk
- The second option that teachers mostly used was to compare the performance of the learner to that of the other learners in their class.

- A few teachers mentioned that the learners were identified through screenings done by the OT and HOD of the school
- Some teachers mentioned that the learners were identified through baseline assessments done in the first term
- Some reported that the learners were identified after having discussions with colleagues of the learner
- One teacher answered that she used her teaching experience of working with children to identify the learners for a referral.

Table 4 indicates the occupational performance challenges that the foundation phase teachers looked out for in a learner to be able to recommend a referral to OT.

**Table 4 What teachers look out for in a learner for a referral to OT**

Concentration	Hand function
Fine and gross motor skills	Work speed
Low muscle tone (by observing posture and posture working at desk)	
Visual perception skills	Sensory integration
Overall classroom performance compared to other learners in their class	
Developmental delays	Behaviour in classroom

There were 39 (78%) teachers reported that they based the need of a referral on the learner's classroom performance and not on the outcome of assessments. Most of the teachers, 40 (80%) out of the 50 teachers, mentioned that there were able to distinguish between poor behaviour from the learner and actual problems with school performance experienced by the learner.

Table 5 shows the occupational performance challenges that were identified as reason for a referral to OT as well as the foundation phase teachers top three occupational challenges that the learners struggle with for a referral to OT.

**Table 5 Occupational performance challenges identified as reasons for referral to OT**

	The reasons for referring the learner with you last referral		The top three concerns learners struggle with that you to refer them to OT	
	Frequency	Percentage	Frequency	Percentage
Fine motor skills	12	24.00	22	44.00
Gross motor skills	7	14.00	12	24.00
Performance in class / includes failing	8	16.00	7	14.00
Concentration / attention	16	32.00	21	42.00
Work speed	13	26.00	5	10.00
Visual perceptual	8	16.00	13	26.00

skills (includes spatial)				
Praxis: Planning and following instructions	8	16.00	8	16.00
Sensory integration	4	8.00	10	20.00
Muscle tone	8	16.00	16	32.00
Directionality	1	2.00	2	4.00
Behaviour	11	8.00	2	4.00
Hand function and Hand writing	7	14.00	10	20.00
Body scheme	1	2.00	1	2.00
ADHD / Hyperactivity	3	6.00	2	4.00
Midline crossing	2	4.00	3	6.00
Speech problems	4	8.00	6	12.00
Reversals	4	8.00	4	8.00
Laterality	1	2.00	1	2.00
Distractibility	2	4.00	0	0.00
Cognitive understanding	0	0.00	1	2.00
Memory	0	2.00	1	2.00
Remedial teachers advised	2	4.00	0	0.00
<NA>	5	10.00	4	8.00

As can be seen from the table above, when asked what were the teachers' reasons for referring the learners to OT with their last referral, 16 (32%) teachers reported that it was because of concentration / attention. There were 13 (26%) teachers that said it was because of slow work speed and 12 (24%) teachers reported the reason was fine motor skills.

The teachers were asked to list the top three concerns that learner identify in learners when referring them to OT. The teachers reported that the top three reasons were:

- 1) Fine motor coordination [22 (44%) teachers]
- 2) Concentration / Attention [21 (42%) teachers]
- 3) Muscle tone [16 (32%) teachers]

When asked what grade the teachers thought was most applicable to make an OT referral, 28 (56%) teachers felt that it was Grade R and 25 (50%) teachers reported it was in Grade 1. Only 1 (2%) teacher answered Grade 2 and 1 (2%) teacher reported Grade 3. There were 7 (14%) teachers felt that there was no specific grade that was most applicable for an OT referral.

The teachers reported that 48 (96%) of them knew which learners in their class were receiving OT.

Out of all of the learners that were currently receiving OT, 35 (70%) teachers reported that they were the ones who referred the learner. There were 10 (20%) teachers that said the learners were referred by other teacher in their class, 1 (2%) said that the parents referred the learner personally and 2 (4%) teacher were unsure who made the referrals. This indicates that these teachers were not the ones who made the referral. Only 2 (4%) teachers reported that the learner was referred by either the speech therapist or the educational psychologist.

Table 6 represents the numbers of learners that are currently receiving OT in the foundation phase teachers' class.

**Table 6 Number of learners currently receiving OT**

	Frequency	Percentage
No learners	11	22.00
1 learner	11	22.00
2 learners	10	20.00
3 learners	8	16.00
4 learners	7	14.00
5 learners	1	2.00
6 learners	1	2.00
7 learners	1	2.00

As can be seen from the table, there were 11 (22%) teachers reported that they currently had no learners receiving therapy in their class. Another 11 (22%) teachers responded that they had 1 learner in their class receiving OT, 10 (20%) teachers said that they had 2 learners in their classroom and there were even 7(14%) teachers that reported that they had 4 learners in their classroom receiving OT. One (2%) teacher even reported having 7 learners in her classroom receiving OT. From this data it can be seen that most teachers (78%) that completed the questionnaire currently have one or more learners in their classroom receiving OT.

After a referral was made and the learners received an evaluation, 39 (78%) teachers reported that the therapist identified the same problems that they saw in class as well as sometimes more problems. There were 6 (12%) teachers said that the OT identified the same problems as what they saw in class. Only 1 (2%) teachers said that the OT identified completely different problems that what she saw in the classroom and 5 (10%) teachers mentioned that they were not aware of the results of the evaluation.

#### **4.4. Research Objective on Attitude of Teachers on the Referral Process**

The following research objective will be addressed:

*To determine the **attitude** of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy.*

##### **4.4.1. Attitude between Teachers and the Therapist on Referral of a Learner**

As mentioned earlier under knowledge, 43 (86%) teachers mentioned that they knew the specific OT that was associated with their school. Majority of the teachers, 35 (70%) out of the 50 teachers, reported that the OT that their school was associated with was an external therapist using the school facilities.

In the study, 40 (80%) teachers reported that they had a positive relationship with the therapist and 35 (70%) teachers noted that they viewed the therapist as their colleague.

When asked if the teachers sometimes refer to an OT that was not associated with the school, 21 (42%) teachers responded yes and 29 (58%) teachers responded no. The reasons that the 21 (42%) teachers gave for referring a learner to a different OT were the following:

- The OT was full and did not have available space for learners. This was the reason that most of the teachers mentioned
- Another reason was that the teachers mentioned was that the OT associated with their school was too expensive, and they would rather refer a learner to a hospital and clinic where therapy was free
- One (2%) teacher stated that “the other OT they refer to is great”, which indicated a personal preference
- One (2%) teacher reported that she felt that “the learners missed too much teaching time if they were seen by the school therapist during school hours, so a different therapist that could see them after hours was better”.

When asked which OT they preferred to work with if given the choice, 26 (46%) teachers reported that they prefer to work with a therapist that was appointed by the school and 26 (46%) teachers reported that they had no preference to which kind of therapist they work with.

Table 7 indicates the teachers' answers when asked if they felt more contact with the therapist would make them more confident in their referrals as well as how the quality of the relationship with the OT affects the amount of referrals made.

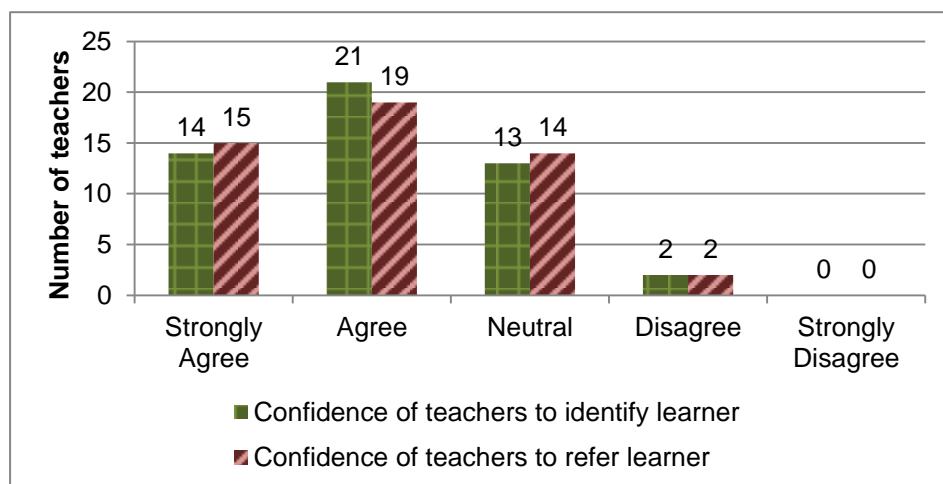
**Table 7 How contact and the quality of the relationship with the OT affect referral**

The more contact I have with the therapist the more confident I am in making referrals			The quality of the relationship between OT and teacher affects the amount of referrals		
	Frequency	Percentage		Frequency	Percentage
Strongly Agree	15	30.00	Strongly Agree	3	6.00
Agree	24	48.00	Agree	22	44.00
Neutral	9	18.00	Neutral	14	28.00
Disagree	1	2.00	Disagree	7	14.00
Strongly Disagree	1	2.00	Strongly Disagree	4	8.00

As can be seen in Table 6, 39 (78%) teachers answered that the more contact they had with the therapist, the more confident they became with their referrals. There were 25 (50%) teachers that reported they believed the quality of the relationship between the therapist and teacher affected the amount of referrals done by the teacher. On this statement there were 14 (28%) teachers that had no opinion on whether the quality of the relationship between the therapist and teachers affected the referral of learners to OT.

#### 4.4.2. Teacher's Attitude on Knowledge of Referral

Figure 4 represents the comparison of the teachers' level of confidence with identifying learners with occupational performance challenges compared to their confidence level of making referrals to OT.



**Figure 4 Comparison of the confidence of teachers in identifying learners with the confidence of referring them to OT**

As can be seen in Figure 4, there were 35 (70%) teachers that indicated they were confident in their ability to identify learners that would benefit from a referral OT and 34 (68%) teachers reported that they were confident in referring learners to OT.

On these questions there were 13 (26%) teachers answered that they were neutral in their confidence in identifying learners for an OT referral and 14 (28%) teachers reported that they felt neutral in their confidence of referring a learner to OT.

Only 2 (4%) teachers reported that they were not confident in their ability to identify and refer a learner to OT.

The teachers had to give their opinion on the following statement: I want to receive training from the occupational therapist with regards to referral. With answering this statement there were 35 (70%) teachers that agreed that they would want training from the therapist, 10 (20%) teachers had a neutral opinion of this statement and 5 (10%) teachers disagreed with the statement.

The teachers were asked their opinion on three different statements. The three different statements were:

- 1) All the learners that need OT are being referred
- 2) Too many learners are being referred to OT
- 3) The teachers are confident that OT intervention will make a difference

Their answers on the statements are given in Table 8.

**Table 8 Opinions of teachers on OT**

	<b>All learners that need OT are being referred</b>		<b>Too many learners are being referred to OT</b>		<b>Confident that OT will make a difference</b>	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Strongly Agree	9	18.00	4	8.00	25	50.00
Agree	10	20.00	2	4.00	18	36.00
Neutral	12	24.00	16	32.00	5	10.00
Disagree	15	30.00	20	40.00	2	4.00
Strongly Disagree	4	8.00	8	16.00	0	0.00

As can be seen from the table above, 19 (38%) teachers felt that not all the learners that need OT were being referred. There were 19 (38%) teachers that agreed that all the learners

that need occupational therapy were being referred and 12 (24%) teachers had no opinion on this statement.

Out of the 50 teachers, 28 (56%) teachers reported that they disagreed with the statement that too many learners were being referred to OT by other teachers in the school. There were 6 (12%) teachers that agreed with the statement and 16 (32%) teachers that had no opinion.

Majority of the teachers, 43 (86%) out of 50 teachers reported that they were confident that OT would make a difference in a learner's school performance. Only 2 (4%) teachers disagreed with the statement that OT would make a difference in a learner's school performance.

When asked if teachers would still refer a learner to OT if he was on medication prescribed by a doctor or neurologist for concentration, 40 (80%) of the teachers said yes.

#### **4.4.3. Teachers Attitude with Parents with regards to Referral to OT**

Table 9 shows the opinions of the teachers on the amount of parents that were against a recommendation of a referral to OT that they have made.

**Table 9 Amount of parents against recommendation of OT referral**

	Frequency	Percentage
None	9	18.00
25%	26	52.00
50%	12	24.00
75%	2	4.00
All parents	1	2.00

As can be seen from Table 9, most teachers felt that parents were against a recommendation of a referral to OT. Only 9 (18%) teachers answered that none of the parents were against a recommendation of a referral to OT. There were 26 (52%) teachers that reported that 25% of parents were against their recommendation for referral to occupational therapy, 12 (24%) teachers felt that half of the parents were against an OT recommendation and 2 (4%) teachers felt that 75% of the time the parents were against the

recommendation. Even 1 (2%) teacher answered that all the parents were against a recommendation of an OT referral.

The reasons given by the teachers of why the parents were against a recommendation for a referral to OT were coded from qualitative data and were the following:

- The parents were in denial that their child is struggling and needed additional help
- The parents were not educated on what OT is
- The parents did not think OT was necessary or important
- The parents were not involved with the learner

From the questionnaire it was found that 29 (58%) teachers reported that they were more hesitant of making a referral to OT if they knew that there was limited parent involvement with the learner.

When asked if the teachers still refer a learner to OT if they know the parents were struggling financially, 20 (40%) teachers said that they would still refer a learner if he has problems regardless of the financial status of the parents. There were 18 (36%) teachers that reported that they were not aware of the financial status of the parents and that this did not affect their referrals. There were 12 (24%) teachers that reported that the learner must have severe problems before they made a referral to OT if they knew that the parents were struggling financially. Only 2 (4%) teachers said that they don't refer a learner if they know the parents are struggling financially.

When asked if the teachers felt the parents were more open to an OT referral if their child is failing, 32 (64%) said yes. There were 38 (76%) teachers that noted however that they would still refer a learner that was struggling even though he was making satisfactory outcomes with assessments.

#### **4.5. Research Objective on Practices of Teachers on Referral to Occupational Therapy**

The following research objective will be addressed:

*To establish the **practices** foundation phase class teachers in mainstream schools use on referring learners with occupational performance challenges to occupational therapy.*

As mentioned before, all 50 (100%) teachers had referred a learner to OT before. They all also had experience working with a therapist.

When asked how the teachers contacted the therapist, only 5 (10%) teachers reported that they did not have any contact with the therapist. The rest of the teachers had contact with the therapist and used these other forms of contact:

- formal meetings was chosen by 8 (16%) teachers
- informal meetings, such as chats in the corridor was chosen by 32 (34%) teachers
- emails and SMS or WhatsApp was picked by 17 (34%) teachers
- telephone calls was chosen by 8 (16%) of teachers

As can be seen above, the most prevalent form of contact that the teachers have with the therapist are informal meetings.

In the study there were 39 (78%) teachers that reported that they did not make use of any set tests or forms to identify a learner for an OT referral. From the 9 (18%) teachers that reported using set tests or forms to identify learners the following 4 different sets of forms or tests were identified and can be seen in Table 10.

**Table 10 Forms and set tests used by teacher to identify learners**

Forms given to them by the OT	3
Forms set up by the school	1
SIAS documents	2
Connors Developmental Test	1

As can be seen from Table 10, there were only 3 (6%) teachers that reported they have set forms available to use that were given by the OT.

The teachers were asked if they discussed the learner with any person or persons before referring the learner to OT. Table 11 indicates the answers given by the teachers with how many persons they discuss the learner with occupational performance challenges that they have identified. Table 12 shows the different persons that the foundation phase teachers discuss the learner with.

**Table 11 Amount of persons teachers discuss learners with before referring to OT**

	Frequency	Percentage
1 Person	14	28.00
2 Persons	11	11.00
3 Persons	12	24.00
4 Persons	6	12.00
5 Persons	2	4.00
No discussion, refer immediately	4	8.00

**Table 12 Persons who the teachers discuss the learner with**

	Frequency	Percentage
Colleagues	11	22.00
HOD	15	30.00
Principal	3	6.00
Occupational Therapist	12	24.00
Parent	17	34.00
I refer without having a discussion	4	8.00

In Table 11, it can be seen that 4 (8%) teachers refer the learner immediately and do not discuss him with anyone. The teachers reported that 11 (22%) discuss the learner with two persons and 12 (24%) teachers discuss the learner with three persons. There were even two (4%) teachers that reported that they discuss the learner with five different persons before making a referral.

It can be seen in Table 12 that 17 (34%) teachers reported discussing the learner with the parents first before making a referral. There were 12 (24%) teachers that discuss the learner with the OT and 29 (58%) teachers discuss the learner with a staff member of the school, either a colleague, the HOD or principal.

When asked how long the teachers waited before talking to the parents after they had identified a learner with problems to refer to OT, 20 (40%) teachers reported that they talked to the parents immediately. The option, dependent on each case was chosen by 16 (32%) teachers. There were 8 (16%) teachers that reported waiting 2 weeks, 4 (8%) teachers

mentioned waiting 1 month and 3 (6%) teachers reported talking to the parents the next term after they had identified a learner that needed to be referred to OT.

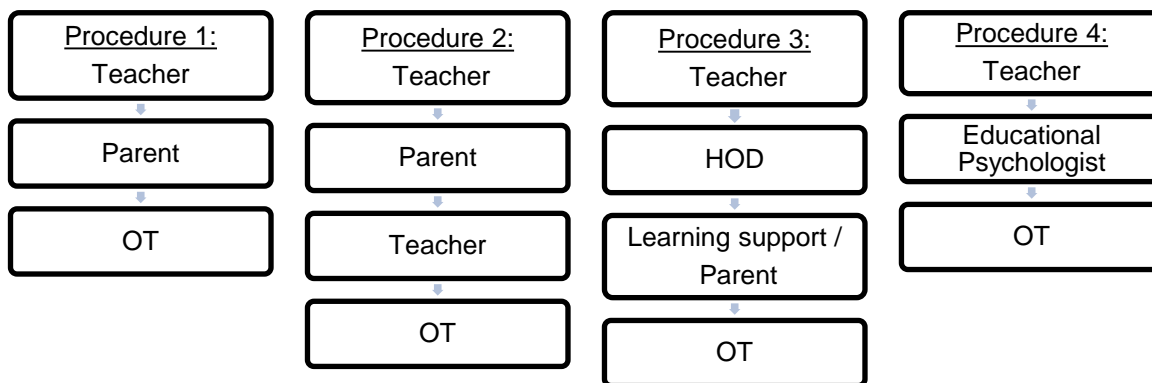
In Table 13 it shows the responses of the teachers when asked if they would rather monitor a learner's performance for a period of time before referring him to OT.

**Table 13 Monitoring a learner before referring**

<b>I rather monitor a learner's performance for a time period before referring</b>		
	Frequency	Percentage
Strongly Agree	20	40.00
Agree	23	46.00
Neutral	6	12.00
Disagree	0	0.00
Strongly Disagree	1	2.00

From Table 13 it can be seen that 43 (86%) teachers agreed that they monitor the learner's performance for a period of time first before referring to occupational therapy. Only 1 (2%) teacher disagreed with the statement and 6 (12%) teachers had no opinion.

When asked if the teachers had a set procedure that they had to follow when referring learners to OT, 36 (72%) teachers answered yes. There were 5 (10%) teachers that mentioned that they were not sure if their school has a procedure to follow. From the qualitative data analysis, there were 4 different referral procedures that were mostly used. They are explained below in Figure 5



**Figure 5 Referral procedure used by the schools**

In the first procedure, the teacher has a meeting with the parents after identifying a learner as needing a referral to OT. During the meeting, the teacher gives the parents the contact details of the therapist. It is then the parent's responsibility to make an appointment with the therapist for an evaluation.

In the second procedure the teacher sends out a referral or consent form to the parents. The form indicates that the learner is being referred to OT. The parents need to complete and sign the referral or consent form and return it back to the teacher. The teacher then gives it to the therapist. It is now the therapist's responsibility to contact the parents and schedule an evaluation for the learner.

The third procedure can be divided into two different procedures. Both start with the teacher identifying a learner in their classroom experiencing difficulties. The teacher then meets with the HOD and they discuss the child. At this stage is where the procedure can be divided. The one procedure can be where the learner is given additional learning support to see if they make any improvements. If after a period of time, the learner has made no improvements, the OT is contacted and an evaluation is scheduled. The other procedure is where the HOD has a meeting with the parents and the OT is contacted after the meeting and the parents give consent for therapy.

The fourth procedure was not used very often. In this procedure the teachers cannot refer to the OT directly. They first have to refer to an educational psychologist. The educational psychologist then does an evaluation and determines if a referral to OT is necessary. If yes, they then make the referral.

When asked how satisfied the teachers are with the procedure that their school used, 29 (58%) teachers reported being satisfied with the procedure. There were 12 (24%) teachers had no opinion and 5 (10%) teachers were unsatisfied with the procedure.

As mentioned before under attitude when asked if the teachers sometimes referred to an OT that was not associated with the school, 21 (42%) teachers responded yes and 29 (58%) teachers responded no. The reasons that the teachers gave for referring a learner to a different OT was the following:

- The OT that their school was associated with was full and did not have available space for learners
- The OT associated with their school was too expensive, and they would rather refer a learner to a hospital and clinic where therapy was free
- One teacher stated that “the other OT they refer to is great”, which indicated personal preference
- One teacher reported that she felt that the learners missed teaching time if they are seen by the school therapist during school hours, so a different therapist that could see them after hours was better.

The teachers were also asked if they ever decided against a recommendation for referral to OT. There were 12 (24%) teachers that answered yes, they had decided against a recommendation. Table 14 indicates the reasons that the 12 (24%) teachers gave for deciding against a referral. The teachers could choose more than one option to answer this question.

**Table 14 Reasons for deciding against making an OT referral**

	Frequency	Percentage
The fees are too expensive	4	8.00
Limited parent involvement	8	16.00
Uncertain if the learner is a candidate for referral	9	18.00
Bad experience with the therapist	2	4.00
The referral process is too complex	1	2.00
The referral process is too time consuming	2	4.00
I have not seen any difference in the learners currently receiving therapy	1	2.00

From Table 14 it can be seen that the two main reasons that the teachers decided against a referral for OT were that they were unsure if the learner is a candidate for an OT referral, and that there was limited parent involvement.

When asked how many referrals they had made in 2019, 6 (12%) teachers said that they had made no referrals and 29 teachers (58%) mentioned that they made 1 referral. There were 11 teachers (22%) that reported that they had made between 4 – 6 referrals and 3 (6%) teachers reported making between 7 – 10 referrals in 2019.

The teachers were asked when last they made a referral to OT. To make sense of the data, it needed to be explained that the questionnaire was handed out in the first week of September 2019.

Table 15 represents the answers given by the teachers on when the last time was that they made a referral to OT.

**Table 15 Last referral made to OT**

Response option	Time period	Frequency	Percentage
Last week	Last week of August 2019	5	10.00
Last month	August 2019	10	20.00
Last term	Term 2 2019	27	54.00
Last year	2018	4	8.00
Cannot remember		3	6.00

As can be seen in the table above, 27 (54%) teachers reported that the last time they referred a learner to OT was in the last term, which was the second term of 2019.

This matched the answers to the question that asked in which term the teachers made most of their referrals. In this question there were 25 (50%) teachers that reported that they make most of their referrals in term 2, 18 (36%) teachers said that they made most of their referrals in the first term of the year and 9 (18%) teacher mentioned that they had no specific term in which they made their referrals. Only 1 (2%) teacher reported that they made most of their referrals in the third term.

The teachers were asked if they informed the new class teacher of their previous learners that they have identified as struggling, 35 (70%) teachers answered yes and 13 (26%) answered no as it is written in the school file.

The teachers were given a scenario and asked what they would do if the previous class teacher that they had identified a learner as struggling but did not refer to OT and he was now in their class, 23 (46%) teachers reported monitoring a learner for 2 weeks before referring him after being informed by the. There were 21 (42%) teachers that mentioned that they monitored the learner for a whole term before referring him. Only 4 (8%) teachers answered that they referred the learner immediately. There were 3 (6%) teachers that

answered that it was all dependent on the case but that they would monitor the learner first before for a period of time before making the referral.

After the referral had been made, 10 (20%) teachers reported that to their knowledge all learners that they referred to OT had received an evaluation. There were 14 (28%) teachers that said they believed 25% of the learners received an evaluation after being referred, 6 (12%) teachers felt that half of the learners were being referred to OT received an evaluation and 8 (16%) teachers felt that 75% of the learners received an evaluation after being referred. There were even 7 (14%) teachers that reported that to their knowledge no learner that they have referred received an evaluation and 2 (4%) teachers mentioned that they were unsure if the learner they had referred received an evaluation.

When asked why the teachers believed some learners did not receive an evaluation, the two main reasons that they gave were that it was because of parents or finances. The teachers reported that in their opinion the learners did not receive an evaluation as it was too expensive and the parents could not afford it. The other reasons that they gave were that the parents were often against the referral.

In a separate question 26 (52%) teachers reported that 25% of the time the parents were against the referral. The teachers felt that the reason for the parents being against the referral and evaluation were that they were either in denial that their child needs additional help or they were uneducated and were not sure was occupational therapy was. The parents did not see the need for OT. Another reason why the teachers thought the learners did not receive an evaluation was due to the parents not being involved with the learner. Other reasons the teachers thought there could be were miscommunication between the parents, teachers and OT or that the therapist had too many learners already and no space available for a new evaluation.

There were 27 (54%) teachers that reported their school had a remedial class. When asked if the teachers referred a learner with difficulties to the remedial class first before referring him to OT, 6 (12%) teachers answered yes, they refer to the remedial class as it would help and an OT referral is not necessary. There were 18 (36%) teachers that reported they referred both to the remedial class and OT and 11 (22%) teachers mentioned that they did not refer to the remedial class and only to OT first.

The teachers were asked if they would refer to OT if they had a learner in their class that continued to struggle although he was already receiving remedial help or another therapy, like speech therapy or play therapy, 34 (68%) teachers reported that yes, the OT referral is still necessary and they would refer and 7 (14%) teachers reported no, because the other

therapist or remedial teacher will refer to OT if they think it is necessary. There were 4 (8%) teachers that were unsure of what to do and 2 (4%) teachers said that no, they would not refer to OT as the learner is already receiving extra help.

#### **4.6. Summary**

The data obtained was divided into the background information of the foundation phase teachers and the three research objectives. In the next chapter the analysed data will be discussed.

## **5. Chapter 5: Discussion**

### **5.1. Introduction**

In Chapter 4 the results from the questionnaires were analysed and grouped according to the research objectives. In this chapter the results will be discussed to answer the research objectives. The results received from chapter 4 will be linked to the information gathered in the literature review done in Chapter 2. The researcher will also use clinical experience of working as a SBOT to interpret and discuss the results. As there were limited studies done focusing solely on the referral process of learner to OT, not a lot of literature can be linked to the results obtained from the analysed data.

### **5.2. Background Information**

Of the eight schools participated in the study, four of the schools were government schools and the other four schools were private schools. There were 50 teachers that completed the questionnaire, 25 teachers worked in a government school and 24 teachers worked at a private school.

All the participants were female. The mean age of the participants was 33(9) years. Majority of the teachers received a degree at a University. The teachers that completed the questionnaire represented all the foundation phase classes of Grade R – Grade 3. Most of the teachers had a class size of between 26 – 30 learners. In South Africa, these are seen as normal classroom sizes as the norms for classroom sizes are 30 learners for Gr R and 40 learners for Gr 1 – 3.<sup>60</sup>

Most teachers reported having teaching experience between 4 – 15 years. When comparing the years that the teachers have been working with an OT it was found that the teachers all have less years working with an OT than what they have teaching experience. However all teachers have worked with an OT before. When asked how many years of experience the teachers have working with an OT, 15 (30%) teachers answered that it was less than a year.

### **5.3. Research objective on Knowledge**

In Chapter 1, knowledge was defined as “the information, understanding and skills that you gain through education or experience. Knowledge with regards to education and teaching is “the state of knowing about a particular fact or situation.”<sup>26</sup>

The research objective was:

*To determine the knowledge of foundation phase class teachers in mainstream schools on the occupational performance challenges of learners*

In answering this research objective, the researcher wanted to determine if the foundation phase teachers had knowledge on the occupational performance challenges that learners struggle in their classroom that can be addressed by occupational therapy. The researchers wanted to determine that if the foundation phase teachers were able to use their knowledge on occupational performance challenges in the classroom to identify the learners that need a referral to OT.

*Knowledge foundation phase teachers had on the role of the SBOT:*

The study found that all the teachers recognised the OT profession and have previously referred a learner to an OT. They all have experience working with an occupational therapist, which indicates that they should have some basic knowledge of the role of an OT.

Of the 50 foundation phase teachers that completed the questionnaires, 33 (66%) teachers reported that an OT has explained the role of the SBOT to them before, however only 5 (10%) teachers mentioned that the OT gave them training in identifying learners for an OT referral. When asked if the teachers had received another form of training in identifying learners for an OT referral, only some teachers mentioned that they have additional training. The additional training on identifying learners for an OT referral was done by attending workshops, through university modules or from training from the HOD at the school.

After doing some research and requesting information from the head of the SBOT group in South Africa, it was found that in the year of 2019 only one workshop was held for teachers focusing on the role of OT. No other workshop for teachers on occupational therapy was found. No training was found that focused on how the teachers could identify the occupational performance challenges that learners experience and when to make an appropriate occupational therapy evaluation. The head of the SBOT reported that this was the responsibility of the school and the individual occupational therapists associated with the school.

One of the responsibilities of the SBOT according to the document of The Role and Scope of School-Based Occupational Therapists in South Africa, is to inform, train and educate the teachers and parents of the role of the SBOT.<sup>19</sup> As not all teachers mentioned that the therapist explained occupational therapy or has given them training with regards to identifying learners for occupational therapy, it indicates that not all therapists are fulfilling this responsibility.

### *Foundation phase teachers on training from the SBOT:*

When asked if the teachers would want to receive training from the OT with identifying learners for a referral to OT, 35 (70%) teachers agreed and answered that they would want to receive training. As so many foundation phase teachers mentioned that they would want to receive training from the occupational therapists with identifying learners for an OT referral it indicates that the teachers want training and are open to training.

Hargreaves et al found that teachers felt that they were not specifically trained to identify learners that need a referral to occupational therapy. In his study the occupational therapists that participated also mentioned that even though the teachers were becoming more aware of the contribution that the OT made in the school setting, the teachers still need further training on identifying learners for a referral to occupational therapy. The OTs in this study believed that more in-service training would create better awareness of the teachers and increase the number of referrals that they receive. The teachers said that in-service training would improve their knowledge on identifying learners that need to be referred to OT.<sup>4</sup>

Jackman and Stagnitti found in their study that it is very important that the teachers are aware of the services OT can offer and how the therapist can support the learners experiencing occupational performance challenges as it directly correlates to the teachers' referral of learners to OT. They found that the less teachers are aware of the role of OT and the services they can provide, the less likely they are refer a learner.<sup>5</sup>

Beukes reported in her study that teachers who do not have access and/or knowledge OT did not refer to OT.<sup>2</sup>

It is thus important that the therapists make time to train and educate the foundation phase teachers on not only how to identify learners with occupational performance challenges and when to refer them but also on their role as a SBOT in order for them to make appropriate referral to OT.

### *Screenings done by therapists in classrooms:*

Screenings are a short assessment procedure that is developed to identify learners who would benefit from receiving a comprehensive evaluation.<sup>61</sup> In the schools a screening is done by the OT when the therapist goes into the classroom and spends a period of time observing the learners while they participate in different activities. The aim of the screening is to identify learners in the classroom that would benefit from receiving occupational therapy. The therapist either uses a standardised test or a self-developed test that she developed herself using her clinical knowledge and experience to identifying learners with

occupational performance challenges. The advantages of a screening tool is that they are an effective and efficient way to record observations and identify learners with occupational performance challenges. The disadvantages are that they take time and effort to administer and interpret and mostly the therapist does not get reimbursed for the screening done.<sup>61</sup>

Only 14 (28%) teachers have mentioned that the occupational therapist has done a screening in their classroom. These teachers reported that the therapist either did a screening once in the beginning of the year, at the beginning of every term or that the therapist has only done one once before. As the development of a learner is a dynamic process, the screening cannot be done only once. The screening has to be done periodically, as to observe and monitor the development of the learner and to be able to identify the development of occupational performance challenges.<sup>61</sup> It is thus important that the OT, who does the screening, does it more than once a year for it to be effective.

As there are only a limited amount of therapists that conduct a screening with the learners, the identification and referral of learners with occupational performance challenges mostly depend on the teachers identifying and referring the learner. It is thus vital that the teachers know how to identify in a learner to make an appropriate referral.

A screening session could be used as a training session for the teachers. By doing a screening of the learners while the teacher is present, the therapist can explain to the teachers what occupational performance challenges the OT can treat and how to identify the occupational performance challenges that the learners experience in their classroom. The therapist then can explain to the teacher why learners need to be referred to occupational therapy and how to address this with the parents.

*Set tests, forms or checklists for teachers:*

Most of the participants reported that they don't have any set tests or forms that they could use in their classroom to identify learners that would benefit from a referral to occupational therapy. Only 9 (18%) teachers reported that they have set tests and forms that they could use to identify a learner for an OT referral and only three out of the nine teachers had a form that was set up by the OT.

A study done by Richmond found that using a teacher checklist in her classroom that assesses visual perception related to occupational performance can be a useful screening method to identify learners with visual perception difficulties.<sup>62</sup>

This again is an indication that the foundation phase teachers that participated in this study, must rely on their own knowledge and experience to identify and refer learners experiencing

difficulties in their occupational performance. As this is the case, it is this important that the teachers have knowledge on the different occupational performance challenges that a learner can experience.

Lessing and de Witt concluded in their study that teachers don't have the necessary knowledge, confidence and skills to support learners experiencing barriers to learning and don't have enough knowledge on the various aspects that cause a learner to experience difficulties in the classroom.<sup>20</sup>

*Occupational performance challenges of learners:*

In Chapter 2, the PEO model was used to define occupational performance. It was stated that occupational performance is the dynamic interaction between person, environment and occupations. If there is an imbalance between the interaction of these three aspects, it negatively affects the occupational performance of a learner.<sup>40-41</sup>

A learner's main occupation is to participate in educational and non-educational activities. The tasks and activities that are expected from a learner are completing classroom activities which involve reading and writing, completing mathematics exercises, learning, completing tests and assignments, listening to their teachers, playing and sharing with their friends are to name a few.

The physical environments of learners are the school grounds, classrooms, cafeteria, sports fields and recess areas. Their social environments are the relationships they have with their teachers and fellow classmates.

When looking at the person, the learners' client factors and performance patterns such as concentrating in class, their gross and fine motor skills, and visual perceptual skills and more are taken into account.

If a learner has difficulties in one of these areas, it results in occupational performance challenges. As the foundation phase teachers are part of the learners' environment, they can observe the learner and identify if the learner has difficulties with participating in his occupations or if the learner as a person has qualities that hinder him from achieving success in his occupational performance. When a teacher recognises these challenges, they need to recommend a referral or make a referral to OT as soon as possible so that the SBOT can intervene and improve the occupational performance of a learner.

In Chapter 2, the common problems that SBOTs address were also given when looking at the person. The most common areas that the therapists treat, but are not limited to, were:

- Visual-motor integration
- Visual perception skills
- Motor planning and sequencing
- Hand function
- Sensory integration
- ADHD which includes concentration
- Learning disabilities

The teachers were asked what they identify in a learner to be able to refer him to occupational therapy. The foundation phase teachers were able to name multiple occupational performance challenges that SBOT address. The teachers were asked to name the top three areas of concern that they identify in a learner who they believe would benefit from a referral to OT. The top three areas that were identified were fine motor coordination, concentration / attention and muscle tone. Their responses can be found in Table 4. The areas identified are all areas that negatively affect a learner's scholastic performance and that can be addressed by an occupational therapy intervention.

The teachers were able to name the occupational performance challenges that they identified as the reason for their last referral to occupational therapy as can be seen in Table 4. These areas of concern that they identified in the learner and identified as the reasons for a referral to occupational therapy were all occupational performance challenges that negatively affect a learner's performance in scholastic activities that can be addressed by an occupational therapist. This indicates that the foundation phase teachers were able to correctly identify occupational performance challenges learners in their classroom experience.

In practice, after a referral is complete, the learner receives an extensive occupational therapy evaluation. From personal experience, the results are usually made available to the teacher in the form of a report. The parents of the learner or the OT usually hand the report to the teacher.

Most of the teachers reported that the occupational therapist identified the same occupational performance challenges that the teacher identified and sometimes the therapist identified more occupational performance challenges. Only one teacher mentioned that the OT identified completely different occupational performance challenges that she identified. This is another indication that the teachers have sufficient knowledge on the occupational performance challenges that learners experience and are able to correctly identify them.

### *Early identification and referral:*

The teachers had the knowledge that early referral and identification of challenges as 42 (84%) teachers reported that the best time to refer learners to occupational therapy was in Grade R or Grade 1.

Another aspect that indicated the teachers' knowledge of referring learners to occupational therapy is that the teachers knew that they need to base their referral on classroom performance and not on outcomes of assessments. A learner can be passing his grades yet still experiencing occupational performance challenges and not reaching his full scholastic potential.

Almost all of the teachers reported that they were aware of the learners in their class that are currently receiving occupational therapy. The class teachers themselves or the colleagues at the school were mostly the ones responsible for making the referral to occupational therapy. That meant that the teachers were the ones who made the correct identification of the learner experiencing occupational performance challenges in their classroom and made an appropriate referral to OT.

### **Conclusion of knowledge of teachers**

From the analysed data, it was determined that the foundation phase class teachers have the necessary knowledge on the occupational performance challenges that learners experience in their classroom. They were able to identify the learner with occupational performance challenges and make appropriate referrals to OT. However from the data it was also determined that the teachers were not confident in their own knowledge of occupational performance challenges. Most of the teachers want more training from the therapist in identifying learners for a referral to OT. It was established that a lot of therapists were not completing their responsibility of training and educating the teachers on the role of SBOT and what it entails. The OT must invest more time in the classrooms if possible to do screenings or educate the teachers on how to identify learners with occupational performance challenges in order appropriate referrals to be made.

### **5.4. Research objective on Attitude**

In chapter 1, attitude was defined as "the way you think and feel about something or somebody; the way you behave towards somebody or something that shows how you think and feel."<sup>26</sup>

The research objective was:

*To determine the **attitude** of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy.*

By answering this research objective, the researcher wanted to determine the teachers' opinion on referring a learner to occupational therapy.

From clinical experience the researcher could report that the referral process of referring a learner to occupational therapy involved three parties: the teacher, the occupational therapist and the parents. In majority of the cases the teachers were the persons identifying the learners in the classroom experiencing occupational performance challenges and made the recommendation of a referral to OT. The parents need to give consent to the teacher to be able to refer the learner to occupational therapy and consent to the OT to conduct an evaluation. The occupational therapist is the person who can support the teacher in making the referral, and does an evaluation once the referral has been made.

The researcher looked at the following three aspects in determining the teacher's attitude on referring learners to occupational therapy:

- The relationship between the teacher and therapist – how does it affect the referral of a learner to OT
- The teachers' opinion on making the referral of a learner to occupational therapy
- The attitude of the teachers on how parents react to a referral of their child to occupational therapy

### **The relationship between the teacher and therapist – how does it affect the referral of a learner to occupational therapy**

A big aspect of the relationship between teachers and OT is the collaboration between the two parties. Multiple studies have focused on the collaboration between the OT and teachers. In chapter 2, multiple definitions for collaboration were discussed. From the definitions the following important aspects that ensured successful collaboration were identified:

- Communication
- Shared respect for each other's roles
- Sharing of knowledge and expertise

It is vital that collaboration is successful as it affects the learner's achievement of success, inside and outside the classroom.<sup>8,15</sup>

In the study majority of the teachers knew the OT that was associated with their school which in most cases was a therapist was an external therapist using the schools facilities. The foundation phase teachers reported that most of them have a positive relationship with the therapist and view the OT as a colleague. This indicated that the therapist and teachers have a good relationship.

The teachers were asked with what therapist they would prefer to work with, 23 (46%) teachers responded a therapist that is appointed by the school and 23 (46%) answered that they have no preference. From literature it was seen that teachers often reported that they would prefer to work with a therapist that is appointed by the school as it would ensure better communication.

Hargreaves et al found that the teachers reported they would be more comfortable approaching a therapist that is employed by the school as the OT would be seen as part of the staff and not a private practitioner. The teachers felt that an OT employed by the school would make the therapist more approachable and would make communicating with her easier.<sup>4</sup>

The fact that 23 (46%) teachers answered that they have no preference with what SBOT they work with, one employed by the school or an external SBOT, could indicate that they have a good relationship with the external therapist and thus don't think that it is necessary that the therapist needs to be appointed by the school.

Almost half of the teachers reported that they sometimes refer to an OT that is not the therapist that is associated with the school. The main reasons for referring to another therapist was the OT had no more space available to evaluate and treat new learners or that the fees of the therapist associated with the school were too expensive. These teachers said that they would rather refer the learner to a hospital or clinic where he would not have to pay for the evaluation and therapy.

Only two teachers referred to another therapist due to personal reasons. The one teacher said that she referred to another therapist she was great. Another teacher said that she prefers to refer to another therapist as she does not want the learner to receive therapy

during class time in which he misses school work. In her opinion it was better if the learner can receive therapy after school hours.

From the above data it can be interpreted that majority of the foundation phase teachers and OT that their school is associated with have a good relationship and that collaboration takes place.

It is important that the foundation phase teachers and the therapist have a good relationship as 25 (50%) teachers reported that they feel that the quality of the relationship between the therapist and teacher affects the amount of referrals that the teachers make. Half of the teachers felt that they would less likely refer a learner to OT if they don't have a good relationship with the therapist. It is thus the therapist's responsibility to try and establish a good relationship with the teachers at the school that they are associated with to ensure that the learners get referred.

Only 11 (22%) teachers disagreed with the statement and reported that the quality of the relationship between the teachers and therapist does not affect the referrals made. It can be interpreted that the foundation phase teachers that disagreed either have no knowledge of what a good relationship with an occupational therapists entails or that they work from a professional standpoint in which the quality of the relationship does not affect the referrals that they have made.

A study done by Barnes and Turner found that as the collaboration between the teachers and therapists improved and increased, the perceptions of the teachers on the contributions made by the SBOT to the learners' skill development improved.<sup>63</sup> As collaboration between the teachers and therapists indicates a relationship between the two parties, it means thus that there is a positive correlation between the quality of the relationship and the perceptions of the teachers on the SBOT contributions which would reflect on the amount of referral made by the teachers.

The teachers responded that their main form of contact that they have with the therapist is informal meetings, such as chats in the corridors or the teacher's lounge.

In the study it was found that 5 (10%) teachers had no contact with the OT and did not receive any results of the evaluations done by the therapist after the referral was made. This indicated poor collaboration between the teachers and OT.

It is important that the foundation phase teachers and occupational therapist have contact as 39 (78%) teachers reported that the more the teachers have contact with a therapist, the more confident they become into making referrals. By having contact, collaboration takes place. As said earlier collaboration is sharing of knowledge and expertise. Thus when the teachers have contact with the therapist, the teachers learn more about the role of occupational therapy, how to identify occupational performance challenges and when to make appropriate referrals. Studies have found that with effective collaboration the teachers' knowledge of OT services improves and the teachers become better equipped to recognize learners experiencing occupational performance challenges in their classroom that is in need of a referral to OT.<sup>2,4,63</sup>

### **The foundation phase teachers' attitude on the actual referral of a learner to occupational therapy**

When asked if the teachers thought OT intervention would make a difference, 43 (86%) teachers answered yes. Multiple studies reported that teachers believe that OT intervention makes a difference in a learners' academic performance.<sup>2,4,64</sup>

The teachers were given three different scenarios. They had to answer if they would still refer a learner the have identified with occupational performance challenges in each separate scenario.

The first scenario was a learner that was prescribed medication for concentration by a doctor or neurologist. The teachers were asked if they would still refer a learner to OT if they knew learner is on medication prescribed by a doctor or neurologist for concentration specifically and experiencing occupational performance challenges. Out of the 50 teachers, 40 (80%) teachers reported that they would still refer the learner. This shows that the teachers believed that the medication on its own could make a difference but that the learner would also benefit from OT intervention.

The second scenario the foundation phase teachers were asked if they would refer to a remedial class or OT after identifying a learner with occupational performance challenges.

Only 6 (12%) teachers reported that they would they would refer the learner to the remedial class only as that alone would already make a difference, and that a referral to OT was not be necessary. The other teachers responded that 18 (36%) of them would refer to both the remedial class and OT, and 11 (22%) teachers reported that they would only refer to OT.

The last scenario the teachers were asked that if the learner was experiencing occupational performance challenges and was receiving additional help already, such being in the remedial class or receiving speech therapy, would the teachers refer to OT as well. In this scenario, 34 (68%) teachers reported that a referral to OT would still be necessary and only 2 (4%) teachers answered that they would not also refer to OT.

The teachers' answers to the different scenarios indicated that the teachers were aware of the difference OT can make in a learner's school performance and the value a referral to OT could have.

*Attitude on current practices of referral to OT:*

The foundation phase teachers were asked if they felt that all the learners with occupational performance challenges were referred to OT. Of the 50 teachers, 20 (40%) of the teachers felt that not all the learners with occupational performance challenges were being referred to OT and 19 (38%) teachers disagreed and reported that all the learners with occupational performance challenges were being referred to OT. It can be seen there is only a small difference between the teachers that felt not all the learners were being referred to OT and the teachers that felt that all the learners were being referred. However as there were so many teachers that felt not all learners are being referred it is an indication that the teachers are unsure of when to make an appropriate referral to OT. The teachers know that there are more learners that would benefit from a referral to OT but they have either not identified or referred.

The teachers were also asked if they felt that too many learners were being referred to OT. There were 28 (56%) teachers that disagreed and only 6 (12%) agreed and said that too many learners were being referred to OT. The answer to this question supported the answers of the previous question that the teachers believed that not all the learners that need OT are being referred as majority of the teachers did not believe that there were too many learners being referred to OT.

In the study, 35 (70%) out of the 50 participants reported that they felt confident in their ability to identify learners that would benefit from a referral to OT. Out of the 50 teachers that participated, only 24 (48%) teachers reported that they were confident in their ability of making a referral to OT. Thus from the 35 teachers that reported being confident in identifying learners, 11 (22%) teachers did not experience the same level of confidence in their abilities with making referrals to OT. Also less than half of the foundation phase teachers reported that they were confident in their ability to make a referral to OT. This

indicates that the teachers are able to identify the learners in their classroom experiencing challenges but are not confident if the learner is a candidate for an OT, speech therapy or education psychology referral.

This indicated that the majority of teachers were more confident in their ability to identify learners with occupational performance challenges in their classroom than when to make an appropriate referral to OT.

#### *Decision made against referral to OT:*

The teachers were asked if they ever decided against a referral to OT, there were 38 (76%) teachers reported that they have never decided against a referral to OT which indicates that they had a positive attitude about referring a learner to OT.

There were 12 (24%) teachers that had decided against a referral to OT. From these 12 teachers, nine teachers reported that the main reason for deciding against the referral was that they were uncertain if the learner that they identified was a candidate for an occupational therapy referral. This supports the notion that the foundation phase teachers are not confident in their ability to know when the referral to OT is appropriate after they have identified a learner with occupational performance challenges.

From personal experience I have often had teachers asking for assistance as they have identified a learner in their classroom as struggling but are unsure if they are appropriate for a referral to OT.

#### **The attitude of the teachers on how parents react to a referral of their child to occupational therapy**

As mentioned before, parents are the third party that affected the referral of a learner to OT. The parents need to give their consent before the therapist can conduct an evaluation. If the teachers identify the learners and recommend a referral to OT but the parents refuse to give consent, the learner cannot be referred. The teachers were asked their opinion on how parents react when the teachers make the recommendation of a referral to OT.

When asked how often the teachers felt the parents were against a recommendation for a referral to OT, 26 (52%) teachers answered that 25% of the times the parents were against the recommendation. It was the opinion of 12 (24%) teachers that half of the parents were against a referral, two (4%) teachers felt that 75% of the parents were against a referral and

one (2%) teacher said that all the parents were against the recommendation of an OT referral. Only nine (18%) teachers reported that none of the parents were against the referral. In this study, 41 (82%) out of 50 teachers felt that parents were at times against a referral. This shows that often learners are being recommended for an OT referral but the parents don't give their consent for a referral to OT.

When asked why the teachers felt that the parents were against the recommendation of an OT referral, they reported that the parents were in denial that their child is struggling and needs additional help. The parents either are not educated in OT or they don't think it is necessary. The teachers felt that the referral also did not happen as the parents are not involved with the learner. Another reason that the teachers felt were hindering a referral was finances. Often the parents were against the referral as they could not afford it the OT evaluation.

In her study, Beukes found that parents were not always willing to listen to the teachers that were making a referral and were often sceptical of OT. She found that the parents' attitude towards to class teacher and the OT determined if the followed the advice given by the teacher of making an OT referral.<sup>2</sup>

Out of the 50 foundation phase teachers, 32 (64%) were of the opinion that the parents were more open for a referral to OT when the learner was failing. This however does not support early intervention, as if there had been intervention at an earlier stage, the learner would not present with occupational performance challenges in the classroom that might contribute to him not making successful grades.

The teachers were asked if they are more hesitant in making a referral when there is limited parent involvement and if they knew the parents were struggling financially.

Limited parent involvement described by Beukes in her study as the level of investment they have in their child's academic performance. This includes doing homework with their children, attending parent-teacher meetings and being open to referral to additional professional interventions such as speech therapy and OT.<sup>2</sup>

In this study, a similar definition to parent involvement was used. Parent involvement was seen as the amount of time the parents spent with their children and their academic development, such as doing homework, assisting them with preparing for assessment or assisting with doing projects. It also involved the amount of contact the parents had with the

school and class teacher and the responses the parents had to suggestions of the teacher previously.

The foundation phase teachers answered that if they know that there is limited parent involvement, 29 (58%) of them would be more hesitant of making the referral. This indicated that the chances of learners not getting referred were greater if less parent involvement were perceived.

When the teachers knew that the parents were struggling financially, 20 (40%) teachers reported that they would still refer regardless of the financial situation of the parents and 12 (24%) teachers said that they would only refer a learner with severe problems if the parents are struggling financially. Only 2 (4%) teachers answered that they don't refer a learner if they know the parents are struggling financially.

This indicates that even though the teachers knew that the parents have financial difficulties and might be against the referral to OT, they still made the referral to and left the decision up to the parents of deciding for or against the referral.

### **Conclusion of the research objective on attitude**

It was determined that the majority of the foundation phase teachers that participated in the study had a good relationship with the OT that was associated with their school. Most of the teachers referred learners they identified to the therapist associated with their school, and reported occasionally referring to another therapist if the therapist at the school had no space available for new learners. The foundation phase teachers had contact with the occupational therapist and it is typically in the form of informal meetings. This all is an indication that collaboration between the therapist and teachers takes place. However as almost half of the teachers reported that they would prefer to work with a therapist that is appointed by the school warrants attention to ensure that collaboration between the foundation phase teachers and the occupational therapist takes place. A study by Collins and Crabb found that a therapist who made a point of establishing trust and mutual respect found collaboration more effective.<sup>15</sup>

It can be concluded that the foundation phase teachers that participated in this study believe that OT intervention will make a difference in the learner's academic performance. The teachers are not against referring a learner to OT but are at times uncertain when a referral to OT appropriate is or not.

It can be concluded that the teachers feel that very often the parents were the reason that the learner does not be referred to OT. The involvement of the parent and the financial situation of the family affected the teachers' decision on making a referral to OT or not. It was also found that if the foundation phase teachers made a referral, the parents would be against the referral as they were either in denial that their child was struggling at school, or they were uneducated on the role of the SBOT and how it could assist with a learner experiencing occupational performance challenges.

This indicated that the therapist should offer assistance to the teacher when making the recommendation and educate the parents on why the referral is needed and what OT entails. The OT has a responsibility to educate and train the parents on the role of the SBOT and on why therapy intervention is important to a learner that is experiencing occupational performance challenges.<sup>19</sup>

### **5.5. Research objective on Practices**

In Chapter 1, practice was defined as "a way of doing something that is the usual or expected way in a particular organization or situation."<sup>26</sup>

The research objective was:

*To establish the practices foundation phase teachers in mainstream schools use on referring learners with occupational performance challenges to occupational therapy.*

By answering the research objective the researcher wanted to identify the steps that the foundation phase class teachers took making a referral, starting from identifying a learner with occupational performance challenges in her classroom to making the recommendation and referral to OT. The researcher wanted to establish what set procedure schools used to refer a learner to OT.

*Set test and screening forms available:*

The teachers were asked if their school made use of set tests or screening forms to identify a learner with occupational performance challenges that would benefit from OT. Only nine (18%) teachers answered that their school had such forms and tests available. Out of the nine teachers, three teachers said that they used forms that the OT gave them and one teacher used a form that the school developed. A further two teachers reported using the SIAS documents and one teacher used the Connors Developmental Test.

The other 41 (82%) of the foundation phase teachers reported that they do not have set tests and forms available to assist them with identifying the learners for an OT referral. This means that the teachers have to rely on their knowledge and experience on occupational performance challenges to identify the learners in their classroom in need of an OT referral.

*Identifying learners with occupational performance challenges:*

When asked how the teachers identified a learner for an OT referral, majority of the teachers answered that they looked at the overall classroom performance and behaviours of the learners. They observed the learner during different classroom activities and compared the performance of the learner to the other learners in his classroom. Some teachers reported that they identified the learners by having discussions with colleagues or from baseline assessments done with the learners in the beginning of the year.

It was determined that the teachers that participated in the study don't have a standard procedure of identifying learners for an OT referral. They need to rely on their own knowledge and experience. It would be beneficial if one could be set up.

*Using the "wait-and-see approach when referring learners:*

The following situations all support the fact that the teachers made use of the "wait-and-see approach" also called the "wait-to-fail approach" when referring a learner. When using these approaches it means that the learners do not receive the necessary intervention until their skills are widely discrepant from what is expected of them. Learners receive a referral and intervention at a much later stage after being identified which could often lead to secondary emotional and behavioural problems as well as educational difficulties.<sup>65</sup> When receiving intervention, the therapists need to close the gap between what the learner is currently functioning on and what is expected of him to achieve at his age.<sup>66</sup> Thus the longer the teachers wait with making a referral, the bigger the gap becomes between what is expected of the learner and what he is currently experiencing. Using the "wait-and-see / wait-to-fail approach" is contradicting to early intervention.

Research on reading disabilities has shown that without early intervention a learner that has difficulties reading in Grade 1, continues to experience difficulties in the intermediate phase, high school and later continues to be a poor reader as an adult. Studies have shown that unfortunately older learners that have difficulties with reading only improve some of their critical reading skills after receiving intensive remediation. Some learner can improve their reading accuracy and comprehension but they remain slow readers.<sup>66</sup> This highlights the importance of early intervention to assist the learners with experiencing success in their

academic participation. Studies have shown that early identification and intervention in Grade R and Grade 1 can substantially reduce the number of learners that later might require special services.<sup>66</sup>

The first situation was when the teachers were asked how long after identifying a learner with occupational performance challenges the teachers wait before they talk with the parents.

In this situation, 19 (38%) teachers reported that they talk to the parents immediately on what they have identified and recommend a referral to OT. The other 15 (30%) teachers reported waiting a period of time between 2 weeks to 1 term first before discussing the learner with the parents. There were 16 (32%) teachers that said that it was dependent on the case. As only 19 teachers reported talking to the parents immediately, it shows that the other 31 teachers monitor the learner for a time period first. This is an example of the teachers using the “wait-and-see approach”.

The next situation the teachers were asked their opinion if they would rather monitor a learner with occupational performance challenges first before making a referral.

In this situation, 46 (86%) teachers agreed that they rather monitor a learner’s performance first for a time period before making a referral to OT. This indicated that majority of the teachers would wait first before referring a learner to OT, indicating again using the “wait-and-see approach”. As the teachers reported monitoring the learner for a period of time first before making a referral can also be an indication that the teachers are unsure of what they have identified in the learner and are not confident into making the referral to OT. They would monitor the learner for a period of time first to ensure that he really is experiencing occupational performance challenges but that causes the learner to increase the gap between his functioning and the level of what is expected of him.

The teachers were asked if they discuss the learner with occupational performance challenges that they have identified with any persons before making the referral to OT.

Only four (8%) teachers reported that they refer the learner to OT immediately. The other 46 (92%) teachers discuss the learner that they have identified with other persons first before making a referral. Out of the 50 teachers that participated, 31 teachers reported discussion the learner with between two and five persons before making a referral. The majority of the teachers discuss the learners with other colleagues or the HOD of the school, and with the parents of the learner. By having multiple discussions with other persons indicates a lack of confidence in making the referral as well as prolonging the time between making the

identification and making the referral. Also by discussing the learner with multiple persons first prolongs the process of referring the learner to OT. This is again an example of using the “wait-and see approach” by the teachers as the learner only receives the necessary intervention after a period of time in which he misses out from the benefits of early intervention.

In the next situation the teachers were asked the route of action that they would take if the teacher of the previous year already identified a learner experiencing occupational performance challenges but did not refer to OT and that learner was now in their class. Only 4 (8%) teachers said that they would refer the learner immediately. Majority of the teachers, 44 (88%) reported that would monitor the learner for a time period between two weeks and one term before making the referral to OT. Herewith, another fact that support for the wait-and-see approach that the teachers utilise. Thus the discrepancy of what the learner is experiencing and the level that is expected of him grow bigger.

The teachers were asked in which school term they make most of their referrals and when was the last time they made a referral. The answers supported each other, as 20 (40%) of the teachers reported that they made most of their referrals in the second term of the school year, and 27 (54%) teachers answered that the last time they made a referral was in the second term of 2019. This is another indication that the teachers monitor the learner’s performance first when receiving a new class before making the referral. The teachers wait and see how the learner adapts to the new classroom in term one and monitors his performance first before making a referral to OT.

*Set procedures used when referring a learner to OT:*

The majority of the teachers reported that their school had a set procedure to follow when wanting to refer a learner to OT. Four different procedures were identified and discussed in Chapter 4. As can be seen from the different procedures, the class teacher is the person that identifies the learner and begins the referral process.

In the one procedure, the teacher contacted the parents and gave them the contact details of the therapist. It was then the parent’s responsibility to contact the OT and make an appointment. Should the parents be against a referral to OT, then they would not contact the therapist and the learner would not receive an evaluation.

In the second procedure, the teacher sent a referral form or consent form to the parents which they have to sign. Once the parents returned the form to the teacher, she handed it to the OT who then contacted the parents to schedule an evaluation. Again here if the parents

were against the referral and did not sign the form, the referral could not be complete. In this process also if the parents or the therapist were slow with returning the form or with making the appointment, extensive time was lost before the learner received the necessary help that he needed.

In the third procedure, after the class teachers identified the learner in their classroom with occupational performance challenges, she discussed the learner with the HOD. Depending on the severity of problems, the learner either gets given additional learning support from the school or the HOD had a meeting with the parents of the learner.

The progress of the learner receiving additional learning support was monitored. If after a period of time the learner had not shown improvement, the HOD had a meeting with the parents and referred them to an OT. In the other option, the HOD had a meeting with the learner's parents and referred them to OT directly.

In this procedure the referral to OT is prolonged again if the learner is given additional learning support first and then after a period of time a referral to OT. It would be more beneficial if the learner received a referral to OT as well as additional learning support as this would address the occupational performance challenges even more.

The fourth procedure was only implemented at one school that participated. In this school, after the teacher identified the learner with occupational performance challenges, the teacher had to refer them to the educational psychologist. The educational psychologist then would determine if a referral to OT was necessary. In this process the referral to OT is also prolonged. The referral to OT also is dependent on the educational psychologist's knowledge and opinion of OT.

Only 29 (58%) of teachers were satisfied with the procedure that is implemented at their school. That means 21 (42%) teachers are not satisfied with the procedure.

After the referral was made, the teachers were asked how many of the learners that they referred, receive an evaluation by the OT. Only 10 (20%) teachers were of the opinion that all the learners they referred received an evaluation. There were 14 (28%) teachers that felt that only 25% of the learners that they referred received an evaluation and 7 (14%) teachers even reported that none of the learners they referred received an evaluation. From the data it can be deduced that 35 (70%) out of the 50 teachers reported that not all of their referrals have received an evaluation after the referral has been made. When asked their opinion on why the learners did not receive an evaluation the two main reasons that were the cause that the learner did not receive an evaluation were the parents or finances. This emphasises

the fact again that the parents need to be educated on OT and given support when their child is recommended for a referral to OT.

It can be seen that at times that the procedures used by the schools took a long period before the learner receives an evaluation and the necessary intervention could begin. The parents also carry responsibility in the referral procedure. Therefore, if the parents decide against the referral, due to lack of knowledge of the benefits of OT or due to a lack of funding, the learner might fail to experience success in his academic career.

### **Conclusion on research objective of procedure**

The research objective was:

*To establish the practices foundation phase teachers in mainstream schools use on referring learners with occupational performance challenges to occupational therapy.*

In the study it was determined that the majority of the teachers don't have set tests or screening forms that assist them in the classroom with identifying learners experiencing occupational performance challenges. They had to rely on their own knowledge and experience. It was established that the foundation phase teachers use the wait-and-see approach in which they monitor the learner first for a period of time before referring him to OT. Before making the referral to OT, the teachers would discuss the learner with multiple persons before referring. This indicated their uncertainty of appropriately referring the learner. After the referral has been made, the parents might be against the referral. The OT therefore needs to support the teachers when talking to the parents when making the referral and educate the parents on the role of the SBOT and why it is necessary that their child receives occupational therapy.

The schools had set procedures to follow when referring the learners to OT. The procedures identified were often time consuming and a lot of the responsibility was on the teachers or the parents from starting the referral process to the learner receiving the evaluation. The majority of the teachers reported that they were not satisfied with the procedure.

### **5.6. Summary**

In this chapter, the researcher discussed the findings of the data collected and analysed from the questionnaires. The data was grouped according to the research objective and the research objectives were answered.

The first objective was to determine the knowledge the foundation phase class teachers had on the occupational performance challenges. The researcher found that the foundation

phase class teachers had the necessary knowledge on what the occupational performance challenges learners in their class room struggle with are and were able to identify the,. However majority of the teacher were not confident with their knowledge they had on the occupational performance challenges and wanted additional training from the OT.

The second objective was to determine the foundation phase teachers' attitude on referring learners to OT. It was found that the teachers majority of the teachers that participated in the study had a good relationship with the OT associated with their school and viewed them as a colleague. They identified that OT intervention could make positive difference in a learner's academic performance.

The teachers had contact with the OT, mostly by having informal meetings. This all indicated that collaboration between the teachers and OT took place. The teachers however reported that almost half of them would prefer to work with a therapist that is appointed by the school. This statement was supported by literature. In literature it was found that the teacher could approach a therapist appointed more easily and have better communication.<sup>4</sup> As the therapists were not appointed by the school, this statement was an indication that collaboration between the teachers and OT could improve.

The teachers were not against a referral to OT but it was determined that they lacked confidence if a referral to OT was appropriate or not.

It was found that the teachers believed that they often made the recommendation for a referral to OT but then the parents were against the recommendation. They felt that the parents were either in denial that their child is experiencing challenges or they were not educated on what OT is and how it can assist their child. The teachers reported that they were more hesitant to make a recommendation for a referral to the parents if there was limited parent involvement or the family experienced financial difficulties. The teachers reported that they often felt the learner was not referred to OT was due to finances.

The third research objective was to establish if the foundation phase teachers had set procedures of identifying learners with occupational performance challenges and procedures of referring learners to OT.

It was determined that the majority of the teachers did not have set tests of forms available to assist them with identifying learners with occupational performance challenges and had to rely on their own knowledge and experience to identify the learner.

It was established that the teachers use the "wait-and-see" approach when referring a learner to OT. The teachers would monitor the learner for a period of time first before making

the referral. This is not beneficial as the learner does not receive early intervention when using this approach.

The schools that participated in the study mostly had set procedures when referring learners to OT. It was found that most of the procedures took a long period before the learner from being identified to making an appointment for an evaluation.

## **6. Chapter 6 – Conclusion**

### **6.1 Introduction**

As discussed in Chapter 1, from clinical experience, the researcher experienced that teachers often struggled to identify learners in their classroom that would benefit from a referral to OT as that led them to referring a learner only in Grade 3 or Grade 4 which went against early identification and treatment principles. Other therapists reported that they felt teachers were over-referring learners.

As teachers spend the most of the day with the learners, they are the ideal persons to identify the learners with occupational performance challenges that are in need for a referral to OT first.<sup>2,4-5</sup> It is the teachers who talk to the parents and make a recommendation for a referral to OT. It is thus vital that the teachers had the necessary knowledge on the occupational performance challenges that learners experience, were able to identify these learners and make appropriate referral to OT.

The fact that there has been limited research done on the referral process of learners to OT indicated a gap in knowledge. There is limited research that stated if the foundation phase teachers were for or against referral of learners to OT. There is limited research that indicated if the teachers had knowledge on the occupational performance challenges and knowledge of when to make appropriate referrals. As different studies have shown that all learners benefited from OT, regardless of experiencing difficulties or not it is important to know if the teachers were referring learners experiencing difficulties in order for them to get the necessary help that they need.<sup>3,37</sup>

In the studies that have been done it was found that Christner, and Truong and Hodgetts, reported that teachers did not have the necessary knowledge and understanding of the role of the SBOT. These studies also found that the more contact the teachers had with the OT and the more they understood of the process, the more likely would refer a learner to OT.<sup>8,10</sup> Beukes found that if the teachers had a positive perception towards OT they would be more likely refer the learners experiencing occupational performance challenges.<sup>2</sup> Hargreaves et al have found in their study that the teachers felt that they were not specifically trained to identify learners with occupational performance challenges in their classroom who would benefit from OT intervention. The teacher reported that they would benefit from in-service training as it would improve their knowledge on occupational performance challenges and help them identify learners in their classroom.<sup>4</sup>

By conducting the study, the researcher wanted to answer the following research question:

*What are the knowledge, attitude and practices of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy?*

The researcher developed a questionnaire that was handed out to sampled government and private mainstream schools in Tshwane, South Africa. The completed questionnaires were analysed, as can be found in Chapter 4, and the results were discussed in Chapter 5. It was determined that the researcher was able to answer the research question and the research objectives with the data that was collected. The study findings will be concluded in this chapter. Each research objective will be discussed individually before the research question will be answered.

## **6.2 Study findings**

The aim of the study was to determine the knowledge, attitudes and practices of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to OT.

There were 50 foundation phase class teachers that participated in the study. There were an equal number of foundation phase teachers in government and private schools that completed the questionnaire. All the teachers were female and had previous experience of working with an OT and had made at least one referral to OT before. From analysing and interpreting the data in Chapter 4 and Chapter 5, the following conclusions were made:

### **6.2.1 Teachers' knowledge on occupational performance challenges**

The research objective was:

*To determine the knowledge of foundation phase class teachers in mainstream school on the occupational performance challenges of learners.*

It Chapter 5, it was concluded that the foundation phase class teachers had the necessary knowledge on the occupational performance challenges that learners experience. It was established that the teachers were able to identify the learners with occupational performance challenges in their classroom but were unsure with making a referral as they were not confident with the identification that they made. The foundation phase teachers reported that they wanted to receive more training on identifying learners with occupational performance challenges in their classroom. Only a few teachers mentioned that they previously had received training on how to identify learners in their classroom.

The final conclusion that was made is that although the teachers have knowledge on the occupational performance challenges, they need to receive more training from the OT on

how to identify the learners with occupational performance challenges in their classroom. The number of referrals to OT is dependent on the level of confidence of the foundation phase teachers in making the correct identification of the learners with occupational performance challenges.

### **6.2.2 Teacher's attitude on referring a learner with occupational performance challenges to OT**

The research objective was:

*To determine the attitude of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy*

In Chapter 5 it was concluded that the teachers in this study were positive that OT would make a difference in the learners' academic performance. Majority of the teachers had a good relationship with the OT and viewed the therapist as their colleague. It was found that there was collaboration between the teachers and therapists to a certain degree.

It was found that although the teachers were not against referring to OT, they were unsure about making a referral as they were not confident if the referral was appropriate or not. The teachers reported that they were more confident in identifying the learners with occupational performance challenges in their classroom than making a referral to OT. The foundation phase teachers felt the more contact they had with the OT, the more confident they became into making a referral.

The teachers reported that often they made a recommendation of a referral to OT to the parents and then the parents were against the referral. It was the opinion of the teachers that the parents were either in denial or did not have knowledge on OT and how the SBOT can assist their child. Another reason might be that parents were not able to afford the evaluation and OT intervention.

With answering the research objective, it was determined that the teachers were positive about the referral to OT. The teachers knew that OT intervention would make a difference in the learners' academic performance. It was established that the teachers needed more training on the occupational performance challenges in order to be more confident in referring a learner to OT. It was established that the therapists also need to train the parents of the school on the role of the SBOT and what a referral to OT means and why it is necessary. As finances were also a reason that learners often do not get an evaluation needs to be addressed as well. Strategies between the school and the therapists need to be developed to see how all the learners can be assisted.

### **6.2.3 Teacher's practices when referring learners with occupational performance challenges to OT**

The research objective was:

*To establish the practices foundation phase teachers in mainstream school use on referring learner with occupational performance challenges to occupational therapy.*

In Chapter 5 it was concluded that the majority of teachers did not have any set tests or forms available that they could use in their classroom to identify learners with occupational performance challenges. Most of the therapists do not conduct screenings in the classrooms of the teachers. This indicated that the foundation phase teachers need to rely on their own knowledge and experience of identifying learners in their classroom that need a referral to OT.

It was determined that the teachers use the "wait-and-see" approach before making the recommendation of a referral to OT. The teachers indicated that they monitor an identified learner for a period of time, usually between 2 weeks and 1 term, before making the recommendation. The teachers also discuss the learner that they have identified with multiple persons first before making the referral. This indicated lack of confidence in the identification that they made.

It was established that majority of the schools had a procedure to follow when referring a learner to OT. It was found that the procedures could take a period of time before being complete and the learner receives an evaluation. In some procedures the teachers and parents carried a lot of responsibility in order for the learner to be referred and an evaluation be made.

By answering the research objective, it was established that although most schools had a set procedure to refer learners to OT, they did not have set tests or forms to identify learners with occupational performance challenges in their classroom. The teachers had to rely on their own knowledge and experience in identifying the learners.

It was found that the teachers used the "wait-and-see" approach when referring learners to OT. They would monitor a learner for a period of time first before referring him. This goes against early intervention and the learner misses out on the benefits of early intervention.

By answering the three research objectives, the researcher was able to answer the research question. The knowledge, attitude and practices of the foundation phase teachers were determined on the referral of learners with occupational performance challenges to OT.

### **6.3 Significance of study**

The results of the study proved to have significance. The knowledge, attitude and practices of foundation phase teachers on referring learners to OT were established. From the findings of the study a knowledge base was created and suitable recommendation could be made to the schools, foundation phase teachers and the OT associated with each school.

The researcher was able to determine that the foundation phase teachers had good relationships with the therapists and were pro referral to OT.

The teachers need more training and education on the occupational performance challenges, how to identify them in order to make an appropriate referral. The teachers need their confidence built up by the OT to make more referrals to OT. This could be done by making forms available that teachers could use in their classroom to identify learners with occupational performance challenges.

The teachers need to be educated on the consequences of using the “wait-and-see” approach after they have identified a learner with occupational performance challenges before referring a learner to OT. They need to be educated on the benefits of early intervention.

The OT needs to be more involved in the classrooms, by doing screenings to assist the teachers in identifying learners with occupational challenges. More formal contact needs to be made between the teachers and the OT in which the learners in their classroom can be discussed and advice can be given.

As the teachers felt that often the parents were against the referral to OT, the therapist needs to educate the parents on the role of the SBOT and why a referral is necessary if their child was identified by the teacher. The OT needs to offer support to the teachers when they make the recommendation of an OT referral to parents.

As finances were also mentioned to be a reason that the learners do not get referred, the schools and therapists need to develop strategies in order to assist the learners with occupational performance challenges that cannot afford a referral. Another suggestion is that the DoE needs to be contacted in looking into employing SBOT at government schools so that the OT intervention costs would be covered by the schools and DoE.

## 6.4 Recommendations

From the results of the study, the following recommendations can be made for clinical practice and research:

### Clinical practice:

- The SBOT needs to provide training to the foundation phase teachers in identifying learners with occupational performance challenges. This can be done by:
  - Providing workshops for the teachers this can be hosted by the therapist associated with the school, or the official SBOT group of OTASA
  - Having pamphlets available for the teachers that explain the different occupational performance challenges learners experience and how they present in the classroom
  - Developing a form or checklist that the teachers could use in their class to identify learners with occupational performance challenges
  
- The SBOT needs to have more contact with the foundation phase teachers to improve the teachers' confidence in identifying and referring learners with occupational performance challenges to OT. This can be done by:
  - More and regular formal scheduled meetings between teachers and therapists discussing learners the teachers are concerned about
  - The OT must conduct screenings in the classroom at least once every term to assist the teachers with identifying learners with occupational performance challenges
  - If screenings are not possible, the OT must do class visits in which the teachers can point out learners they have identified but are unsure if they are an appropriate candidate for a referral
  
- The SBOT must educate the HOD and foundation phase teachers on the consequences of using the “wait-and-see” approach and the benefits of early identification and treatment
  
- The SBOT must educate the parents on the role of OT in the school setting and why a referral is necessary if their child was identified with occupational performance challenges. This can be done by:

- Providing the teachers and schools with pamphlets that they can hand out to the parents that explains the role of the SBOT and how an OT referral and intervention could assist
  - Having stands on school Open Days in which parents can get more information on SBOT
  - The SBOT must attend parents–teacher meetings of the learners that the teachers want to refer to OT to explain to assist the teachers of explaining to the parents why the referral is necessary
- Advocate for OT posts in government and private schools to assist the learners who can't receive an evaluation due to finances

The researcher wrote a letter that was sent to the schools that participated in the study giving them the results of the study. In this letter the researcher also explained the benefits of early identification and the consequences of using the wait-and-see approach. The researcher gave different websites with checklists that the teachers could use in their classroom to assist them with identifying learners with occupational performance challenges. Lastly the researcher also included a pamphlet that explained the role of the SBOT and why OT intervention is important. The foundation phase teachers could use this pamphlet and give to the parents when recommending a referral to OT to educate the parents on the reasons for the referral. This letter can be found in Annexure G.

Education:

- Advocate for the incorporation of modules on the role of the SBOT and occupational performance challenges in educators' training
- The study should be expanded into a qualitative study by having focus groups with the foundation phase teachers to ask follow up questions to get a more in-depth opinion on the topic from the teachers
- The study needs to be done in other cities of South Africa to determine if those foundation phase teachers have the same knowledge, attitudes and practices as found in the results of this study
- A study needs to be conducted focusing on the knowledge and attitudes of parents of learners in mainstream schools that were identified for a referral to OT

- The study needs to be done with teachers working in a Kindergarten to determine if they are able to identify learners with normal development challenges that lead into to occupational performance challenges to promote early intervention

## **6.5 Limitations**

The research study had the following limitations:

- As only eight schools participated in the study, the results cannot be generalised and are only applicable to a part of Tshwane
- The questionnaires were handed towards the end of the third term in which most of the teachers were busy with assessments and setting up report cards. It is recommended that if future researchers want to utilize teachers in their study to do the data collection process in the second term.
- The researcher was not able to schedule a meeting with all of the foundation phase teachers to present and explain the study. This might have impacted on the response rate.

## **6.6 Final conclusion**

Literature has identified that teachers are the first persons to identify learners with occupational performance challenges in their classroom. It is the teachers that make the recommendation for a referral to OT to the parents of the learner. It is thus important that the teachers have the necessary knowledge to identify the learners and make an appropriate referral.

This study has found that teachers do not have screening forms or tests available to identify learners in their classroom for a referral to OT. They have to rely on their own knowledge to identify the learner.

It was determined that the teachers have the necessary knowledge of occupational performance challenges but do not have the confidence in identifying the learners in their classroom and making a referral. The SBOT need to educate and train the foundation phase teachers on the occupational performance challenges so that they become more confident in making the referral to OT.

The study has identified that the SBOT needs to put more effort in educating the teachers on the occupational performance challenges and the importance of early intervention. The therapists need to assist the foundation phase teachers more in identifying learners in their

classroom to ensure that all the learners with occupational performance challenges get referred to OT.

The SBOT needs to take more action in educating the parents on the role of SBOT and advocate for the learners that need a referral to OT.

The study determined that the foundation phase teachers were optimistic that OT intervention makes a difference and that the teachers were pro OT referral.

The study created a knowledge base in Tshwane Pretoria on the knowledge, attitudes and practices of foundation phase teachers in mainstream schools on the occupational performance challenges of learners. This knowledge base can now be used and improvements can be made to the practices to ensure that all the learners with occupational performance challenges receive the necessary intervention they need.

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## **Annexures**

**ANNEXURE A: LETTERS OF APPROVAL FROM FACULTY OF HEALTH  
SCIENCES ETHICS COMMITTEE**

5 August 2019

**Approval Certificate  
New Application**

**Ethics Reference No.: 405/2019**

**Title: KNOWLEDGE, ATTITUDE AND PRACTICES OF FOUNDATION PHASE TEACHERS IN MAINSTREAM SCHOOLS ON REFERRING LEARNERS WITH OCCUPATIONAL PERFORMANCE CHALLENGES TO OCCUPATIONAL THERAPY**

Dear Miss SH Swart

The New Application as supported by documents received between 2019-06-05 and 2019-07-31 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 2019-07-31.

Please note the following about your ethics approval:

- Ethics Approval is valid for 1 year and needs to be renewed annually by 2020-08-05.
- Please remember to use your protocol number (405/2019 ) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

**Ethics approval is subject to the following:**

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

**Additional Conditions:**

- Approval is conditional upon the Research Ethics Committee receiving approval from Dept of Education.

We wish you the best with your research.

Yours sincerely



---

**Dr R. Sommers**

**MBChB MMed (Int) MPharmMed PhD**

**Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria**

*The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 48. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles*

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 22 May 2002 and Expires 03/06/2022.
- IRB 0000 2235 IORG0001762 Approved dd 22/04/2014 and Expires 03/14/2020.

5 August 2019

**Approval Certificate  
New Application**

**Ethics Reference No.: 405/2019**

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Yours sincerely



**Dr R Sommers**

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Fakulteit Gesondheidswetenskappe  
Letapha la Disaense tsa Maphelo

**ANNEXURE B: PERMISSION LETTER FROM DEPARTMENT OF EDUCATION**



# GAUTENG PROVINCE

Department: Education  
REPUBLIC OF SOUTH AFRICA

8/4/4/1/2

## GDE RESEARCH APPROVAL LETTER

Date:	29 July 2019
Validity of Research Approval:	04 February 2019 – 30 September 2019 2019/171
Name of Researcher:	Swart S.H
Address of Researcher:	Unit 16 Baywood Daffodil Road Lynnwood Ridge, 0081
Telephone Number:	079 607 0545
Email address:	Swart.sabine@gmail.com
Research Topic:	Knowledge, Attitude + Practice of Foundation Phase Teachers in mainstream Schools on referring learners with occupational performance challenges to occupational therapy.
Type of qualification	Bachelors' Degree in occupational Therapy
Number and type of schools:	Twenty three Primary Schools
Districts/HO	Tshwane North, Tshwane West and Tshwane South

### Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

*Swart* 29/07/2019

*Making education a societal priority*

**Office of the Director: Education Research and Knowledge Management**

7<sup>th</sup> Floor, 17 Simmonds Street, Johannesburg, 2001

Tel: (011) 355 0488

Email: Faith.Tshabalala@gauteng.gov.za

Website: www.education.ggp.gov.za

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1. Letter that would indicate that the said researcher's has/have been granted permission from the Gauteng Department of Education to conduct the research study.
2. The District/Head Office Senior Managers must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.
3. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher's have been granted permission from the Gauteng Department of Education to conduct the research study.
4. A letter / document that outline the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.
5. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.
6. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.
7. Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.
8. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.
9. It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.
10. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
11. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.
12. On completion of the study the researcher's must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.
13. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.
14. Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards



Mrs Faith Tshabalala  
Acting Director: Education Research and Knowledge Management

DATE: 29/07/2019

2

Making education a societal priority

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**ANNEXURE C: LETTER OF INVITATION TO PRINCIPALS OF GOVERNMENT  
AND PRIVATE SCHOOLS TO BE PART OF THE STUDY**

Dear Principal

I am a Master's student in Occupational Therapy at the University of Pretoria. The title of my study is:

**Knowledge, Attitude and Practices of Foundation Phase Teachers in Mainstream Schools on Referring Learners with Occupational Performance Challenges to Occupational Therapy**

I would like to invite the foundation phase teachers of your school to complete a questionnaire that will focus on their views on the referral process to occupational therapy. The questionnaire will contain questions regarding the teacher's knowledge on the problems learners experience in their classroom, how they feel about referring as well as the practices of referral to occupational therapy.

Before handing out the questionnaire I, the researcher, want to arrange a meeting with the foundation phase teachers in which I will explain the nature and value of the study. I am also asking for permission to leave my questionnaire for completion in your teacher lounge for a period of one week. The teachers will have the option to complete the questionnaire after our meeting or at a later stage when the time suits them best. The questionnaire should take about 10 to 15 minutes to complete.

The school will remain anonymous during the research study and the teacher's names will not be mentioned in the results. The questionnaire asks the teachers **not** to write down the name of the school. The teachers have the right to not participate in the study and are not obliged to complete the questionnaire should they have started it. This would not have any consequences on you or the teachers.

Permission for the research study has been obtained from the Faculty of Health Sciences Research Ethics Committee, the Postgraduate Committee of the School of Health Care Sciences as well as the Department of Education (where applicable).

I am hereby asking for approval of your school to be included in the research study and a meeting to be arranged with you and the foundation phase teachers before the end of the third term. Please complete the bottom section of the letter and email it to [swart.sabine@gmail.com](mailto:swart.sabine@gmail.com).

Please feel free to contact me should you have any questions pertaining to the research study.

Thank you for your time. Your consideration is greatly appreciated.

Kind regards

Sabine Swart  
Student number: 10263782  
079 607 0545  
Email: [swart.sabine@gmail.com](mailto:swart.sabine@gmail.com)

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I, \_\_\_\_\_, principal of \_\_\_\_\_  
agree that my school can be part of the research study conducted by Ms. S. Swart.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **ANNEXURE D: QUESTIONNAIRE FIRST DRAFT**

## ONLY FOR FOUNDATION PHASE CLASS TEACHERS

Dear Teacher

You are invited to participate in the research study titled “Knowledge, Attitude and Practices of Foundation Phase Teachers in Mainstream Schools on Referring Learners with Occupational Performance Challenges to Occupational Therapy”. The study is conducted by Ms. S Swart, a Master’s Occupational Therapy student at the University of Pretoria.

The study is done as the teamwork between teachers and occupational therapists is important in helping learners achieve success in their school activities. The focus of the study is on the referral process, as that is the first step in assisting learners. You as the teacher spend the most time of the day with the learner and are thus the first one to notice if he / she are under-performing and would need additional help.

As limited research is done on this topic it is important to create a knowledge base in order to identify if current practices that are in place and see if changes need to be made to ensure learners receive the necessary help that they need.

The necessary permission for the research study has been obtained from the Faculty of Health Sciences Research Ethics Committee and the Postgraduate Committee of the School of Health Care Sciences. Permission was also received from the Department of Education as well as the principal of your school.

Your answers as well as the name of your school will remain anonymous in the writing of the dissertation as they will not be mentioned. Only the researcher will see the consent letters that you have signed. Please do not write your name or the name of the school in the questionnaire to ensure further anonymity, only sign the consent form at the allocated section.

Completion of the questionnaire will be about 10 – 15 minutes. Your participation in the study is voluntary. You are allowed to decline participation in the study. You are also allowed to stop answering the questions at any point or leave out questions that you feel are not appropriate to. After completing the questionnaire please remember to place it in the sealed box.

Should you have any questions, please feel free to contact me. Participation in this study would be greatly appreciated.

Thank you for taking you time to complete the questionnaire. Please remember to place it in the sealed box after completion.

Kind regards

Sabine Swart

079 607 0545

[swart.sabine@gmail.com](mailto:swart.sabine@gmail.com)

Student #: 10263782

*Please tick the appropriate response and sign the page:*

<b>I have read and understood the information sheet of this research.</b>	<b>YES</b>	<b>NO</b>
<b>I hereby give my consent to participate in the study</b>	<b>YES</b>	<b>NO</b>

**Signature:** \_\_\_\_\_

Age: \_\_\_\_\_  
 Gender: Female Male  
 Qualification: Degree Diploma In-service training  
Other: \_\_\_\_\_

Institution where received qualification: \_\_\_\_\_

Years of teaching experience:  
Less than 1 1 – 3 4 – 9 10 – 15 15 +

Years of teaching experience at current school:  
Less than 1 1 – 3 4 – 9 10 – 15 15 +

What grade(s) are you currently teaching?  
R 1 2 3  
Multiple grades (Please specify which grades) \_\_\_\_\_

What is the average size of your class(es) (number of learners)?  
10 – 15 16 – 20 21 – 25 26 – 30 30+

What type of school are you teaching at?  
Government / Public Private / Independent

**Please circle the most appropriate answer:**

Have you ever heard of Occupational Therapy?	Yes	No
Have you ever referred a learner to Occupational Therapy?	Yes	No
Does your school work with a specific occupational therapist?	Yes	No
Do you know who the therapist is?	Yes	No
Do you view the therapist as your colleague at the school?	Yes	No
Has the therapist ever explained occupational therapy to you?	Yes	No

**Please tick the appropriate box for the following questions:**

How is the therapist associated with the school?  
Therapist is appointed by the school External therapist using school facilities  
Therapist is working outside school grounds Do not know

How many years have you been working with an occupational therapist?  
 (this does not only refer to the therapist working with your current school)  
Less than 1 1 – 3 4 – 9 10 - 15 15 +

Has the occupational therapist ever done a screening in your classroom?  
Yes, she does one every term Yes, she does one once a year  
Yes, she only did one once before No, never

Would you describe your relationship with the therapist as positive?  
Strongly Agree Agree Neutral Disagree Strongly disagree

**What method do you use to contact the therapist?**

**(more than one answer can be appropriate)**

- Formal meetings       Email       Sms / WhatsApp       Telephone calls  
 Informal meetings (e.g. chats in the corridors)       No contact with therapist

**Does your school have a set procedure to follow when referring a learner to occupational therapy?**

- Yes       No       Not Sure

If answered yes, please in your own words describe the procedure:

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**Are you satisfied with this procedure?**

- Very satisfied       Satisfied       Neutral       Unsatisfied       Very unsatisfied

**Do you make use of set tests or forms to identify learners for referral to occupational therapy?**

- Yes       No

If answered yes, what tests or forms do you use?

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**Have you received any training in identifying learners for referral to occupational therapy?**

- No training received       Yes, training done through attending extra courses  
 Yes, training received from occupational therapist  
 Yes, other training (please explain) \_\_\_\_\_

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**Do you discuss the learner with one of the following persons first before referring to occupational therapy?**

- Colleagues       HOD       Principal       Occupational Therapist       Parents  
 No, I refer without having a discussion

**Which occupational therapist would you rather refer to?**

- A therapist appointed by the school       An external therapist       No preference

**Do you sometimes refer to an occupational therapist that is not associated with the school?**

- Yes       No

If answered yes, please explain why? \_\_\_\_\_

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**After identifying a learner with problems how long before you refer him / her to occupational therapy? (estimation)**

- Immediately       2 weeks       1 month       2 months       the next term  
 6 months       Dependant on individual case

**Do you base the need of referral to occupational therapy on the report grades of the learner?**

- Yes, if failing learner needs referral       Referral not necessary if passing grades        
Referral not based on grades but on classroom performance

**Do you feel that parents are more open to an occupational therapy referral if their child is failing?**

- Yes    No    Not Sure

**When receiving a new class in the beginning of the year and the previous teacher mentioned learners that she was considering referring to Occupational Therapy but did not, what do you do?**

- Refer the learners immediately    Monitor the learners for 2 weeks and then refer        
Monitor learners one term before referring       Do not refer the learners  
 Other: \_\_\_\_\_

**In the new school year, do you inform the new teacher of your previous class of the learners that you have identified as struggling in your class?**

- Yes       No       No, it is written in their school file

**When receiving a new class in the beginning of the year, what term do you feel like you make most of your referrals?**

- Term 1       Term 2       Term 3       Term 4

**In 2019 how many referrals to occupational therapy have you made?**

- None       1 – 3       4 – 6       7 – 10       10+

**To your knowledge how many of the referrals you made to occupational therapy have received an evaluation?**

- None       25%       50%       75%       All referrals made        
Unknown if learners received an evaluation

**After the referral was done and the learner received an occupational therapy evaluation, do you feel that the therapist identified the same problems that you saw in class?**

- Yes, she identified the same and even more problems  
 Yes, she identified the same problems  
 No, she identified completely different problems  
 I am not aware of the results from the evaluation

**When was the last time you referred a learner to occupational therapy?**

- Last week    Last month    Last term    Last year    Cannot remember

**With your last referral, what was the reason for referring the learner to occupational therapy?**

\_\_\_\_\_

**What are your top three reasons that learners struggle with for you to refer them to occupational therapy?**

- 1) \_\_\_\_\_  
2) \_\_\_\_\_  
3) \_\_\_\_\_

**What grade do you think is most applicable to refer learners to occupational therapy?**

Grade R    Grade 1    Grade 2    Grade 3    No specific grade

**Are you more hesitant of making a referral to occupational therapy if you know the parents are not involved in the learner's school performance?**

Strongly Agree    Agree    Neutral    Disagree    Strongly disagree

**How do you identify learners in your class for referral to occupational therapy?**

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**How often do you recommend a learner for an occupational therapy referral to the parents and then they are against the referral?**

Never    25%    50%    75%    Always

**When you know that parents are struggling financially, how does this impact your referrals?**

- I do not refer if I know parents are struggling financially even if the learner really needs it   
The learner must have severe problems before referring
- If learner has problems I refer regardless of the parent's financial status
- I am not aware of the financial status of the parents so my referrals are not affected

**In your opinion who should be responsible for paying for the occupational therapy referral?**

Government    School    Medical aid    Parents

Other: \_\_\_\_\_

**Does your school have a remedial class?**    Yes    No    Not Sure

*If answered yes, please answer the next question.*

**Do you refer a learner with difficulties to the remedial class first before referral to OT?**

Yes, remedial class will help, OT referral not necessary

Refer to both OT and remedial class    No refer only to OT

**If a learner is receiving remedial help or other therapy (speech therapy, play therapy etc.) and is still struggling in class, do you still refer to OT?**

- Yes, OT referral is still necessary
- No, the learner is already receiving the necessary support
- No, because the remedial help or other therapy will refer to OT if they think it's necessary

**Do you know which learners in your class are currently receiving occupational therapy?**

Yes    No

**Do you know the reasons the learners in your class are receiving occupational therapy?**

Yes    No

**Who mostly referred the learners in your class that are currently receiving occupational therapy?**

Me, the class teacher    Other teachers in the school    Parents personally

Not sure    Other: \_\_\_\_\_

**What are the reasons for deciding against referring a learner to occupational therapy?**

- (more than one answer can be applicable)       No reason for not referring learner
- The fees are too expensive       Limited parent involvement
- Uncertain if learner is candidate for referral       Bad experience with therapist
- The process of referral is too complex       The process of referral is too time consuming
- Have not seen any difference in the learners currently receiving occupational therapy
- Other: \_\_\_\_\_

**How would you answer the following statements with regards to referral to occupational therapy: (Please draw a cross in the appropriate box)**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I am confident in my ability to identify learners that would benefit from occupational therapy.					
I am confident in referring learners.					
I rather monitor the learner's performance for a time period first before referring.					
I am confident that occupational therapy will make a difference in the learner's school performance.					
Too many learners are being referred to occupational therapy by other teachers in the school.					
A learner who is struggling in class but making satisfactory grades still needs to be referred.					
A learner on concentration medication does not need to be referred.					
The quality of the relationship between the therapist and teacher affects the amount of referrals done by the teacher.					
I am able to distinguish between poor behaviour and actual problems in school performance in a learner.					
I want to receive training from the therapist with regards to referral.					
In my opinion I feel that all the learners that need occupational therapy are being referred.					
The more I have contact with the therapist, the more confident I become with my referrals					
It would be helpful if the therapist would give me a checklist for					

referring learners that I can use in my classroom.					
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The researcher tried to make the questionnaire as extensive as possible however should you feel as if there is something that you would want to add, please feel free to do so now:

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*If you feel like you need more space to write your response please continue on the back page.*

**Thank you for completing the questionnaire.**

## **ANNEXURE E: QUESTIONNAIRE EVALUATION FORM**

### Questionnaire Evaluation Form

Thank you for taking time to go through the questionnaire. Using your personal opinion, please answer the following questions that will evaluate the questionnaire. Circle the appropriate response.

#### Cover letter

Was the cover letter informative? Yes                  No  
*I would change / add the following:* \_\_\_\_\_

Was the cover letter clear and to the point? Yes                  No  
*I would change / add the following:* \_\_\_\_\_

I received a clear understand of the study after reading the cover letter. Yes                  No  
*I would change / add the following:* \_\_\_\_\_

It was clear that the participant would remain anonymous in the questionnaire. Yes                  No  
*I would change / add the following:* \_\_\_\_\_

Informed consent of the participant is clear. Yes                  No  
*I would change / add the following:* \_\_\_\_\_

#### Questions:

Are the questions were clearly formulated? Yes                  No  
If no, please identify which questions are problematic and give a suggestion for change.

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Are the questions are understandable for a teacher? Yes                  No  
If no, please identify which questions are problematic and give a suggestion for change.

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Are there any questions that you would omit from the questionnaire? Yes                  No  
Please state which ones and the reason why.

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Are there any questions that you would add to the questionnaire? Yes                  No  
Please add these questions.

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**Responses**

Are the responses clear? Yes  No   
If no, please identify which responses are problematic and give a suggestion for change.

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Do the responses match the questions? Yes  No   
If no, please identify which responses do not match and give a suggestion for change.

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Would you omit any responses from the questionnaire? Yes  No   
Please state which ones and the reason why.

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Are there any responses that you would add to the questionnaire? Yes  No   
Please add these responses.

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**General**

Is the questionnaire easy to read? Yes  No   
If not, what suggestions can be made.

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Is the questionnaire easy to answer? Yes  No   
If not, what suggestions can be made.

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Does the questionnaire seem to be too long to answer? Yes  No   
If yes, what suggestions can be made.

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Are enough questions asked to determine the knowledge of teachers of the occupational performance challenged of learners? Yes                  No  
If not, what other questions / suggestions can be made.

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Are enough questions asked to determine the attitude of teachers on the referral to occupational therapy? Yes                  No  
If not, what other questions / suggestions can be made.

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Are enough questions asked to determine the practices that teachers use when referring learners to occupational therapy? Yes                  No  
If not, what other questions / suggestions can be made.

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Do the questions asked cover all three topics equally? Yes                  No  
If not, what changes should be made.

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Are there any main changes that you feel need to be addressed? Yes                  No  
If yes, please write down what changes should be made.

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Is there anything you think the researcher has left out of the questionnaire that you feel is important to add? Yes                  No  
If yes, please write down what should be added.

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Please give a brief description of your personal opinion of the questionnaire.

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If there is anything that you still would like to add, please feel free to do so.

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**Thank you for your time to complete the evaluation form. Please feel free to contact the researcher if there are any questions.**

## **ANNEXURE F: QUESTIONNAIRE FINAL DRAFT**

**ONLY FOR FOUNDATION PHASE CLASS TEACHERS**

Dear Teacher

You are invited to participate in the research study titled “Knowledge, Attitude and Practices of Foundation Phase Teachers in Mainstream Schools on Referring Learners with Occupational Performance Challenges to Occupational Therapy”. The study is conducted by Ms. S Swart, a Master’s Occupational Therapy student at the University of Pretoria.

The study is done as the teamwork between teachers and occupational therapists is important in helping learners achieve success in their school activities. The focus of the study is on the referral process, as that is the first step in assisting learners. You as the teacher spend the most time of the day with the learner and are thus the first one to notice if he / she are under-performing and would need additional help.

As limited research has been done regarding this topic it is important to create a knowledge base in order to identify if changes need to be made with regards to current practices to ensure learners receive the necessary help that they need.

The necessary permission for the research study has been obtained from the Faculty of Health Sciences Research Ethics Committee and the Postgraduate Committee of the School of Health Care Sciences. Permission was also received from the Department of Education as well as the Principal of your school.

Your name as well as the name of your school will remain anonymous in the writing of the dissertation as they will not be mentioned. Only the researcher will see the consent letters that you have signed. Please do not write your name or the name of the school in the questionnaire to ensure further anonymity, only sign the consent form at the allocated section.

Completion of the questionnaire will take about 10 – 15 minutes. Your participation in the study is voluntary. You are allowed to decline participation in the study. You are also allowed to stop answering the questions at any point or leave out questions that you feel are not appropriate. After completing the questionnaire please remember to place it in the sealed box.

Should you have any questions, please feel free to contact me. Participation in this study would be greatly appreciated.

Thank you for taking the time to complete the questionnaire.

Kind regards  
Sabine Swart  
079 607 0545  
[swart.sabine@gmail.com](mailto:swart.sabine@gmail.com)  
Student #: 10263782

*Please tick the appropriate response and sign the page:*

<b>I have read and understood the information sheet of this research.</b>	<b>YES</b>	<b>NO</b>
<b>I hereby give my consent to participate in the study</b>	<b>YES</b>	<b>NO</b>

**Signature:** \_\_\_\_\_

**1. Background Information:**

**For  
office use**

**1.1. Age:** \_\_\_\_\_

V1.1

**1.2. Gender:** 1  Female 2  Male

V1.2

**1.3. Qualification:** 1  Degree 2  Diploma 3  In-service training  
4  Other: \_\_\_\_\_

V1.3

**1.4. Institution where qualification was received:**  
\_\_\_\_\_

V1.4

**1.5. Years of teaching experience:**  
1  Less than 1 2  1 – 3 3  4 – 9 4  10 – 15 5  15 +

V1.5

**1.6. Years of teaching experience at current school:**  
1  Less than 1 2  1 – 3 3  4 – 9 4  10 – 15 5  15 +

V1.6

**1.7. What grade(s) in the foundation phase are you currently teaching?**  
1  Gr R 2  Gr 1 3  Gr 2 4  Gr 3 5  Multiple grades  
(Please specify which grades if multiple) \_\_\_\_\_

V1.7

**1.8. What is the average size (number of learners) of your class(es) in the foundation phase?**  
1  10 – 15 2  16 – 20 3  21 – 25 4  26 – 30 5  30+  
*If you have more than one class, please specify for each class within the foundation phase.*  
\_\_\_\_\_

V1.8

**1.9. What type of school are you teaching at?**  
1  Government / Public 2  Private / Independent

V1.9

**2. Please circle the most appropriate answer:**

Have you ever heard of OT?	1. Yes	2. No	V2_1	
Have you ever referred a learner to OT?	1. Yes	2. No	V2_2	
Does your school work with a specific OT?	1. Yes	2. No	V2_3	
Do you know who the therapist is?	1. Yes	2. No	V2_4	
Do you view the therapist as your colleague at the school?	1. Yes	2. No	V2_5	
Has the therapist ever explained OT to you?	1. Yes	2. No	V2_6	

**3. Please tick the appropriate box for the following questions:**

**3.1. How is the therapist associated with the school?**

V3.1

- 1  Therapist is appointed by the school
- 2  External therapist using school facilities
- 3  Therapist is working outside school grounds
- 4  Do not know

**3.2. How many years have you been working with an occupational therapist? (this does not only refer to your current school)**

V3.2

- 1  Less than 1
- 2  1 – 3
- 3  4 – 9
- 4  10 - 15
- 5  15 +

**3.3. Do you know what the term OT screening refers to?** 1  Yes 2  No

V3.3

**3.4. Has the occupational therapist ever done a screening in your classroom?**

- 1  Yes, she does one every term
- 2  Yes, she does one once a year
- 3  Yes, she only did one once before
- 4  No, never

V3.4

**3.5. Would you agree that your relationship with the therapist is positive?**

- 1  Strongly Agree
- 2  Agree
- 3  Neutral
- 4  Disagree
- 5  Strongly disagree

V3.5

**3.6. What method do you use to contact the therapist?**

(more than one answer can be appropriate)

V3.6

- 1  Formal meetings
- 2  Email
- 3  Sms / WhatsApp
- 4  Telephone calls
- 5  Informal meetings (e.g. chats in the corridors)
- 6  I have no contact with therapist

**3.7. Does your school have a set procedure to follow when referring a learner to OT?**

- 1  Yes
- 2  No
- 3  Not Sure

V3.7

If answered yes, please in your own words describe the procedure:

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**3.8. How satisfied are you with this procedure?**

- 1  Very satisfied
- 2  Satisfied
- 3  Neutral
- 4  Unsatisfied
- 5  Very unsatisfied

V3.8

**3.9. Which OT would you rather refer to if given the choice?**

- 1  A therapist appointed by the school
- 2  An external therapist
- 3  No preference

V3.9

**3.10. Do you make use of set tests or forms to identify learners for referral to OT?**

- 1  Yes
- 2  No

V3.10

If answered yes, what tests or forms do you use?

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**3.11. Have you received any training in identifying learners for referral to OT?**

- 1  No training received
- 2  Yes, training done through attending extra courses
- 3  Yes, training received from occupational therapist
- 4  Yes, other training (please explain) \_\_\_\_\_

V3.11

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- 3.12. Do you discuss the learner with one of the following persons first before referring to OT? (more than one answer can be appropriate)**  
 Colleagues     HOD     Principal     Occupational Therapist     Parent     No, I refer without having a discussion
- 3.13. Do you sometimes refer to an OT that is not associated with the school?**  
 Yes     No  
 If answered yes, please explain why? \_\_\_\_\_  
 \_\_\_\_\_
- 3.14. After identifying a learner with problems how long before you talk to the parents to refer him / her to OT? (estimation)**  
 Immediately     2 weeks     1 month     2 months  
 the next term     6 months     Dependant on individual case
- 3.15. Do you base the need of referral to OT on the outcome of assessments of the learner?**  
 Yes, if failing learner needs referral  
 Referral not necessary if passing assessments  
 Referral not based on assessments but on classroom performance
- 3.16. Do you feel that parents are more open to an OT referral if their child is failing?**     Yes     No     Not Sure
- 3.17. When receiving a new class in the beginning of the year and the previous teacher mentioned learners that she was considering referring to OT but did not, what do you do?**  
 Refer the learners immediately  
 Monitor the learners for 2 weeks before referring  
 Monitor learners one term before referring     Do not refer the learners  
 Other: \_\_\_\_\_
- 3.18. In the new school year, do you inform the class' new teacher of the learners that you have previously identified as struggling?**  
 Yes     No     No, it is written in their school file
- 3.19. In what term do you make most of your referrals?**  
 Term 1     Term 2     Term 3     Term 4  
 Unsure     No specific term identified
- 3.20. In 2019 how many recommendation for referrals to OT have you made?**  
 None     1 – 3     4 – 6     7 – 10     10+
- 3.21. To your knowledge how many of the recommendations for referrals you made to OT have received an evaluation?**  
 None     25%     50%     75%  
 All referrals received an evaluation     Unknown if learners received evaluation
- 3.22. In your opinion why do you believe some learners do not receive an evaluation after the referral has been made?**  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**3.23. After the referral was done and the learner received an OT evaluation, do you feel that the therapist identified the same problems that you saw?**

V3.23

- 1  Yes, she identified the same and even more problems
- 2  Yes, she identified the same problems
- 3  No, she identified completely different problems
- 4  I am not aware of the results from the evaluation

**3.24. When was the last time you recommended a learner for a referral to OT?**

V3.24

- 1  Last week    2  Last month    3  Last term    4  Last year
- 5  Cannot remember

**3.25. With your last referral, what was the reason for referring the learner to OT?**

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**3.26. What are your top three that concerns learners struggle with for you to refer them to OT?**

- 1) 

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- 2) 

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- 3) 

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**3.27. What do you look out for in a learner to be able to recommend a referral to OT?**

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**3.28. What grade do you think is most applicable to refer learners to OT?**

V3.28

- 1  Grade R    2  Grade 1    3  Grade 2    4  Grade 3    5  No specific grade

**3.29. Would you agree that you are more hesitant of making a referral to OT if you know if there is limited parent involvement?**

V3.29

- 1  Strongly Agree    2  Agree    3  Neutral    4  Disagree    5  Strongly disagree

**3.30. How many parents have been against your recommendation for an OT referral?**

V3.30

- 1  None    2  25%    3  50%    4  75%    5  All parents

**3.31. How do you identify learners in your class that need to be referred to OT?**

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**3.32. When you know that parents are struggling financially, how does this impact your referrals?**

V3.32

- 1  I do not refer if I know parents are struggling financially
- 2  The learner must have severe problems before referring if parents are struggling
- 3  If a learner has problems I refer regardless of the parent's financial status
- 4  I am not aware of the financial status of the parents, my referrals are not affected

**3.33. Does your school have a remedial class?** 1  Yes 2  No 3  Not Sure V3.33

*If answered yes, please answer the next question.*

**3.33.1. Do you refer a learner with difficulties to the remedial class first before referral to OT?**

- 1  Yes, remedial class will help, OT referral is not necessary V3.33.1
- 2  Refer to both OT and remedial class
- 3  No refer only to OT first

**3.34. If a learner is receiving remedial help or other therapy (speech therapy, play therapy etc.) and the learner is still struggling in class, do you refer to OT?**

- 1  Yes, OT referral is still necessary V3.34
- 2  No, the learner is already receiving additional support
- 3  No, because the remedial or other therapy will refer to OT if it's necessary
- 4  I am unsure of what to do

**3.35. Do you know which learners in your class are currently receiving OT?**

- 1  Yes V3.35
- 2  No

**3.36. How many learners in your class are currently receiving OT?**

\_\_\_\_\_ V3.36

**3.37. Do you know the reasons the learners in your class are receiving OT?**

- 1  Yes V3.37
- 2  No

*If answered yes, please write down the reasons for each learner.  
(If more space is needed, please continue on the back page)*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**3.38. Who mostly referred the learners in your class that are currently receiving OT?**

- 1  Me, the class teacher V3.38
- 2  Other teachers in the school
- 3  Parents personally
- 4  Not sure
- 5  Other: \_\_\_\_\_

**3.39. Have you ever decided against a recommendation for referral to OT?**

- 1  Yes V3.39
- 2  No

*If answered yes, please answer the next question.*

**3.39.1. What are the reasons for deciding against referring a learner to OT?**  
(more than one answer can be appropriate)

- 1  The fees are too expensive V3.39.1
- 2  Limited parent involvement
- 3  Uncertain if learner is candidate for referral
- 4  Bad experience with therapist
- 5  The process of referral is too complex
- 6  The process of referral is too time consuming
- 7  I have not seen any difference in the learners currently receiving OT
- 8  Other: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**4) How would you answer the following statements with regards to referral to OT?**  
*Please draw X in the appropriate box.*

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>For office use</b>	
I am confident in my ability to identify learners that would benefit from occupational therapy.	1	2	3	4	5	V4.1	
I am confident in referring learners.	1	2	3	4	5	V4.2	
I rather monitor the learner's performance for a time period first before referring.	1	2	3	4	5	V4.3	
I am confident that occupational therapy will make a difference in the learner's school performance.	1	2	3	4	5	V4.4	
Too many learners are being referred to occupational therapy by other teachers in the school.	1	2	3	4	5	V4.5	
A learner who is struggling in class but receiving satisfactory outcomes with assessments still needs to be referred.	1	2	3	4	5	V4.6	
A learner using medication prescribed by a neurologist, doctor or paediatrician for concentration does not need to be referred.	1	2	3	4	5	V4.7	
The quality of the relationship between the therapist and teacher affects the amount of referrals done by the teacher.	1	2	3	4	5	V4.8	
I am able to distinguish between poor behaviour and actual problems in school performance in a learner.	1	2	3	4	5	V4.9	
I want to receive training from the therapist with regards to referral.	1	2	3	4	5	V4.10	

In my opinion I feel that all the learners that need occupational therapy are being referred.	1	2	3	4	5	V4.11	
The more I have contact with the therapist, the more confident I become with my referrals	1	2	3	4	5	V4.12	
It would be helpful if the therapist would give me a checklist for referring learners that I can use in my classroom.	1	2	3	4	5	V4.13	

**This is the end of the questionnaire. The researcher tried to make the questionnaire as extensive as possible however should you feel as if there is something that you would want to add, please feel free to do so now on this page.**

**Thank you for completing the questionnaire.  
Please remember to place the questionnaire it in the sealed box.**

**ANNEXURE G: LETTER TO PARTICIPATING SCHOOLS EXPLAINING RESULTS OF  
STUDY**

Dear Principal, HOD and Foundation phase class teachers,

I would like to use this opportunity to thank all the teachers that took the time in their busy schedule to complete the questionnaire. I greatly appreciate it and want to give you feedback on the main results received from your answers.

The aim of my study was to answer the research question of “*What are the knowledge, attitude and practices of foundation phase class teachers in mainstream schools on referring learners with occupational performance challenges to occupational therapy?*”

From your responses, I was able to answer my research question and complete my Master’s degree in Occupational Therapy.

There were eight schools, four private schools and four government schools, in the Tshwane area that participated in the study. From the questionnaires that were handed out, 50 were completed. I captured the responses from the questionnaires and a statistician from the University of Pretoria analysed the data. From the data the following conclusions were made:

All the teachers that completed the questionnaire were female and mostly between the ages of 24 – 42. Everyone had experience working with an occupational therapists (OT) and referred a learner before. Majority of the teachers reported that they had a positive relationship and viewed the OT as a colleague. Majority had contact with the OT and received feedback from the therapist after the learner was referred and received evaluation.

In the results it was found that the overall attitude was that OT intervention made a difference in a learner’s academic performance and that the teachers were for the referral of learners to OT.

From the answers it was found that that an OT has explained her role before but only a few teachers received training on how to identify learners in the classroom that need to be referred to OT. Majority of the teachers reported that they would want to receive training that would assist them to identify learners for a referral to OT. Please discuss this with the OT that is associated with your school, as it is the responsibility of the school-based OT to educate and train teachers in identifying learners for a referral to OT.

In the study it was found that only a few teachers reported that the OT does or had done screenings in their classrooms before. There were only a few teachers that had set tests and forms available to assist them with identifying learners in their classroom for a referral to OT. This showed that the teachers mostly had to rely on their own knowledge and experience to identify and refer learners in their classroom to OT.

From the responses it could be seen that the teachers had the necessary knowledge of the occupational performance challenges that learners experience in the classroom and were able to correctly identify them for a referral to OT. The top three reasons for a referral to OT as identified by the teachers were fine motor coordination, concentration / attention and muscle tone. These three areas are all areas that prevent a learner from reaching his full academic potential and that can be addressed by an OT intervention.

The analysed data however indicated that even though the teachers had the necessary knowledge of the occupational performance challenges, majority were not confident in their ability to refer a learner to OT as they were unsure if he was an appropriate candidate for a referral to OT.

In the study it was also that the teachers made use of a “wait-and-see approach” before referring the learner to OT. The “wait-and-see approach” is when teachers wait for a period of time monitoring the learner, before referring him to OT as they are either not sure if he is a candidate for referral or are afraid of making a misidentification. The consequences of using this approach is that the learners do not receive the necessary referral and OT intervention until there is such a wide discrepancy between their skills and what is expected of them. Thus with intervention the therapist must try and close the gap. The bigger the gap, the more intensive intervention is needed and the risk of developing secondary emotional and behaviour as well as educational difficulties presents. It is thus important that early intervention takes place. Early intervention is when the learners receive the necessary intervention as soon as they were identified to ensure the best academic outcomes in the future.

It is important that this aspect be addressed. For early intervention to be most beneficial it is important if the learners that are experiencing difficulties to be identified and referred to OT in Grade R or Grade 1. It would be best if you could develop strategies with the therapist that is associated with your school to assist with identifying these learners to make the referral at an early stage.

Here are some ideas that you could use to assist with identifying these learners:

- The OT associated with your school must do workshops and training sessions in which she explains how to identify learners in your classroom that need a referral to OT
- The OT could do screenings in your classroom every term and assist you with identifying learners
- If you identify a learner in your classroom but you are unsure if he is a candidate for a referral to OT, ask the OT to do a class visit so that she can identify if he is an appropriate candidate for referral

- Use checklists, forms or test in your classroom that can assist you with making a referral. Ask the OT of your school, if she has such checklists or forms available. Here are some websites that have checklists or forms available that could be used. *Please discuss the checklists with the OT at your school first before using them in the classroom.*

The following websites had forms or checklists available:

<https://carlagrobler.co.za/services/early-childhood-development-checklist/>

<http://melvilleot.com.au/whats-typical/teacher-checklist/>

[http://neurobridgellccom.ipage.com/wordpress/?page\\_id=59](http://neurobridgellccom.ipage.com/wordpress/?page_id=59)

<https://www.teacherspayteachers.com/Browse/Price-Range/Free/Search:occupational+therapy+checklist>

<https://childdevelopment.com.au/resources/child-development-charts/>

- Make the referral! From the results of the study and experience working as an OT in the school setting, I have found that you teachers know exactly when the learner needs additional assistance or not. You have a gut feeling and you should trust it. Even at times if you are unsure exactly why the learner is struggling or you don't know the exact term for what he is experiencing and you are seeing, make the referral. This ensures that the learner gets the necessary help he needs before it is too late and the gap between his skills and what is expected is too great.

The analysed data also revealed that often the teachers make a referral but then the learner does not receive an OT evaluation. The main reasons identified of why the learners did not receive an evaluation were that the parents were against recommendation of a referral or due finances. A lot of teachers responded that the parents were either in denial that their learner is struggling, or they were not educated on what OT is and why it is important that their child receives an evaluation. To assist you with the regards that parents are uneducated on the role of OT and how it can assist their child, I have developed a pamphlet that can be used to give to the parents to educate them on OT. The pamphlet is attached as an Annexure to the letter.

To conclude, the study has found that the teachers that participated in the study were all positive about OT and the referral of the learner. They have the necessary knowledge identify the learners in their classroom experiencing occupational performance challenges but are not confident in their ability to make a recommendation or to refer learners to OT. The teachers use the "wait-and-see" approach when referring learners. In this case, the learners miss out on the benefits of early identification and early intervention. Often teachers refer a learner to OT but then the parents are

against the referral or the learner does not receive an evaluation due to financial constraints of the family. It is important that the parents be educated on the role and importance of occupational therapy at school.

I would suggest addressing the following with the OT that is associated with your school to see how she can assist further to ensure that all the learners that need OT intervention are identified, are referred and receive intervention:

- See if it is possible if the OT can provide workshops or training sessions on how to identify and refer learner in the classroom with occupational performance challenges to OT
- Discuss with the OT the possibility of doing screenings every term or to do class visits if the teachers have identified a learner for a possible OT referral
- Explore different checklist that could be used in the classroom with the OT to assist the teachers with identifying learners to OT
- Together with the OT, provide the parents with educational opportunities to teach them the role of OT and why a referral at times is necessary. Let the therapist be part of open days or parent-teacher conferences to have the opportunity to educate the parents on the role of OT

Thank you again for participating in the study. With the information gathered valuable practices that were already in place to refer learners to OT were identified as well as the gaps that need to be addressed by the OTs and teachers to ensure that no learner is left behind to struggle.

Please feel free to contact me should you have any further questions.

Kind regards

Sabine Swart

swart.sabine@gmail.com

**ANNEXURE H: PAMPHLET EXPLAINING ROLE OF OT TO PARENTS**



**ANNEXURE I: TURN IT IN REPORT**

# Knowledge, Attitude and Practices of Foundation Phase Teachers in Mainstream Schools on Referring Learners with Occupational Performance Challenges to Occupational Therapy

## Research proposal for Masters of Occupational Therapy (MOccTher)

Student name: Sabine Hildemarie Swart

Student number: 10263782

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