

**TEACHERS AND PARENTS PERCEPTION ON THE RELATIONSHIP  
BETWEEN DYSLEXIA AND SELF-ESTEEM OF THIRTEEN-FOURTEEN  
YEARS OLD LEARNERS IN PUBLIC SCHOOLS IN NAIROBI COUNTY**

**BY**

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A thesis Submitted to the Faculty of Arts and Social Sciences, department of Psychology in  
Fulfillment of the Requirement for the Award of Master of Counselling Psychology.

08/11/2022

**DECLARATION**

I declare that this is my original work and has not been submitted to any other college or university for academic credit.

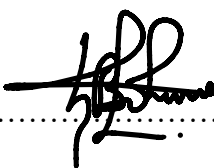
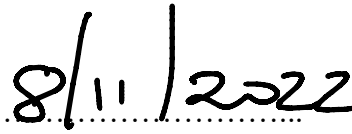
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## **LIST OF ABBREVIATIONS**

DOK	Dyslexia Organization of Kenya
EFA	Education for All
FPE	Free Primary Education
NACOSTI	National Commission for Science, Technology, and Innovation
NGO	Non-Governmental Organization
RAN	Rapid automated naming
RC	Reading comprehension
SNE	Special Needs Education
STM	Short-term memory
UK	United Kingdom

## **ABSTRACT**

Dyslexia may intensely affect self-esteem, even though the influence may be increased by lack of understanding of the issues underlying low self-esteem in dyslexic students and consequently offer therapy and support. The main aim of this research was to establish teachers and parent's perception on the relationship between dyslexia and self-esteem of thirteen-fourteen years old learners in public schools in Nairobi County. The study objectives include; to establish teachers and parents' perception on the relationship between phonological awareness and self-esteem of dyslexic students. To establish teachers and parents' perception on the relationship between verbal memory and self-esteem of dyslexic students. To establish teachers and parents' perception on the relationship between processing speed and self-esteem of dyslexic students. The study employed a mixed method research design where semi-structured interviews and a questionnaire were utilized to answer the research questions, giving a mix of qualitative and quantitative data. A total of 20 teachers and parents of students diagnosed with dyslexia aged 13–14 years were used for the study. Data was analyzed using SPSS 26. The findings revealed that according to parents and teachers' perception the presence of dyslexia significantly affected the self-esteem of students, although it was noticeable in the students with poor verbal memory and slow processing speed. The results further revealed that phonological awareness, verbal memory, and processing speed explain 91.3% of the variation in self-esteem. The study provides multiple recommendations for early interventions to improve the overall quality of learning for dyslexic students. The study's results add a new dimension to the current literature on the relationship of dyslexia and self-esteem. Further study is required to understand the relationship between dyslexia and self-esteem better.

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

This part is an introduction of the background study on teachers and parents' perception on the relationship between dyslexia and self-esteem of thirteen-fourteen years old learners in public schools in Nairobi County. The chapter offers an overview of the dyslexic learners. Further, the chapter includes the purpose of the study, statement of the problem, research objectives, scope of the study, rationale of the study, definition of terms, research questions, the hypothesis of the study, and limitation and delimitation.

#### **1.1 Background**

Students learn and process information differently; however, lack of understanding on the different ways of learning for different students may impart negative feeling about oneself (O'Brien, 2020). Dyslexic learner is defined as a student with difficulty in precise and fluent word reading or spelling (Gibby-Leversuch, Hartwell, & Wright, 2021). According to Gibby-Leversuch et al. (2021) dyslexia is apparent when precise and fluent word reading or spelling develops partly or with great challenges. It concentrates on literacy learning at the 'word level' and it means that the issue is severe and unrelenting despite proper learning opportunities. As a result of dyslexia students are at a risk of developing low self-esteem. According to Glazzard (2010), students with dyslexia are more likely to show timid behaviour, avert situations of potential stress, and frequently ask for assistance and reassurance than students without dyslexia. Consequently, this research seeks to determine the perceived relationship of dyslexia and student self-esteem.

The main sign of dyslexia is difficulty in sound (phonological) interpretation elements of their language. Dyslexia is featured by the challenges with fluent and accurate word recognition and poor decoding and spelling capabilities. These challenges generally emanate from the discrepancy in the phonological element of language that is always unpredicted in association with other cognitive capabilities and the prerequisite of efficient and effective classroom instruction. However, dyslexia may not imply low intelligence; dyslexic may be quite intelligent (Lyon et al., 2003).

Dyslexia occurs globally despite language or culture and influences close to 12 percent of the population. In Europe, approximately 15 percent of the population deals with dyslexia. Dyslexia is a worldwide problem encompassing an array of literacy and

language cultures with different variations concerning definitions, regulations, diagnostic measures, support procedures, and policies for dyslexic children. Dyslexic students are spread across the globe in all ethnic and socioeconomic groups. With cross-linguistic and cross-cultural disparities among students, educators should execute inclusive approaches to guarantee successful content and language learning in the classroom (Maunsell, 2020). One out of ten people in South Africa is dyslexic implying that close to five million people are struggling with literacy issues at the workplace or in schools (Medhananda, 2022). According to Mefor (2018), in Nigeria, there are approximately 20% of the population are dyslexic people, which is close to 35 million comprising adults and children. Nonetheless, kids who are attending ineffective schools, mostly in high poverty regions experience spelling and reading challenges due to a lack of proper instruction.

In Kenya, some studies show that dyslexia prevalence is overestimated whereas others show an underestimation. Cheruyoit et al. (2015) carried out a study to evaluate the prevalence of dyslexia in Nairobi, Kenya. The study results revealed that dyslexia in the country is at 7.5% of children reading and the history of children's reading difficulties is statistically and significantly with dyslexia. Most of the children with dyslexia in Kenya do encounter low self-esteem, and emotional trauma, and typically tend to choose disruptive behaviors and joking to cover their learning challenges. Dyslexia Organization of Kenya (DOK) aims at promoting dyslexia awareness in the country among students and adults because the disorder is unknown and many people over 10 percent are unaware of this learning disorder (Hutton & Hodge, 2022). Further, Kaluyu and Ooko (2016) conducted a study to investigate the correlation between reading dyslexia disorder and academic performance in upper primary students in Kenyan public schools, Mombasa County, Kenya. The results of the study revealed that statistically positive relationship between reading and academic performance in the upper primary school students in the public schools.

The social concern about dyslexic students is that they often have issues with social interactions. Dyslexic children can be socially and bodily undeveloped as compared to their peers. It may result in less peer acceptance and poor self-image. Dyslexia creates spelling and reading hard it may influence social skills (Campbell, 2013). Dyslexic children do not get the joke as they struggle to read and spell making them have a rough time comprehending puns or idioms. The children also find it challenging to read facial

expressions, body language, and other social signs. Children with dyslexia find it challenging to recall specific details or words making it difficult for understanding what their friends said (Kaluyu & Ooko, 2016). Learning disability is a risk aspect for the emergence of emotional, social, or behavioral challenges. Dyslexic students are more likely to experience feelings of emotional insecurity and inferiority complex because of labelling and stigmatization and to have more adverse academic self-concept and lower academic and typical self-esteem than students without dyslexia (Doikou-Avliidou, 2015).

According to O'Brien (2020) despite the learning difficulties linked to dyslexia students, other factors such as learning environment, relationship, and teachers understanding may as well contribute to or alleviate negative self-perceptions in students. Dåderman, Nilvang, and Levander (2014) observed that self-esteem is a major distress in students with dyslexia, because a negative self-image might create a vicious circle of self-fulfilling insights. In addition, non-supportive educators provide dyslexic students additional work during playtime, which contributed to the students missing the break. It leads to them feeling lonely and alienated. Some educators lack empathy and endurance and some of them do not acknowledge that dyslexia exist as a condition.

Low self-esteem linked to different students with dyslexia is linked to different factors from learning abilities of the students to their environment. However, this study perceives that learning difficulties is the leading factor of low self-esteem in students with dyslexia. Dyslexic students have challenges in phonological awareness, verbal memory, and processing speed. Phonological awareness defines the awareness of specific sounds associated with language (Pablo, Carina, Jaime, & Silvia, 2016). Humans develop phonological awareness overtime as they learn, however people dyslexic have phonological deficit which places them at a disadvantage in learning (Kelly, & Phillips, 2016). With respect to verbal memory, dyslexic students learn more slowly, recall fewer words, and perform less well on recognition condition (Kramer, Knee, & Delis, 2000). Dyslexic students have weak cognitive skills, poor working memory, and processing speed. They have slow processing speed regularly take additional hours to complete class work. Slow processing speed is not a formal learning disability, although might contribute greatly to poor academic performance thus frustrating the students and ends up lowering their self-esteem (Adubasim, 2018).

## **1.2 Statement of the Problem**

Dyslexia may intensely affect self-esteem, even though the influence may be increased by lack of understanding of the issues underlying low self-esteem in dyslexic students and consequently offer therapy and support. This study examined the underlying issues among dyslexic students that results to low self-esteem. Three issues were considered which are characteristics of dyslexic students including, phonological awareness, verbal memory, and processing speed. Across the world dyslexia is well widespread and affects 20% of the world population (Shaywitz, Shaywitz, & Shaywitz, 2021). Currently, in Kenya, dyslexia affect more than 10% of the citizens and represents 90% of all those people with learning disabilities and is common among neuro-cognitive disorders.

The dyslexic situation affects reading capability among students in school; the capability to learn and read is a vital mechanism for every student both inside and outside of the classroom. Dyslexia affects motor function, oral language proficiencies, numeracy, and organizational skills (Ooko & Aloka, 2021). Dyslexia disorder interferes with accuracy and fluency when a student is spelling and reading words. From the Kenyan perspective, dyslexic is a language deficit, which interferes with the processing and acquisition of language. Students with dyslexic condition are slower at understanding things and less efficient at resolving single-digit numeracy. In addition, the students find it challenging in examining spoken word sounds and placing them along with their individual letters as they are read to them. Consequently, learners with dyslexia can harbor emotions of disappointment or low self-esteem because of their dyslexic situation (Van Staden, 2016).

The immediate effect of dyslexia on students can be the occurrence of school failure. The academic shortcomings destroy the self-confidence of students and directly hinder the development of a positive self-concept. Further, negative feedback from their peers, educators, and parents can also contribute to students with dyslexic developing a negative self-concept, which affects their psychological health, contributing to a range of emotional issues (Huang et al. (2021)

In Kenya, there are few studies have been carried out on behavior modifications to enhance the reading ability of dyslexic students. Despite many studies having been conducted to plan on ways of remediating the dyslexics' reading ability, this issue is still unaddressed (Van Staden, 2016). The issue is in the fact that with dyslexic conditions students may fail to bear with activities that need reading, and this factor may influence

their academic performance. In addition, these failures or difficulties may induce some responses in learners and modifications in their self-esteem (Kaluyu & Ooko, 2016). Hence, this study needs further conversation with a focus on the exploration of recent research in the areas. Additionally, the relevant research examined shows that there are incoherent results concerning the extent to which behavior modification plans such as shaping, prompting, modeling, and coaching influence the reading behavior of dyslexic students (Ooko & Aloka, 2021). The study established the relationship of perceived chosen behavior modification approaches such as phonological awareness, verbal memory, academic performance, learning and verbal processing, and self-esteem on the improvement of the reading capability of dyslexic students in the public schools in Nairobi County.

Further, students who score poorly in the reading passage and wordlist do not register good academic performance in other disciplines in both primary and secondary schools. This also leads to a decrease in their self-esteem in school activities. Dyslexia leads to poor academic performance and low engagement of a student in reading. Dyslexic students typically encounter challenges with other language proficiencies like writing, spelling, and pronouncing words. However, teachers, parents and administrators do not recognize dyslexic students. Hence, this lack of awareness among educators leads students with dyslexia to suffer in the classroom. Parents who are unaware of their children dyslexic condition, often repulse their children due to their poor class performance which ends up demoralizing the children. This research aims at creating a mechanism that can address the issues such as phonological awareness, RAN, and verbal memory improvement programs to enhance dyslexia students' self-esteem. Secondly, the study highlights the relationship between dyslexia and self-esteem among 13–14-year-old dyslexic students as perceived by their parents and teachers who have observed them for an extended period of time in class and home setup.

The selection of the 13–14-year-old age group is premised on the fact that is a significant stage of human development in identity formation. Signs and symptoms of dyslexia become more pronounced at the teenage years since it the phase in which a person starts to gain independence with the uptake of responsibilities whose skills can be hindered by dyslexia.



### **1.3 Purpose of the Study**

The main aim of this research was to establish teachers and parents' perception on relationship between dyslexia and self-esteem of thirteen-fourteen years old learners in public schools in Nairobi County.

### **1.4 Research Objectives**

1.4.1 To establish teachers and parents' perception on the relationship between phonological awareness and self-esteem of dyslexic students.

1.4.2 To establish teachers and parents' perception on the relationship between verbal memory and self-esteem of dyslexic students

1.4.3 To establish teachers and parents' perception on the relationship between processing speed and self-esteem of dyslexic students

### **1.5 Research Questions**

1.5.1 What is teachers and parents' perception on the relationship between phonological awareness and self-esteem of dyslexic students?

1.5.2 What is teachers and parents' perception on the relationship between verbal memory and self-esteem of dyslexic students?

1.5.3 What is teachers and parents' perception on the relationship between processing speed and self-esteem of dyslexic students?

### **1.6 Rationale of the Research**

The rationale of the research was to establish teachers and parents' perception on the relationship of dyslexia and self-esteem among thirteen- and fourteen-year-old dyslexic learners in Nairobi County.

### **1.7 Scope of the Study**

This research established teachers and parents' perception on relationship between dyslexia and self-esteem of thirteen-fourteen years old learners in public schools in Nairobi County. The study referred to phonological awareness, verbal memory, and verbal processing speed and how they influence dyslexic students' self-esteem. The scope of this study was limited to dyslexia students recognized by the Dyslexia Organization of Kenya (DOK). The study used a census of 20 participants, among thirteen and fourteen

years old. The study was completed within 2 months. The study focused on Freud's Psychosexual Child Development Theory, self-esteem theory and Constructivism Theory. The study interviewed parents and teachers of the dyslexia students, since they are considered to be vulnerable by default and hence need to be protected by their parents and teachers from burden and risks of research (Marsh et al., 2019). Furthermore, the dyslexia students could not appropriately respond to the research due as they are still young and may find it difficult expressing themselves.

### **1.8 Significance of the Study**

The research will help curriculum developers to design a curriculum that considers dyslexic learners. By incorporating this in curriculum development, students will have an opportunity to be taught well based on their understandings. Further, this study will help education stakeholders to train teachers on how to handle dyslexic learners. This will help the teachers to have patience and empathy toward students with dyslexia. This study will create awareness among dyslexics' learners on how to cope with poor self-esteem. Students with dyslexia may be given special consideration from educators and administrators with the perspective of enhancing their self-esteem. Supportive educators will treat dyslexic learners differently. This study will help assessors investigate dyslexia in learners with low self-esteem and improve their performance in schools.

### **1.9 Delimitation and Limitation**

#### **1.9.1 Delimitation of the Research**

The study's delimitation considered of students aged thirteen and fourteen years old. This left out learners aged between three and twelve years with the same problem in public schools. This study was limited to a scope of chosen public primary schools in Nairobi County excluding private primary schools. Further, the area-covered Nairobi County may not depict the required level of generalization in cases of dyslexia in public schools in Kenya.

#### **1.9.2 Limitation of the study**

Dyslexia conditions in most instances remain undiagnosed in Kenya due to a lack of awareness among parents and teachers. Dyslexic students have a learning disability that originates from neurology. The students' learning disability is featured by challenges with fluent and accurate word recognition and poor decoding and spelling capabilities. This

makes children with dyslexia be put under students with specific learning disabilities as it affects their reading. Dyslexic students present poor oral reading skills, inconsistent listening and understanding, poor reading comprehension, and language processing challenges. The study discusses two relationships in detail with a concentration on some suggested applications and modifications, which may have an impact on the correlation between dyslexia, self-esteem, and academic performance (Nijakowska et al., 2018). Dyslexia may influence the self-esteem of learners. However, the correlation between academic performance and dyslexia has received little to no attention (Armstrong & Squires, 2017).

### **1.10 Definition of Terms**

**Dyslexia:** This is described as a syndrome that predicts a collection of related characteristics that differ in degree and from one person to the other. Scholars have characterized dyslexia as a condition associated with a specific learning disorder of neurological cradles that does not imply low intelligence potential (Chisom, 2016).

**Self-esteem:** This denotes a person's assessment of his or her worth. It is normally perceived as a progressive dimension ranging from high to low: individuals with enhanced self-esteem felt positive about themselves while those with low self-esteem felt uncertain about themselves (Hepper, 2016).

**Assessment:** In healthcare, assessment refers to the process used to learn a patient's health condition. Assessment in the context of this study consist of tests and information from parents, teachers, and the student (Andresen & Monsrud, 2022). The rationale behind assessments is to help children improve their performance, both academically and socially. In other words, the information about a child's possible challenges and needs is used to tailor interventions.

**Concentration:** This is the ability to focus on one thing without being distracted. Since children with dyslexia struggle to read and write, they get mentally exhausted faster than their peers and become absent-minded after a short while. Further, many children with dyslexia also have attention deficit hyperactivity disorder, which is a condition featured by excessive activity, difficulties paying attention or acting without forethought (Adanna, 2020).

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter commenced with an examination of the theories and concepts that are applicable to the research. The chapter includes the review of useful information available in literature concerning aspects that are related to dyslexia and its correlation with self-esteem. The chapter concludes by including the study's conceptual framework and chapter summary or overview of the reviewed areas.

#### **2.2 Theoretical Review**

This study is founded on three theories including, Freud's Psychosexual Child Development, theory of self-esteem and constructivism theory, which are reviewed in the following sections.

##### **2.2.1 Freud's Psychosexual Child Development Theory**

Sigmund Freud's psychosexual development model is one of the best-known theories of personality and development. Freud's theory suggests that character develops through a series of phases, each characterized by a different erogenous zone. According to Freud, the first phase of development is the oral phase, characterized by the pleasure the infant derives from sucking. The second phase is the anal phase, during which the infant experiences joy from the act of elimination. The third phase is the phallic stage, during which the child's pleasure is focused on the genitals. The fourth and final phase is the latency phase, during which a child's sexual drives are dormant.

Freud believed that each of these phases is important in developing a healthy personality. However, he also thought that the phases could be a source of conflict if the child became fixated or stuck at a particular stage. For instance, a child who becomes fixated during the oral phase may become a smoker or an overeater as an adult. A kid who becomes fixated on the anal phase may become a hoarder or a neat freak. Moreover, a kid who becomes fixated on the phallic phase may become a womanizer or a rapist (Kinder & Elander, 2017).

While Freud's theory is one of the best-known theories of personality development, it should be noted that many psychologists have criticized it. One of the main criticisms is

that Freud's theory is too simplistic. Critics also point out that Freud's theory is based on case studies, which are not considered scientific evidence. Despite its criticisms, Freud's theory of psychosexual development has significantly impacted our understanding of personality and development. Freud's theory is still studied and referenced by psychologists today. In addition, the model has revealed the social classification in intergroup behaviours, permitted people to distinguish between personal and social identities, and explained other psychology fields. This model is essential because it offers a framework for comprehending intragroup processes and entering category associations by resolving the effects and nature of the category and group memberships' internalization (Morgan, 2019).

### **2.2.2 Theory of Self Esteem**

The theory states that self-esteem is an important aspect of human life. This theory aims to imply that self-esteem is a basic human need. The theory of self-esteem includes different assumptions. One of these is that self-esteem can be termed as a product of how one individual believes others view him or her (Flynn, 2013). The second assumption is that individual evaluation contributed to the creation of social comparison. Theoretically, self-esteem should be lower in dissonant social environments. These environments have high levels of social dissimilarity (Flynn, 2013). There is a conclusion consensus that kids with special learning disabilities, such as students with dyslexia, appear to have lower self-concept and self-esteem levels than the normal students for different reasons are. The children's academic performance is typically lower, which itself is a potential root cause of their lowered self-concepts and self-esteem. Early improvement in the child's self-esteem can be a significant aspect in these students with dyslexia. This theory; therefore, connects with the current study in demonstrating how self-esteem contributes to aiding children with learning disabilities (Arachtingi & Lichtenberg, 2019).

The theory of self-esteem implies that individuals having low self-esteem appear to concentrate on their weaknesses and overlook their strengths. Further, this model highlights some weaknesses of those people with high self-esteem who appear to be self-indulgent, arrogant, and show entitlement feelings. Hence, they ignore their faults and criticize other people. Low self-esteem students feel less than others feel and value the views of others above theirs. Self-esteem enhances assert in students articulating their views and needs and they have confidence in their capabilities to make resolutions. This

theory is important because it serves as an indicator of whether students with dyslexia their psychological needs have fulfilled. This theory helps inspire people to attain their goals where students can cope with situations and low self-esteem results in avoidance (Skočić Mihić et al., 2021).

### **2.2.2 Constructivism Theory**

Constructivism theory is focused on scientific and observation study, about how individuals learn. Constructivism theory argues that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences (Bada & Olusegun, 2015). In a constructivist perspective, it is proposed that truth and reality are inevitably intertwined with social context and meaning and that values should be examined in that light (Allen, 1994). Further, Adom, Yeboah, and Ankrah (2016) presented that constructivism theory is a practice that claims that individuals develop their own perceptive and knowledge of the world through experiencing aspects and reflecting on those encounters. It centers on this argument, that the current study examined the association of learning disabilities between dyslexic students and their self-esteem as perceived by parents and teachers. The study considered that parents and teachers have learnt a lot through their experience raising and teaching dyslexics. To emphasize this Bada and Olusegun (2015) noted that constructivist theory asserts that knowledge can only exist within the human mind, and that it does not have to match any real-world reality.

### **2.3 Empirical Review**

Dyslexia is considered a learning disability that entails difficulty in reading and spelling words because of issues with the identification of speech sounds and learning how they associate with words and letters (decoding). The disorder affects brain areas that deal with language processing. Dyslexic individuals have normal intelligence; hence, they have normal vision. Many dyslexic kids can succeed in their education with specialized schooling programs or tutoring. Despite the lack of a cure for this disorder, early analysis, and intervention lead to the best results (Zirkel, 2020).

Some of the signs that kids are at risk of developing dyslexia include, late talking, problems with developing words accurately, slower learning new letters and words, and difficulty playing rhyming games or learning nursery rhymes. However, when a kid is in school, symptoms, and signs of a dyslexic condition can become prevalent comprising

reading below the projected level for age level, issues with understanding and processing what the child hears, challenges with finding the correct word, or having answers to question asked (O'Sullivan & Hammond, 2019). The children also experience issues with remembering things in series and seeing or hearing differences and similarities in words and letters. The learners also experience challenges in spelling, inability to make pronunciation for words with unfamiliar sounds, and shunning tasks that engage in reading. The learners take a too long time to complete activities that entail writing or reading (Taylor & Walter, 2013).

Self-esteem implies feeling better about oneself as individuals with self-esteem feel accepted and liked and feel proud of whatever activity they partake in. Positive self-esteem among teenagers aged thirteen to fourteen years is critical, as it permits them to try new aspects, solve problems, and take health risks. This in turn will lead to their development and schooling to be productive and may set them up for a positive and healthy future (Lawrience, 2013). However, teenagers with low self-esteem appear to shun conditions in which they think there is a danger of failure, making faults, or embarrassment. These may engage in making friends, school activities, and trying new tasks, which are all critical factors of healthy teenage life. The teenagers may have issues with identifying information (Taussig-Simpson, 2021).

Self-esteem and perceived capability are important for learners to assume risks in their schooling and to rebound back after adversity or failure. Lack of confidence or low self-esteem leaves learners doubting their capability to succeed leading them reluctant to partake in schooling or assume proper academic development risks. Self-esteem is mostly an essential component in the psychological well-being of learners even though always ignored at school (Howard, 2019). Teachers in school, group learners according to their academic competencies and they probably have varied expectations towards the varied group of learners. Teachers tend to lean toward high-achievers and provide them with academic support while low achievers appear to control the behavior of the learners to shun disciplinary issues. This in turn leads learners to establish different views towards their expectations of their teachers. Consequently, the learners' self-esteem is influenced by their perceived expectancy of their teachers, which is not often positive (Kususanto & Chua, 2012).

However, teachers can enhance learners' self-esteem in the classroom by not comparing one learner to the other, increasing a sense of ownership, embracing a growth mindset, and developing realistic expectations to boost learners with dyslexic conditions' self-esteem (Fu et al., 2021). According to Blegur et al. (2021), self-esteem is important, responsibility for schooling is good, and learners' group learning dedication is good. Hence, teachers and peers should support, sustain, and establish positive self-esteem via supportive feedback to support the schooling behavior of learners like being accountable and dedicated to group learning to complete different schooling.

Glazzard (2018) conducted a study to examine resilience stories in people with dyslexia on how it shapes self-esteem, self-concepts, and informants' identities. The study adopted a narrative genre design and involved volunteered people to narrate their stories. The results revealed that dyslexia influence the self-esteem, self-concepts, and identities of many people as narrated by Rich, James, and Sophie. The study sums up those early dyslexia diagnosis is critical for developing a positive self-image for people with dyslexia. This study recommends further narrative studies to explore the crucial effect that has on the self-sense of people.

Kemuel (2022) conducted a study to examine the encounters of a team of secondary school students with dyslexia. The study adopted a quantitative research design and involved students both inside and outside the classroom in secondary schools in the UK. The results of the study demonstrated that students' global self-esteem and self-concept were high because they decided to challenge and attained success in their extra-curriculum activities in life. However, students with dyslexia show lower academic self-concept with all appreciation of the negative influence of dyslexia on the academic work in the classroom. The school had to invest in the software to facilitate literacy skills development.

Moreover, Anderson and Shaw (2020) carried out a study to quantify the findings of a qualitative study that outlined issues like a lack of support and bullying among junior doctors and medical students with dyslexia in the South of England. The study adopted mixed research methods, involved medical students, and interested junior doctors in medical schools in England. The study results showed that most of the students reported that dyslexia influenced their self-esteem and self-image. Participants revealed that



bullying from their peers, teachers, and clinical teachers and at work affected their self-esteem and self-image. There was no support provided by foundation schools

### **2.3.1 Relationship of Phonological Awareness and dyslexic Student Self-Esteem**

Moshkani et al. (2017) conducted a study to examine the influence of phonological awareness on enhancing self-esteem and reading among students with dyslexia. The study adopted a semi-experimental research approach with the control group and pretest and posttest design and involved all dyslexic students in the City of Gordon. The sample comprised 30 students chosen by a convenience sampling method and placed in two equal groups, control and experimental respectively. Data collected was analyzed utilizing the covariance analysis procedure. The findings of this study revealed that phonological awareness training had a positive and significant influence on reading words, recognizing rhyme, understanding words, reading pseudo-words, detecting vocals, and improving reading abilities in students with dyslexia. The study results concluded that phonological awareness has a significant influence on enhancing reading abilities, increasing academic positive feeling of dyslexia and educational quality. Despite identifying the gaps in phonological awareness in students with dyslexia, teachers appear not to prioritize tasks that stimulate self-esteem for these students.

Further, Veríssimo et al. (2021) carried out a study to investigate the effect of phonological awareness on developing reading abilities in students with learning disabilities such as dyslexia. The study adopted a qualitative research method and involved 10 pre-school and primary school teachers in one Portuguese school. The findings showed that both primary school and pre-school teachers identified the significance of phonological awareness among other pre-academic abilities. Results also revealed that about the tasks teachers execute, in their view, the playfulness appears to better lead to stimulating this particular ability. Pre-school educators appear to concentrate on the aspects that support intrasyllabic, syllabic, and phonemic awareness. Research gaps were spotted in phonological awareness in the first graders. However, primary educators did not appear to prioritize tasks that consolidate and induce this skill, they privileged the comprehension and fluency processes.

Vatankhah and Kalbasi (2021) carried out a study to investigate the influence of reading disorders and phonological awareness on writing disabilities of students in spelling lessons. The study employed a causal-comparative research design and involved a sample

of 80 students in third and second grades in an elementary school in Isfahan City, Iran. Data was collected using spelling tests and phonological awareness tests. The study results demonstrated that dyslexic students' misspellings are higher than ordinary students. The results also revealed that the three study elements, reading disorder, phonological awareness, and misspellings, weaknesses emerged in phonological awareness tests resulting in reading disorders and this increases misspellings in students with dyslexia. Research gap showed that among the three elements of phonological awareness, comprising syllable awareness, phonological awareness, and intra-syllable awareness, misspellings are inversely associated with phonological awareness even though have no significant association with the other two elements.

### **2.3.2 Relationship of Verbal Memory and Dyslexia Student Self-Esteem**

Gray et al. (2019) carried out a study to investigate whether different working memory profiles could develop a detailed battery of phonological, central executive, binding working memory, and visuospatial activities and whether the profiles were related to group membership among children with dyslexia. The study adopted a quantitative research design and involved a sample of 302-second graders with dyslexia from schools in rural and metropolitan areas of Arizona, Nebraska, and Massachusetts. The results show that latent classes examined produced four different latent classes comprising low overall yielding 21 percent, average children with high number updating at 30 percent, average children with a low number of updating presented 12%, and a high number overall of children with 37 percent. Results also show that children from each disability group and the typically developing group were present in every class. These findings outlined the significance of understanding an individual child's working verbal memory profile as they are not synonymous with learning disabilities diagnosis. Therefore, the research gap shows that working memory assessments might contribute to significant information concerning the cognitive function of children over and above normal psychoeducational measures.

Furthermore, Meisinger et al. (2021) conducted a study to investigate whether group-based variances exist in text-and word-level reading in dyslexic students. The study used a quantitative research approach and involved 200 seventh-grade students with dyslexia administered a battery of standardized cognitive processing abilities measures (RAN, Verbal short-term memory, and phonological awareness) from one school in Memphis,

United States. The results of this research revealed the existence of a text fluency deficit group among dyslexic students. Reader group variances based on cognitive processing abilities were less prevalent than expected with only phonological awareness being distinct among the group. Rapid automated naming (RAN) and phonological awareness emerged to be vital contributors to reading abilities; however, their relative influences differed across text-and-word level measures. A research gap noted in this research is the significance of considering text-level reading processes across modalities in both clinical and research contexts.

Hamouda and El-Shafaei (2021) conducted a study to compare dyslexic children and those without dyslexia based on short-term memory (STM) and working memory activities. The study adopted a quantitative research approach and involved a sample of 104 children from Egypt. Results showed that there was a statistically significant between the dyslexic students' group (I) and those without dyslexia group (II) concerning all the items of the TOMAL. Results concluded that children with are distinctively disadvantaged as compared to average readers on STM and working memory activities. Research gap in this study assumed that the number of reversed activities is mainly a STM measure of information processing ability.

### **2.3.3 Relationship of Processing Speed on Dyslexia Student Self-Esteem**

Mahrooghi et al. (2020) conducted a study comparing the effectiveness of memory amplification and attention amplification on information processing speed and verbal fluency of dyslexic students. The study adopted a semi-experimental research design and involved a sample of 43 students with dyslexia from the Khayami Learning Disorder Center in Neyshabur City. The study results showed that there was a significant and positive difference between the processing speed of information in attention amplification and memory amplification as compared to the control group. Hence, results concluded that memory and attention amplification programs appear to be effective in enhancing the processing speed of information in dyslexic students. The research gap shows that a lack of amplification programs can lead to a slow processing speed of information in students with dyslexia.

Wang et al. (2018) carried out a study to investigate the relationships of rapid naming and temporal processing with Chinese character reading in dyslexic children and those without dyslexia. The study adopted a quantitative research design and involved a sample

of 112 Chinese pupils in primary school drawn from Taiwan. Findings of this study showed that the interaction of participants' groups and non-alphanumeric rapid naming resulted in significantly Chinese character reading besides rapid naming and temporal processing. Results further showed that the significant role of rapid naming contributed to the temporal processing of the character reading in dyslexic children. Results also showed the significant contributions of temporal processing speed to Chinese character reading in absence of rapid naming in dyslexic children and those without dyslexia. The study can bridge a research gap within the temporal processing field in Chinese.

De Oliveira et al. (2018) conducted a study to evaluate the elements of the reading comprehension (RC) and predictive abilities in adolescents and children with dyslexia. This study adopted a quantitative research design and involved a sample of 40 adolescents and children divided into a dyslexic group and a control group from an elementary school in Brazil. Results showed there were no group variances concerning the accuracy in RC and oral, naming, phonological awareness, and vocabulary scores. Results further revealed that the dyslexic group performed worse than the control group in word recognition and they were slower in rapid naming. These findings corroborated the literature about processing speed and word recognition deficit in students with dyslexia. Nonetheless, dyslexic students may attain typical scores on the reading comprehension test. The research gap shows that role of processing speed in reading issues remains unclear for students with dyslexia

## **2.4 Conceptual Framework**

This study is founded on the idea that dyslexic student self-esteem is affected by phonological awareness, processing speed, and verbal memory. It goes without saying that on a global context, research around dyslexia and self-esteem has been rather profound. Apart from qualitative investigations, scholars have also conducted quantitative investigations that have constantly established the interrelationship between dyslexia and self-esteem. On his part, Glazzard (2015) opted to conducted qualitative research that entailed examining various scholarly sources. In one of these studies, the researcher conducted case studies based on a sample of eight adolescent boys from an institution of special education for dyslexics. Based on the interviews conducted, it was established that most participants underwent undesirable experiences that resulted from their dyslexia (Glazzard, 2015). Most of such experiences were related to their education prior to

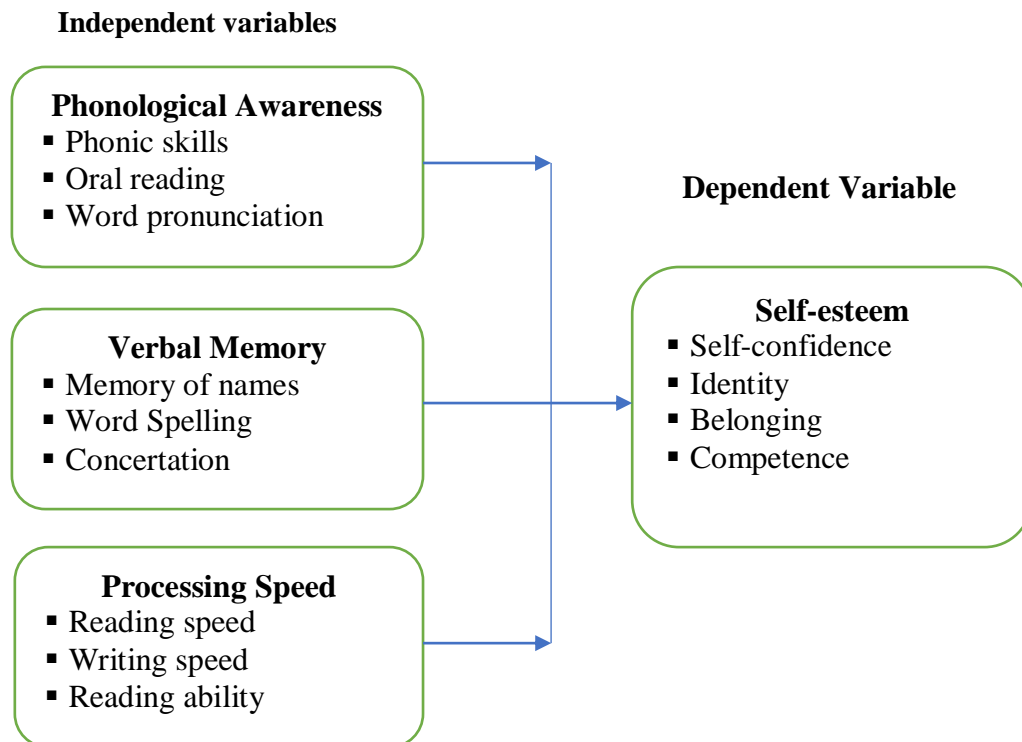
joining a special institution. Some of the participants have even had violent experiences. The outcome of such experiences was a dent in their self-esteem levels.

Prior to conducting research in 2015, Glazzard had also conducted a study in 2010. In this case, he aimed to explore the effect of dyslexia on students' self-esteem. Through his literature review, one interesting fact that he raises is that students with dyslexia in mainstream and special institutions are highly likely to present timid behavior, stay away from situations posing possible stress, and constantly seek for aid and reassurance compared to non-dyslexic students. For data collection, the researcher employed semi-structured interviews with learners officially diagnosed with dyslexia. The sample population included pupils aged between 14 and 15 years old. Ultimately, the research indicated that an official diagnosis of dyslexia played a major part in the development of self-concept and self-esteem. Before the diagnosis, adverse interactions from instructors and fellow pupils led to low self-esteem and feelings of isolation.

Just like Glazzard (2015; 2010), Daderman, Nilvang, and Levander (2014) conducted a study that aimed to examine self-esteem among women having dyslexia. On the onset, they make it clear that persons with dyslexia often have low self-esteem and try to safeguard or replenish their vulnerable self-esteem through different ways, particularly through hiding, working hard, retaliating, and/or exploring and explaining their hardships. Such rejoinders are rather intense for people suffering from undiagnosed dyslexia. The researchers used a study that targeted dyslexic young women between aged sixteen to thirty years. The participants were examined by the research team through the employment of standardized tests with the total number of years attending school being a major factor (Daderman, Nilvang, and Levander, 2015). As anticipated, it became clear that there was a pattern of negative correlation between the number of errors recorded in spelling tests and self-esteem. However, feelings of self-esteem based on the psychological well-being dimension were positively related with the speed of reading and non-verbal IQ (Daderman, Nilvang, and Levander, 2015).

On his part, Burden (2008) aimed to address the issue of whether dyslexia are necessarily associated with negative feelings of self-worth. The researcher believes that even though there are concerns expressed regarding the potential impacts of dyslexia and other types of learning disabilities on social interactions contributing to social isolation or behavioral adversities of different types, little evidence suggests that this is a fact that can be proven

undeniably. Moreover, he posits that while an individual's self-concepts are generally presumed to gauge how they view themselves, their self-esteem may be perceived as connecting their feelings regarding the same. Therefore, if a person views themselves as a poor reader but not necessarily concerned with the same, then the academic self-concept can be quite diminished without having a negative influence on their academic self-esteem. Figure 2.1 demonstrates the interaction of these study variables.



*Figure 2. 1: Conceptual Framework*

## CHAPTER 3

### 3.0 RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter outlines the research design used to answer the research questions, and the objectives achieved through the collection, calculation, and analysis of data. It describes the study site, which gives a full account of the people and place of study of the research methodology that was used to conduct the study. The chapter discusses the research design, study population, sampling design, sampling technique, data collection method, research procedure and data analysis.

#### 3.2 Research design

Research designs refers to types of investigation within qualitative, quantitative, and mixed methods research approaches, which offer specific direction for procedures in a research design (Creswell & Creswell, 2017). This study adopted a mixed method approach where semi-structured interviews and a questionnaire were utilized to answer the research questions, giving a mix of quantitative and qualitative data. The study used a qualitative approach which includes exploring and understanding the meaning people or groups ascribe to a social or human problem (Creswell & Creswell, 2017). The study also used a quantitative approach to investigate significant relationships between the dependent and independent variables. The use of mixed method allowed the researcher to explore diverse parents and teachers' perspectives and uncover association that exist between dyslexia and self-esteem. In addition, the use of quantitative and qualitative approaches in combination provided a better understanding of the research problem and complex phenomena than either approach alone could not. The mixed method design also enhances reliability as it is able to draw better understanding by triangulating one set of results with another.

This study explored the perspective of teachers and parents of dyslexic students to understand how learning disabilities among dyslexic students affect their self-esteem. The study interviewed teachers and parents of 20 dyslexic students to get their views on the relationship of dyslexic and these students' self-esteem. The students were 13–14 years old. This study was carried out through a census technique whereby 20 dyslexic student's data, provided by DOK, were engaged. The study used a census due to the small size of

the population under study. In addition, census helped the study be intensive and collect a lot of knowledge. Census technique also attain a higher degree of accuracy in data.

### **3.3 Population and Sampling Design**

#### **3.3.1 Target population**

A target population for a study is the group of individuals or subjects that is affected by the study (Norris *et al.*, 2015). According to Pernecky (2016) study population is a large collection of all subjects from where a sample for a study is drawn. This study target population was defined as 20 dyslexic students in schools as provided by the Dyslexia Organization, Kenya (DOK). The DOK is an NGO registered in Kenya with a mission to create public awareness and intervention strategies for dyslexia. The organization maintains a database of dyslexic students in Kenya who have registered with the organizations. This study targeted dyslexic students in Nairobi Kenya.

### **3.4 Data Collection**

#### **3.4.1 Interview Guide**

The collection of primary data was done using semi-structured interviews with teachers and parents of dyslexic students. A semi-structured interview schedule was used to ensure that the same basic lines of enquiry were pursued with each person that was interviewed. A list of questions covered were derived from the objectives and the research questions. The questions were structured in a way that allowed the researcher to build a conversation within a particular area, to word questions spontaneously and established conversational style but with the focus on a particular subject that was predetermined.

Semi-structured interview is considered the main research instrument in qualitative research (Magaldi& Berler,2020). It is perceived to have more potential than other types of interviews because it allows researchers to acquire in-depth information and evidence from interviewees while seriously considering the focus of the study (Ruslin et al., 2022). According to Ruslin et al. (2022) for many qualitative researchers, the semi-structured interview is perceived to enable researchers to track their studies while being flexible and adaptable to ask questions to their interviewees. The sense of flexibility and adaptability in the semi-structured interview, however, is particularly distinctive from the looseness of an unstructured interview because its direction is fully controlled. The interview was used in this study as it enabled the researcher probe respondents answers and obtained in-depth



information. The interview being open ended also allowed respondents to provide their own answer and even give information that the researcher could not have envisioned.

### **3.4.2 Questionnaire**

Questionnaire was used to collect quantitative data. The questionnaire contained closed ended questions. The questionnaire captured the demographics of the respondents and questions around phonological awareness, verbal memory and processing speed that were measured in a Likert Scale. Students' self-esteem was reported by parents and teachers based on the Savin-Williams and Jaquish (1981) behavior checklist. Data was collected by a combination of note taking and tape recording. The respondents were requested to verify some answers to the questions through follow ups that were conducted via emails when there was need. The reason why questionnaire was used to collect data is because they are effective for measuring subject behaviour, preferences, intentions, attitudes and opinions. Hence, they could appropriately capture the perception of teachers and parents on the association of dyslexia and self-esteem.

### **3.4.3 Pre-testing of the Instruments**

The study instruments were pre-tested in a pilot study. According to Pratt (2008), pilot study is administering instruments to a small group of people that have comparable characteristics to the target population, and in a manner that simulates how data will be collected when the instruments are administered to the target population eventually. In this study, the researcher conducted a pilot study at Rare Gem School located within Dagoreti North. The research instruments were tested on a total of 10 learners aged between thirteen to fourteen years old, a heterogeneous sample comprising both boys and girls. All the respondents for the pilot were randomly drawn from thirteen to fourteen-year-old, the researcher assumed that they experienced shared confounding variables. The researcher included two teachers and one parent in the pilot. The researcher assessed the proposed data analysis techniques and unearth possible problems, the research was realistic and practical; the researcher collected preliminary data; estimated variability in results ; found the logistical problems which occurred as a result of applying the proposed research methods; determined the financial and human resources required for the study and finally was able to develop and test the adequacy, capability and reliability of research instruments; assessed the feasibility of a comprehensive study.

### **3.4.4 Validity and Reliability**

A pilot study was also necessary to enhance the validity of the research instruments. It determined that instruments produced the data desired, detected problems which the participants of the research were likely to encounter while responding to the questions and also it established questions clarity. The respondents of the pilot test were requested to give comments on each element of the instrument regarding the suitability of the content and clarity of the language used. After which, the researcher analyzed the responses and comments given by the respondents. The instruments 'scope, comprehensiveness and content were thereafter improved to enhance the reliability. The results of the pilot test informed the researcher on the appropriateness of the analytical techniques that were identified for use as well as refine the methodology for the subsequent phases of the actual information-gathering.

### **3.5 Using Teachers and Parents in Collecting Data**

Teachers and parents were considered in answering the research questions because involving children in research is widely recognized as practically and ethically challenging, yet essential for the development of solution to society problems. The study interviewed parents and teachers of the dyslexia students, since they are considered to be vulnerable by default and hence need to be protected by their parents and teachers from burden and risks of research (Marsh et al., 2019). Furthermore, the dyslexia students, because of their challenges, could not appropriately respond to the research given that they are also still young they could find it difficult expressing themselves since they are not competent enough. According to Marsh et al., (2019) a core issue in research involving minors is that the skills, attitudes and behaviors underpinning 'competence to decide' are acquired at variable rates over time as part of a process of maturation influenced by environmental conditions, including the family and wider social context. Therefore, dyslexia students may not be competent enough to determine their involvement in research and therefore the parent and teacher is considered to make decide for the student.

### **3.6 Data Analysis**

Data analysis is the process of bringing order, structure and meaning to the mass of information collected (Mugenda & Mugenda, 1999). Structured questionnaire and

interview guide were used to collect data. Questionnaire data was quantitatively analyzed and interview data was qualitatively analyzed.

### **3.6.1 Quantitative Analysis**

Quantitative data analysis is a systematic process of both collecting and evaluating measurable and verifiable data. It contains a statistical mechanism of assessing or analyzing quantitative data. A quantitative research analyst's main purpose was to quantify a hypothetical situation (Creswell, 2007). Quantitative analysis involved descriptive statistics and inferential statistics. Descriptive statistics entailed frequencies and measures of central tendency and dispersion (mean and standard deviation). Inferential statistics involved correlational analysis and regression analysis.

### **3.6.2 Qualitative Analysis**

Qualitative data analysis seeks to make general statements on how categories or themes of data are related. The logical arrangement of the details of the research being conducted, the examination of bits of data for their relevance towards the research, analyzing the data for underlying themes and patterns, categorization of data and lastly the synthesis of results and generalizations arising thereafter form the steps of data analysis as suggested by Leedy and Ormrod (2010). Framework analysis was used to analyze qualitative data. The data collected was organized and categorized and the relationship between the categories established. Themes and categories were generated using the classifications provided in the interview schedule. Framework analysis was used to analyze data during the collection process. In the analysis the gathered data was sifted, charted, and sorted in accordance with key issues and themes in the study (Srivastava, & Thomson, 2009). Indexing was used whereby the researcher identified the portions of data that correspond to study themes. This was applied to all the textual data that were recorded in the interview transcripts. A numerical system was used for the indexing references and annotated in the margin beside the text.

The data was summarized into a compact, concise, and logical order and presented qualitatively and descriptively in the reporting of the findings. According to Gale et al., (2013) framework analysis identifies commonalities and differences in qualitative data, before focusing on relationships between different parts of the data, thereby seeking to draw descriptive and/or explanatory conclusions clustered around themes. After conducting the interviews, I transcribed the interviews and then coded them using a

framework analysis approach. I then analyzed the data to generate themes and categories. I identified several themes, including the challenges of living with dyslexia, the impact of dyslexia on education and employment, and the stigma associated with dyslexia. I also developed several categories, including the causes of dyslexia, the symptoms of dyslexia, and the treatments for dyslexia. The researcher evaluated the usefulness of information in answering research questions. Presentation of results was written through descriptions.

### **3.7 Ethical Considerations**

A research permit was applied from National Commission for Science, Technology, and Innovation (NACOSTI) before proceeding with the data collection. All participants were made aware of research intentions and design by an introduction letter followed by an email. The researcher abided by a system of ethical protections to protect the right of respondents. The principle of voluntary participation was applied. Closely related to the notion of voluntary participation was the requirement of informed consent. This meant that prospective research participants were fully informed about the procedures and risks involved in the research and they were only interviewed after they provide their consent to participate.

The research guaranteed the participants 'confidentiality where they were assured that identifying information will not be made available to anyone who is not directly involved in the study. The participants were referred through Pseudonym. Data collected will be used for the purpose of this research only. No source, whether individual or organization will be correlated with specific findings or comments attributed to the originator or institution. All discussions were expected to remain confidential. In reporting the findings, the researcher did not use language or words that were biased against persons because of gender, sexual orientation, racial or ethnic group, disability, or age.

### **3.8 Chapter Summary**

This chapter has discussed the research methodology that was followed in selecting the participants, collecting and analysis data. The study took a mixed approach. The study target population includes 20dyslexic students. The study used a census technique whereby 20dyslexic students were included. The collection of primary data was done using semi-structured interviews and questionnaire. In this study framework analysis was the mode of analysis. The data was summarized into a compact, concise, and logical order and presented qualitatively and quantitatively.

## CHAPTER FOUR

### 4.0 DATA ANALYSIS AND RESULTS

#### 4.1 Introduction

The main purpose of this study was to establish teachers and parents' perception on the relationship of dyslexic and student self-esteem. More specifically, it established the perceived relationship of phonological awareness and self-esteem of dyslexic students. Secondly, it established the perceived relationship of verbal memory and self-esteem of dyslexic students. Finally, it established the perceived relationship of processing speed and self-esteem of dyslexic students. The methodology was described and validated in the previous chapter according to the study's objectives, research questions, and hypotheses. This chapter includes the findings, interpretations, and discussions.

#### 4.2 Demographic Information

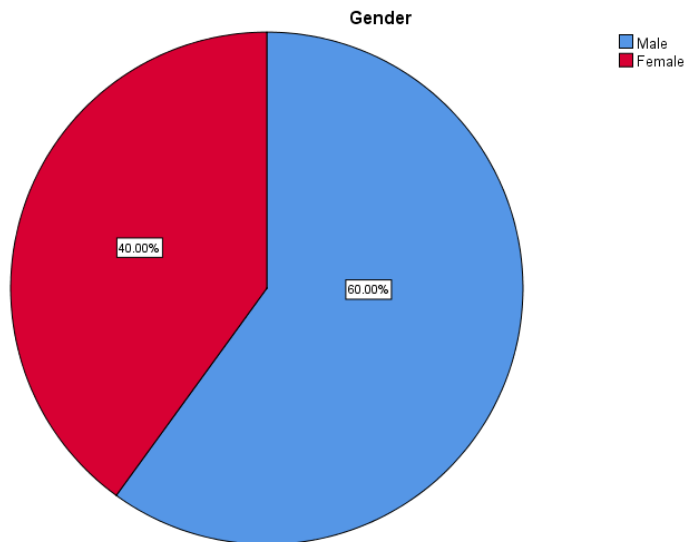
The study involved a total of 20 participants who consisted of teachers and parents. There were 3 male and 2 female parents/ guardians and 9 male and 6 female teachers. Most parents were skeptical to provide information concerning their children, thus the small number of parents participating in the study. The study inquired several factors to detail the demographic information of the participants including; gender, age, years of experience, and level of education

##### 4.2.1 Gender

Generally, 60% of the participants were males while 40% were females as shown in the pie chart below.

*Table 4. 1: Cross tabulation between gender and parent/guardian or teacher*

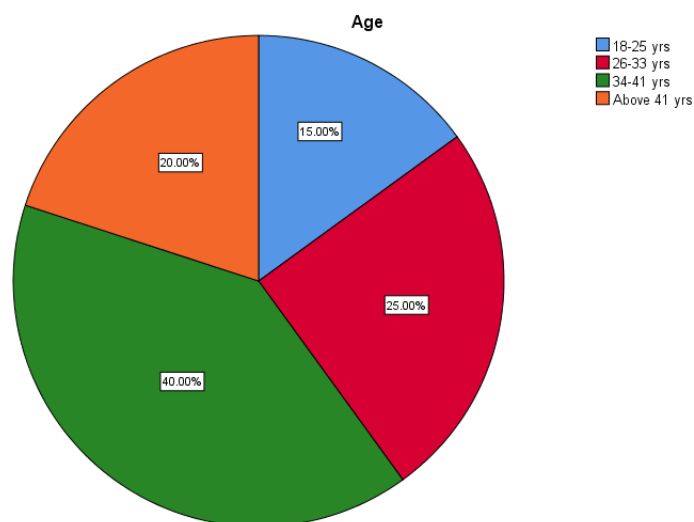
Count		Gender * Parent/guardian or teacher Cross tabulation		
		Parent/guardian or teacher		Total
Gender		Parent/guardian	Teacher	
	Male	3	9	12
	Female	2	6	8
Total		5	15	20



*Figure 4. 1: Pie Chart showing gender of participants*

#### **4.2.2 Age of Participants**

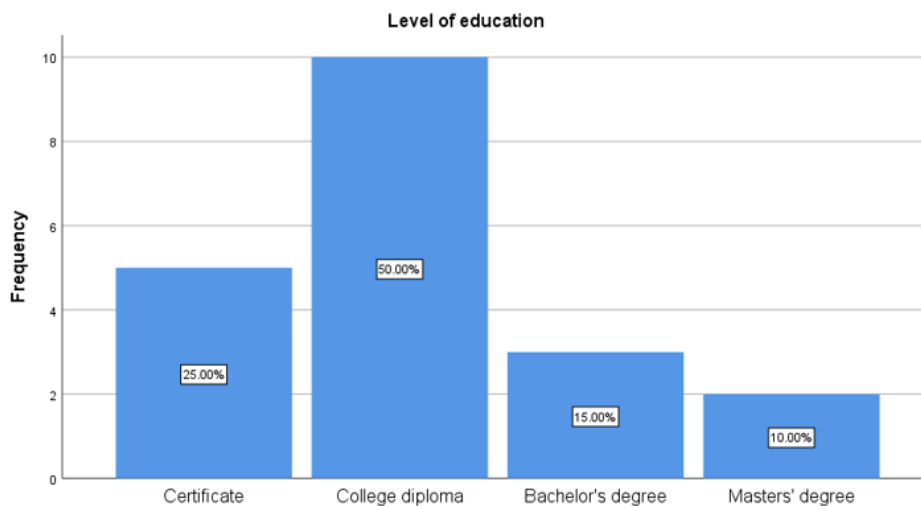
Majority of the participants were aged between 34 and 41 years with 40% of them falling into this category. 25% of the participants fall in the category of 26 to 33 years while those above 41 years making up 20%. The least category was those who were aged between 18 to 25 years who only make 15% of the total respondents. We can attest majority of the participants are way older and therefore, their feedback can be considered reliable.



*Figure 4. 2: Pie Chart showing Age of participants*

### 4.2.3 Level of education

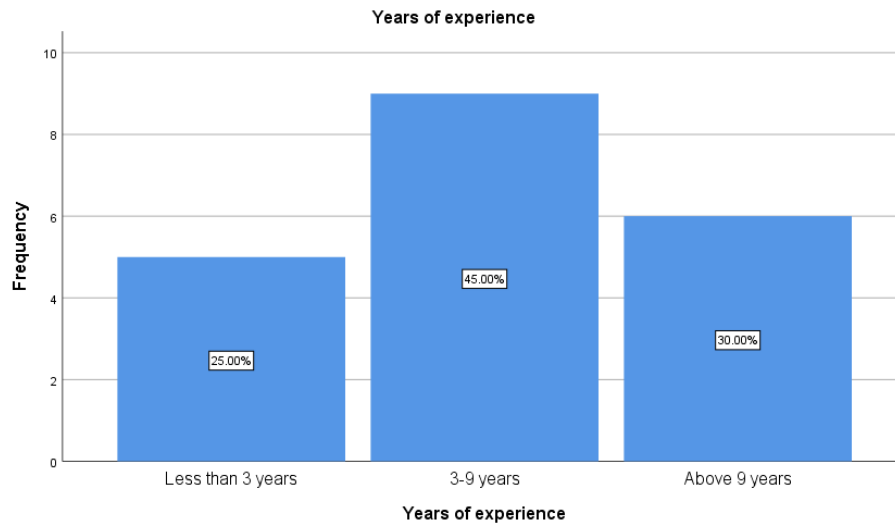
The participants also provided their information on level of education which they had attained at maximum. 50% of the participants which is the majority had attained their college diploma. They were followed by those who had attained certificate level at 25% and those with bachelor's degree at 15%. Only 10% of the participants had attained the masters' degree which was the least category



*Figure 4. 3: Bar graph showing levels of education attained*

### 4.2.4 Years of Experience

The participants were also asked on the years of experience they had with their children or students. This was vital in order to determine how well they know the child. Majority of them at 45% had experience of between 3 and 9 years which was vast experience. They are followed with those with experience of above 9 years at 30% while 25% of them had experience of less than 3 years. From the data, it was observed that there was vast experience among the participants to provide reliable on the children.



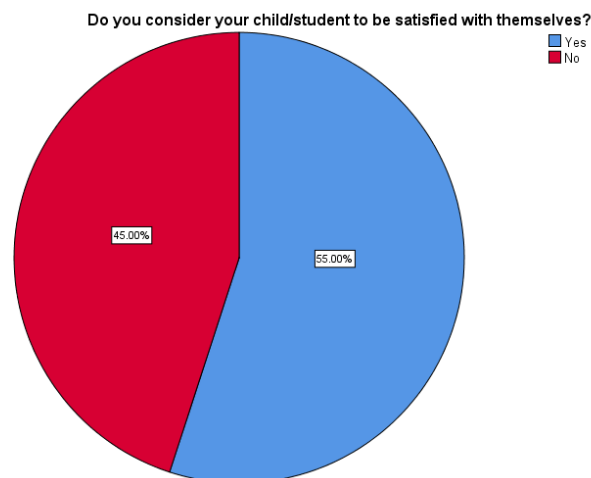
*Figure 4. 4: Bar graph showing years of Experience*

### 4.3 Phonological Awareness

In this subsection, the study looked at the factors that determined the phonological awareness of the students. The study utilized three major factors; phonic skills, oral reading, and word pronunciation to rate the phonological awareness of the students.

#### 4.3.1 Phonic skills

Phonic skills enable students to read efficiently and therefore, teachers and parents were asked if they considered their child/student to be satisfied with themselves on phonic skills. 55% of the participants considered their child/students to be satisfied with themselves while 45% didn't consider them satisfied.



*Figure 4. 5 : Pie chart showing phonic skills*



### 4.3.2 Oral reading

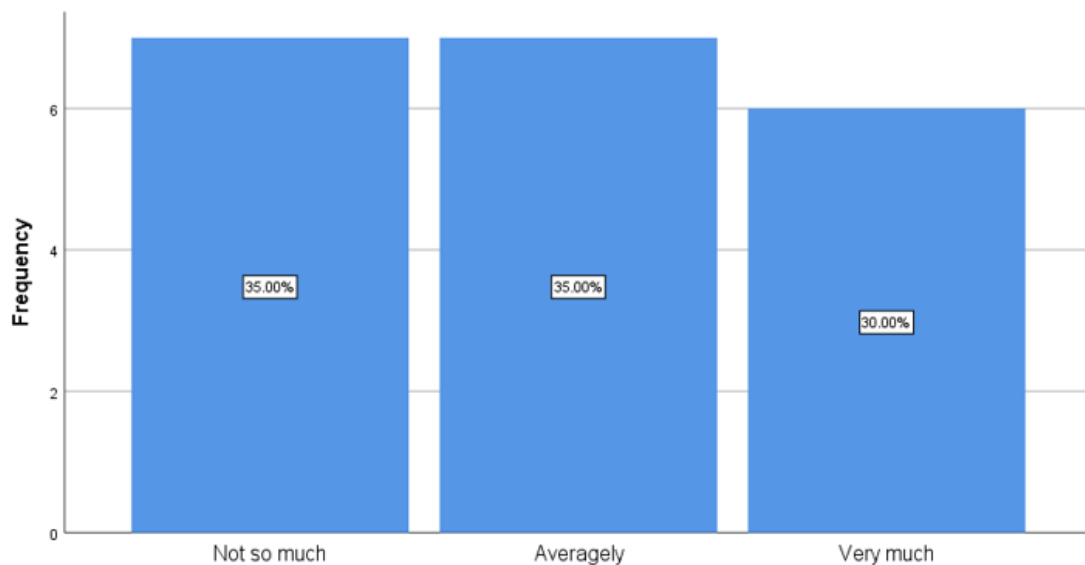
The parents and teachers were asked on how much they observed the children/students struggled with oral reading. The maximum and minimum rating were 3 (Very much) and 1 (Not so much) respectively. The mean average of the ratings is 1.95 with SD of 0.826 (Averagely struggled). Figure 4.6 shows majority of the children/students struggled not so much (35%) and averagely (35%) with oral reading. 30% of the participants rated the children/students struggled very much with oral reading.

*Table 4. 2: Statistics on Oral reading*

#### Statistics

Does your child/student struggle with oral reading.

N	Valid	20
	Missing	0
Mean		1.9500
Std. Deviation		.82558
Minimum		1.00
Maximum		3.00



*Figure 4. 6: Bar graph showing ratings for Oral reading*

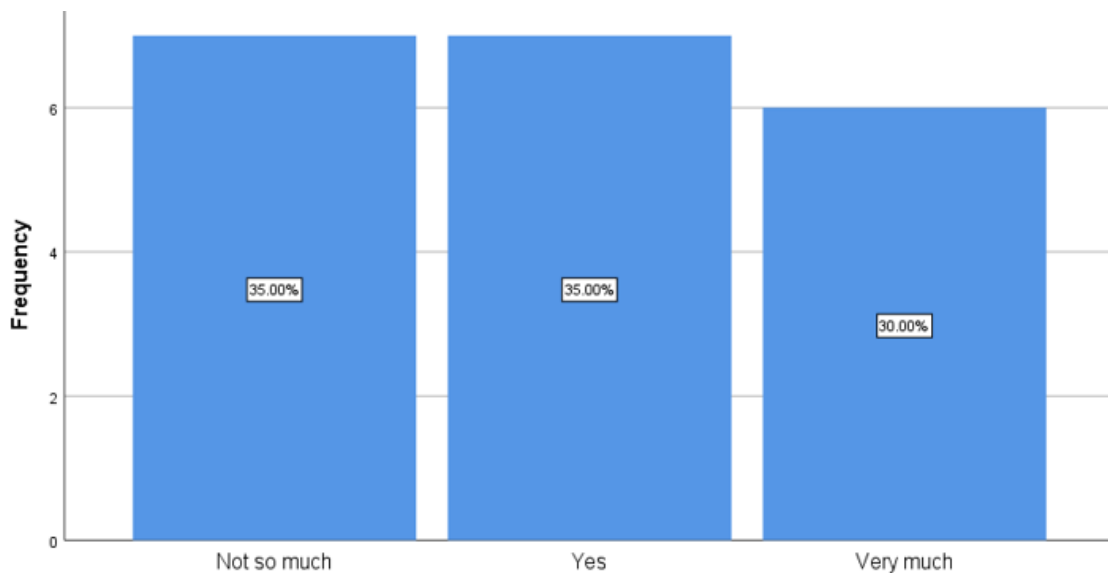
### 4.3.3 Word Pronunciation

The parents and teachers were also asked on how much they observed the children/students struggled with word pronunciation. The maximum and minimum rating were 3 (Very much) and 1 (Not so much) respectively. The mean average of the ratings is

1.87 with SD of 0.645 (Averagely struggled). Figure 4.7 shows majority of the children/students struggled not so much (35%) and averagely (35%) with pronunciation. 30% of the participants rated the children/students struggled very much with word pronunciation.

*Table 4. 3: Statistics for Word pronunciation*

<b>Statistics</b>		Does your child/student struggle with word pronunciation.
N	Valid	20
	Missing	0
Mean		1.8700
Std. Deviation		.64524
Minimum		1.00
Maximum		3.00



*Figure 4. 7: Bar graph showing ratings for word pronunciation*

#### **4.4 Verbal Memory**

In this subsection, the study looked at factors that determined the verbal memory of the students. The study utilized three major factors; remembering names, word spelling and concentration to rate the verbal memory of the students.

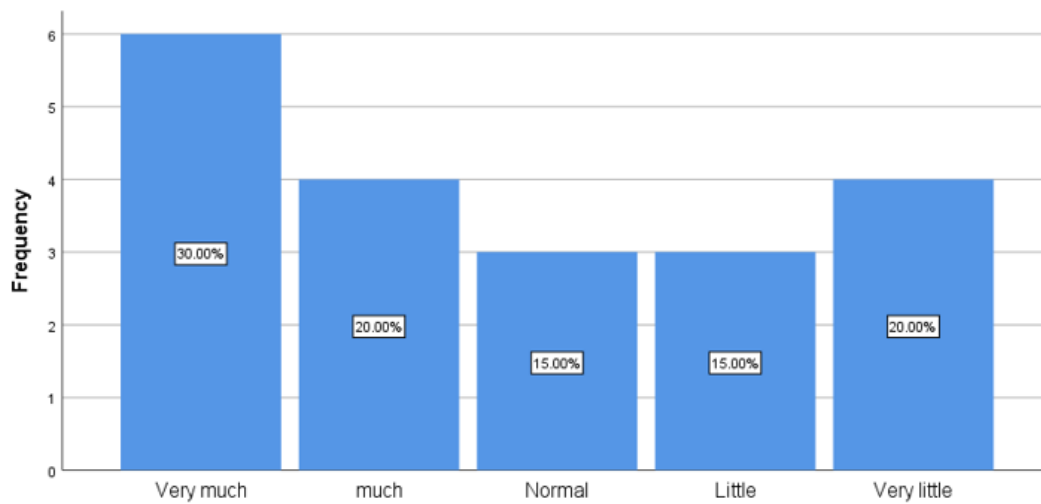
##### **4.4.1 Remembering names**

Remembering names is a vital skill to assess the verbal memory. The participants were asked to rate how much they felt their children/students ‘self-esteem was affected by their struggle in remembering names. The mean average name memory is 2.75 with SD of

1.552 (much affected). Majority (30%) of the participants agreed their esteem was affected very much by their struggle in remembering names. The least categories, 15% a piece of the participants agreed their esteem was affected normally and little by their struggle in remembering names. The figure 4.8 below visualizes this data.

*Table 4. 4: Descriptive Statistics for Remembering names ratings*

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
To what extent does name remembering affect your child/student self-esteem	20	1.00	5.00	2.7500	1.55174



*Figure 4. 8: Bar graph for Remembering names*

#### 4.4.2 Word Spelling

Spelling words is a crucial skill to assess the verbal memory. The participants were asked to rate how much they felt their children/students' self-esteem was affected by their struggle in spelling words. The mean average rating for spelling words is 2.95 with SD of 1.552 (much affected). Majority (25% a two piece) of the participants agreed their esteem was affected very much and very little by their struggle in spelling words. The least categories, 15% a piece of the participants agreed their esteem was affected normally and little by their struggle in spelling words. The figure 4.9 below visualizes this data.

*Table 4. 5: Descriptive statistics for word spelling ratings*

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
To what extent does struggle in spelling words affect your child/student self-esteem	20	1.00	5.00	2.9500	1.57196

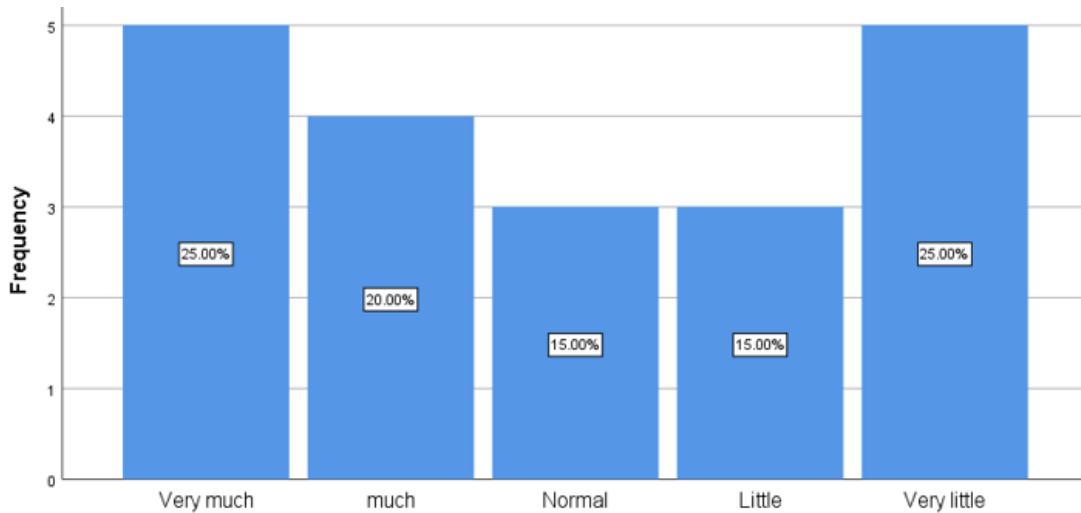


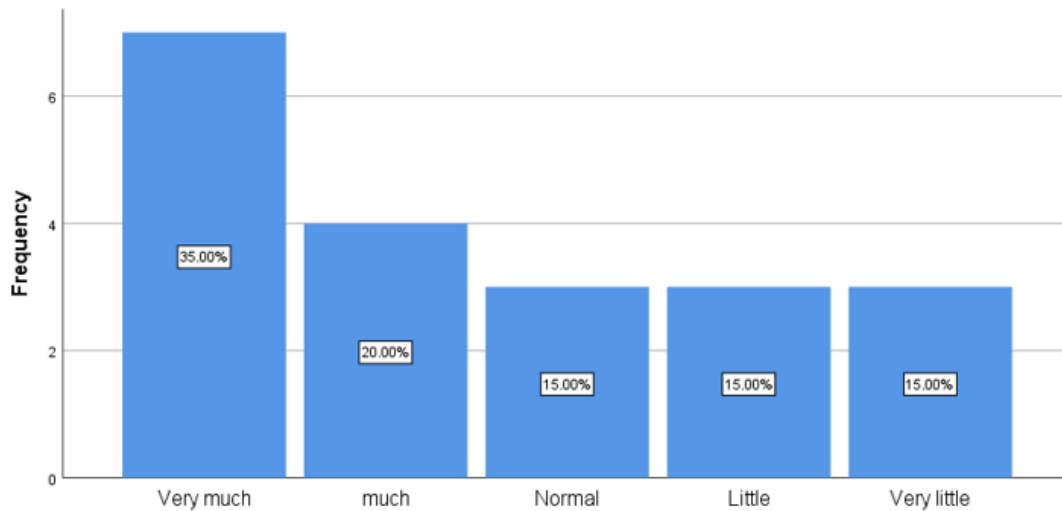
Figure 4. 9: Bar graph for word spelling ratings

#### 4.4.3 Concentration

Concentration is a critical skill to assess the verbal memory. The participants were asked to rate how much they felt their children/students’ self-esteem was affected by their struggle in concentration. The mean average rating for concentration is 2.55 with SD of 1.504 (much affected). Majority (35%) of the participants agreed their esteem was affected very much by their struggle in concentration. The least categories, 15% a three-piece of the participants agreed their esteem was affected normally, little, and very little by their struggle in concentration. The figure 4.10 below visualizes this data.

Table 4. 6: Descriptive statistics for Concentration ratings

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
To what extend does struggle in concentration affect your child/student self-esteem	20	1.00	5.00	2.5500	1.50350
Valid N (listwise)	20				



*Figure 4. 10: Bar graph for concentration ratings*

#### **4.5 Processing Speed**

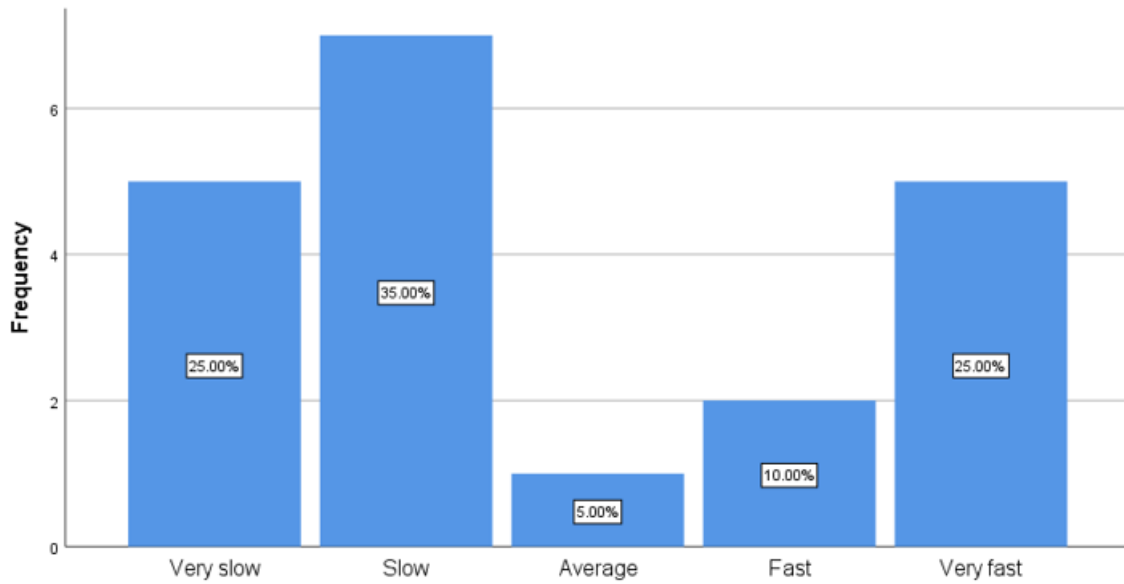
In this subsection, the study looked at factors that determine the processing speed of the students. The study utilizes three major factors; reading speed, writing speed, and reading ability to rate the processing speed of the students.

##### **4.5.1 Reading Speed**

The reading speed is a significant factor in assessing the processing speed of child. The participants were asked to rate how much they felt their children/students' reading speed was. The mean average rating for reading speed is 2.75 with SD of 1.585 (average speed). Majority (35%) of the participants agreed their child/student reading speed was slow. The least category (5%) of the participants agreed their child/student has average reading speed. The figure 4.11 below visualizes this data.

*Table 4. 7 Descriptive Statistics for reading speed*

<b>Statistics</b>		
Please rate your child's reading speed		
N	Valid	20
	Missing	0
Mean		2.7500
Std. Deviation		1.58529
Minimum		1.00
Maximum		5.00



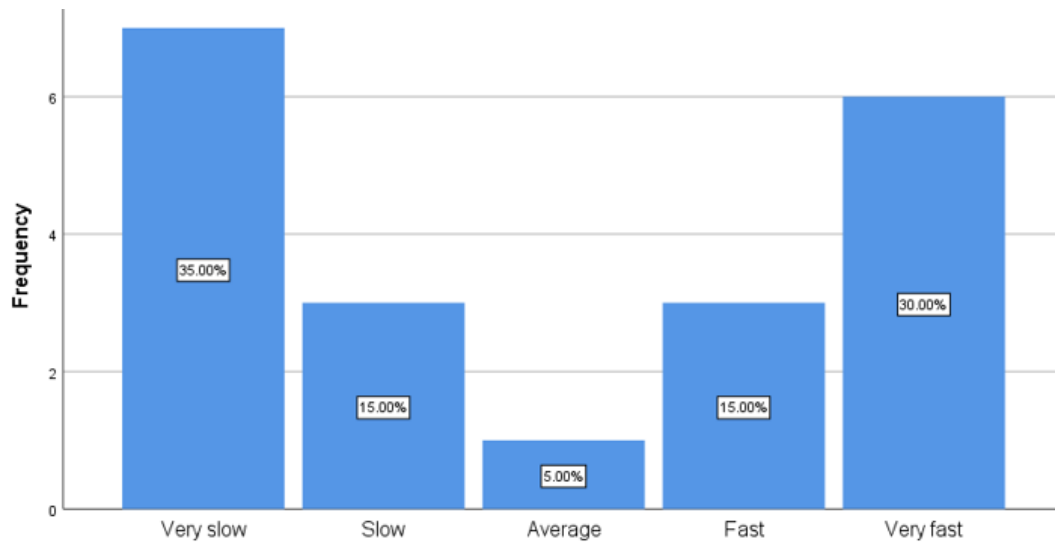
*Figure 4. 11: Bar graph for reading speed*

#### 4.5.2 Writing Speed

The writing speed is an important factor in determining the processing speed of child. The participants were asked to rate how much they felt their children/students' writing speed was. The mean average rating for writing speed is 2.90 with SD of 1.744 (average speed). Majority (35%) of the participants agreed their child/student writing speed was very slow. The least category (5%) of the participants agreed their child/student has average writing speed. The figure 4.12 below visualizes this data.

*Table 4. 8: Descriptive Statistics for reading speed*

Statistics		
Please rate your child's writing speed		
N	Valid	20
	Missing	0
Mean		2.9000
Std. Deviation		1.74416
Minimum		1.00
Maximum		5.00



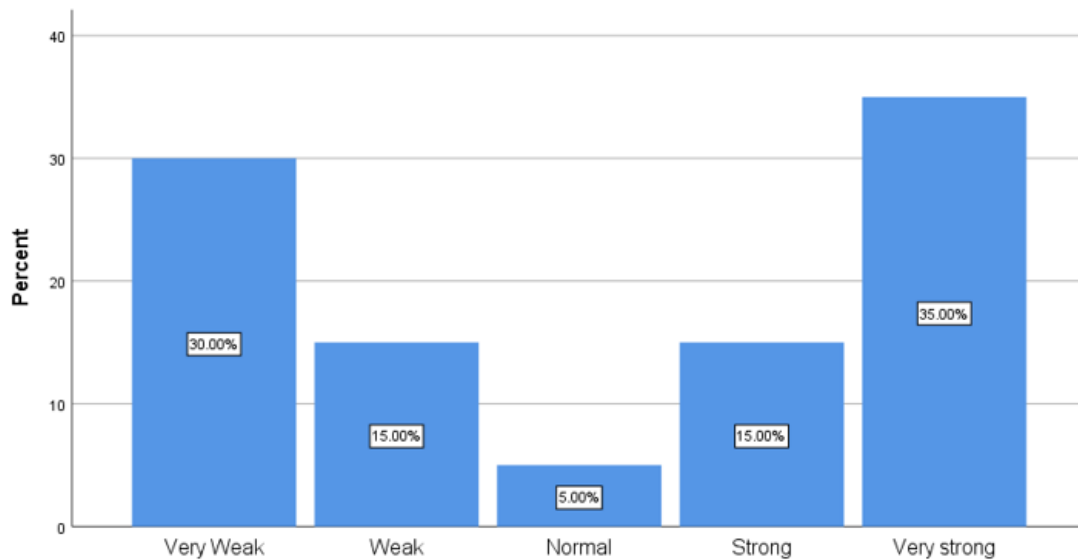
*Figure 4. 12: Bar graph for writing speed*

### 4.5.3 Reading ability

The reading ability is a crucial factor in determining the processing ability of child. The participants were asked to rate how much they felt their children/students' reading ability was. The mean average rating for reading ability is 3.1 with SD of 1.744 (normal ability). Majority (35%) of the participants agreed their child/student reading ability was very slow. The least category (5%) of the participants agreed their child/student has average reading ability. The figure 4.13 below visualizes this data.

*Table 4. 9: Descriptive Statistics for reading ability*

Statistics		
Please rate your child's reading ability		
N	Valid	20
	Missing	0
Mean		3.1000
Std. Deviation		1.74416
Minimum		1.00
Maximum		5.00



*Figure 4.13: Bar graph for reading ability*

## 4.6 Self esteem

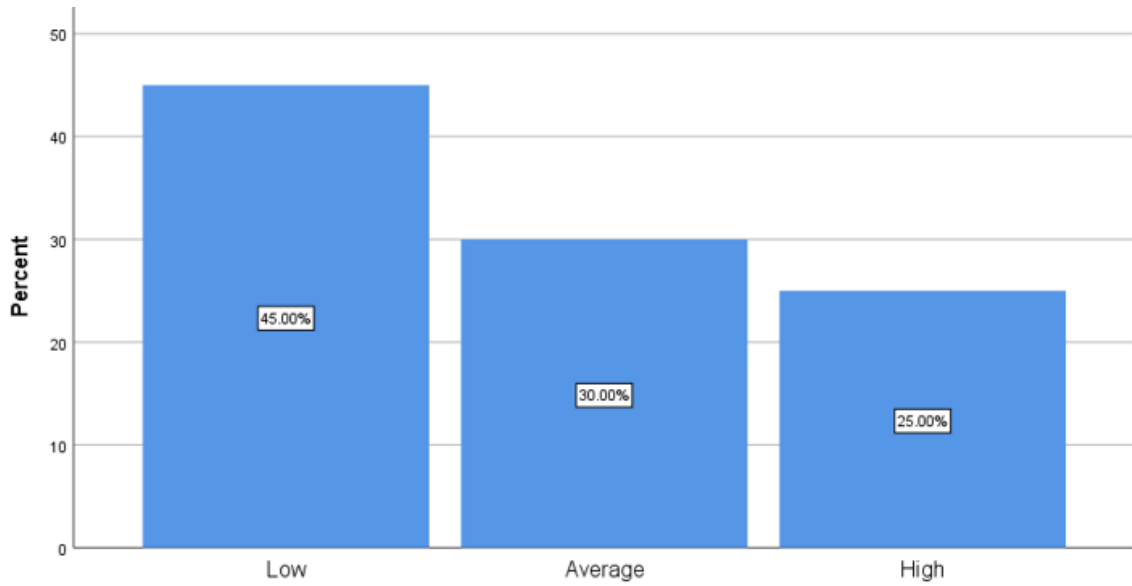
### 4.6.1 Self-esteem Factors

To determine self-esteem of children/students, four factors were considered to offer good measure of it; self-confidence, sense of belonging, self-identity, and competence. The participants provided different ratings concerning the four factors. Self-confidence had a mean average of 1.8 with SD of 0.834 (Average). The mean average for sense of belonging was 2 with SD of 0.795 (Normal). The self-identity had a mean average of 2.4 with SD of 1.187 (Relational). The competence of the children had a mean average of 2.9 with SD of 1.447 (Average).

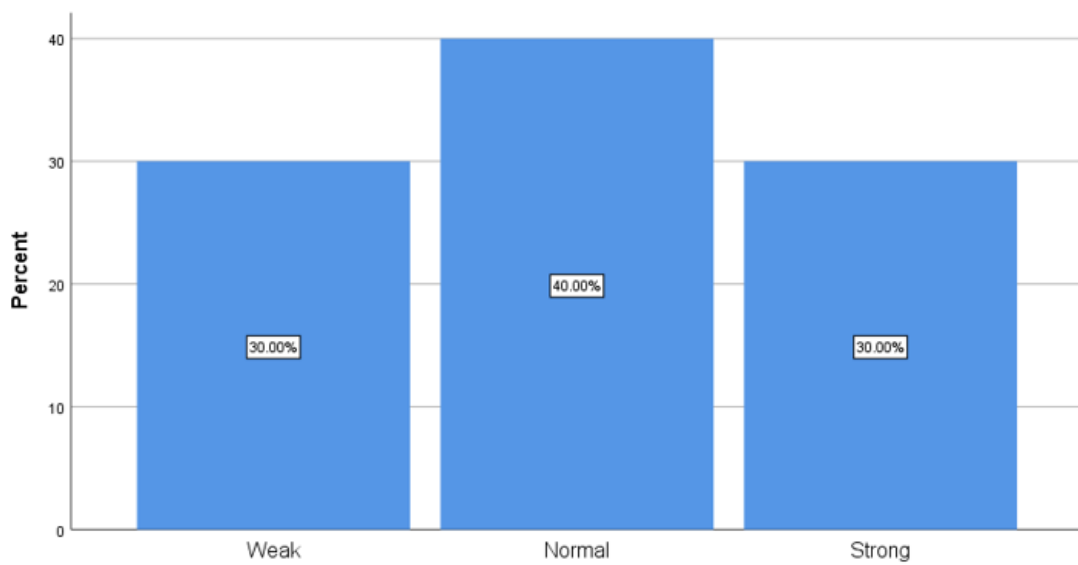
*Table 4.10: Descriptive Statistics for Self-esteem*

		<b>Statistics</b>			
		Kindly describe your child/student self confidence	Kindly describe your child/student sense of belonging	Kindly describe your child/student identity	Kindly describe your child/student competence
N	Valid	20	20	20	20
	Missing	0	0	0	0
Mean		1.8000	2.0000	2.4000	2.9000
Std. Deviation		.83351	.79472	1.18766	1.44732
Range		2.00	2.00	3.00	4.00
Minimum		1.00	1.00	1.00	1.00
Maximum		3.00	3.00	4.00	5.00





*Figure 4. 14: Bar graph for Self-Confidence*



*Figure 4. 15: Bar graph for Sense of belonging*

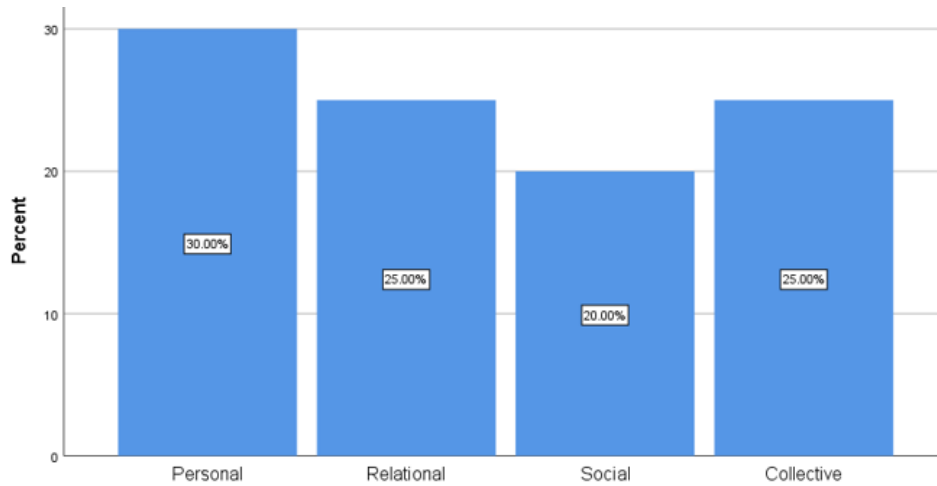


Figure 4. 16: Bar graph for student Identity

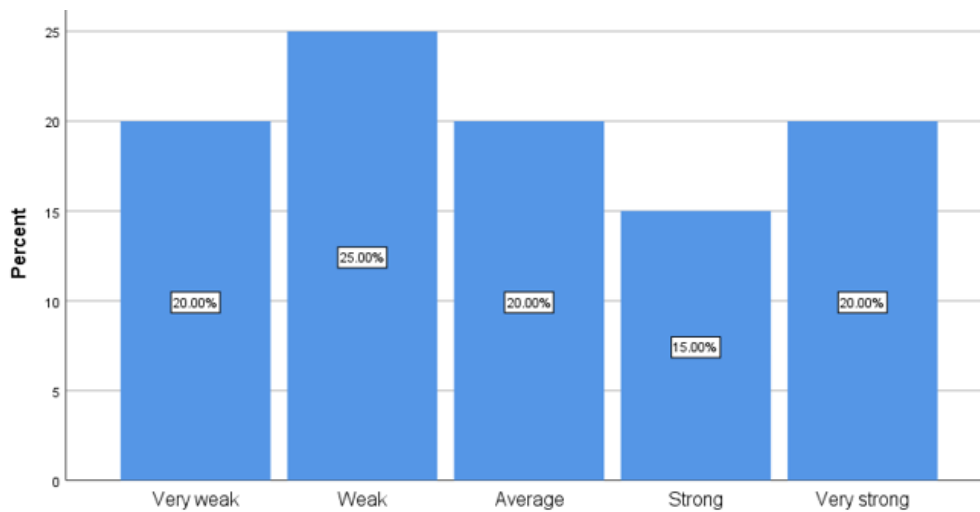


Figure 4. 17: Bar Graph for Competence

#### 4.6.2 Positive Self-esteem Factors

The positive self-esteem items were rated with a 5-Likert scale with 1 being very strongly disagree and 5 being very strongly agree. The participants agree the children/students have the ability to give directives or commands ( $Mean = 2.9, SD = 1.518$ ). The participants strongly disagree student's voice quality is appropriate for situations ( $Mean = 2.13, SD = 1.461$ ). The teachers and parents also agree that the students sit with others during social activities ( $Mean = 2.8, SD = 1.509$ ). The participants strongly agree the students work cooperatively in a group ( $Mean = 3.9, SD = 1.334$ ). The teachers and parents also agree the students face others when speaking or being spoken to ( $Mean = 2.8, SD = 1.508$ ). The participants

strongly agree the students maintain eye contact with others ( $Mean = 3.7, SD = 1.522$ ). The teachers and parents agree that the students maintain comfortable space between self and others ( $Mean = 3.0, SD = 1.414$ ). Finally, the participants strongly disagree that the students have little hesitation in speech, speaks fluently ( $Mean = 2.2, SD = 1.518$ ).

**Table 4. 11: Descriptive Statistics for Positive self-esteem items**

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
The student gives other directives or commands	20	1.00	5.00	2.9000	1.51831
The student's voice quality is appropriate for situations	20	1.00	5.00	2.1300	1.46089
The student sits with others during social activities	20	1.00	5.00	2.8000	1.50787
The student works cooperatively in a group	20	1.00	5.00	3.9000	1.33377
The student faces others when speaking or being spoken to	20	1.00	5.00	2.8000	1.50787
The student maintains eye contact with others	20	1.00	5.00	3.7000	1.52177
The student maintains comfortable space between self and others	20	1.00	5.00	3.0000	1.41421
The student has little hesitation in speech, speaks fluently	20	1.00	5.00	2.2000	1.51831
Valid N (listwise)	20				

### 4.6.3 Negative Self-esteem factors

The negative self-esteem items were rated with a 5-Likert scale with 1 being very strongly agree and 5 being very strongly disagree. The teachers and parents strongly disagree that the students put down others by teasing name calling or gossiping ( $Mean = 3.6, SD = 1.619$ ). The participants agree that the students' gestures are dramatic or out of context ( $Mean = 2.95, SD = 1.468$ ). The participants strongly agree that the students' inappropriate touches or avoids physical contact ( $Mean = 2.25, SD = 1.650$ ). The participants also strongly disagree the students give excuses for failures ( $Mean = 3.9, SD = 1.553$ ). The teachers and parents agree that the students' glances around to monitor others ( $Mean = 2.9, SD = 1.410$ ). The participants strongly agree that the students brag excessively about achievements, skills, appearances ( $Mean = 2.0, SD = 1.293$ ). The participants strongly agree that the

students verbally put selfdom, self-deprecation(*Mean* = 1.90,*SD* = 1.518). The participants also strongly agree that the students speak too loudly, abruptly or in dogmatize tone(*Mean* = 2.05,*SD* = 1.572). The parents and teachers also agree that the students do not express views or opinions especially when asked(*Mean* = 3.0,*SD* = 1.522). Finally, the participants strongly disagree the students assume a submissive stance(*Mean* = 3.5,*SD* = 1.487).

*Table 4. 12 Descriptive Statistics for Negative self-esteem items*

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
The student puts down others by teasing name calling or gossiping	20	1.00	5.00	3.6000	1.61897
The student gestures are dramatic or out of context	20	1.00	5.00	2.9500	1.46808
The student inappropriate touches or avoids physical contact	20	1.00	5.00	2.2500	1.65036
The student gives excuses for failures	20	1.00	5.00	3.9000	1.55259
The student glances around to monitor others	20	1.00	5.00	2.9000	1.41049
The student brags excessively about achievements, skills, appearances	20	1.00	5.00	2.0000	1.29777
The student verbally puts selfdom, self-deprecation	20	1.00	5.00	1.9000	1.51831
The student speaks too loudly, abruptly or in dogmatize tone	20	1.00	5.00	2.0500	1.57196
The student does not express views or opinions especially when asked	20	1.00	5.00	3.0000	1.52177
The student assumes a submissive stance.	20	1.00	5.00	3.5000	1.48678
Valid N (listwise)	20				

#### **4.7 Relationship between Self-esteem and Independent variables**

In this subsection, shows the relationship between independent factors and self-esteem. Correlational analysis was mainly utilized with Pearson correlation coefficient in use with its significance given as well to determine if the relationship is significant.

##### **4.7.1 Relationship between Self-esteem and Phonological awareness**

There was an average positive correlation between phonic skills and self-confidence ( $r = .470, n = 20, p = .036$ ) and identity ( $r = .469, n = 20, p = .037$ ) which was statistically significant. Phonic skill also has a strong significant positive correlation

with competence ( $r = .705, n = 20, p = .001$ ). However, phonic skill has an insignificant positive correlation with sense of belonging ( $r = 0.389, n = 20, p = .09$ ). Oral reading has a significant strong negative correlation with the self-confidence ( $r = -0.780, n = 20, p < .001$ ), identity ( $r = -0.730, n = 20, p < .001$ ) and the competence ( $r = -0.797, n = 20, p < .001$ ). However, oral reading has insignificant weak negative relationship with the sense of belonging ( $r = -0.321, n = 20, p = .168$ ). Word pronunciation has a significant strong negative correlation with the self-confidence ( $r = -0.780, n = 20, p < .001$ ), identity ( $r = -0.569, n = 20, p < .001$ ) and the competence ( $r = -0.753, n = 20, p < .001$ ). However, word pronunciation has a significant weak negative relationship with the sense of belonging ( $r = -0.401, n = 20, p = .008$ ).

*Table 4. 13: Correlation between Self-esteem and phonological awareness*

		<b>Correlations</b>			
		Self-confidence	Sense of belonging	Identity	Competence
Phonic Skills	Pearson Correlation	.470	.389	.469	.705
	Sig. (2-tailed)	.036	.090	.037	.001
	N	20	20	20	20
Oral reading	Pearson Correlation	-.780	-.321	-.730	-.797
	Sig. (2-tailed)	.000	.168	.000	.000
	N	20	20	20	20
Word Pronunciation	Pearson Correlation	-.780	-.401	-.569	-.753
	Sig. (2-tailed)	.000	.080	.009	.000
	N	20	20	20	20

#### **4.7.2 Relationship between self-esteem and verbal awareness**

Remembering names has a significant strong positive relationship with self-confidence ( $r = 0.855, n = 20, p < .001$ ), sense of belonging ( $r = 0.640, n = 20, p = .002$ ), identity ( $r = 0.685, n = 20, p = .001$ ), and competence ( $r = 0.785, n = 20, p < .001$ ). Spelling of words has a significant averagely strong positive relationship with self-confidence ( $r = 0.675, n = 20, p = .001$ ), sense of belonging ( $r = 0.590, n = 20, p = .006$ ), identity ( $r = 0.631, n = 20, p = .003$ ),

and very strong positive with competence ( $r = 0.830, n = 20, p < .001$ ). Concentration has a significant averagely strong positive relationship with self-confidence ( $r = 0.596, n = 20, p = .006$ ), sense of belonging ( $r = 0.529, n = 20, p = .017$ ), identity ( $r = 0.666, n = 20, p = .001$ ), and very strong positive with competence ( $r = 0.704, n = 20, p < .001$ ).

*Table 4. 14: Correlation between Self-esteem and Verbal memory*

		<b>Correlations</b>			
		Self- confidence	Sense of belonging	Identity	Competence
Memory of names	Pearson Correlation	.855	.640	.685	.785
	Sig. (2-tailed)	.000	.002	.001	.000
	N	20	20	20	20
Word spelling	Pearson Correlation	.675	.590	.631	.830
	Sig. (2-tailed)	.001	.006	.003	.000
	N	20	20	20	20
Concentration	Pearson Correlation	.596	.529	.666	.704
	Sig. (2-tailed)	.006	.017	.001	.001
	N	20	20	20	20

### **4.7.3 Relationship between self-esteem and Processing Speed**

Reading speed has a significant very strong positive relationship with self-confidence ( $r = 0.797, n = 20, p < .001$ ), averagely strong positive relationship with sense of belonging ( $r = 0.585, n = 20, p = .007$ ), identity ( $r = 0.643, n = 20, p = .002$ ), and competence ( $r = 0.700, n = 20, p < .001$ ). Writing speed has a significant very strong positive relationship with self-confidence ( $r = 0.710, n = 20, p < .001$ ), identity ( $r = 0.808, n = 20, p < .001$ ), competence ( $r = 0.830, n = 20, p < .001$ ) and averagely strong positive relationship with sense of belonging ( $r = 0.570, n = 20, p = .009$ ). Reading ability has a significant very strong positive relationship with self-confidence ( $r = 0.702, n = 20, p = .001$ ), identity ( $r = 0.767, n = 20, p < .001$ ), competence ( $r = 0.830, n = 20, p < .001$ ) and averagely strong positive relationship with sense of belonging ( $r = 0.570, n = 20, p = .009$ ).

**Table 4. 15: Correlation between Self-esteem and Verbal memory**

		<b>Correlations</b>			
		Self-confidence	Sense of belonging	Identity	Competence
Reading speed	Pearson Correlation	.797	.585	.643	.700
	Sig. (2-tailed)	.000	.007	.002	.001
	N	20	20	20	20
Writing speed	Pearson Correlation	.710	.570	.808	.830
	Sig. (2-tailed)	.000	.009	.000	.000
	N	20	20	20	20
Reading ability	Pearson Correlation	.702	.494	.767	.838
	Sig. (2-tailed)	.001	.027	.000	.000
	N	20	20	20	20

#### **4.7.4 Relationship between positive self-esteem and independent variables**

The ability of a student to give others directives or commands is significantly positively correlated with phonological awareness, and negatively correlated with verbal memory and processing speed ( $p < .001$ ). The student's voice quality being appropriate for situations is positively correlated with phonological awareness, and negatively correlated with verbal memory and processing speed ( $p < .001$ ). The character of students to sit with others during social activities is significantly negatively correlated with verbal memory ( $r = -0.783, p < .001$ ) and processing speed ( $r = -0.893, p < .001$ ). The nature of a student working cooperatively in a group is positively correlated with phonological awareness ( $r = 0.791, p < .001$ ) and negatively correlated with processing speed ( $r = -0.858, p < .001$ ). The ability of a student facing others when speaking or being spoken is significantly positively correlated to phonological awareness ( $r = 0.780, p < .001$ ) and negatively correlated to verbal memory ( $r = -0.816, p < .001$ ) and processing speed ( $r = -0.893, p < .001$ ). The ability of a student to maintain eye contact with others is significantly positively correlated to phonological awareness and negatively correlated to verbal memory and processing speed ( $p < .001$ ). The ability of a student to maintain comfortable space between self and others as well as having little hesitation in speech is negatively correlated to phonological awareness and positively correlated to verbal memory and processing speed.

**Table 4. 16: Correlations**

		<b>Correlations</b>		
		Phonological awareness average	Verbal memory	Processing speed
The student gives other directives or commands	Pearson Correlation	.930	-.815	-.883
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student’s voice quality is appropriate for situations	Pearson Correlation	.672	-.784	-.856
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student sits with others during social activities	Pearson Correlation	.809	-.783	-.893
	Sig. (2-tailed)	.067	.000	.000
	N	20	20	20
The student works cooperatively in a group	Pearson Correlation	.791	-.767	-.858
	Sig. (2-tailed)	.000	.057	.000
	N	20	20	20
The student faces others when speaking or being spoken to	Pearson Correlation	.780	-.816	-.893
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student maintains eye contact with others	Pearson Correlation	.731	-.776	-.869
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student maintains comfortable space between self and others	Pearson Correlation	.693	-.826	-.887
	Sig. (2-tailed)	.001	.000	.000
	N	20	20	20
The student has little hesitation in speech, speaks fluently	Pearson Correlation	.812	-.881	-.921
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20

#### **4.7.5 Relationship between negative self-esteem and independent variables**

All the negative self-esteem factors are significantly and negatively correlated to phonological awareness and positively correlated to verbal memory and processing speed. This can be observed in the table below with ( $p < .001$ ) for significance. These factors include; the ability of a student putting down others by teasing name calling or gossiping, making dramatic gestures or out of context, inappropriate touches, giving excuses for failures, glancing around to monitor others, and bragging excessively about achievements. Other factors include student verbally putting self down, speaking loudly, expressing views, and assuming a submissive stance.



**Table 4. 17: Correlation**

	<b>Correlations</b>			
	Phonological awareness average	Verbal memory	Processing speed	
The student puts down others by teasing name calling or gossiping	Pearson Correlation	-.679	.803	.856
	Sig. (2-tailed)	.001	.000	.000
	N	20	20	20
The student gestures are dramatic or out of context	Pearson Correlation	-.808	.849	.899
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student inappropriate touches or avoids physical contact	Pearson Correlation	-.749	.858	.901
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student gives excuses for failures	Pearson Correlation	-.869	.886	.908
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student glances around to monitor others	Pearson Correlation	-.641	.841	.869
	Sig. (2-tailed)	.002	.000	.000
	N	20	20	20
The student brags excessively about achievements, skills, appearances	Pearson Correlation	-.720	.861	.878
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student verbally puts self down, self-deprecation	Pearson Correlation	-.713	.815	.867
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student speaks too loudly, abruptly or in dogmatize tone	Pearson Correlation	-.803	.861	.895
	Sig. (2-tailed)	.000	.000	.000
	N	20	20	20
The student does not express views or opinions especially when asked	Pearson Correlation	-.702	.825	.869
	Sig. (2-tailed)	.001	.000	.000
	N	20	20	20
The student assumes a submissive stance.	Pearson Correlation	-.659	.786	.828
		.002	.000	.000
		20	20	20

## 4.8 Regression Model

In this subsection, regression analysis was performed to develop a model that was used to predict the self-esteem of a student using their phonological awareness, verbal memory, and processing speed.

### 4.8.1 Model Summary

Figure 4.18 below shows an  $R^2 = 0.913$  which means phonological awareness, verbal memory, and processing speed explain 91.3% of the variation in self-esteem.

**Table 4. 18: Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.955 <sup>a</sup>	.913	.896	.28814

a. Predictors: (Constant), Processing speed, Phonological awareness average, Verbal memory

### 4.8.2 ANOVA table

The ANOVA table shows the significance of the test. Given significance value of  $p < .001$ , we can say the model is significant for predictions

**Table 4. 19: ANOVA table**

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.909	3	4.636	55.843	.000 <sup>b</sup>
	Residual	1.328	16	.083		
	Total	15.237	19			

a. Dependent Variable: Self-esteem average

b. Predictors: (Constant), Processing speed, Phonological awareness average, Verbal memory

### 4.8.3 Coefficient Table

The coefficient table shows verbal memory ( $p = 0.001$ ) and processing speed ( $p = 0.005$ ) are significant predictors of self-esteem. Phonological awareness ( $p = 0.691$ ) is not a significant factor affecting self-esteem. A unit change in phonological awareness decreases self-esteem by 0.13 units while a unit change in verbal memory increase self-esteem by 0.122 units. A unit change in processing speed causes an increase in self-esteem by 0.427 units.

**Table 4. 20: Coefficients**

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.927	.794		1.167	.260
	Phonological awareness average	-.130	.320	-.057	-.405	.691
	Verbal memory	.122	.131	.190	.930	.001
	Processing speed	.427	.131	.727	3.250	.005

a. Dependent Variable: Self-esteem average

Therefore, the prediction equation is given as;

$$\text{Self-esteem} = 0.927 - 0.130 * \text{phonological awareness} + 0.122 * \text{verbal memory} + 0.427 * \text{processing speed}$$

## **4.9 Qualitative Analysis**

### **4.9.1 Relationship between phonological awareness and Self-esteem of Dyslexia students**

This study assessed teachers and parents' perception on relationship between phonological awareness and self-esteem of Dyslexia students. The participants were asked several questions concerning this subject and the view obtained is that phonological awareness definitely affects the self-esteem of Dyslexia students. The participants were asked if they considered child/student to be satisfied with themselves and most of them replied with uncertainty. One of the participants was quoted saying; "No I don't consider her being satisfied with herself because as you interact with her, she makes excuses for being dyslexic". Another respondent said, "Sometimes they do and sometimes they don't since majority have a great phonological challenge". The study also investigated if dyslexic student struggle with word pronunciation and oral reading. From the feedbacks, it was clear that dyslexic students definitely struggle with word pronunciation and oral reading. They also went ahead to indicate that this struggle affected their self-esteem. One of the respondents was quoted saying, "The fact that she is not satisfied with herself affects her self-esteem because she thinks that probably there are those who are better than her thus affecting her in her studies". Another respondent also said, "Once a student realizes that their reading speed is slower than normal students, they will be afraid of reading as other students might laugh at them lowering their self-esteem".

Could the improvement of word pronunciation and oral reading lead to more interest in learning? The study found out that pronouncing and reading words with ease could improve the student's interest in learning. One of the respondents said, "Yes, it can. By splitting a word into bits and joining them, the students realize that they can read this word thus making them develop interest in reading". Another respondent was also quoted saying, "Of course, it does. I teach this student and when he started pronouncing words and reading, he developed more interest because he has been wanting to do that for a while and becomes so much excited that he can finally read".

### **4.9.2 Relationship between Verbal memory and Self-esteem of Dyslexia Students**

This study assessed teachers and parents' perception on relationship between verbal memory and self-esteem of Dyslexia students. The participants were questioned concerning this subject and their general view was that verbal memory definitely affects

the self-esteem of Dyslexia students. The study figured out that student's struggle in remembering names had an influence in their self-esteem. One of the respondents said, "He hardly remembers the full name thus lowering his self-esteem because he should be able to recall recently taught names but instead, he is unable". Another participant also said, "They are unable to remember names thus requires the teacher to be patient enough with them. If not properly natured, they develop low self-esteem since they tend to forget". The study also found out that their struggle in spelling words had an influence on their self-esteem, one of the respondents was quoted saying, "He has a challenge in spelling out the correct names thus making him feel embraced affecting his self-esteem". Concentration problems was also shown to have an effect on student's self-esteem by the majority of the feedbacks given by the participants. One of the participants said, "He has a poor concentration span thus lose interest in longer lessons and miss out on what is being taught thus the feeling of not knowing lowering her self-esteem".

Does their failure in remembering names lead to difficulties in emotions and behavior? It definitely does according to the research as most participants explained this effect. One of them said, "He was shy and unable to raise their head after realizing that they cannot remember". Another participant also said, "They hide when they fail to remember what they had been asked". As a result, their emotions and behavior definitely affect their self-esteem as one said, "When the child misspells or fails to remember, they become ashamed lowering their self-esteem however the teacher through a proper tone can help them". However, the research did find out that their failure in remembering names doesn't lead to difficulties in socialization as most feedbacks indicated. One of the respondents said, "They socialize normally by themselves despite having problems in their classwork". Another participant said, "He is able to socialize with others and have friends". The study investigated if this effect made the children feel more insecure emotionally or inferior as compared to other students. Most feedbacks confirmed this as one said concerning inferiority, "If there is a learner doing better than him, he feels bad and inferior". Another participant said concerning emotional insecurity, "He becomes emotionally insecure when unable to perform tasks like reading and remembering names".

#### **4.9.3 Relationship between processing speed and Self-esteem of Dyslexia students**

This study assessed teachers and parents' perception on relationship between processing speed and self-esteem of dyslexia students. The participants were questioned concerning this subject and their general view was that processing speed definitely affects the self-esteem of Dyslexia students. For this case, processing speed is looked in term of three factors; reading speed, writing speed, and reading ability. Firstly, low reading speed was shown to have an influence on self-esteem of students. One of the participants said, "They feel low and conflicted in that they feel like they are the only one who cannot perform as good as the rest of the students". Another one also said, "Low reading speed makes him feel bad and inferior to others". Secondly, low writing speed also affects the self-esteem of the child as most replies indicated. One participant said, "Low writing speed makes them unable to compete with other students as it consumes the time allocated to completing a task thus makes them feel discouraged". Low writing speed also leads to inferiority as one said, "Low writing speed makes him feel inferior to others.

Finally, reading ability was also shown to be a key factor determining self-esteem by most replies given. One of the participants said, "Poor reading ability hinders them to keep up with other students, time and understanding of tasks thus lowers their self-esteem as they find them difficult to do". Reading ability was also indicated to have an impact on the academic success of the students. One of the teachers said, "Examinations are all in written form thus these students fail exams not because they do not know but because they have a challenge in reading and understanding the questions asked in the question paper". Therefore, we can conclude reading ability is key factor for self-esteem of a child.

#### **4.9.4 Best Practices based on qualitative findings and constructivism theory**

According to Adom, Yeboah, and Ankrah (2016), constructivism theory posits that people build their own knowledge and understanding of the world by engaging in experiences and reflecting on those experiences. Based on the qualitative findings, the study concludes the perceived relationship of dyslexia and self-esteem is significant. Parents and teachers agree that children who are dyslexic should be given special consideration when categorizing those who have learning difficulties. Primary schools ought to have specific resources for pupils who might have dyslexia. Currently, individuals with dyslexia may not receive the specialized attention they require since they attend class with other students in crowded classrooms. They will feel much better about

themselves if this is taken into account. To help teachers successfully manage the dyslexic student, the government should design a policy for the management and development of teachers through the ministry of education. Dyslexic pupils should have access to training programs because utilizing tests to evaluate students for content they haven't studied may not be a fair assessment for such people. This could be done through quality and relevance, in line with the principles of the 2013 Basic Education Act.

## CHAPTER FIVE

### 5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This study aimed at establishing teachers and parents' perception on the relationship between dyslexic and self-esteem among thirteen-fourteen years old learners in public schools in Nairobi County, Kenya. The sections presented in this chapter include; summary of the research and the findings, conclusions, recommendations, and suggestions for further research.

#### 5.2 Summary of the Study

The survey involved a total of 20 participants who consisted of teachers and parents. There were 3 male and 2 female parents or guardians and 9 male and 6 female teachers. Most parents were skeptical to provide information concerning their children, thus the small number of parents participating in the study. Generally, 60% of the participants were males while 40% were females as shown in the pie chart below. Majority of the participants age between 34 and 41 years with 40% of them falling into this category. Majority (50%) of the participants had attained their college diploma. Majority of participants (45%) had experience of between 3 and 9 years which is vast experience. The study inquired several factors to detail the demographic information of the participants including gender, age, years of experience, and level of education. More specifically, it assessed the perceived relationship of phonological awareness and self-esteem of dyslexic students. Secondly, it assessed the perceived relationship of verbal memory and self-esteem of dyslexic students. Finally, it assessed the perceived relationship of processing speed and self-esteem of dyslexic students.

#### 5.3 Summary of findings

##### 5.3.1 Phonological Awareness

On phonic skills, Majority (55%) of the participants considered their child/students to be satisfied with themselves while 45% didn't consider them satisfied. On oral reading, the mean average of the ratings was 1.95 with SD of 0.826 (Averagely struggled). Majority of the children/students struggled not so much (35%) and averagely (35%) with oral reading. On word pronunciation, the mean average of the ratings was 1.87 with SD of 0.645 (Averagely struggled). Majority of the children/students struggled not so much (35%) and averagely (35%) with pronunciation.

### **5.3.2 Verbal Memory**

On remembering names, the mean average rating was 2.75 with SD of 1.552 (much affected). Majority (30%) of the participants agreed their esteem was affected very much by their struggle in remembering names. On word spelling, the mean average rating was 2.95 with SD of 1.552 (much affected). Majority (35% a piece) of the participants agreed their esteem was affected very much and very little by their struggle in spelling words. On concentration, the mean average rating for concentration was 2.55 with SD of 1.504 (much affected). Majority (35%) of the participants agreed their esteem was affected very much by their struggle in concentration.

### **5.3.3 Processing Speed**

On reading speed, the mean average rating was 2.75 with SD of 1.585 (average speed). Majority (35%) of the participants agreed their child/student reading speed was slow. On writing speed, the mean average rating for writing speed was 2.90 with SD of 1.744 (average speed). Majority (35%) of the participants agreed their child/student writing speed was very slow. On reading ability, the mean average rating is 3.1 with SD of 1.744 (normal ability). Majority (35%) of the participants agreed their child/student reading ability was very slow.

### **5.3.4 Self esteem**

Self-confidence had a mean average of 1.8 with SD of 0.834 (Average). The mean average for sense of belonging was 2 with SD of 0.795 (Normal). The self-identity had a mean average of 2.4 with SD of 1.187 (Relational). The competence of the children had a mean average of 2.9 with SD of 1.447 (Average).

### **5.3.5 Relationship between Self-esteem and Independent variables**

On phonological awareness, self-esteem was positively correlated with phonic skills but negatively correlated with oral reading and word pronunciation. On verbal memory, self-esteem was positively correlated with remembering names, word spelling and concentration. On processing speed, self-esteem was positively correlated with reading speed, writing speed, and reading ability.

### **5.3.6 Regression Model**

The model has an  $R^2 = 0.913$  which means phonological awareness, verbal memory, and processing speed explain 91.3% of the variation in self-esteem. Given significance value



of  $p < .001$  in the ANOVA table, the model is significant for predictions. The coefficient table shows verbal memory and processing speed are significant predictors of self-esteem. Phonological awareness was not a significant factor influencing self-esteem. A unit change in phonological awareness decreases self-esteem by 0.13 units while a unit change in verbal memory increase self-esteem by 0.122 units. A unit change in processing speed causes an increase in self-esteem by 0.427 units.

#### **5.4 Conclusion**

Based on the findings above, the study concludes that the perception of dyslexia and self-esteem among thirteen-fourteen years old learners in public schools in Nairobi County is significant. More specifically, verbal memory and processing speed of a student are significant factors that can influence a child's self-esteem. For a child to develop strong self-esteem, remembering names, spelling words and concentration are vital skills needed. The child also needs to improve the reading speed, writing speed and reading ability in order to boost their processing speed, which is a significant factor influencing the self-esteem. Other factors influenced by dyslexia are; the ability of a student putting down others by teasing, name calling or gossiping, making dramatic gestures or out of context, inappropriate touches, giving excuses for failures, glancing around to monitor others, and bragging excessively about achievements. Other factors include student verbally putting self down, speaking loudly, expressing views, and assuming a submissive stance.

#### **5.5 Recommendations**

The study's overall recommendations should provide the first step toward attaining the 2030 Sustainable Development Goal Target of ensuring that all girls and boys receive free, equitable, and high-quality primary and secondary education that produces useful and efficient learning outcomes. The recommendations on basis of constructivism theory are as follows;

- i. Based on constructivism theory (Bada& Olusegun, 2015), teachers and parents agree dyslexic students should be given extra consideration when classifying people with learning disabilities, according to education stakeholders and the government. For the care of students who may have dyslexia, primary schools should offer specialized facilities. Currently, students with dyslexia attend class with other students in packed classrooms and may not get the individualized

attention they need. If this is taken into consideration, their self-esteem will be greatly boosted.

- ii. The Ministry of Education, Science and Technology should make sure that dyslexia-specific training program is necessary for achieving the National Development Goals and that dyslexic students receive timely, high-quality instruction to meet their needs for human development in a society that is changing quickly and becoming more diverse.
- iii. Based on constructivism theory (Bada& Olusegun, 2015), teachers and parents agree a staff development and management policy should be created by the government through the ministry of education with the goal of enabling instructors to successfully manage the dyslexic student. Since using tests to assess a learner for material they have not prepared for may not be a fair assessment for such persons, stakeholders in the education industry should provide training programs for dyslexic students. In accordance with the 2013 Basic Education Act's guiding principles, this might be accomplished through quality and relevance.
- iv. Regardless of the educational system that embraces reading, there should be a process for assessing students who have reading challenges to determine whether or not they are at risk of dyslexia. The result for them might be an increase in their reading and math skills, which are typically subpar among dyslexic students. This calls for both SNE and ordinary instructors to be well-versed in the abilities required for efficient management of dyslexic students in classrooms. This action is anticipated to provide them access to FPE, which the government implemented in 2003 for both boys' and girls' education.
- v. The Ministry of Education, Science and Technology and other pertinent stakeholders should offer dyslexia awareness sessions to inform parents on how to recognize kids who may have the condition and the best approaches for managing their needs. By giving parents more opportunity to connect with their kids in a learning setting, parents may become more involved in their kids' educational experience. The performance of students at risk for dyslexia can be improved by head teachers ensuring good collaboration between the instructors and parents.

## **5.6 Suggestions for Further Research**

Other studies can look at what has and has not been accomplished for dyslexic students by 2022 in the various legal frameworks, specifically within the boundaries of Kenya's National Educational Goal, which is incorporated in Vision 2030. Research is needed on the best ways to help dyslexic students study better in order to graduate with a solid foundational education and succeed in the competitive world of reading. Further study may also provide light on factors that need to be taken into account in order for students with dyslexia to benefit from the legal frameworks of education. What can be learned from other states' initiatives and what can be applied to Kenya to help students with dyslexia? The researcher questions if dyslexia affect how well people do in other languages, such as Chinese in China or Kiswahili in Kenya. What steps have other nations taken to make dyslexic students eligible for EFA? This requires more study. Even students in secondary schools in Kenya struggle with reading in public institutions. This insight ought to serve as the starting point for research targeted at developing early treatments for students who struggle with reading. To enable early remedies, research on the potential impact of dyslexia on self-esteem in Kenyan schools should be carried out among students as young as thirteen. Additionally, research is required to determine whether dyslexia may be a factor in the underperformance of early secondary school students. The very small sample size of 20 parents and teachers is a major study weakness. The results can be verified in future research utilizing bigger sample sizes. In addition, a number of variables that can influence bad performance, such the state of the economy, were not taken into account in this study. More stiff designs may be used in future research to further this subject.

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## APPENDICES

### Appendix I: Interview Guide

#### Assessment of the Perceived Relationship of Dyslexia and Self-Esteem among Thirteen-Fourteen Years Old Learners in Public Schools in Nairobi County.

##### Introduction

- Greetings
  - o Introduce yourself to the respondents (your name and where you work)
  - o Explain to the respondent the study you are doing, *“The main purpose of the study is to establish the perceived relationship of dyslexia and Self Esteem among Thirteen-Fourteen Years Old Learners in Public Schools in Nairobi County.”*
    - In this interview I will be asking questions on three characteristics common with dyslexia condition, which include phonological awareness, verbal memory, and verbal processing speed and how they affect dyslexic student self-esteem.
- Confidentiality
  - o all the data collected during the interview session will remain confidential.
  - o I will not use your name or any other identifiable information.
  - o Data collected will be used purely for research purposes.

##### Part One: Demographics

- i. What is your gender and age bracket?
- ii. What is your education level?
- iii. Where do you currently work, your job position, and your years of experience?
- iv. Are you a parent/guardian or a teacher to a dyslexia student?
- v. Kindly describe your child/student:
  - a. Self-confidence
  - b. Identity



ion			.....
behavior			..... .....

iii. Kindly explain how your child/student behaves whenever they fail to remember a name or spell a word correctly?

a. What impact has this have on their self-esteem?

iv. As a results of failure to remember names or spell words does your child/student experience the following:

	Yes	No	Kindly give an explanation
inferiority			..... .....
emotional insecurity			..... .....

**Part Four: Assess how Processing Speed Influence Dyslexia Student Self-Esteem**

i. Dyslexic students are slower in reading and writing, kindly explain how your child/student feel about themselves as a result of their:

a. Low reading speed

b. Low writing speed

c. Poor reading ability

ii. Kindly explain how reading ability of your child/student has affected their academic success?

**THANK YOU!**

## Appendix II: Questionnaire

### QUESTIONNAIRE

Kindly answer all the questions by either ticking in the boxes provided.

#### Part One: Demographics

- vi. What is your gender and age bracket?
- a. Male [ ]
  - b. Female [ ]
- vii. Are you a parent/guardian or a teacher to a dyslexia student?
- a. Parent [ ]
  - b. Guardian [ ]
  - c. Teacher [ ]
- viii. What is your age:
- d. 18 to 25 years [ ]
  - e. 26 to 33 years [ ]
  - f. 34 and 41 years [ ]
  - g. above 41 years [ ]
- ix. What is your education level?
- a. Certificate Level [ ]
  - b. College Diploma [ ]
  - c. Bachelor's Degree [ ]
  - d. Masters' Degree [ ]
- x. Where do you currently work, your job position, and your years of experience?
- a. less than 3 years [ ]
  - b. 3 and 9 years [ ]
  - c. above 9 years [ ]

#### Part Two: Phonological Awareness

- i. Do you consider your child/student to be satisfied with themselves on phonic skills?
- a. Yes [ ]
  - b. No [ ]
- ii. Does your child/student struggle with oral reading.
- 1. Very much [ ]
  - 2. Average [ ]

- 3. Not so much [ ]
- ii. Does your child/student struggle with word pronunciation.
  - 1. Very much [ ]
  - 2. Average [ ]
  - 3. Not so much [ ]

**Part Three: Verbal Memory**

- i. To what extent does name remembering affect your child/student self-esteem
  - a. Very much [ ]
  - b. Much [ ]
  - c. Normal [ ]
  - d. Little [ ]
  - e. Very Little [ ]
- ii. To what extent does struggle in spelling words affect your child/student self-esteem
  - a. Very much [ ]
  - b. Much [ ]
  - c. Normal [ ]
  - d. Little [ ]
  - e. Very Little [ ]
- iii. To what extent does struggle in concentration affect your child/student self-esteem
  - a. Very much [ ]
  - b. Much [ ]
  - c. Normal [ ]
  - d. Little [ ]
  - e. Very Little [ ]

**Part Four: Processing Speed**

- i. To what extent does reading speed affect your child/student self-esteem
  - a. Very much [ ]
  - b. Much [ ]
  - c. Normal [ ]
  - d. Little [ ]
  - e. Very Little [ ]
- ii. To what extent does writing speed affect your child/student self-esteem
  - a. Very much [ ]

b. Much [ ]

c. Normal [ ]

d. Little [ ]

e. Very Little [ ]

iii. To what extent does reading ability affect your child/student self-esteem

a. Very much [ ]

b. Much [ ]

c. Normal [ ]

d. Little [ ]

e. Very Little [ ]

### Part Five: Self-esteem

Please provide an honest assessment of your students in regard to their behavioral characteristics. Mark your choice in the appropriate answer box. Where: 1 = Very low extent, 2 = Low extent, 3 = Moderate, 4 = Great extent, 5 = Very great extent.

Self-esteem	1	2	3	4	5
The student gives other directives or commands					
The student's voice quality is appropriate for situations					
The student sits with others during social activities					
The student works cooperatively in a group					
The student faces others when speaking or being spoken to					
The student maintains eye contact with others					
The student maintains comfortable space between self and others					
The student has little hesitation in speech					
<b>Negative</b>					
The student puts down others by teasing, name calling or gossiping					

The student gestures are dramatic or out of context					
The student inappropriate touches or avoids physical contact					
The student gives excuses for failures					
The student glances around to monitor others					
The student brags excessively about achievements, skills, appearances					
The student verbally puts self-deprecation					
The student speaks too loudly, abruptly or in dogmatize tone					
The student does not express views or opinions especially when asked					
The student assumes a submissive stance.					

**THANK YOU!**



**Appendix III: Informed Consent form**

**Name of the study: The Perceived Relationship of Dyslexia and Self-Esteem among Thirteen-Fourteen-Year-Old Learners in Public Schools in Nairobi County.**

**Name of Researcher :** Bilha Akinyi Ondiek

**Date:**

- a) I \_\_\_\_\_ have read and understood the Study information and Sheet provided.
- b) I have been given the opportunity to ask questions about the study.
- c) I understand that taking part in the study will include being interviewed orally or responding to a written questionnaire.
- d) I have been given adequate time to consider my decision and I agree to take part in the study.
- e) I understand that my personal details such as name, employer address will not be revealed to people outside this project.
- f) I understand that my responses to the interview questions will not be revealed to the company management and therefore will not be used against me.
- g) I understand that my words may be quoted in publications, reports, web pages and other research outputs but my name will not be used.
- h) I agree to assign the copyright I hold to the material related to this project of Bilha Akinyi Ondiek
- i) I understand that this is voluntary and I have a choice not to respond to the questionnaire and I can withdraw from the study at any given time without any implications on me.

Signature of the participant: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix IV: NACOSTI Research Permit**



REPUBLIC OF KENYA



**NATIONAL COMMISSION FOR  
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Ref No: 765495

Date of Issue: 18/August/2022

**RESEARCH LICENSE**



**This is to Certify that Miss.. Bilha Akinyi Ondiek of University of Nairobi, has been licensed to conduct research in Nairobi on the topic: THE PERCEIVED INFLUENCE OF DYSLEXIA ON STUDENT SELF-ESTEEM AMONG THIRTEEN-FOURTEEN YEARS OLD LEARNERS IN PUBLIC SCHOOLS IN NAIROBI COUNTY, for the period ending : 18/August/2023.**

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Applicant Identification Number

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