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African speculative fiction as recollection intervention for grade four dyslexic learners

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UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG

AFRICAN SPECULATIVE FICTION AS RECOLLECTION INTERVENTION FOR GRADE FOUR DYSLEXIC LEARNERS

A Research Report

by

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A research report submitted to the Faculty of Humanities, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Education

Johannesburg, August 2022

DECLARATION

I declare that this research report is my own unaided work. It is being submitted as a partial fulfilment for the Degree of Master of Education at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree, part degree or examination at this or any other university.



Larry Erhuvwuoghene Onokpite

03 August 2022

DEDICATION

I dedicate this research report to my journey. I have adapted Lucille Clifton's poem to express it:

Won't you celebrate with me, what I have shaped into a kind of life?

I had no model. Born in Ughelli,

To a mother who tells the best stories with colour imagination

And to a father who got up from his kneeling position when prayers were too long

What did I see to be except myself?

I made it up

Here on this Highveld between gold and grass,

Between hope and hopelessness,

Between health and death.

My one hand holding tight my other hand.

Come celebrate with me that everyday something has tried to kill me and has failed.

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My mum's name is Beatrice! One thing I have come to understand is that love is present too in "not understanding". My mum never had the privilege of a formal education. As I go through this river of life, she does not understand a lot of things I do in my career. She does not know what a Master's degree really means – but she always have so much love and support for me. When I grow up, I want to be a good storyteller like my mum! Her imagination is colourful!!

Dear Dr Maria, Prozesky! You are light! You are hope! I think if I call you my supervisor at this point, it will be inadequate. You have become a friend, a guide, a mentor, a listener, and a "challenger". You wholeheartedly accepted to work on this project with me and you have led me into a very fine thinker and budding academic. You have challenged me to see that I have so many potentials – I thank you! And oh gracious – you are intelligent! Ah shem – I am inspired!

Thank you, Dr Sarah. You are one reason I completed this degree. When I had no money to pay for my fees, you urged me to open a "backabuddy account" to raise my tuition of over R45,000! You shared with friends and colleagues, and really supported. You have been present to me since I arrived at Wits. You believe in me and have given me opportunities to grow and develop my studies and career. With you I believe that "hope is hard, but I have it".

I am grateful to the Wits School of Education Graduate Committee for the bursary of R30,000! I am grateful for the trust you have in me and ensuring that I register for this degree. My heart is

grateful and full of love for all the hundreds of known and unknown persons on different social media platforms who donated to my fees. I am grateful to all of you!

Pumza Kose! Thank you for being in my life. I would not have asked for a better partner at this point. I am grateful for your support, your love, your challenge, and your continual reminder that I am gifted person who must not doubt himself! I love you sithandwa sami! Ah oh, thank you for Ayo - my Ayo! Please ignore us when we play and run around – close your eyes! It is our love language, and we are unapologetic!

To my friends – okay! I need to balance myself here because I must have done something right in my former life to be graced with such great humans that love, understand and are empathetic. Andrew Akanimo Akpan – what a guy! I love you Bobo and thanks for being such a great friend to me and for allowing me come work at you place many nights because I needed to breathe and feel loved. I love and thank you Drs Nosipho, Sinethemba, Palesa, Bathabile and Nomfundo. Semi-Doctor Elona – hahahaha – Okay do not fight!! I will call you a doctor when we both graduate at the great hall. Thank you Elona for everything! I love you and I thank you Gcina, Henry, Kim, Uruemu, Fr John, Fr Emmanuel, and Fr Fidelis. I love and I thank you Drs Gabriel and Lieketseng.

Mummy Uruemu!!!!!! – I love you and my little ones! Too many special ones to remember and name – I carry you all in my heart! I love you all – I am grateful! Ngiyabonga! Vwa Ko biruo!

ABSTRACT

This study focused on using African speculative fiction in the reading recollection intervention for Grade four dyslexic learners in a Johannesburg special school. The main aim was to investigate the impact of an African speculative fiction text in a recollection intervention for Grade four dyslexic learners, using an ethnographic approach to understanding the impact of African speculative fiction in the recollection intervention. The main question answered in the study was: "*How does using an African speculative fiction text, Ikenga by Nnedi Okorafor, in a reading intervention for Grade four dyslexic learners at a Johannesburg special school affect the learners' reading recollection?"*

I employed a qualitative research design with a case study method. I gathered the data via four instruments – classroom ethnography, tape recording, observation, and journaling. I used purposive sampling to identify the four participants in this study. My study was a six-weeks classroom intervention session at a special school in Johannesburg, South Africa. I analysed the data with the constant comparative method, as constructed by Fram (2013).

There were four significant themes that emerged from coding the data: contextuality, multimodality (arts and visual modes), speculative imagination and repetition. Context and familiarity enabled the learner to decodify the text – find his or her lived experiences in the story. The introduction of African speculative fiction, which is a contextual genre, aided in recollection. These saliences are shown in the multimode and the speculative imagination. Repetition was a structured opportunity for individual decodification and exhibition of several nuances and salience. My study actively contributes to the academic discourse on dyslexia. It also strengthens some of the on-going discussions and propositions.

Key Words: *African speculative fiction, dyslexia, reading, recollection, intervention, Grade four, dyslexic learners*

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CHAPTER 1: INTRODUCTION

1.1 Background

A large and varied literature exists on different learning disabilities. Usually, these learning disabilities are examined through the prism of the current education system and its practices (Riddick, 2010). The case that a person has a learning disability is made when he or she is unsuccessful within the practices of the conventional education system. Two of the commonest learning disabilities examined in education literature are dyslexia and attention deficit hyperactivity disorder (ADHD). This paper focuses on dyslexia.

Dyslexia has been viewed differently by educators, psychologists, and medical scientists. There is generally no consensus on the definition or conceptualisation of dyslexia, since the different disciplines begin from different premises which make the disorder appear as a phonological problem, a genetic problem or even a social problem. However, one meeting point for researchers so far is that dyslexia is manifested through a reading or learning difficulty (Riddick, 2010). Dyslexia, like many learning and social problems, is cultural and contextual – its manifestation is not universal, but originates within specific socio-cultural spaces (Cantor et al., 2018). This is an acknowledgement that the brain is malleable and formed within socio-cultural contexts. Here, the advocacy is that personal learning and social problems can be negotiated, managed, and improved if the socio-cultural context of the difficulty is considered (Broadhead et al., 2018).

Riddick invites educators to think of dyslexia as falling on a spectrum of reading and learning – to think of dyslexia as a way of educating (Riddick, 2010). One implication of this position is that we could also begin to think of a spectrum of education. By a spectrum of education, I am arguing that we cannot have a problem that we only engage with and define within the boundaries of the

current education system. The urgency is to broaden our conceptualisation of the education system and then consider what dyslexia would look like within this broader context. My study therefore favours the definition proposed by the British Dyslexia Association (BDA) (2010) which posits that dyslexia is a learning difference that defies our traditional/conventional way of education and literacy. This definition is construed from an inclusive point of view, acknowledging that our education system is not actively set to wholly accommodate dyslexic learners. This BDA definition is not the foundation of dyslexia intervention in South Africa. There are other interventions that are being used.

In South Africa, one of the prevalent reading interventions used for dyslexic learners is the 'Retrieval, Automaticity, Vocabulary, Elaboration, Orthography (RAVE-O) programme' (Wolf et al., 2009; Randleff-Rasmussen, 2009). It was designed by Maryanne Wolf and her colleagues at the Centre for Reading and Language Research at Tufts University, United States (Wolf, 2007), to help struggling and dyslexic learners read better. Its strengths lie in the holistic approach it adopts to reading interventions. It recognises that the dyslexic learner's struggle is beyond phonology because it embraces careful investigation into spaces of morphology, orthography, syllables, pragmatics, syntax, and semantics. It also seeks to make the intervention process fun for the learner and the teacher (Wolf et al., 2009). The RAVE-O programme works well with the definition provided by the British Dyslexia Association, but it is a programme designed *outside* of the education system and curriculum; it is not yet merged and infused with the system, thus leaves the system unchanged. I presume that the urgency to design or create dyslexic intervention within the curriculum (an acknowledge of dyslexia as a spectrum of education) is related to the low data on the prevalence of dyslexia.

The epidemiological data on the prevalence of dyslexia in Africa and South Africa is almost non-existent (Idrissou, 2019; Wajuihian & Naidoo, 2011). A study conducted in Egypt on learning disabilities suggested that the ratio was 2.7% female to 1% male across the general population of the given society. This study was not specifically focused on dyslexia. Other scholars suggest higher figures saying:

> In South Africa, every one in ten people is probably dyslexic. This is assuming that South Africa has the same percentage of dyslexics as most developed countries (approximately 10% of the population). If this estimate is accurate, it means that at least five million South Africans are struggling with literacy problems in school or in the workplace (Helen Arkell Dyslexia Charity, 2021, Paragraph 3).

This Helen Arkell Dyslexia Charity report sounds more probable than a factual or observational research. This lack of in-depth data has implications and one of such is that our educational system in South Africa does not acknowledge the extent of dyslexia prevalence which is seen in the reduced attention it receives in many schools, such as poorly equipped educators and intervention resources.

My current study moves to address one of the implications of this lack of data – the lack of a contextual intervention programme that aims to support reading recollection for dyslexic learners in South Africa. This study seeks to assess the potential of African speculative fiction for recollection interventions. The choice of African speculative fiction is based on previous research that showed how the speculative fiction genre has the capacity to invite the attention and activate the imagination of readers, especially children (Dewar, 2019; Faulkner, 2015). The spell-binding power of speculative story is not surprising, since such storytelling forms part of the epistemic systems of most societies around the world. In the works of early Greek philosophers like Socrates and Plato, we see how stories, even speculative constructed stories were used to teach and advance

philosophical arguments (Grube, 1981). In many African cultures, storying is central to their epistemic system especially in the raising of children in their communities and cultures. Grandparents would commonly tell speculative fiction or other forms of abstract stories to children to explain existential values or knowledge, and to teach cultural values and knowledges (Ssentanda & Andema, 2019). This is founded on the principle that stories will improve the imagination and help the child to remember the epistemic and moral values of the community (Ssentanda & Andema, 2019). I recall that as a young boy, there was a popular story in our English language readers in primary school. It tells the story of the animals going up in the sky for a meal, and how animals without wings flew up to the sky by borrowing a feather from winged animals. Moreover, the use of an artistic, creative, and fictional (literature) approach in the intervention process for dyslexic learners is highly encouraged (Cockcroft & Hartgill, 2004; Mills, 2018). I am undertaking this study as I have observed a considerable gap in contextual intervention for dyslexic learners in the school system.

1.2 Research Problem

In addition to the scarcity of epidemiological data on dyslexia in Africa, there is no substantial intervention available for these learners (Snowling, 2012). In some places on the continent, such as in Nigeria and South Africa, where interventions are given to dyslexic learners, a major pitfall is that the approaches for the intervention process are Euro-American centred. These intervention programmes for all their strengths are formed in the West and are not designed with specific contexts and needs of dyslexic learners in Africa in mind.

I am a supporter of the RAVE-O programme, however, like every intervention, there is an urgency to decodify it. In this study, the term ‘decodify’ is founded on Paulo Freire’s decodification theory.

Freire argues that reading, learning, and teaching should be decodified, that is, the learners should relate to their learning and find themselves and their lived experiences in the learning process and learning material (Freire, 1970; Godsell, 2019). I posit that decodification will help dyslexic learners recall better, as what they will be reading about will be relatable to their lived experiences.

The research problem my study investigates is the effects of using decodified literary texts in the intervention process. Specifically, the study focuses on using African speculative fiction as a recollection intervention for a Grade four class. The use of African speculative fiction has been highlighted as a decodified text because of its contextual characteristics (this will be further explained in chapter two). The characteristics of African speculative fiction are usually drawn from the contextual realities of African communities. Although, the general term African speculative fiction has been chosen for this study, the real theory is 'Africanfuturism and Africanjujuism' – these are terms proposed by Nnedi Okorofar (2019). Herein, she argues for the writing and use of speculative fiction and fantasy drawn from contextual African experiences. The telling of African stories is more nuanced than a generalised story of Africans or Black people.

1.3 Research Aims

The overall aim of this study is to investigate the impact of an African speculative fiction text in a recollection intervention for Grade four dyslexic learners.

Besides the overall aim, there were two subsidiary aims for this study:

- To determine the effects of using a decodified text and pedagogy in the recollection intervention for dyslexic learners in South Africa.
- To evaluate the experiences of Grade four dyslexic learners with African speculative fiction.

1.4 Research Questions

To achieve the aims of this study, a main research question is asked:

- How does using an African speculative fiction text, *Ikenga* by Nnedi Okorafor, in a reading intervention for Grade four dyslexic learners at a Johannesburg special school affect the learners' reading recollection?

Furthermore, two sub-questions are also asked to situate the study better:

- How do the specifically African contexts of the novel shape what emerges as salient in the learners' recollection, and how does this salience reveal itself in their recollection?

- How do the speculative elements of the novel shape what emerges as salient in the learners' recollection, and how does this salience reveal itself in their recollection?

1.5 Rationale for the Study

As mentioned above, in South Africa, interventions for dyslexic learners are mainly Euro-American centred. While these interventions make helpful contributions, they are mostly not adapted for specific African contexts. This study is motivated by the lack of African and decodified interventions that are available to dyslexic learners in South Africa. This study looks to contribute to the intervention discourse by exploring the impact of using African speculative fiction.

In 2020, for my Honours research project, I explored the use of decolonial poetry as a reading intervention for dyslexic learners in the early grades. The study showed that decolonial poetry is effective and beneficial to dyslexic learners (Onokpite, 2020). The stories and images that dyslexic learners encounter in the reading intervention process matter, and it can help them improve. This

study systematically builds on my 2020 research. However, it is an assessment of the impact of African speculative fictions in the recollection intervention of dyslexic learners.

Speculative fiction is about the least favoured literature genre used in many schools (Hollar, 2015). There is more use of realistic fiction and nonfiction. Some teachers claim it is a difficult genre to engage with, but it is a genre filled with possibilities for teaching social, cultural, personal, and emotional realities. It is a genre that can create alternative and possible worlds in which the readers see themselves (Freire, 1970; Thomas, 2013).

My proposition is that speculative fiction has the power to attract attention in young children and awaken their imagination. This interest it creates is enwrapped in possibilities for the reader – the reader can see that whatever they think is plausible. To be exact, speculative fiction is a wonderful asset for imaginative reading and writing (McLean, 2016). Speculative fiction has an inherent decodified character. The possibility it offers is in the mind of the reader who would most likely think from their immediate world. With this possibility in speculative fiction, this study chooses decodified speculative fiction, specifically those from, and on, the African continent.

The research contributes to the academic debate of using decodified literature as an intervention for early grades dyslexic learners. It is time to begin to create an African educational system that acknowledges our realities and context. This study aims to determine the impact of using African speculative fiction for dyslexic recollection intervention.

1.6 Conceptualisation of Key Terms

I conceptualised the following terms accordingly:

Dyslexia: A learning difference that defies our traditional ways of schooling (teaching and learning). I understand it as a spectrum of education – we need to teach dyslexic learners within the spectrum they fill in our education and curriculum diversity. Dyslexic learners are those who have dyslexia. In this study, they are identified by the teacher and the school principal.

Recollection: Recollection is a technical term in studying children's reading development. Blankenship et al. (2015, p. 165) conceptualises recollection thus: "Recollection refers to the detail-rich memory for items and ***contextual*** information" (Emphasis is mine). Context is a catalyst for recollection – the expectations and burdens of what should/can be recollected by young children are those which are contextual to them. Blankenship et al. (2015) demonstrated that for children, recollection is less complex due to lack of experience but is also a factor of continuing neural development. However, familiarity is a precedence of recollection for children – once they become familiar with a concept, they will remember it. In this study, I conceptualise recollection within the framework of Blankenship et al.'s propositions – recollection is a consequence of decodified (contextual) pedagogies.

Recollection Intervention: It is a dyslexic intervention that focuses on the recollection (remembering) of the learner. The focus is not to teach how to read but to help recall the information they learn whether by listening or reading. The success of the intervention is judged on how much they remember from exposure to decodified (contextual) texts – it is built on the foundation of Blankenship et al.'s study which posits that recollection is an expectation of contextual pedagogies. In this study, recollection, remembering, recall, recollect are used interchangeably to mean the same concept.

Decodification: This is a Freirean theory that argues that learners must see their experiences and realities in their learning (Freire, 1970). In this study, the use of decodified text means the use of contextual text. Decodification is conceptualised as context. Contextual texts and decodified texts mean the same thing in this study. Here, I have not considered the praxis proposition in Freire's decodification. I am using decodification as a theory and not evaluating the praxis in this research.

Speculative Fiction: In this study, it is conceived as a broad literary genre that covers stories written about extra-terrestrial phenomenon. It is fiction that used extra-terrestrial writings to unpack our social, cultural, political, and immediate realities. These can be punctuated with superheroes stories or futuristic imagination or historical critiques.

African Speculative Fiction: This is speculative fiction that is written about African contexts. In this study, it is understood as speculative fiction written about Africa(ns). The book used in this study is a fantasy which is a form of speculative fiction. In African speculative fiction, this form of fantasy is now being recognised as 'Africanjujuism' – a word coined by Okorafor (2019).

1.7 Layout of the Study

This research report consists of five chapters:

1.7.1 Chapter One

I provide a background to the study; I examine and identify the research problem and establish the research aims and questions. I discuss the rationale for the study, conceptualise the key terms situating the research, a layout of the study and the significance of the study.

1.7.2 Chapter Two

I critically review the relevant literature and adequately situate my own research. I review the literature under the following sub-headings: dyslexia (theories and definitions), approaches to teaching dyslexic children, conceptualising African speculative fiction, and previous studies using science (speculative) fiction in the classroom. Also, I evaluate the theoretical frameworks that guide this research.

1.7.3 Chapter Three

I provide the research methodology used in this study. It also details the research design, population, sampling selection method, data collection method and the data analysis procedure. In the latter part, I discussed the matters of the study's dependability and ethical consideration for this research.

1.7.4 Chapter Four

This chapter is an integration of the data presentation and the discussion. I simultaneously present the data and discuss the findings. This is done collaboratively, yet distinctly, according to the emerging themes from the data analysis, namely, contextuality, multimodality (arts and visual modes), speculative imagination and repetition.

1.7.5 Chapter Five

In this chapter, I present the summary of the findings of my study. I make some recommendations for future study based on the data that has emerged from my study. I discuss some limitations to my study and wrap up the story of my six-weeks intervention with four dyslexic learners.

1.8 Significance of the study

The findings of this study are beneficial to the following groups:

1.8.1 Department of Education

This study can provide insight to the Department on the need for a decodified curriculum in South Africa, to see dyslexic learners, identified or not, receive effective intervention, even in rural schools. It can generate the urgency for an evaluation of the teachers' training programme in colleges and universities. There should be substantial training on classroom management of dyslexia.

1.8.2 Educators

This study invites schools and its teachers, especially the foundation phase teachers, to evaluate their classroom practice and interventions for dyslexic learners. This study shows educators the benefits of introducing more African speculative fiction (African literature in general) into their pedagogy. The study can also help empower them to be efficient as they could see that their dyslexic learners are recalling better when decodified materials are employed.

1.8.3 Parents

Parents are a part of the education of learners, especially dyslexic learners. Dreyer (2015) explicated the experience of parents with dyslexic learners in South Africa and emphasised the huge part they play in their education. Parents are important! This study shows parents another useful tool in the recollection intervention for their children, especially during school holidays and in moments when they want to study with them. The emphasis is that decodified texts and images can help dyslexic learners recall better.

1.8.4 Dyslexic Learners

They are the main beneficiaries of this study. The study empowers all the other beneficiaries to help them too. This study is a contribution on their journey recalling effortlessly by researching on

how African speculative fictions, rooted in their realities and context, is a proper intervention for their understanding and learning. Dyslexic learners would improve in their education with this study.

1.9 Conclusion

In this chapter, I situated my study by presenting the problem under investigation and conceptualising the basic structure for the study. In the next chapter, I make a critical review of the relevant literature. I show how my study fits within the available literature. I also construct the conceptual framework in this process and discuss the theoretical framework in the latter part of the chapter.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

In this chapter, I critically review the relevant literature. I demonstrate what the conversation has been in the field and adequately situate my own research. I review the literature under the following sub-headings: dyslexia (theories and definitions), approaches to teaching dyslexic children, conceptualising African speculative fiction, and previous studies using speculative fiction in the classroom. I also construct the conceptual framework in this process and discuss the theoretical framework in the latter part of the chapter.

2.2 Dyslexia: Theories and Definitions

As I noted in chapter one, dyslexia is constructed differently by researchers. It was named as dyslexia by Rudolf Berlin, a German ophthalmologist in 1883 (Berlin, 1883). Berlin examined the brains of four females and one male who were sent to him over a period, who were struggling with the acquisition of basic literacy and reading skills. Berlin named the symptomatology identified as dyslexia. Since Berlin, different clinicians, psychologists, and educators have engaged with the concept of dyslexia. The work from these researchers have accumulated in five dyslexia theories: phonological difficulties theory, longitudinal dyslexia theory, long-term difficulties theory, cerebellar difficulties theory, and magnocellular difficulties theory. It is important to note that this study focuses on developmental dyslexia: dyslexia that is present or first noticeable from childhood and consistent through adult life. This is different from acquired dyslexia which seemingly begins after a severe illness in life (Wolf, 2007).

The phonological difficulties theory is prominent in understanding dyslexia. Dyslexic learners have been found to have a deficit of phonological awareness. Phonological awareness is the ability

for a person to recognise and use the sounds and sound structure of a particular language. Phonological awareness is important in the reading development in a child's literacy journey (Wilsenach, 2019). Most dyslexic learners are first identified in their reading attempts which expose their phonological difficulties. This difficulty makes the recognition of a single word harder, which is extended to further difficulties with reading fluency, accuracy, and spelling (Riddick, 2010). The discourse on phonological difficulties is also centred on the short-term memory (Snowling, 2000; Wolf, 2007). Snowling (2000) demonstrated that persons with dyslexia have poor short-term verbal memory, because items in the short-term verbal memory are held in the form of speech codes and the poor phonological awareness or representations of dyslexics result in impaired word representation and less efficient coding.

The longitudinal theory of dyslexia integrates with the phonological difficulty theory. However, it is concerned with the working memory and long-term memory. In the longitudinal studies theory, people with dyslexia are examined cross-sectionally. It is an evaluation of the phonological skills and the long-term memory across children in different grades/age groups to examine the predominance of dyslexia via phonology (Riddick, 2010). This approach shows that the poor phonological awareness and the poor processing of phonological information present in children with dyslexia is also found to be present in dyslexic adults (Torgesen, Wagner & Rashotte, 1994).

The long-term difficulties theory of dyslexia is akin to the longitudinal study theory (Riddick, 2010). It is also based on the phonological processes and awareness of the long-term and working memory functions of the brain. The proposition in this theory is that the phonological and cognitive deficit found in the dyslexic child is present through life (Riddick, 2010). This study proposed that dyslexic learners are less likely to develop compensatory strategies to deal with their phonological

and cognitive deficit on their own. The sign of their dyslexic struggles seems to be present through life (Snowling, 2012; Wolf, 2007).

The cerebellar difficulties research is founded on the theory of Rudolf Berlin (1883). It is based on the proposition that dyslexia is a condition of the brain functions (Wolf, 2007; Riddick, 2010). It wants to argue that the problem with phonology is a brain deficit and that only a recognition and intervention in the brain would provide a management of the dyslexic condition. Fawcett and Nicolson (2004) posit that the cerebellum is involved in the control of rapid skilled movement. The dyslexic learner is impaired in some function of the cerebellum, and this affects its rapidity in dealing with language dexterity, automatisation of skills and balance (Fawcett, 2004). While this theory acknowledges the effectiveness of identifying dyslexia through phonological difficulties, they maintain that an investigation of the cerebellum functioning is also vital.

The magnocellular difficulties theory focuses on the vision (sight). It is still a developing theory within the dyslexia discourse. The claim is that the vision of the individual (could) account for their dyslexia. Stein (1994, 2001, 2003) demonstrated that there are two neural pathways in visual processing – the parvocellular and the magnocellular. The former manages relatively static information, and the latter identifies rapid transitions in the incoming information. Stein (2003) argues that a dyslexic person struggles with the magnocellular visual processing. The magnocellular theorists like Stein argue that visual processing is a problem with dyslexic persons and even more broadly, those with learning difficulties. The correction of certain eye impairment is necessary for the improvement in reading and learning for dyslexic persons. They reckon that vision deficit is part of the dyslexic syndrome (Wajuihian & Naidoo, 2010) and a better intervention for dyslexia can happen by a critical correction of a person's vision.

The above theories of dyslexia have influenced the different definitions of dyslexia available today. Wolf (2007) considers dyslexia a neurobiological learning difference that is characterised by problems with word recognition, spelling, decoding, and remembering. Snowling (2012, p. 7) argues that "dyslexia is a neurodevelopmental disorder with a probable genetic basis … the core feature of dyslexia is a problem with word decoding, which in turn impacts spelling performance and the development of reading fluency". Both definitions acknowledged several parts of the dyslexia theories, especially the phonological difficulties and the cerebellar difficulties. These are the characteristics of several definitions of dyslexia. They hang on the different theories, depending on the emphasis being made by the researcher. More recently, some definitions have been found to embody the integration of the different theories about dyslexia. As I briefly mention in chapter one, the British Dyslexia Association (BDA) (2010) definition is extensive in this regard:

> Dyslexia is a specific learning difficulty which mainly affects the development of literacy and language related skills. It is likely to be present at birth and to be lifelong in its effects. It is characterised by difficulties with phonological processing, rapid naming, working memory, processing speed, and the automatic development of skills that may not match up to an individual's other cognitive abilities. *It tends to be resistant to conventional teaching methods* [my emphasis], but its effects can be mitigated by appropriate specific intervention, including the application of information technology and supportive counselling (Paragraph, 1 and 2)

The BDA definition is comprehensive, and it sits within the propositions that this research sets out to explore. Troeva (2015) argues that dyslexia is a learning difference that defies our traditional ways of teaching, learning, and reading. This study acknowledges the propositions made in the definition by the BDA and Troeva. It moves to engage specifically with the notion that dyslexia is a learning difference and that dyslexia defies traditional (conventional) teaching and learning methods.

Reading is the most fundamental skill for a child's success through school – it is a skill that needs to be carefully taught (Brice & Brice, 2009; Genishi & Dyson, 2009). It is reckoned that reading can be taught to almost every child of school-age; however, it is also a skill that is more difficult for a proportion of young learners. Dyslexia affects a child's reading development which is visible through their inability to read unfamiliar words or lack a strategy in attempting new words. Children with dyslexia also try to avoid reading aloud, when they attempt, it is inaudible and not fluent (Fonyuyshey & Nsah, 2019). In this case, fluency is the child's ability to read a text quickly and smoothly, with meaning (Brice & Brice, 2009). If a child can recognise the words in a text and understands their meaning or context, their chance of attaining fluency is likely to increase (Brice & Brice, 2009).

2.3 Approaches to Teaching Dyslexic Children:

I appraise three defined approaches to the teaching of dyslexic children: the Orton-Gillingham method, the Structured Literacy approach, and the Multisensory approach. These approaches are enwrapped in the multisensory approach strategies.

The Orton-Gillingham Method: It was put together in the 1930/1940s by Samuel T. Orton and Anna Gillingham, who were mutually interested in the structure of language and how the internalisation of this structure helps with reading well (Sayeski, Earle, Davis & Calamari, 2019). They focused on teaching students the elements of language (morphology, phonology etc.) and its application for fluent decoding (reading) and encoding (spelling). This approach aimed at simplifying the language components and the mastery needed for dyslexic learners to use them effortlessly (Uhry & Clark, 2005).

This method has several distinguishing features like multisensory (employs all the senses), sequential (logical and well-planned – connecting to what has been learned and what is been learned), incremental (gentle movement from simple to complex learning), cumulative (regular and consistent with mastery of the concepts as its aim), individualised (prioritises the need of the individual learner), phonogram-based (intentionally focusing on words formation, spelling and reading), and explicit (learning is clear and straightforward – an avoidance of vagueness) (Rippel, 2019). These features are integrated to help reading easier for the dyslexic learner and instil confidence in their ability to excel. Interestingly, it fits together with Snowling's (2012) argument that a creative and innovative approach to teaching in the classroom would mean that learners who have dyslexia will get intervention whether they are identified or not. The Orton-Gillingham method is, above all, created for use by every learner and it can overcome several forms of learning disorders, including dyslexia (Rippel, 2019).

The Structured Literacy Approach: This approach was named by the International Dyslexia Association in 2016 (Hamman, 2018). It was an official educational acknowledgement of all forms of research based on reading and reading differences (disorders). The aim was to create an integration of all the research that had been done around teaching dyslexic children or those with reading failures, including the Orton-Gillingham approach. Some educators construed the Orton-Gillingham approach and the structured literacy approach as the same approach, mainly due to their outlined features (Spear-Swerling, 2018).

The features of the structured literacy approach are explicit, systematic, cumulative, and sequential. This is a feature it shared significantly with the Orton-Gillingham approach. It is also characterised by ongoing review, high levels of student-teacher interaction, deliberate choice of

examples and non-examples, prompt and constructive feedback (Spear-Swerling, 2018). This approach emphasises the development of phonological skills, reading and spelling which makes it a good fit for students with dyslexia as these areas are generally judged as core weaknesses for dyslexic learners (Dekker, n.d.; Wolf, 2009).

The Multisensory Approach: This approach enwraps both approaches discussed above. It is a function of those approaches. Multisensory approach aims at teaching dyslexic learners, using more than one modality at a time (Mills, 2018). It is focused on the integration of the sensory activities. For example, when a learner is taught to spell the word: PIG, they are taught to spell each letter, pronounce them together while showing them a picture of a pig or playing a video about a piggery. In this case, more than one sense is activated for this learning process. The multisensory approach is an improvement on the use of rigid curriculum and practices in the intervention of dyslexic learners. The exploration of this approach comes out of a dissensus on the causation of dyslexia (Kelly & Phillips, 2011). The multisensory approach aims at the creative and innovative teaching strategies in the classroom for all students and particularly dyslexic learners so that even when unidentified, they receive intervention (Snowling, 2012). The dyslexic learner is recognised as a picture thinker and a learner who uses the creative and artistic part of the brain maximally (Mills, 2018; Wolf, 2007). This characteristic of the dyslexic learner is compatible with using the multisensory approach, which is a pedagogical invitation to imagination, creativity, and learning. An important part of this approach is the materials involved. The materials should be able to activate more than one sense, increasing the imaginative focus of the learner (Kelly & Phillips, 2011). Some of the texts that have favoured are images, poetry, fiction, music, drama.

As earlier mentioned, dyslexic learners struggle with bridging the short-term and the long-term memory, this compounds their recollection ability, which is further hindered when the information needing recollection is not contextual to the dyslexic learner (Blankenship et al., 2015). Information received, either in the short-term or long-term memory, is not easily outputted. Staudt (2009) has argued that one way of assisting these learners in the classroom is by employing familiar texts and arts. Staudt posits that the familiarity of the teaching and learning materials is capable of triggering recollection in the dyslexic child. Robinson (2013) makes a case for the use of culturally appropriate materials and assessment for dyslexic learners, based on their demography. Recollection helps in the reading ability which is also a function of the child to recognise the words and understand them. Contextual concepts could play a role in enhancing dyslexic recollection. This study moves to understand the recollection in dyslexic learners by introducing decodified materials.

On the behavioural and cognitive intervention for dyslexic learners, educators have continued to highlight the importance of using creative ways in assisting them (Awes, 2014; Mills, 2018; Riddick, 2010). Wolf showed that dyslexic learners favour the left side of their brain which is responsible for artistic and creative functioning (Genishi & Dyson, 2009; Wolf, 2007). This evidence could be a tool in assisting with their reading fluency and recollection. The urgency is to explore such creative pedagogies that are beneficial in the process. Mills (2018) argued that such creative pedagogies can provide intervention to the dyslexic and non-dyslexic learner, even in situations when a dyslexic identification has not been made. One of the pedagogies he emphasised is the multisensory approach to teaching and learning for dyslexic learners.

Admittedly, there is hardly a consensus on the educational conceptualisation of dyslexia. However, there seems to be a common ground which is acknowledging that dyslexic learners are not incapable of schooling, and are highly creative (Awes, 2014; Cockcroft & Hartgill, 2004; Staudt, 2009; Wolf, 2007). Part of the progression comes from some figures in history who have been known to be dyslexic yet stunned the world with their intelligence: Albert Einstein, Leonardo Da Vinci, and Thomas Edison (Wolf, 2007). This prompts an urgency to finding creative and friendly strategies for teaching dyslexic learners.

Hornsby (1984) argues that appropriate psychological diagnosis is the most helpful way of assisting learners with dyslexia. For Hornsby, there must be diagnosis before an intervention can be given. This has raised concerned for educators who have tried to avoid construing dyslexia as "pathological", but rather a learning difference (Troeva, 2015). Although, such educators admit that psychological diagnosis is key for dyslexic intervention, they argue that a rigid ascription to diagnosis is worrying and could impact psychologically on the mind of the learner (Snowling, 2012). Riddick (2010) raises the point for cross-cultural research on dyslexia labelling. This stems from how it is considered as a pathology, learning disorder or disabilities by several researchers. Riddick reckons that labelling has an impact on the dyslexic learner and their self-esteem which is important in intervention at the cognitive and behavioural levels. In this study, dyslexia is construed as a learning difference. This is the motivation for my earlier position on the 'spectrum of education'.

The advocacy then is for teachers to be trained in early dyslexic identification skills and for the school curriculum to be creative, innovative, and decodified to create beneficial strategies that work for every learner in the class – dyslexic or not (Snowling, 2012). In this way, even schools

and parents who are unable to afford the expenses of securing a psychologist can manage struggling and dyslexic learners, due to effective teaching strategies (Pavey, Meehan & Davis, 2013; Mills, 2018). The different approaches discussed in this section are capable of being integrated into the ordinary classroom when context is considered. This is beneficial to under-resourced schools or parents of poor dyslexic learners who cannot afford special interventions.

2.4. Dyslexia Interventions in South Africa

South Africa basic education happens in two different spheres – public schools and private schools. Although both school spheres used the approved Curriculum Assessment Policy Statement (CAPS) document, their pedagogical approaches are quite distinct, including the staff to student ratio. It is also noted that both spheres of education have made considerable attempt in special education and managing diverse learners in the classroom.

In 2001, the South African Department of Basic Education (DBE) published its White Paper 6 on inclusion and special education (Pillay & Di Terlizi, 2009). This was an attempt to align South Africa with the United Nations' 1996 commitment to inclusive education for all. This has developed into the DBE's establishment of school for learners with special educational needs (LSEN) (Western Cape Education Department, 2008). There are about 460 LSEN schools in South Africa now (Yates, 2020). Most of these LSEN schools that are in the public sphere follow the directives of the DBE.

Interestingly, the DBE does not actively stipulate for each case of special needs or diversity. Rather, the department has several documents (2010, 2005) with instructions on inclusion, special needs schools, and even on how the regular CAPS document could be used to intervene for a

learner within mainstream schools. However, they are not tailored to specific special needs cases. They are written quite broadly with less information on some of the specific interventions for specific needs, and how these interventions should be administered. These documents generally highlight the need for compassion, personal pedagogy and respect for the learners' differences (DBE, 2010). While this is praiseworthy, I think the urgency is in designing intervention for the specific special needs. Currently dyslexic interventions are not clearly distinguished within the directives of the LSEN programmes, although there have been improvements for learners who have been sent to these schools (Pillay & Di Terlizi, 2009). This lack of specificity means that dyslexic learners are not getting intentional interventions.

Conversely, in the private spheres, there are signs of more directed and intentional dyslexic interventions. In Johannesburg, there are several private special schools for dyslexic learners. At these schools, among other kinds of special-needs education, there is intentional pedagogy for dyslexic learners including the RAVE-O, cognitive enrichment advantage (CEA) and cognitive education interventions (Japari Schools, 2022; Bellavista, 2021). This is a progress that is not visible in most of the public LSEN schools, which is both a symptom of and contributes to social inequality in South Africa as it excludes dyslexic learners from poorer families and communities.

Moreover, most of the texts used in these intervention programmes are not decodified and are mainly Eurocentric. Admittedly, these interventions are mostly generated in the West. For example, the RAVE-O programme was designed in the USA by Wolf (2007) and her colleagues. Although, they could be efficient, they fail in speaking to the context of the dyslexic learners in South Africa. The priority for my study is to access the impact of using decodified texts (African

speculative fiction) for the recollection of Grade four dyslexic learners. The dynamics that present itself when the texts used in the intervention process is decodified.

2.5 Defining African Speculative fiction

Before explicating African speculative fiction, I step back to elaborate on speculative fiction, which is the grand genre for African speculative fiction. It is difficult to define speculative fiction, especially as it is a broad genre that seems to cover every part of literature except that the worlds it writes about do not physically exist (Wilkins, 2012). It is a genre that speculates about things, events, persons, situations, or adventures that are not real nor true, but which are able to translate into well-defined realities for the reader (Wilkins, 2012). Speculative fiction is often divided into sub-genres, such as fantasy fiction, horror, alternative history, superhero fiction, utopian, or dystopian fiction, among others non-realism literature.

Speculative fiction concerns itself with imaginative and futuristic properties of science and technology (Gilks, Fleming & Allen, 2003). It emphasises the science possibilities of human society. Furthermore, with the growth of decolonial literature around the world, there has been a sustained rise of speculative fictions written on and about Africa. It is now being recognised as a sub-genre of speculative fiction (Okorafor, 2019). It does not distinctly differ from the features of speculative fiction popularised by Western writers. It focuses on exploring speculative fiction concepts on and about Africa.

The discourse on African speculative fiction requires defining for this study. This study favours the category of African speculative fiction known as Africanjujuism which is the fantasy genre of Africanfuturism (Okorafor, 2019). Africanfuturism is differentiated from Afrofuturism which is generally understood as speculative fiction written by Black and Caribbean authors (Yaszek, 2013;

Woods, 2020). Afrofuturism is “a way of imagining possible futures through a black cultural lens” (Womack, 2013, p. 14). It concerns itself with reimaging futures for blackness – culture and history. Afrofuturism aims at telling the unique stories of Black people. However, it is a larger construction of the African diaspora and African Americans – it generally does not consider the multidimensionality of Blackness. Okorafor (2019, paragraph 8) argues that: “The difference [Afrofuturism & Africanfuturism] is that Africanfuturism is specifically and more directly rooted in African culture, history, mythology, and point-of-view as it then branches into the Black Diaspora, and it does not privilege or centre the West”. In this study and within the discourse of Africanjujuism (Africanfuturism), Africa is used to include every culture within the geographical location of Africa. This means any group of people who identify as Africans and write speculative fiction about African cultures, histories, or mythologies.

For the sake of clarity, this study regards Africanjujuism (a group of fantasy work – Africanfuturism sub-genre) that centres African cultures, histories, and mythologies as “African Speculative fiction”. This is an important departure from Afrofuturism which focuses more on Blackness and not on the specific cultures of Black people (Womack, 2013). For example, William Hayashi’s (2009) novel, *Discovery*, talks about Black American separatists. In this instance, Black Americans could be Black people from many cultures and places in Africa or the Caribbean, but whose cultures are not explored. This is different from Tomi Adeyemi’s (2018) novel, *Children of Blood and Bone*, where there is a huge centring of the Yoruba culture.

This study assesses how the use of African speculative fiction is an effective recollection intervention for dyslexic learners in Grade four. The urgency is that African speculative fiction centres Africa realities which are realities closer to the dyslexic learner, realities they can imagine,

realities they can own and realities they can recall. The complex nature of identifying what an African reality or imagination for some people on the continent is not overlooked in this study. The African continent is no longer inhabited by only Black people – Whites, Asians and other demographics now rightfully identify as Africans. It could be argued then that Whites or Asians do not really have a grand or complex familiarity with the cultures of the Black people who have lived the longest on the continent. While this study does not set forth to clarify or analyse that argument, this study is clear in arguing that these group of 'Non-Blacks' who are Africans too (many of whom grew up in the continent and some who have not even left the continent since their birth) have a closer understanding of the cultures on the continent. This means that it is part of their reality and not completely estranged from their consciousness. We see instances where 'Non-Blacks' Africans speak several African languages fluently and even write good books and stories on and about Africa. An example is Alexander McGill Smith's (2002) *The No. 1 Ladies Detective Agency*, which is set in Botswana and explored in detail, the culture, its nuances, and some South African nuances as a border country. The argument for the closeness of the African reality to even Non-Blacks Africans allows for the participants in this study to benefit. The participants in the study comprise the various group and races in South Africa.

2.6 Previous Studies Using Speculative Fiction in the Classroom

Speculative fiction is an effective teaching and learning tool, especially for its commitment to creating alternative and possible worlds in which learners can identify and see themselves: "… speculative fiction are genres that move readers to imagine alternative ways of being alive" (Thomas, 2013, p. 4). Speculative fiction has the power to attract attention in young children and awaken their imagination (Dewar, 2019; Faulkner, 2015). This interest it creates is enwrapped in

possibilities for the reader. In short, speculative fiction is a wonderful asset for imaginative reading and writing (McLean, 2016).

In a recent study, speculative fiction was used to teach a group of Oakland university students in the United States on the principles of information privacy (Lauer, 2020). Four short speculative fictions were used to demonstrate the need for information privacy and how it is significantly multi-faceted and multi-disciplinary. As against using legal examples and interventions, the researcher chose speculative fiction because it was unravelled that speculative fiction is effective for presenting a privacy problem in a relatable context to the students. The researcher noted that the students reckoned that the stories could put them in future possibilities on how they could act about privacy. It acknowledged that they could take up the places of the characters and better imagine the reality (Lauer, 2020). Lauer's study is a compelling reminder of the importance of decodification (context) in education. Primarily, the advancement made by the students is in their ability to see themselves in the reality. This is a proposition I buttress in this current study.

Interestingly, one of the students wrote an essay about people with learning difficulties. It is reported: "One essay described the student's participation in an Attention Deficit Workshop where she donned some sensory deprivation technology to understand the experience of ADD. She compared that experience with the sensory bombardment described by the characters in '*Water*"' (Lauer, 2020, pp. 41- 42). It aligned with Thomas's (2013) position that students can imagine themselves in the lived experiences of the characters in the story (Lauer, 2020). This means they could identify with the characters through sympathy and empathy – which is argued to be one of the values of speculative fictions – the characters in the texts immediately invoke a sense of association and empathy. Lauer (2020) found that speculative fiction is effective in teaching

everyday realities. Speculative fiction creates a new (other) world and creates characters with whom the readers can empathise and associate; it creates a future that is not acquired in their daily experiences and allows the reader's imagination to fly in and through it (Lauer, 2020; Thomas, 2013).

In a 2018 study carried out at the University of Witwatersrand, three researchers engaged the teaching of speculative fiction to first year engineering students as part of a Critical Thinking course (Manià et al., 2018). The aim for using speculative fiction for this course/research was to teach self-reflective and critical learning practices to engineers, especially in the South African context. The researchers chose speculative fiction because of its ability to interrogate discourses and teach students how to take up positions of difference, especially about the 'Other' (Manià et al., 2018). The findings from this research showed that speculative fiction was able to heighten self-reflectiveness in the young engineering students and challenge their own anthropocentrism which is argued as necessary for engineers, especially with the climate crisis and inequality in South Africa. Significantly, the students were able to recall the speculative fiction texts examined during this research in the critiques they made (Manià et al., 2018). In Manià et al.'s study, there was a contextualisation of the learning materials. The students' self-reflection were grounded in their context – the South African context. The "recollection" (Blankenship et al., 2015) and "action" needed by these engineers had to be rooted in their context. The study remained relevant to them and not far-fetched.

These above studies using speculative fiction hold some usefulness in pedagogy. They show us that speculative fiction is important for the classroom and that it is contextual for our real world even when it speaks about other worlds and futures. These studies demonstrate that speculative

fiction holds power for social, cultural, legal, and scientific discourse in society and the classroom. Both studies demonstrate how speculative fiction is also a critique of human society, especially in a multicultural context, such as the USA and South Africa. However, both studies approached this differently - Lauer's (2020) study is focused on legality while Manià et al.'s (2018) is focused on critical thinking. They also focused on different group of students regarding their careers.

Moreover, neither of the studies fully investigated the propositions of my study. Those studies were carried out with university students who are adults. The studies were not aimed at a recollection intervention for the students, nor did it use speculative fiction to assist with recollection. Importantly, the studies were not conducted with students who are dyslexic or actively identify as living with any reading or learning difference (disabilities). This is the part of the pedagogical research that my study sets out to assess – assisting dyslexic learners with recollection, using African speculative fiction.

The emphasis on using decodified texts as a recollection intervention for dyslexic learners has not been sufficiently examined in the literature. The emphasis to use African speculative fiction in the intervention for dyslexia is also not established. Literature written by African educators and researchers on using African literature for intervention generally does not exist. The intervention programmes in South Africa are mainly adopted and adapted from Western practices and pedagogies. This is a major gap in the current literature. My study is situated in this context and aims to strengthen growing literature in Africa on African speculative fiction as a recollection intervention for dyslexic learners.

Now that I have conducted a review of the relevant literature for my study, I present the theories that guide and stand as the theoretical framework for this study. As alluded in chapter one and

demonstrated explicitly and saliently so far, the primary theory is Paulo Freire's theory of decodification. The other theory is the comprehensive study by Cantor et al. (2018) on managing learning and social problems with the consideration of the individual's context.

2.7 Theoretical Framework

The study was guided by the Paulo Freire's notion of decodification which is contained in his revolutionary book *The Pedagogy of the Oppressed* (1970). The notion of decodification is situated in Freire's exegesis on transformative education (elaborate and critical education). Paulo Freire described a pedagogy that frees the oppressed and empowers them to act, see and judge the world and the word through critical consciousness. In situating this argument, he maintained that education (teaching and learning) must carry the marks of codification and decodification (Freire, 1970).

Freire asserted that codification is an appreciation of the lived and real lives of people within a particular context. For him, education should be about real life and our societies. Pedagogy must begin with the school immersing itself in the community. This is giving priority to what matters and is urgent for pedagogical advancement in the community. This is a consideration for the epistemological, ontological, and even axiological structures and needs of the people. Education should not be vague to the reality of the learners. The prioritisation of the knowledge within our communities is codification (Freire, 1970).

Decodification is the second concept. Decodification happens when the learners critically find themselves in the codification framework. Decodification is an emergence that allows the learners to see themselves, their realities and their communities in the teaching and learning texts (Freire, 1970). Paulo Freire posited that learners would make a critical appreciation of their education and

specifically understand it when it is decodified – simply put, when teaching and learning is contextual. The implication for decodification is that failure to provide pedagogical contexts for learners further alienates them from the learning process. For Freire, understanding and appreciation of learning [I situate it as recollection] happens when there is decodification. He makes the argument: "…"decoding" … requires moving from the part to the whole and then returning to the parts; this in turn requires that the Subject recognize himself in the object (the coded concrete existential situation) and recognize the object as a situation in which he finds himself, together with other Subjects" (Freire, 1970, p.105).

The relevance of this theory to my study is that it showcases the possibilities and power of teaching dyslexic learners with decodified texts. It holds two powers. First, the theory is an advocacy for transformative education and by extension, an inclusive education, which is something dyslexic learners suffer (from the South Africa) – they are not prioritised in many schools. Hence, the need for a study of this kind that unpacks details for policy makers and school governments. Second, it shows the benefits of decodified texts for dyslexic learners. Although, Paulo Freire was not writing for dyslexic learners, however, the relevance of his decodification theory is powerful in the dyslexia discourse. Moreover, in Freirean pedagogy, the decodification theory is not just about the learner finding his or herself and context in the codified image or text, but there is the expectation that the learner is empowered to step outside of their learning to understand the knowledge received (Freire, 1970). This is the praxis of decodification which leads to the development of one's personal's ability to critically interrogate and act on knowledge. My study does not deal with the praxis of the decodification theory. My study focuses on the conceptualisation of the theory itself and how it can be integrated in dyslexic intervention.

Furthermore, the research conducted by Cantor et al. (2018) also guided this research. Cantor et al. (2018) established that children learn and develop in *context.* Cantor et al. discuss this central insight via the themes of malleability, plasticity, and individuality. In their research, malleability is construed as the brain's unending power to develop throughout, the brain does not stop at any certain stage in the individual's life. They constructed plasticity or neural plasticity as the adaptational and responsive ability of the brain – the brain can respond, act, connect and structure itself based on extrinsic and intrinsic stimuli (experience and activities). Individuality is the acknowledgement of the non-linearity in development – 'each individual's development is non-linear' (Cantor et al., 2018, p. 310). They posited that social and learning problems are hinged on social and cultural contexts. These authors clearly demonstrated that intervention for social and learning problems must acknowledge the context of the individual learner: "An understanding of the holistic, self-constructive character of development and interconnectedness between individuals and their physical, social, and cultural contexts offers a transformational opportunity to study and influence the children's trajectories" (Cantor et al., 2018, p. 1).

Similarly, Dudley-Marling (2004) asserted that learning disabilities must be socially conceptualised. Dudley-Marling demonstrated that learning disabilities is not strictly an internally generated and individual problem. Learning disabilities are a complex (intersected) social and cultural interaction and non-interaction (Dudley-Marling, 2004). The conceptualisation of Dudley-Marling sits perfectly within the recent research of Cantor et al. (2018). It follows that learning differences are social and contextual; their interventions should be social and contextual. In their neuroscience research, Immordino-Yang et al. (2019) made a case for the development of the brain. They demonstrated that the development of the brain is both inherently social and emotional. The brain's formation, especially its educational functioning (reading, thinking, writing), is highly

dependent on the child's social-emotional experiences. It becomes problematic when educators or policy makers prepare intervention for dyslexic learners and overlook their unique socio-cultural/socio-emotional experiences.

Admittedly, Cantor et al. (2018) was not writing about dyslexia, but they made a formidable study for how we understand the child's brain and recommended contextual consideration for interventions. In chapter one, I showed how recollection is primarily a consequence of contextual pedagogy. So far in this chapter, I have shown how Freire's theory of decodification is an urgent call to prioritise contexts. Cantor et al.'s (2018) work broadens learning and social problems (difficulties), and dyslexia is a learning difficulty. This means that Cantor et al.'s work offers us tools in understanding dyslexia, especially in the context of a recollection intervention. Also, Cantor et al.'s (2018) proposition is that learning difficulties can be managed and mediated by the consideration of the individual's context since their brain are developed within contexts. I have employed both theories for this study as they succinctly embody the transdisciplinary field of dyslexia studies in general. Within the framework of my current study, Paulo Freire's decodification theory show us what is 'externally' possible and could happen; Cantor et al.'s study assures us of the internal transformation that happens in the brain of the learner when context is prioritised.

Both Freire's notion of decodification and Cantor et al.'s research are grounded by the principles of contextuality. This study seeks to understand the effect of using African speculative fiction for Grade four dyslexic learners. Freire and Cantor et al.'s positions thus form a strong theoretical framework for this paper on engaging, understanding, and appreciating of contexts in dyslexic interventions. In the following chapter, I discuss the research methodology I employed in undertaking my study.

2.8 Conclusion

In this chapter, I situated my study within the relevant literature in the area. With some many conceptualisations of dyslexia, I found the BDA's conceptualisation most appropriate for my study. Here, I understand dyslexia as a social (contextual) learning difference. Also, I showed the urgency of using African speculative fiction in this study, by explicating the effect African speculative fiction has provided in other research contexts. In the latter part of this chapter, I presented the theoretical framework for this study – Paulo Freire's decodification theory and Cantor et al.'s context research. In the next chapter, I put forth the research methodology for this study, the practical and pragmatic steps with which I achieved my study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, I provide the research methodology used in this study. It also details the research design, population, sampling selection method, data collection method and the data analysis procedure. In the latter part, I discuss the matters of the study's dependability and ethical consideration for this research.

3.2 Research Methodology

Research methodology is the systematic approach that a researcher employs in finding answers and interpretations to the research questions and propositions (Rajasekar, 2013). Research methodology also encompasses the functionality of the research design, including such questions as the study sample, data collection and method of analysis. This study employed a qualitative research methodology, because qualitative research focuses on complex meanings that can be described or patterns that can be narrated, but not on amounts or numbers that can be measured (Cohen, Manion & Morrison, 2011). A qualitative approach complements the decodification theory that frames this study (Freire, 1970) because decodification is about understanding contexts and experiences, it is about the non-linearity of the individual learner where priority is given to his or her context (Cantor et al., 2018).

Qualitative research methodology was chosen for this research because it allows for the emergence of broader and new understanding about dyslexia and the use of African speculative fiction as an intervention. As explained in chapter one, I conceptualised dyslexia as a socio-cultural phenomenon. In this study, I am interested in the complex factors, causes and results – these only emerge as lived human meanings, hence qualitative research is best employed in this work. I also

aimed to gather and understand specific details from a small sample during this study rather than seeking a generalisation and as such, the qualitative method here is to concisely understand within the framework of qualitative method as ethnography (Mukherji & Albon, 2015).

This methodology is situated within the interpretivist paradigm of knowledge and research. The interpretivist paradigm allows for multiple constructions and interpretations of the world and knowledge (Gage, 1989). Significantly, the interpretivist conception that culture plays a huge role in the way people engage with the world and its knowledge constructions is the key reason for its inclusion in this study (Hughes, 2010). This study sought to understand a form of dyslexic interventions with the recognition that other forms of interventions exist and are rising. This study acknowledged that the demographic background of the participants might impact on the data, as well as other variables. Here, I recognise that there is no one way of understanding the world or of interpreting it.

3.3 Research Design: Ethnographic Case Study

This research employed a classroom ethnography model of qualitative research (small group case study) which is the intensive and continuous study of a setting or group of persons over a period to gain specific insights into the group or setting (Mukherji & Albion, 2015). Here, ethnography sought to gain understanding about dyslexic learners in a classroom setting. The learners remained in their classroom and learning form while the study was conducted. This study was undertaken to gain understanding of the effects of African speculative fiction for dyslexic learners in Grade four; improving our understanding of how dyslexic learners engage with decodified texts, the elements that are salient in their recollections and how this salience emerges and reveals itself. A classroom ethnographic design was appropriate as it allowed me to note and observe the patterns of success or drawback that come up during the intervention period.

A case study is an investigation of a bounded phenomenon in an individual, groups, community, a programme, or intervention – case study is a research approach about the complexities of an individual or a group in a bid to gather in-depth, multi-faceted and broadened understanding (Greig & MacKay, 2007). It is not a method of collecting information (data) but as an approach to data collection. The case study design provided me with a variety of data collecting instruments for my data collection, such as the tape recording during the classroom ethnography, journaling, and observation. The utilisation of case study meant that I could use these several instruments simultaneously and as mutual reinforcers – while engaging with my group of dyslexic learners in the classroom, several instruments helped to provide depth (Stake, 2000). It is with this functional understanding of case study that I chose it for this study. This study employed the case study of a small group intervention. The group consisted of four Grade four learners at a private school in Johannesburg who are dyslexic. Within this case study design, the data collecting instruments were ethnography, tape recording, observation, and journaling.

3.4 Sampling

Sampling is the systematic selection of a participants' subset from a larger population (Scott & Morrison, 2005). In this study, it was not realistic to assess the effect of using African speculative fiction for every dyslexic learner in South Africa. Here, the sample focus was on Grade four learners, because the Grade four class in South Africa is the connection between the foundation phase and the intermediate phase of education. The expectation is that these learners are old enough to have been taught to read – this is the Grade where there is a gentle and firmer push towards reading beginning with shared reading and initiating individual reading across all their subjects (CAPS, 2011).

This study used purposive sampling which is a sub-category of non-probability sampling (Cohen, Manion & Morrison, 2011). Purposive sampling allowed me to specifically select the participants for this study based on the participants' coherent fit within the research plan. A special school was chosen, also by purposive sampling, because it had a good number of dyslexic learners or learners with learning and reading differences. It is a remedial school which had carried out several interventions for dyslexic learners. A total number of four dyslexic learners in Grade four were selected for this study. These learners were identified by the principal and their class teacher as they were better suited to provide me with learners who are dyslexic and fit the features of the required participants for the study.

3.5 Data collection

This study was carried out at a special school in Johannesburg over a period of six weeks with four Grade four dyslexic learners. Triangulation was employed in this study. It allowed me to use two or more methods or instruments of data collection even within the same approach – qualitative or quantitative (Cohen et al., 2000). In this study, data was collected using classroom ethnography by means of observation, journaling, photographing artefacts produced by the participants, and tape recording of the sessions.

This study employed classroom ethnography and observation. Classroom ethnography and observation allowed me to observe and assess the participants in the classroom (Mukherji & Albion, 2015), which aligns with the qualitative method approach in this study. My research sought to gain access to detailed lived meanings of these dyslexic leaners – classroom ethnography was a suitable instrument in understanding this socio-cultural phenomenon. The participants formed an intervention group for a period of six weeks where Nnedi Okorafor's book, *Ikenga*, was read and explored. It was done communally and interactively too. I tape recorded the sessions

because it allowed me to re-engage with all the nuances from each session and easily relive the emerging data in helping me to understand the effects of African speculative fiction as a recollection intervention for the Grade four participants. I chose to also keep a teacher-researcher journal because it gave me the chance to reflect on each ethnographic session. This journal allowed me to constructively conceptualise my researcher observation and clearly note the nuances I picked up each week. For example, the facial clues and expressions that cannot be realised from the tape recording or the emotions I felt or the emotion of the participants I could tease out.

Significantly, this study followed all the COVID-19 protocol set by the school and the South African government. I was fully vaccinated, thereby reducing the risk of infecting the participants with the virus or contracting the virus.

Below is the six weeks intervention data collection process at the school. Notably, during these weeks, the participants did not read or do any shared reading. They listened to me while I read aloud and demonstrated to them. Occasionally, they glanced through the pages of the book in front of them – each participant had a copy of the chapter read each week. They also underlined and highlighted some words or sentences, sometimes voluntarily or when I urged them on. However, the participants were very engaged and would stop me to ask questions as I read or sought further clarity about a concept. Remarkably, they could all tell where I stopped reading the previous week.

Table 3.1: Weeks and intervention session

Weeks	**Intervention Session**
One	• Introduction and interaction with the participants, to meet them and begin getting to know them. I gathered data based on their demography and reading history. • The participants painted and drew a representation of how they conceive themselves as readers. The participants spoke about their art piece. • I introduced the book for the intervention study, *Ikenga* by Nnedi Okorafor and handed a copy of the chapters out to the students. • I began to read the book with the participants in the latter part of the day.

Two	• I began the day by having an informal conversation with the participants where we checked in about the previous weekend and anything the participants would love to talk about like music and sports. • I invited the participants to share about what they remembered from part of the story read the previous week. They painted or drew what they remember from the previous week. After this, each participant shared their art piece. • We continued with reading the book and discussed as we went along.
Three	• I began with an informal conversation where the participants checked in about the previous weekend and anything the participants would love to talk about. • I invited the participants to share about what they remembered from part of the story read the previous week. • On this day, the participants worked with clay. Due to limited resources, they worked in a group of two, where they moulded what they recalled from the previous week. • We continued with reading the book and discussed as we went along.
Four	• I began with an informal conversation where the participants checked in about the previous weekend and anything the participants would love to talk about. • Participants shared on what elements or features of the book made them love or appreciate it better. • They also got a chance to paint or draw what they remembered. After this, each participant shared their art piece • I also inquired about what specific decodified elements in the book is helping them recall it easily. • We continued with reading the book and discussed as we went along.
Five	• I began with an informal conversation where the participants checked in about the previous weekend and anything the participants would love to talk about. • Participants shared what they remembered from the previous week. • They also got a chance to paint or draw what they remembered what they have shared. After this, each participant shared their art piece • I also inquired about what specific decodified elements in the book is helping them recall it easily. • We continued with reading the book and discussed as we went along.
Six	• I began with an informal conversation where the participants checked in about the previous weekend and anything the participants would love to talk about. • The participants and I made a detailed effort in recalling the entire story of *Ikenga*. • I wrote on the board while the participants came up with phrases, sentences, and key words. • I thanked the teacher and the participants for participating in the study and wished them the best for the future. They also wished me well and spoke well of my time with them.

3.6 The Novel Chosen for the Intervention

The book that was used in this research is Nnedi Okorafor's *Ikenga* (2020), which tells the story of a ten-year-old boy called Nnamdi who lived in the town of Kaleria with his parents in Eastern Nigeria. His father was a police officer, and his mother was a trader at the local market. Nnamdi's father was assassinated for trying to keep their town of Kaleria clean of thieves and nuisance. The death of his father deeply troubled Nnamdi. Even his closest friend, Choima, could tell that Nnamdi was not coping. Choima was also very close to Nnamdi's father – she was like a daughter to the father and a sister to Nnamdi who was the only child. This aspect of the novel is familiar to the participants' lived experience in Johannesburg, South Africa. They understand the concept of a police officer and a trader mother which is prevalent across the city.

Nnamdi was more pained since he could not avenge the death of his father. He wanted to catch those who had killed his father and hand them over to the police for prosecution. This desire burned in his heart so deeply. One night, Nnamdi father appeared to him and handed him the Ikenga to empower him. In the Igbo cosmology (Eastern Nigeria), the Ikenga is a horn shaped wooden carving usually owned by prominent persons (men and women) in the community. It is the embodiment of the Chi (personal god), the Ndichie (ancestors), and Ike (power) (Ejizu, 1991). The Ikenga is articulated as the symbol of victory, achievement and the apex of the human endeavour and spirit – it can be owned individually and as a group. In communities and businesses, the Ikenga is inaugurated to grow its progress and prosperity (Nwaezigwe, 2013). The concept of the Ikenga is not familiar to the participants in my study, it is an endemic Igbo tradition. However, the participants are conversant with movies where a person transforms into a superhero by wearing a certain regalia or putting on a ring. They understand the concept of acquiring supernatural powers through the possession of certain items.

In Okorafor's book, the Ikenga gave Nnamdi superpowers and Nnamdi would transform into the Man, a giant monster. This helped him with fighting off the thieves and seeking revenge for his father's murder. Unknown to the people in Kaleria and Nnamdi's family, he soon began to chase after thieves at night. He would tie them up ensuring that the police found them to arrest. He never wanted anyone to know he was the Man. Soon, Choima found out that Nnamdi was the Man, but Nnamdi forbade her to speak to anyone about it. Choima kept this secret preciously.

Years after Nnamdi father's demise, Nnamdi's mother began to date another man, Mr Bonnie. Mr Bonnie owned a Mercedes Benz car. One day, during an operation in Kaleria, the thieves led by their ringleader, Three Days Journey, stole many cars from Kaleria, including Mr Bonnie's. These cars were taken away to another town called Tse-Kucha. This pained Nnamdi even more, because now the thieves were coming for his soon-to-be stepfather too. The concept of having a stepfather is common in South Africa. I have experienced that in many families the fathers are not present and children either grow up with their single mothers or with stepfathers (sometimes their mothers' lover or partner). Also, in Johannesburg, the news is frequently filled with reports of stolen cars. The participants are familiar with the concept of cars being stolen and sold off in another place.

Nnamdi decided with Choima to fetch the car from Tse-Kucha. Nnamdi used his GPS superpower to locate the place where they have taken the car. When they arrived, they found a big syndicate of stolen cars headed by Three Days Journey and Ms Punene who was the potter and overseer of the stolen cars. Nnamdi discovered on arrival that they also rang a kidnapping ring at Tse-Kucha. Nnamdi transformed into the man and started fighting with the thieves. Three Days Journey shot at him and some of the thieves fought him. Nnamdi and Choima were successful in this mission

as they retrieved the cars and released all the people who were kidnapped, including one of their classmates, Ruff Diamond. They were surprised to find Ruff among the kidnapped.

Nnamdi was the only one big enough to drive Mr Bonnie's car home once he transformed into the Man. They stopped on the way to ask an old lady and her husband for direction and successfully arrived home. Nnamdi also captured the masterminds of his father's death and handed them to the police. The town of Kaleria eventually knew that Nnamdi was the Man, but he was no longer worried and was happy that he avenged his father's death.

3.7 Data Processing and Analysis

As discussed above, the data for this study was gathered using tape recording with the consent of the participants, their parents, and the school. I also gathered data from the participants' art pieces in the form of photographs and my researcher's journal. At the end of the six weeks study period, the recordings from each week were transcribed verbatim, carefully assigning the words to the participants and myself. I read and re-read the transcripts until I became familiar with them. Once I had familiarised myself with the transcripts, I began to identify and code the patterns emerging from the data, while initially identifying the emerging themes.

The data analysis was done using the constant comparative analysis method (CCA). CCA is usually situated within Glaser's (1965) grounded theory. However, the CCA approach in this study was informed by Sheila Fram's (2013) proposition. Fram expanded on the use of the CCA outside of the grounded theory, which empowers researchers to be comfortable in their emic perspective as the data emerges. The researcher is not scared or taking flight from directing the emic perspective of the data, while allowing the etic perspective to emerge both from the data and the theory utilised (Fram, 2013). The etic perspective is the researcher's position and internal

interpretation while the emic perspective is what emerges out of a group or an individual, in this case, it is the data provided by the participants.

Like grounded theory, Fram's CCA follows the same stages of coding – open coding, axial coding, and selective coding. I followed this procedure for this data analysis. Open coding is the first stage of the coding process where there is an abundance of themes and codes emerging as the coder works through the data. Axial coding is the next stage where these abundant codes and themes begin to form and are identified as converging around key ideas that arrange the codes into a pattern of related themes. Selective coding is when these themes are linked and related to the study aims and objectives (Corbin & Strauss, 2007; Creswell, 2013; Merriam, 2009).

During the coding process, the emerging themes and codes were constantly compared against each other and against the incidents that emerged. I compared the transcripts with my journal and the art pieces to ensure that there was coherence in how the data emerged. This was done repeatedly in many cases, especially when the themes were concretely selected in the final stage. This process was rigorously done until data saturation was reached (Given, 2016). This is the point where I judged that the codes and themes that were emerging from the constant comparisons were not new and at best continue to support the themes that had been identified.

3.8 Quality Criteria

In this study, I considered the need to ensure that the findings of the study are trustworthy, reliable, and dependable. I tried to employ recommendations that were suitable for qualitative research, especially as suggested by Merriam (2009) and Creswell (2013) which include rigorous and careful observation, triangulation, peer review, inclusion of negative case analysis, external audits, and evaluation besides I provided a detailed description, among others. For this study, I used three of

these recommended strategies: detailed description, peer review (external evaluation) and triangulation.

3.8.1 Triangulation

Triangulation allows for the use of two or more methods or instruments of data collection even within the same approach – qualitative or quantitative (Cohen et al., 2000). Triangulation was achieved with the availability of the tape recording, the participants' art pieces, and my researcher-teacher's journal. This implied that the data was not narrowed or fixated. There were several ways of checking and comparing, and these several methods remained consistent. They were all coded.

3.8.2 Detailed Description

Stake (2010) identified some characteristics of what a detailed description entailed – abundant, interconnected, culturally complex, direct connection to cultural theory and scientific knowledge. Stake calls this rich and thick description. Owing that this research is highly interpretive, I presented a thick and rich description which is considerable for the transferability of this study. The data analysis and discussion was a rich interchange of the emic and etic perspectives emerging from the data. There is also shown above, in section 3.6, where I presented the detailed intervention plan used for this study which can easily be transferred. Although this study is a single case study, similar findings can be reported when replicated within similar contexts and design.

3.8.3 Peer Review (External Evaluation)

This was the final strategy of quality criteria used in this study. The concept of the peer review is to ensure that other distinct structures are in place to review the work I present as the researcher (Merriam, 2009). This process ensures that I am prompted to commit to a high level of rigorousness during the data processing and analysis. For this study, my supervisor was my peer review

structure. My supervisor was kept up to date with all the processes from pre-data collection, data collection and data analysis. She independently reviewed the initial findings and codes. We held a meeting to discuss my findings and the inconsistencies that were present initially. This process guaranteed that my findings remained rigorous and critical.

3.9 My Positionality

I acknowledge the complexity involved in this research, especially my relationship with the participants. I reckon the influence of the outsider in a classmate. I am not the participants' regular class teacher, so it was probably easy for them to play with me in the playground and respond excitedly to me during the sessions. Again, the class teacher sat in the room during the session and her presence would have probably influenced how the participants' responded to me as I suspect they would have been briefed on co-operating and respecting me. I am aware that since I was not grading the story I read with the learners, they felt more relaxed and open to participating without 'consequences', which would mean that a transference of my study to a classroom by a class teacher would need to note this complexity.

I had no prior relationship with the school, the teacher, or the participants. In this study, I was both a researcher and a teacher. I held the tension of being a teacher who wanted to facilitate a nuanced pedagogy for my class and a researcher who was trying to ensure that each session did not unguardedly drift from the research objectives. I acknowledged these positionalities and considered them when I analysed the data, as far as possible.

3.10 Ethical consideration

This study was conducted with due attention to the requirements of ethical conduct. I applied for ethical clearance from the Human Research Council (Non-Medical) Committee of the University

of the Witwatersrand via the Wits School of Education (Appendix A). Once the study was approved by the Wits ethical committee, I sent a letter of request to the participants' parents or guardians via the school principal; this letter contained information about the study and the data collection process and included permission to audio record the sessions (Appendices B & C). Also, I sent two letters of request to the school – one addressed to the school principal and the other to the school governing body (SGB) (Appendices D, E, F & G). In the letters I explained how I would ensure the confidentiality and anonymity of the participants, and that they were not forced in any way to participate in the study. Their right to withdraw from the study with no consequences was also emphasised.

Once I got approval from the SGB, the principal and the parents, I was able to ask the learners for assent. At this point, their parents and the school principal had already told them about my study. The learners for this study were selected on the classification that they are minors (learners in grade four) and that they are dyslexic (learning difference) – this was easy as they attended a remedial/special school. The learners gave their assent on a form (Appendix H) written in a simple, jovial and pictorial style – here, I was keeping with other researchers who have emphasised the importance of multimodality for dyslexic learners. I stated clearly how I would respect the diversity of the learners and ensure they were not uncomfortable during the study and reiterated their right to withdraw from the study at any time without having to get their parents' consent to do so. Finally, I made it clear to the participants that I was not coming to take the place of their teacher, but rather I would be both educator and researcher for the period. I emphasised that we would mainly read and do some artwork like drawing. I made my dual positionality known to the participants – I will be an educator during the class session, but I will also be a researcher. I did

speak about this openly with the learners during the introductory session in the first week of the data collection, and my studies at Wits University.

3.11 Conclusion

In this chapter, I demonstrated the research methodology with which I carried out my study. This study used the qualitative research methodology, with interpretivism as its paradigm. The ethnographic case study was chosen as the suitable data collection means for the research, since the idea was not to really ask questions, but to observe and participate in a naturalistic classroom with the learners. The data analysis method chosen was the constant comparative analysis which allowed me to provide a detail ethnographic analysis of the six weeks of data collection. In the following chapter, I provide an integration of the data presentation and discussion. For emphasis and stronger qualitative appreciation of the data, I decided to jointly write the data presentation and discussion chapter.

CHAPTER 4: DATA ANALYSIS AND DISCUSSION

4.1 Introduction

In this chapter, I simultaneously present and discuss the data that has emerged from the data collection process. This chapter is the story of my six-week long intervention with four selected learners in Grade four who are dyslexic. The story I share emerged from the data I gathered during the intervention sessions, using tape-recordings of the classroom interactions, my own field notes and researcher journal, and the spectacular art works painted, drawn, and moulded by the participants.

Although my research principally focuses on the learners' recollection, the reading profile (self-conception) of the participants is critical in making a holistic appreciation of the data gathered over the six-week period. This is because the self-conception of the participant, as a reader, is integral in understanding their recollection and the things they would easily recall. I begin by describing the four participants as I encountered them during the first week of the intervention.

The four learners, to whom I have given the pseudonyms Ayoni, Luniko, Pumza and Lauretta, shared about how they perceived themselves as readers, in a group conversation which I prompted. I present each learner's self-conception as a reader in a brief descriptive portrait which the participants designed. These portraits provide the background for the rest of the data, which I present in the sections that follow. The data is grouped under the following broad themes which emerged from the axial coding process: contextuality, multimodality (art and visual modes), speculative imagination and over-repetition.

The study aimed at investigating the impact of African speculative fiction texts in a recollection intervention for grade four dyslexic learners. This aim was anchored by two subsidiary aims: to

determine the effects of using a decodified text and pedagogy as recollection intervention for dyslexic learners in South Africa and second, to evaluate the experiences of Grade four dyslexic learners with African speculative fiction. Significantly, I do not aim to show that the recollection of the learners *improved* over the period, but rather to track how the findings improve our understanding of how dyslexic learners engage with story texts (African speculative fiction in this case) and what elements are salient in their recollections, and how this salience emerges and reveals itself in their recollections.

4.2 Participants' Self-Conceptions as Readers

Ayoni: One of the two boys who participated in the study, Ayoni is a White South African who has spent most of his young life in Johannesburg. I think Ayoni is from a middle-class (rich) family, not just because the school is a private school, and the fees are not accessible to poor family, but Ayoni celebrated his birthday in the final week of the intervention and his parents came through in a nice car with gifts for the other students. In my experience of Ayoni in the six-week period, I noticed a boy who was more active outside of the classroom than in the classroom. Each week, I usually arrived at the school at the beginning of the recess. I would find Ayoni and the other school learners on the playground. He was usually about the first person to see me coming through the school gates. He would immediately leave his friends and walk up to me full of energy and chatty as he approached me. Ayoni loved football (soccer) and the moment he knew I also loved soccer he began each conversation with me by asking about the previous weekend soccer actions. Ayoni was such a beautiful football analysis and for his age (10), he recollected so much information. He would tell me about not only players from his favourite club, Liverpool, but he would tell me about players from other clubs and was even able to speak about the football transfer markets. He would lead me to greet the other learners on the playground, but he always wanted to

be at my side. He was friendly with everyone, led conversation and knew when and where to offer empathy. This was evident when a learner fell from the swing or hit their legs against a stone. In the classroom, Ayoni was not this active. He was sometimes scared of making mistakes in his answers or experiences – he was withdrawn. He drew complexly but sometimes would not find the words to describe his drawing or moulding. He was slow, in most cases, the entire class waited for him while he completed his work. He was not always confident speaking in class, but this changed so much in the last two weeks of the intervention, when he offered more answers and spoke more without 'over-thinking' his responses. He had shared with me on the playground when I asked him how he remembered soccer so much. He told me that because he does it frequently and experienced it many times. He answers that once he gets to that level of familiarity, he can remember – I would presume this is what happened in the last two weeks of the intervention when he recalled more than ever. In the group conversation, Ayoni said that he loves reading and books. When I invited the learners to paint or draw how they perceived or conceived of themselves as readers, Ayoni drew the picture shown in Figure 4.1:



Figure 4.1: Ayoni's self-conception as a reader

At the end of this drawing, I suggested to the learners that they could stick their drawing on the board for other learners to see them as they described themselves. However, Ayoni decided not to put his work up on this day. He described his drawing in the following words which was elicited with the following invitation: 'Please share about your drawing with us": "So yea, I drew a picture of … yea … with a smiley face and … I can't remember it now" (Week one discussion). The "smiley face" in the picture and the exuberant colour suggests strong positive feelings towards reading and himself as reader, but Ayoni was unable to verbally articulate what he has represented. I was a taken aback a bit when Ayoni could not describe his drawing or articulate himself who someone who loves reading from his earlier description. However, the confidence of how his drawing takes up space and the vibrancy of the movement and colour suggest that his confident words are in fact a genuine reflection of his self-image as a reader. The nuance here is that it takes plenty of confidence to produce a complex drawing, and his understanding and love of reading should not only be investigated within our traditional construction of reading.

Luniko: Luniko is the second boy that participated in this study. Like Ayoni, he is a White South African growing up in Johannesburg. He is more of a reserved, shy learner. Unlike Ayoni, he carried the same demeanour both in the class and on the playground. Luniko missed one of the six sessions due to illness. Sometimes Luniko would only speak to you when you spoke to him. Other times, he would want to speak all the time. He was very firm in the things he knows or believes he knows. He also had plenty of ideals in his head. This one time in class as we checked in with each other how they spent their weekend, Luniko shared he could be left to walk alone on the street at night. The teacher refuted it and said that his mother was too strict and will not allow him out at night alone. Luniko said that his mother allowed his older sisters out and why not him. I answered him nicely to say that his sisters were already in university and are adult and he is only ten (10).

He was not happy that we thought he could not walk alone at night. Luniko was about the first to always have an opinion or answer to any question in class – whether it was the correct answer or not. He was courageous and open to learn although he did not like it when his answer was not the needed one at the time. Although he had a quiet presence, he was also dominating conversation and would sometime not give other participants a chance to share or participate. Luniko also enjoyed soccer and supports Liverpool. He shared with me both privately and in the group how much he enjoys them play. I think of his personality as enigmatic – I think he is the most nuanced participant in this study. Furthermore, Luniko shared that he loves reading and that he is particularly encouraged by his mother who is an English language teacher at a primary school in the city. Below is Luniko's representation of himself as a reader:

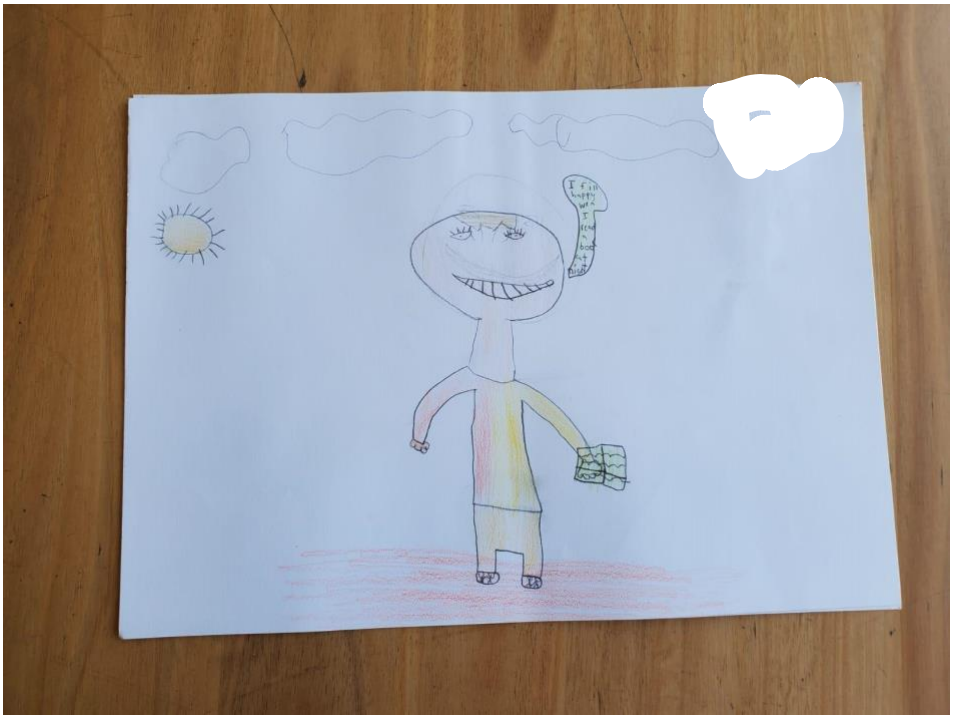


Figure 4.2: Luniko's self-conception as a reader

At the end of the drawing session, I invited Luniko to share about his drawing. He voluntarily took the option to put his work on the board for others to see. He wanted it up the moment he was done drawing. Luniko described this drawing in the following words: “In my drawing, I am just sitting out on this sunny day, reading a book. And in the bubble in it, there is a circle saying: ‘I feel happy when I read a book at night’” (Week one discussion).

Luniko’s drawing of his self-conception as a reader is impressively. It points us to a boy who comes from a comfortable living condition at home and who is possibly made to read at certain times at home. The luxury of basking under the sun while reading is a privilege for many people, especially with the comfort with which Luniko describes himself. In his drawing, he makes room for all the artistic effects that creates a vivid imagination for the reader. The skies, clouds, sun, and his colourful shirt and shorts tell of a spirited and happy reader – this is shown in the big smile on the face he painted – the entire tooth of the image is open, and eyes are well lit. This reveals the mood of a happy reader, a young boy who takes reading seriously and who prepares for the reading time. The opened book points to his involvement and acknowledgement of the action of reading. Noticeably, in the word bubble of the drawing, Luniko writes: “I feel happy when I read a book at night”. This is an interesting contrast to what the drawing presents – reading on a sunny day but highlights his happiness when reading at night. There are some issues that can be unravelled here: First, I had discussed how I perceived him as idealistic. It is possible that reading on a sunny day is something he saw in the movies or in most books he experiences or something he daydreams about. Second, reading on a sunny day could be the priority of his parents or those at night – it might not be what he would ordinarily love but he is made to do it. Third, ‘night’ could have been easier to recall or spell for him than ‘sunny day’, ‘under the sun’, ‘in the morning’, hence, he

decided to write ‘night’ – this can be suggested from the few spelling errors he made too for words like: feel (fill) and when (wen).

Pumza: Pumza is one of the two girls who participated in this study. She is a Coloured South African growing up in Johannesburg. She is 9 years old. Pumza also missed one of the six sessions due to ill health. Pumza was also a soccer fan. She supported Manchester United. She was a happy girl who was fun and outgoing. I think of her as the girl’s leader at the school. She was mostly sitting at the end of the playground where there was a little shelter with other girls. It was not a closed group because they were welcoming to whoever came around them and screamed my name most times when I am approaching them. She always used the swing and other games in the playground. She was articulate when she spoke but always had this presence of being unbothered. She would mainly not want to push herself – she does what needs to be done as quickly as possible. In most cases, she was the first participant to complete her drawing, painting, or moulding. She also looked easily bored of the sessions and would accidently place her head on the desk to rest or just look lost in thought. I think her attention span is short and she needs to engage with little material at times that are fun and precise. Her sitting posture in class was already relaxed though respectful. She always spoke respectful. Pumza described herself as someone who loves to read. She made this representation below:



Figure 4.3: Pumza's self-conception as a reader

Like the other participants, I invited Pumza to share about her drawing. She decided not to put up her drawing for the other participants to see. She shared about her drawing from her desk (the participants worked individually on this task). Pumza described her representation like this: "That is me on a Sunday … with me reading a book, saying: "I love reading books" and it is really nice reading books" (Week one discussion).

Pumza made a beautiful representation of herself, but a lot can be unpacked from her representation. Pumza's work had similarities with Luniko's in the skies, colour and the sun represented. The face is the biggest part of the drawing covering almost the entire page with the bright skies and sun. However, the face is not a happy one and looks quite worried or unsure. The eyes are bright but do not look attentive to what needs to be done. There is no image of a book represented in any ways and unlike Luniko, there is no speech bubble. The happiness with which she described herself as a reader is not explicit in her drawing. Interestingly, her writing: "I love reading books" is very small and quite difficult to make out. With all the space left for her to write it legibly, it is fascinating why she chooses to represent it in that tiny font. It say something about

her confidence in reading or being involved. During the session, she suggested a few times that we had done enough reading for the day and could carry on next week. She was the only participant who ever suggested that we could call it a day. Interestingly, Pumza was specific on the day of the week that she reads – Sunday. This specific makes one wonder if she only gets time to read on Sunday at home or if that is the only time her parents make her read. It could explain the dull, unbothered face that she drew – making reading a chore for day or days of the week could become uninteresting for her. A feeling that Sunday comes with the burden of reading. There is the possibility that she looks and enjoys reading books – her participation in the study suggests it, but she is being made to read on others' terms.

Lauretta: Lauretta is the other girl who participated in this study. She is a Black South African growing up in Johannesburg. She appears quite shy but very articulate and participatory once she gets comfortable. On the playground, she would greet me and quickly walk away to enjoy playing with other learners. She engaged in conversation as necessary, but she is more comfortable in the group. She spoke more when the other participants spoke too and even in the playground, she was mainly found in the thick of other learners. Unlike Ayoni who could pull me aside and have a conversation, Lauretta wanted to remain where other people are – she seemingly found power in the group. She was the only participant who was not a fan of soccer, she enjoys and loves netball. She was fond of the netball clubs around Johannesburg especially those that were played in primary and high schools over the weekend. As a Black researcher, I had expected her to be clingy to me. I had expected her to find some association with me being at the school as most of the teachers there were either Whites or Coloured (mainly White). I recall that only one of the Grade One teachers was Black. I thought she would sometimes want to greet me in either IsiZulu, IsiXhosa or Sesotho, but she never did – she never showed any sign of Black association or bond.

She spoke proper English and when she spoke about the foods she enjoyed, they were mainly Italian dishes. She was also the most caring participant; she was always willing to lend a hand. She would take pencils and crayons to the other participants. Lauretta shared about her love for books and learning. She made this representation:



Figure 4.4: Lauretta's self-conception as a reader

At the end of the drawing period, I invited Lauretta to share about her drawing, like Luniko, she was excited about putting her drawing up on the board. Lauretta shared the following about her painting: "I am at the library reading books and I wrote: "I am happy to learn". Yeah, I am at the library" (Week one discussion). Lauretta presented a good representation of herself as a reader. Interestingly, she is the only participant who represented herself in the library. The representation of herself in the library is puzzling as I am not sure if it is her reality or her imagination of where reading happens. As much as I know, there was no library at this school. It is a small private school and sometimes I saw that the small dining area doubled as a discussion class for the older grades. It is a normal four bed apartment which has now been converted to a school with the compound

holding the playground and other facilities like classes. This means that the library represented here by Lauretta was not happening at the school. She did not share about whether any one at home takes her to the library or if she had learnt over the years that the library is the conventional place for reading. She also makes a colour representation but in small diagrams. She does not take up the huge spaces left on the paper, and this could suggest her timidity to which I have alluded earlier in the description when I talked about her comfort in the crowd and how she usually spoke more when other participants are speaking. The library could be a lonely place, especially the children's reading section in most of the public libraries around Johannesburg. Not many people bring their children to the library for reading and this could impact on how Lauretta is representing herself. While her love for reading is present, the environment in which it happens may not be kindling the desire. However, the colour used in painting the drawing shows her deeper interests, she draws herself holding the book and colourfully paints the bookshelf and creates a beautiful flower vase. Emphatically, she is the only participant who uses the term: learn. She wrote: "I am happy to learn" on the speech bubble in her drawing. This could tell more than merely reading books. I experienced her as very attentive, and she was quite always sad when the weekly sessions ended. She wanted them to continue, she followed every moment with rapt attention and interest.

Accordingly, I will now simultaneously present the findings of the study and systematically situate (discuss) them within the extant literature and the theoretical framework of the study while giving priority to the aim of the study. The aim of the study is considered in the discussion.

4.3 Contextuality

This study had two research aims. One of them was to investigate the effects of using a decodified recollection intervention for dyslexic learners in South Africa. The findings from the study revealed that using a decodified recollection intervention is positive. The central theme that informs this data is contextuality. The participants in this study were Grade four learners who do not yet have 'decodified' in their language register. However, their responses, conversations, and engagement during the data collection show the effectiveness of decodified materials in the recollection intervention. Here, I restate my conceptualisation of decodification in this study as contextual. I argue that decodified materials are materials that are contextual to the learners who use them in the way that Paulo Freire (1970) maintains that learning materials should be decodified: learners should see themselves, their society and their experiences in the learning and teaching that happens in the classroom.

There are different moments in the data (transcripts, journal, and observation) that showed the effectiveness of context. The theme of contextuality continues to emerge from the data, particularly in the reassurance that stories aid recollection and non-contextual stories (books) are difficult to recollect for dyslexic learners. In discussing the contextuality of the story, the participants regularly used the term: "interesting" or "different". They acknowledged that there was something unique about the story they were reading now compared to the others they are used to, especially that it was set in familiar scenes. There were different moments when the participants affirmed this matter. For example, when Lauretta said "… It is interesting and different [from most of the American ones]" (Week five discussion). Lauretta gave this answer during a discussion on the fifth week of the study when I inquired from the group how they seemingly recalled more from the

story. I was checking this to confirm or refute the apparent earlier doubt the class teacher had about the study.

On the first day I contacted the school to request permission to carry out my study there, the class teacher told me that she was not sure how the study would help as she has been reading a book with the participants and they do not seem to remember much. The book they were reading at the time was Roald Dahl's *James and the Giant Peach.*

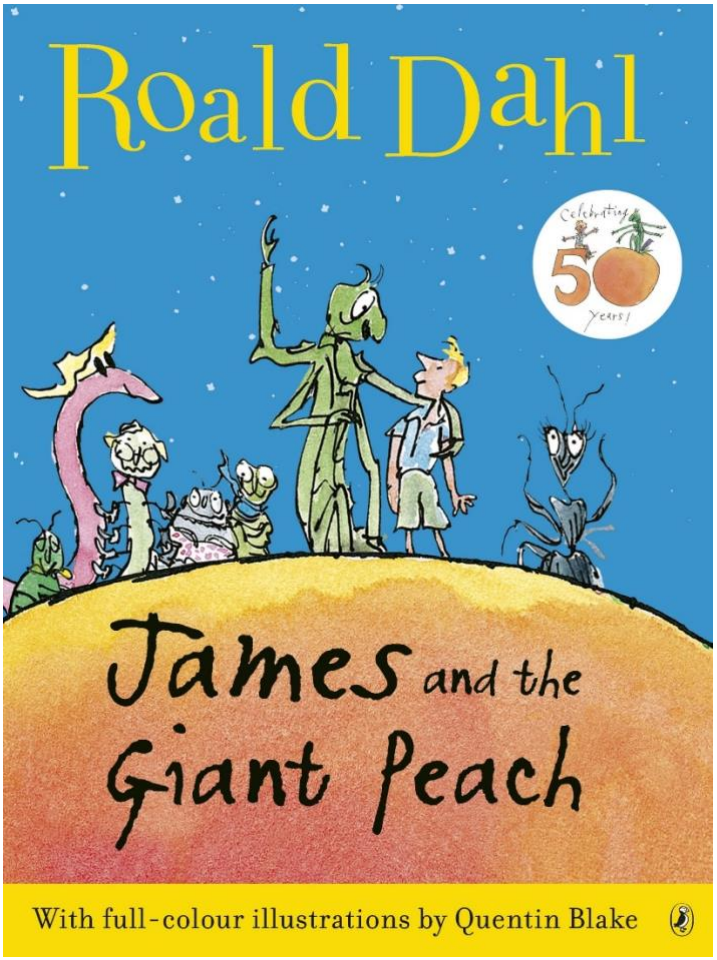


Figure 4.5: Roald Dahl's James and the Giant Peach (Image from POPSUGAR)

This book also falls within the speculative fiction genre of fantasy. It is about a boy who escapes his unhappy home with the help of magical creatures he meets inside a giant peach that grows on

the peach tree in his garden. The language and mood in the book, and its setting in England, are distinctly British. The language employed in the book is typical of a learner growing up in England whose major language exposure from birth is the English language; much of the humour of the book involves playing with the sounds and connotations of English words and the English tradition of nonsense poetry stretching back to Edward Lear. The following passage from the book is evident: "We may see the venomous Pink-Spotted Scrunch … We may see the sweet little Biddy-Bright Hen … A Gnu and a Gnocerous surely you'll see and that gnormous and gnorrible Gnat …" (Dahl, 1999, pp. 41-42). Notably, this book by Dahl is an acclaimed children book in Britain even today. The difference here is the context. It is easy to see how the participants could not recall much of the information in the book.

One of the frames of contextuality in this study is centred on the use of familiar images drawn from the texts they read. The participants continually utilised the use of images that are familiar to them. It ranged from things they saw on the television regularly or issues that were topical in the city. At the start of the data collection, I invited the participants to share about a book they have read. The participants carefully used familiar images that are in their context. Significantly, they all talked about books that were written by European/American authors (Cinderella, 'a Peter Roberts' book). The drift here is how they could not significantly remember the books but could name matters from these books that are contextual for them – mask, brothers, sisters, mum, witches, and cats. A recognisable feature is that they all used familiar images (bolded below) when talking about the book or books:

> *"Eh, I remember reading a book … there was a catch, right? Where he had a* ***mask*** *on …" (Ayoni, week one discussion)*

"I remember the Cinderella book and that is all. But I remember ***the brothers and sister, their mum****" (Lauretta, week one discussion)*

"I have read this one book, the ***witches*** *used to kill children" (Luniko, week one discussion)*

"I remember this book, there were ***cats*** *in the book" (Pumza, week one discussion)*

These highlighted words in the quotes above are glancing glimpses into the rich lived textures of complex lives lived by the participants at the intersections of different racial, linguistic, cultural, and epistemic domains. On the use of the word, 'mask', it is possible that from the description provided, the mask used there is not the same as the 'mask' that has punctuated our lives globally in the last two years, due to the COVID-19 pandemic. I understand that Ayoni was not talking about the COVID-19 mask because of the word 'catch' in his next sentence. The mask here is understood as that worn to disguise, especially by criminals or law enforcement. However, the common usage of the word, mask, during the pandemic would have ensured that he did not forget it. Furthermore, the terms 'brothers, sisters and mum' are also familiar terms. It depicts family relationships and out-of-school lives. The participants most probably use these words numerous times in a day. Thus, it is easier to remember them when found in a book. In any failure to recall, those words would be easy to reach. Luniko's recollection of the term, witches, opens some discussion. My suspicion is that Luniko is talking about witches, as described in many European novels or comics, since he is White and speaks mainly of Eurocentred books that he has read. Pumza's familiar word here is 'cat', which is a common pet animal and member of household in

many homes in Johannesburg. It becomes easy to recall it – there is even the possibility that Pumza has a cat at home.

Another feature of contextuality in the data is noticeable in the easy recollection of lived experiences which is similar with the discourse above on the use of familiar images, except that this time it is non-textual. There was a frequent easy recollection of lived experiences by the participants. The lived experiences is either something they do all the time or something that in which they frequently partake. They spoke smoothly about the sports they enjoy (soccer and netball); they recalled their favourite music genres and even some events that happened at the school. One of the participants shared about why and how he remembers soccer so much when I inquired once on the playground: "I enjoy soccer, and because I have engaged so many times and read about it often" (Week three playground discussion with Ayoni).

In his response, he affirmed two motivations for recollection, first, that it is an often-repeated part of his lived experience and that he enjoys and values it so much. This was also affirmed by other participants during our weekly check-in at the start of each session. When they shared about their favourite sport or music, they spoke with so much enthusiasm and recollection. When I asked them on the second week what they like they do, Lauretta quickly replied: "I like to play netball and I like cooking … usually when I cook, I cook lasagne and pasta" (Week two class discussion). Luniko answered the question like this: "I like listening to rap like when they just say anything" and Pumza added: "Yeah jazz is really good. So, I like jazz. Right rap and lot of others like pop too" (Week two class discussion). The data that emerges points that there is almost an inseparable connection between recollection motivated by interest and recollection motivated by experience. The extension that holds both is "interest" and "interesting" which is a term that the participants commonly used when sharing about how much they remember from the story that was read in this

study. They repeatedly shared when I prompted them that they remember the story because it is "interesting" (Week four and five class discussion). The emerging data do not explicit show how interesting can be conceptualised – is a text interesting or does the learner decide on finding it interesting? However, one concept grounded in this study is that interesting is (closer to) decodification (context). Premising on the teacher's doubt about the learner's recollection at the start of the study, a contextual text is bound to increase the interest of the learner.

A regular pattern that appears in the data is that the participants habitually connected the story read in the study to their real life or reading experiences. They asked questions for clarity on different parts of the story with curiosity born out of their daily life experiences. When they experienced any difficult concept in the story, they habitually tried to make sense of it by connecting it to their previous experiences. This flexibility in their cognition informs the urgency to engage in contexts. Ayoni, for example, asked "… so, he was the stepdad, kind of?" (Week three class discussion). Luniko referenced a familiar character from other stories, saying "… he is like a spy? … Like the Hulk?" (Week one class discussion). Admittedly, this is a pattern that is present in many early years' readers in that process when they gain a complex understanding of the world. As children gain a complex understanding of the world, their brains also work to decontextualise this understanding. As for every child, but particularly for the dyslexic learner, the data emerging from the day emphasises the need to appreciate this 'complex-decontextualisation' happening and to prioritise it through engaging them with decodified texts and materials.

The findings on contextuality is a strong tie in this entire study. There are different variations in which it has played out so far. However, the strongest proposition it is highlighting is that recollection is easier and better articulated from the learner's contexts and personal experiences.

A significant emergence from the data is that when learning is contextual, dyslexic learners are most likely to recall the information easily. As discussed in Chapter 2, research conducted by Cantor et al. (2018) established that children learn and develop in *context.* Cantor et al. discuss this central insight, drawing on the science of neural malleability and plasticity. They posited that social and learning problems are hinged on social and cultural contexts. These authors clearly demonstrated that intervention for social and learning problems must acknowledge the context of the individual learner or learners. They argue like this: "An understanding of the holistic, self-constructive character of development and interconnectedness between individuals and their physical, social, and cultural contexts offers a transformational opportunity to study and influence the children's trajectories" (Cantor et al., 2018, p. 1). It is difficult to engage learning differences like dyslexia when the social and cultural context is skipped – such pedagogical move is not transformational.

The finding on contextuality in this study has shown that the context of the dyslexic learner is an asset in the intervention process. I explore the drawing below from one of the participants in the study:

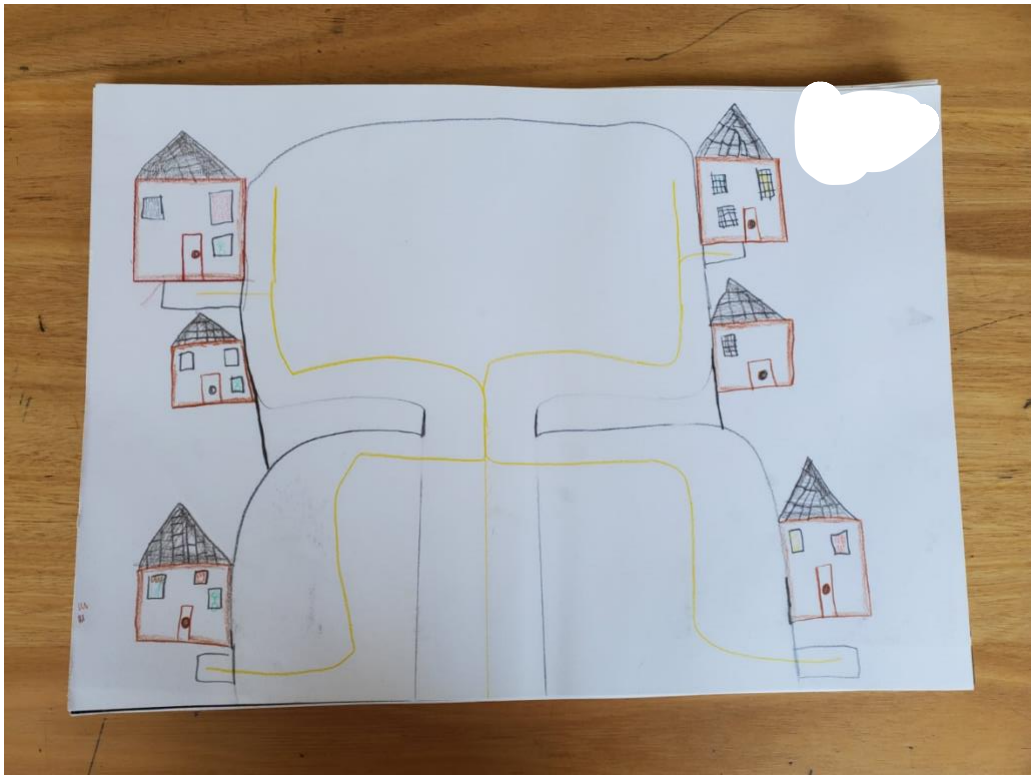


Figure 4.6: Ayoni's painting of Kaleria

Ayoni described the drawing above in these words, "I drew Kaleria, the road and the houses … do you know when you go on the road? … Yes, this is Choima's house, and this is Nnamdi's house" (Ayoni painting, week five). This drawing deepens the discussion on the pedagogical value of context. The participant here is a White male who is growing up in the suburban areas of Johannesburg, South Africa. The book that was read for the study, *Ikenga*, is situated in a rural area of Eastern Nigeria – like what is obtainable in many rural areas of South Africa. The assumption here is that the participant is not exposed to rural living. The drawing above is a hybrid of a rural and suburban setting. The participant drew the houses with thatched roofs on upstairs buildings. The thatched roofs are common in the rural areas while upstairs buildings are common in the suburbs – which is deduced from the high windows on the buildings. The distance between

the houses are farther and "individual". The roads leading to the houses are painted yellow – this is a common colour used in painting the sides of roads in urban areas, especially in South Africa. This drawing shows how the dyslexic learner is highly situated in their context and how the interplay of socio-emotional experiences is key in the intervention process. The context available to this learner is a suburban South African context – the recollection intervention that should be shaped for them must consider this reality. Ayoni's picture shows him making what is unfamiliar to him – a rural village – familiar by setting it in his suburban world. The use of drawing has allowed him to decodify the text by reassembling its details to include his familiar settings and lived contexts which then supports his recollection. This study used African speculative fiction for the intervention process, and the socio-cultural nearness of the story to the learners made it increasingly easy for their recollection.

Deborah Staudt (2009) extends the discourse. Staudt revealed that the use and availability of familiar images should be a critical characteristic of dyslexic teaching and learning materials. The intervention process must ensure that the images that form it are familiar to the learners receiving the intervention. This position is compatible with the findings that emerged from this study. At the beginning of the study, the class teacher noted that the learners were having difficulties with recollecting a story that they were reading. However, with the contextual story read for the study, that difficult was almost invisible. A social complexity that I noted is that the management of the school is mainly run by South Africans of European descent, including this class teacher; of the four learners in the class, two of them are White South Africans. It is possible that the class teacher had reckoned that since these learners are "White", they would recall this European story (Roald Dahl's *James and the Giant Peach*) better. This pedagogical reasoning is faulty. Griffiths and Prozesky (2010) had demonstrated how it is possible to grow or live in a context and not be

grounded in that context. They make the case with growing up in South Africa as a White person and realising that you are not grounded in the South Africa realities that are non-White (Griffiths & Prozesky, 2010). There is a possibility that the class teacher had made this assumption, she probably forgot that her learners are growing up in the South African context and despite their skin colour, their context is not uttered. As teachers ladened with our own positionalities of race and culture, arguably, part of our job is to learn more about how the learners in our classes (no matter what their phenotypical race and heritage cultures may be) are actually negotiating their mixed world senses, exposed as they are to multiple traditions living in a complex society like South Africa.

I revert to the earlier part of this section when I explicated the words the participants had recollected from a book they had read before. The familiar words recalled were *masks, cats, witches, brothers, sisters, and mum.* I gathered throughout the study that the participants were mainly exposed to Eurocentric literature. At different points, they mentioned authors like Peter Roberts and Charles Perrault. For example, Lauretta, mentioned she had read a 'Cinderella book' in the past. This is how she remembers it: "I remember the Cinderella book and that is all. But I remember **the brothers and sister, their mum**" (Lauretta, week one discussion). I observed that the confidence with which Lauretta and her peers spoke about these books was rather low. They could not remember a good deal of the books and only managed to reach few familiar words that are grounded in their own indigenous traditions. Understandingly, at least two of the participants, Ayoni and Luniko, come from euro-centred homes since they are White. However, they live in the context of South Africa – in the Johannesburg metropolis. The data from this study is revealing that the severe exposure to Eurocentric literature is not aiding the dyslexic learners. I have already

shown about the complexity of using Dahl's book for them which confirms the recollection struggle their teacher had earlier admitted.

4.4 Multimodality

The data emerging from this study shows multimodal significance. For a pedagogical appreciation of the data, I have decided to discuss them in two small portions under the multimodal discourse – arts and visual modes. The participants engaged with a great deal of art modes: painting, drawing, and moulding. Once they were done, these art modes positioned as both arts and visual modes – this is a complexity emerging from the data. Also, the participants requested spontaneously for a visual representation of learning texts. Immediately, this section is done in two parts – the arts mode, discussed as in-depth artistic representation, and the visual mode discussed as visualisation.

4.4.1 In-depth Artistic Representation

The patterns around the theme of multimodal representations is about the most systematic and sophisticated data emerging from the data. The participants attributed a chunk of their remembering to the art works that formed part of the study. This emphasised the concept that the use of images or pictures support recollection.

The participants did not only ascribe recollection to the images, but there was also a distinct pattern of creative storytelling proceeding from the paintings, drawings, and moulding. The participants habitually took time to think about the drawing they would make individually – sometimes they whispered quite loudly as they went through this intrapersonal dialogue. This was a rich moment in the data collection process. The paintings or moulding they came up with is evident of the creative storytelling that informed it – when they spoke about their artwork, it complemented the story and introduced creative highlights and possibilities. On the third week of the study, the

participants did some moulding. Due to limited moulding materials, I invited them to work in groups. The participants were excited for the option to work in groups, and they quickly grouped themselves before I could make any suggestions. They decided to work in groups of boys (Ayoni and Luniko) and girls (Lauretta and Pumza). At the end of the process, I invited them to share their work and the girls said the following: “So, the father got killed, and Nnamdi and his mother came to the funeral and gave him flowers. And you can open the grave” (Pumza & Lauretta, group work, week three).



Figure 4.7: Pumza & Lauretta’s group work



Figure 4.8: Pumza and Lauretta’s group work

Interestingly, this part of the book was not read during the study. The participants were able to creatively relive the scene organically and from their own context. Here, they have relieved the funeral practices that is common in and around Johannesburg. They found a way of merging the concept of the actual interment of a dead person with the tradition of viewing the body. The viewing usually happens before the interment, but they have managed to creatively fuse them. This links back to the Ayoni's drawing of Kaleria in Figure 4.6. The participants demonstrate two traits here. First, they made the text familiar by inserting it into their world and lived experiences. Second, they show signs of inserting themselves into the narrative.

Furthermore, it is interesting that Pumza and Lauretta chose this moment of the story (Nnamdi's father funeral), even though it was not read in the sections – their connection seems to be empathetic with Nnamdi in his pain and loss. Due to the limited time during which this study was conducted, the entire book, *Ikenga*, was not read during the intervention process. Only selected chapter were read. However, I had given a quick overview of the book to the participants, but these two participants (Lauretta and Pumza), during their group work, decided to recreate a scene that was discussed in passing at the beginning of the study. This attests to how prioritising the left brain is significant for dyslexic learners. Again, the participants moulded the scene from their context and realities of a funeral in Johannesburg. In some contexts, the wife is not allowed to be present at the graveside of her husband. In some contexts, an animal is slaughter as a farewell and no flowers presented. The participants in this study showcased what is dominant in their South African context.

Above, I already alluded to the intrapersonal dialogue that participants had when engaging with the art process. This intrapersonal dialogue showcases how the drawing/painting/moulding enabled the recollection. The participants stopped to recollect in a short time and made beautiful

pieces. Notably, the drawings and paintings were usually done at the start of each data collection day. Data was collected only once a week – the participants were able to recollect so much with their art works after a full week. Some of the intrapersonal conversations are noted here: “I am going to paint Nnamdi driving” (Ayoni, week five session). Below is a production from that conversation.

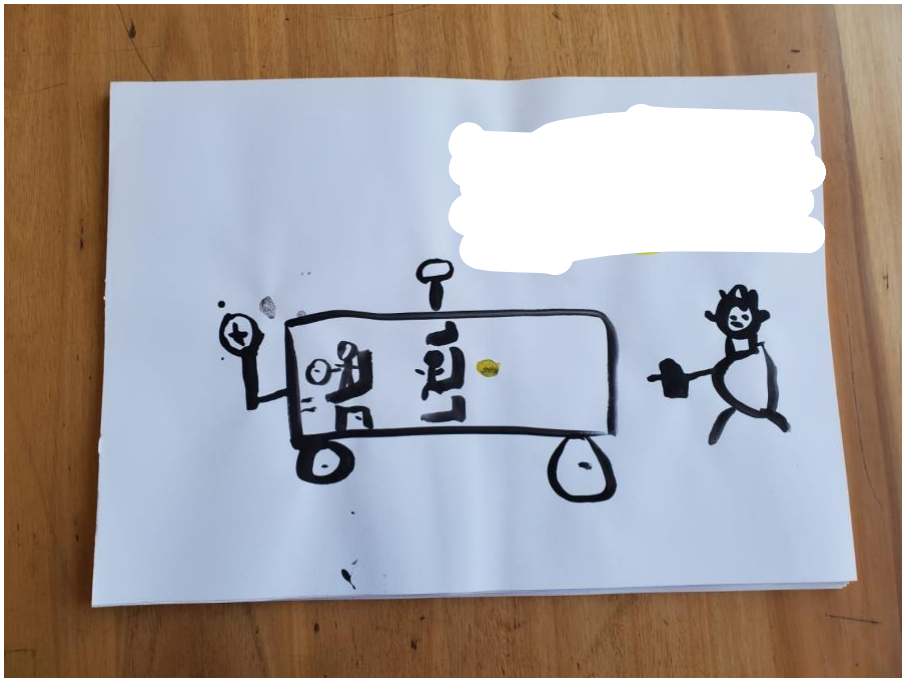


Figure 4.9: Ayoni’s painting (week five)

Another time, I was interested in the intrapersonal conversation that happened for the participant. I requested the participants to kindly share what they would be painting for the day. Some of the responses were: “Ah ... Three Days Journey shooting Nnamdi” (Pumza).

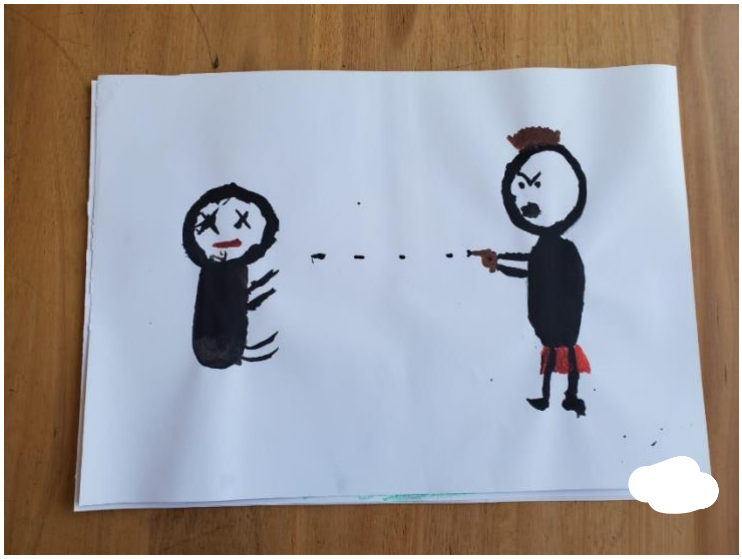


Figure 4.10: Pumza's drawing (week five)

Lauretta answered: "I'm going to paint the old woman and the man of the house" (Lauretta, week five). Below is the production:



Figure 4.11: Lauretta's drawing

It is interesting to observe that Pumza remembers a dramatic and significant plot point, whereas Lauretta remembers a much less obviously striking moment, which could be representative of the

empathy they connect with each of these scenes from the story. This plays a role in their recollection of the information.

There have been affirmations and reaffirmations of how dyslexic learners are picture thinkers – of how dyslexic learners have a stronger left brain that is artistically oriented and empowered. The findings from the study so far gives another reaffirmation to the discourse. This discourse is founded on the neuroscience of the reading brain. Wolf (2007) demonstrated that dyslexic learners rely quite heavily on the left side of the brain. It is their strongest portion for education. This side of the brain is responsible for artistic and creative functioning (Wolf, 2007). Wolf posited that both our reading and recollection attempts in aiding the dyslexic learner in the classroom should recognise the power and progress that can be made with ensuring that the left side of the brain is prioritised. The findings from this study reiterated that in prioritising the power of the dyslexic left brain, the artistic and creative activities (images and pictures) should remain decodified.

Furthermore, there are other representation from participants in this study:

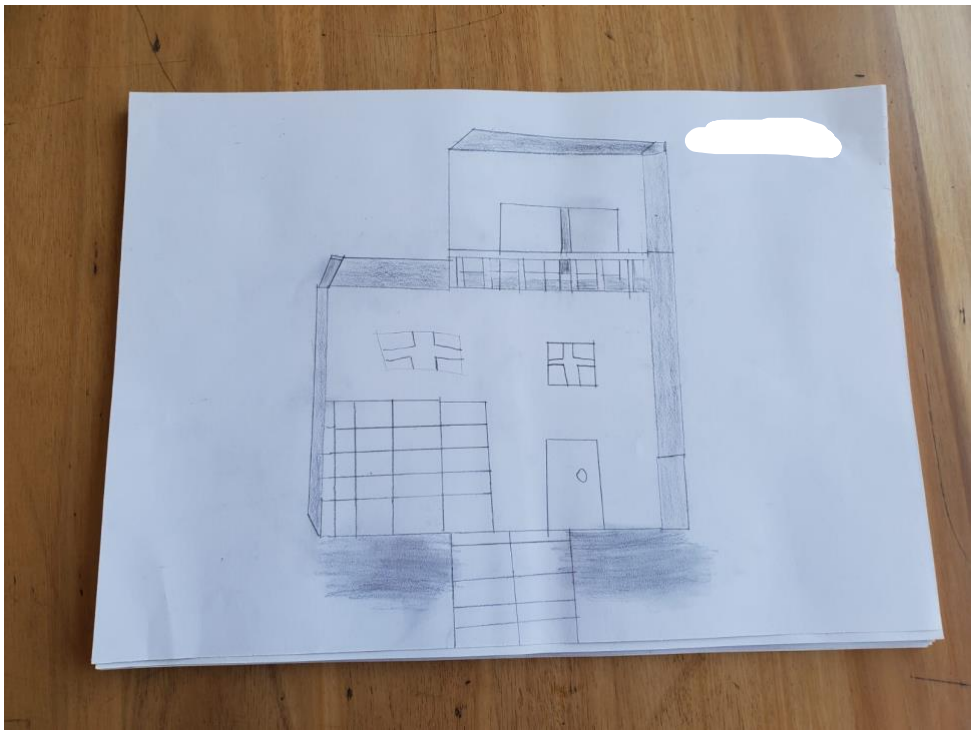


Figure 4.12: Luniko's pencil drawing

Luniko shared about his pencil drawing: "This is Nnamdi's house and that is Nnamdi's room downstairs, and that is the garden where they parked the car" (Week four, class discussion). Luniko, like all the other participants in this study, is growing up in the Johannesburg suburbs. His depiction of Nnamdi's house from the book is mainly suburban. The one interpretation from the drawing is that the building has a rooftop, which is a unique urban house feature. Luniko's drawing points to two things. First, he reaffirms the theory that dyslexic learners are picture thinkers. He was able to skilfully represent Nnamdi's house from the story. Second, Luniko's socio-cultural context knowledge of buildings is reflected in his representation of Nnamdi's house. Dyslexic learners are picture thinkers; however, they formulate these pictures/images in contexts – they

recollect and think them through in context and this context is their social and cultural contexts – their socio-emotional experiences which needs prioritising. Luniko, like the other participants, is integrating the narrative and his personal lived experience.

4.4.2 Visualisation

The theme of visualisation (visual modes) is a significant result from the data. Part of its composition was spontaneously and randomly initiated by the participants. The first composition of the visualisation theme is the participant's request for a movie. Throughout the study, the participants repeatedly requested and asked if the book being read was in a movie or visual form already. They insisted on knowing if the author planned on making a visual representation of the book. In one instance, a participant asked: "Are they making a movie?" (Lauretta, week four). In sustaining the case, she elaborated: "… I really want to see the Man and how this kid look like, Three Days Journey, everything! Yeah, and Choima. Yeah, it'll be like actually more interesting." (Lauretta, week four). Another participant opened a strong argument in the conversation, I judge the comment as a worthy investigation for future research and discussion. The words are repeated here: "I can even remember a movie from where I was five years old" (Ayoni, week four). This data is a real invitation into the matters of recollection for dyslexic learners and whether indeed the problem of poor recollection with dyslexic leaners has not been our pedagogical approach all the time.

This request for a movie is strengthened by the overarching discourse that visuals aid recollection. The participants made a case for how visuals enable smooth and easier recollection. One of the participants described it like this: "Because you can see what's happening better instead of just guessing. You can actually see and it's more exciting because you really see what happens" (Pumza, week five class discussion).

Under the theme of in-depth artistic representation, the findings on how images support recollection was presented. This is re-emphasised in the visualisation data. The participants shared that the drawing, painting, and moulding done during the study aided their recollection. This sharing was initiated by me in the fifth week of the study inquiring from the participants what has helped them recall the book.

> *"Drawing it on a piece of paper" (Ayoni, week five class discussion)*
>
> *"Painting it and seeing it" (Pumza, week five class discussion)*
>
> *"Drawing it on a piece of paper and seeing it" (Lauretta, week five class discussion)*
>
> *"I remember when I think of the moulding" (Luniko, week five class discussion)*

The final pointer that emerges from the visualisation data is the power of the book cover. The cover of the book, *Ikenga*, read for the study was pictorial. It was beautifully and simply designed. It has the picture of the Man and Nnamdi holding the Ikenga in his hands. Nnamdi with the Ikenga is positioned right under the Man which alludes to how he transforms with the Ikenga into the Man.

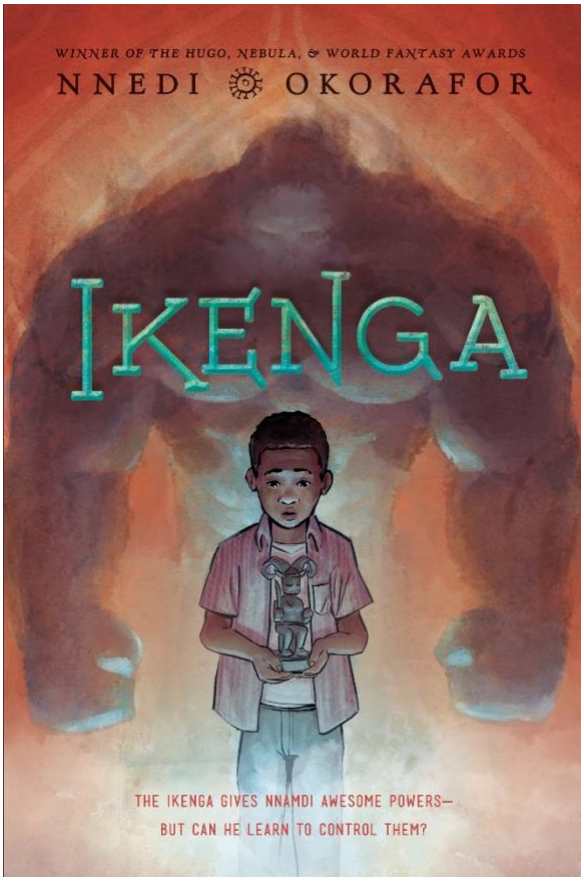


Figure 4.13: Ikenga book cover (Image from Goodread books)

This detailed images on the book cover supports the theme on visualisation. It was easy for the participants to see and remember. A participant commented: "The cover of the book helps me to remember, with the picture of the Man and Ikenga" (Pumza, week four). The findings here so far have provided another invitation in strengthening the discourse of dyslexic learners as picture thinkers. They are those who are powerful with the activation of the functions of the brain that are multimodally oriented.

The picture thinker theory is also enhanced by visualisation, which is a dense feature of contextuality. The dyslexic learner thinks in pictures, seeing these pictures aids recollection and

this is strengthened with the experience of familiar (contextual) pictures (Mills, 2018; Riddick, 2010; Staudt, 2009). Visualisation is a theme that emerged from this study and was initiated by the participants themselves. Throughout the six weeks of this study, at various points, the participants inquired about the possibility of having the book, *Ikenga*, in visual form or as a movie. The first inquiry was made spontaneously by Lauretta, who inquired, "Are they making a movie?" (Week four class discussion). Lauretta explained her inquiry further a week later: "Because you can see what's happening better instead of just guessing, you can actually see and it's more exciting because you actually see what happens." When I invited her to say more, she continued: "In the movie, because in the book it sounds interesting. And then you'll be like very **interested.** Yeah, I really want to like see what the Man and this kid look like. And the house and Three Days Journey, everything. Yeah, and Choima. Yeah, it'll be like actually more **interesting**." Lauretta used these two words that invites pedagogical urgency: "interested" and "interesting". Here, her emphasis could be judged as a reflection of reading difficulties and taking solace in visual modes. However, I read it as a pedagogical urgency to the effect of visualisation. Lauretta, as a dyslexic learner, would respond more easily via visualisation and enjoy a movie intensely. What is she sharing here consequently supported other theories on dyslexia and visualisation (Staudt, 2009; Wolf, 2007).

Ayoni entered to buttress Lauretta's point saying "I can even remember a movie from when I was five years old … yeah, because you can see the pictures and everything. (Ayoni, week four class discussion). These conversations and inquiries were initiated by the participants requesting a movie or visual representation of the book in very clear terms. I find this a pertinent property of the data, especially coming from the participants.

4.5 Speculative Imagination

The theme of speculative imagination is a unique finding from the data. These speculative features of the novel added to the learner's engagement with the text. For a concise appreciation of this theme, I focus on analysing the speculative element of the Man. In the novel, the Man is a speculative element – that Nnamdi can turn into a giant adult with superhuman strength. This speculative element is also integrated with the visualisation theme expanded in section 4.5 above. The speculative imagination can be conceptualised in how frequently the participants drew or painted the Man. This could mean that it is one character from the book that is likely to be recollected easily. Moreover, the speculative element of the Man seem to have been salient for the learners. In chapter three, I discussed the character of the Man and its role in the story. He is the manifestation of Nnamdi when the Ikenga possesses him in times when he needs to fight off thieves in the community. The participants in this study painted and drew different aspects of the man during the six-weeks period. I engage now with at least one representation from each participant.

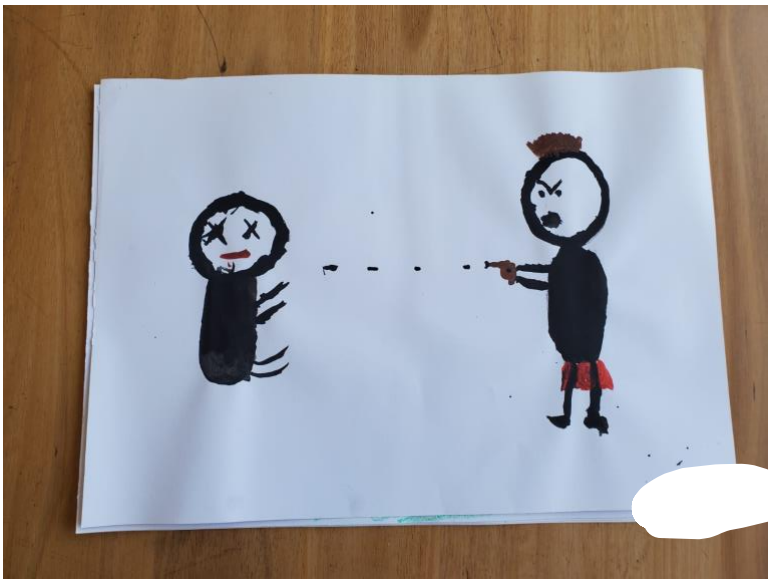


Figure 4.14: Pumza's representation

"That is Three Days Journey shooting Nnamdi … I couldn't put the legs", Pumza described (week four).

Pumza painted a scene from the book where one of the thieves, Three Days Journey, was shooting at the Man. The visual-contextuality that struck me from her painting is the hairstyle of Three Days Journey. The hairstyle she painted is a merger of the popular South Africa hairstyles for males called 'short part with fade' and 'pompadour'. In my personal experience, this style is more popular among Indians and Coloured South African males. Pumza identifies as a Coloured South African. It is not difficult to see how the reality of males in her life for the most part influences how she represents Three Days Journey in this painting. Pumza began to recollect from her context – she made a decodified art piece. This point is sustained in another place when she made a representation of the Man. She repeated the hairstyle too.



Figure 4.15: Pumza 2nd representation of the Man (week four)

Next, I engage with the representation of the Man by Luniko in Figure 4.16 below:

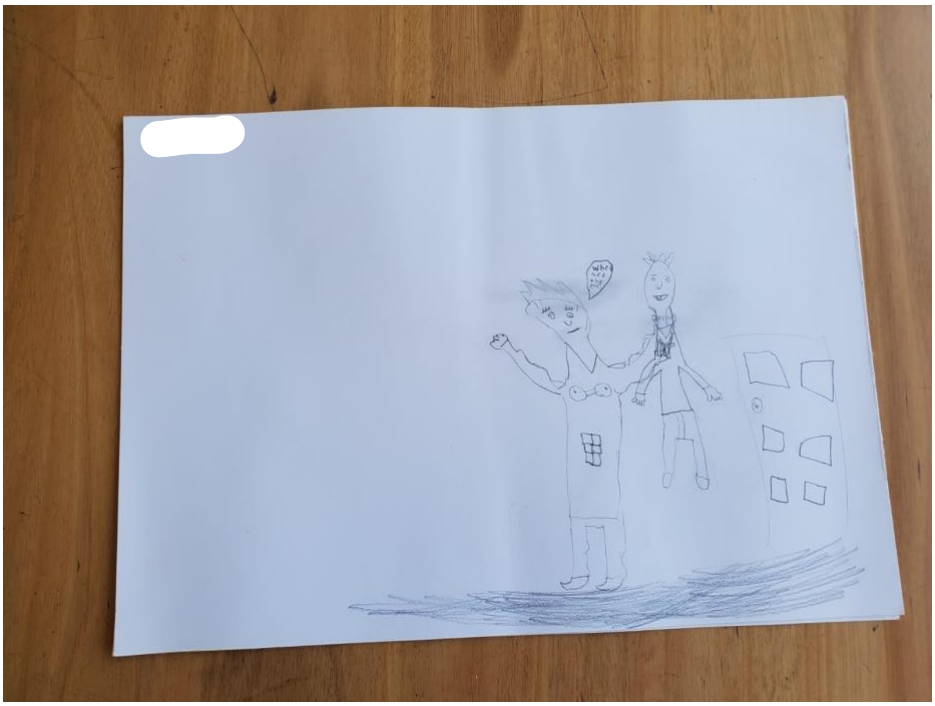


Figure 4.16: Luniko's representation of the Man

"I drew the boy [Man] holding the guy and he is screaming and scared. The boy is saying where are the cars?", Luniko explained (week five).

Here, Luniko made a pencil drawing of the Man holding up of the thieves in the town of Tse-Kucha when he and Choima had gone to try the retrieve Mr Bonnie's car. The Man was demanding the keys from this thief. I noticed that Luniko's representation of the Man is unique. He does not represent the Man like the other three participants did. The other participants represent the Man as a giant painted in brown or black colours. Luniko did not use colours for most of his art works during the study. And the design of the hair of the Man here is reminiscent of popular pop artists. I draw this parallel from an introductory chat with the participant in week two when they were engaging me on my popular sports and music before the day's session. Luniko commented: "I like

listening to rap like when they just say anything … Yeah jazz is really good. So, I like jazz. Rap and lots of other ones. Oh pop" (week two, class introductory session). Again, Luniko has tried to draw the Man's muscles, represented him with bulges on his arms, and a "six-pack" on his abdomen. This is seemingly influenced by the visuals of comic book heroes, such as the Hulk, to which he has been exposed. In week one, whilst I was introducing the book, Luniko asked me this question: "… so he is like the Hulk?" (Week one class discussion). He has asked this question in trying to imagine or picture the Man. However, at this point, I argue that he was going through the process of decodifying the Man. Fairly, Luniko's representation of the Man as a giant is mainly situated in those identified as giants in the pop culture, to which he is exposed within his Eurocentred background.

The next representation in figure 4.17 below is made by Ayoni:



Figure 4.17: Ayoni's representation of the Man

"I drew the boy as the big guy leaving his bed" Ayoni said (week four)

This painting by Ayoni is another case where the participants show an extension of their imagination and visual power. The scene that Ayoni painted here was not read in the study. I had mentioned it on the first day when I gave an overview of the book. In this scene, the Man learned of a robbery happening in town that night, he left his bed and sneaked into town without his mother knowing. The Man caught the thieves and ensured they were handed over to the police. What has stood out for me from the drawing is how Ayoni represented the Man in bed and the Man once he got out of bed. For me, this is a showcase of the power of the visual mode present for the dyslexic learner. It is also Ayoni's attempt to represent the boy (Nnamdi) and the Man. When he is in bed and unpossessed by the Ikenga, he is Nnamdi; when he is out of bed and possessed by the Ikenga, he is the Man. Also, Ayoni represents Nnamdi in bed with a scared expression on his face, but when he is the Man outside the bed, he has his mouth open in a huge grin.

Next, I engage with representation of the Man by Lauretta in figure 4.18 below:



Figure 4.18: Lauretta's representation of the Man

"This is the other man shooting, he is Three Days Journey shooting the giant", Lauretta explained (Week four).

The scene that Lauretta has painted above is the same one that Pumza painted in figure 4.15 above. Three Days Journey shooting the Man. Unlike Pumza, Lauretta shows the gun pointed to the Man's leg and even leaving a stain of blood on it. Significantly, the hairstyle in this painting is different. It is more like an afro which is common in most Black communities in South Africa. Lauretta identifies as a Black South African.

Noticeably, all the participants reframed the Man in their own context and not in the specifically Igbo context of the original story we read. The learners did not link the Man to the *Ikenga*, because they are not familiar with the Igbo culture where the *Ikenga* is linked to the right hand of Nnamdi's dead father. This symbolism is lost on them as they are not familiar with the concept of the Ikenga. Rather, they seem to respond to the speculative part of the *Ikenga* – its fantasy of strength and power. For example, in week one, Luniko likened the Man to the Hulk: "… is he like the Hulk?" (Week one class discussion). The Hulk is also a giant man with superhuman strength. Here, we see Luniko decodifying the story (and the Man in particular) by making its Igbo-ness less strange by incorporating it into his own cultural repertoires. Also, the scene of the Man being shot is sadly familiar to many South African children. Gun violence is a common feature of the news in South Africa, so it is easy to see how the participants found an affinity with that scene in the novel.

These drawings/paintings from all four participants point to the ability to visualise, there were no posters or pictures shown by me during the study besides the book cover. However, the participants were able to speculatively imagine these visuals and affirm how this supports their recollection.

4.6 Over-Repetition

The theme of over-repetition in this study emerges primarily from my journal entry (field notes and observations) and the participants' discussions. The first emergence is centred on repetition. This is tied to the theme of contextuality and even visualisation. Here, I recall one of the participants again: "… Because I enjoy soccer, and because I have engaged so many times and read about it often" (Ayoni, private playground conversation on week three).

Closely linked to the discourse of repetition is the concept of revised learning which emerges from the data. I observed that revision is supportive of repetition. The revision structure built into the study ensured that what the participants engaged with is kept fresh and considered. The participants were always excited to share with me every week what they remembered from the previous week: "Participants agreed that the constant paintings and recalling of the story weekly helped them to remember it" (Researcher's journal entry)

This structure of revision (revised learning) ensured that the participants' recollection builds systematically and that they have coherence of the story's elements when they recollect. Another strong emergence which fits well into repetition and revised learning is familiarity. What is repeated becomes a familiar thing; a familiar thing has been engaged or experienced several times. The data shown that familiarity aided recollection: "Learners always have a good conversation about things they are familiar with – things in their context" (Researcher's journal entry).

Pavey, Meehan and Davis (2013) postulated that over-repetition is essential in dyslexic intervention. This study was ingrained with over-repetition. This was systematically done through the weekly recollection at the beginning of each session and through the frequent drawings, paintings, and moulding. Through these sessions, the participants were able to introspect and

engage with what they remembered from the previous week or from the book in general. This was a creative, artistic, and visual structure. The data emerging from the study also shows that over-repetition needs to remain within the frameworks of contextuality and creativity. I note the comments of the class teacher at the start of the intervention study that the participants were finding it hard to recollect the story of *James and the Giant Peach* by Roald Dahl, which I have unpacked extensively at the beginning of this chapter. The claim I make, which is supported by the research data, that is over-repetition would need to be founded, begun, and emerge out of the dyslexic learner's context. Repetition supports recollection – this is not neutral. The data from the study has shown that contexts play a role on how effective the goal of repetition and recollection is achieved.

I place this claim side by side with Leander and Boldt's (2012) on their construction of meaning as emergence. These authors argued that plenty of meaning is available in improvisational spaces: when educators and researchers do not impose theory on their study and investigation, they are likely to experience the emergence of new meaning. In this study, the ingraining of repetition (revised learning) into the intervention sessions allowed for several meanings to emerge – it allowed for varied forms of decodified recollection, which is an extension of the entire research. The repetition gave the learners time to do the decodification, to use the multiple artistic modes at their disposal to fit the narrative into their own life worlds, to emphasise the parts that are familiar and to adapt the parts that are unfamiliar. My research was not founded on interviews or questionnaires or quick surveys, but it was rooted in an anthropological emergence of understanding recollection among dyslexic learners in Grade four.

Conclusively, the decodification theory (Freire, 1970) conceptualised in this study helped in unpacking the effects of a decodified intervention for dyslexic learners in grade four and of their recollection experiences. Recalling Kelly and Phillips (2011), the fixation on understanding the

causes of dyslexia or identifying the dyslexic learner is not urgent. An approach that is intentional, creative, and multimodal will intervene for both the known and unknown dyslexic learner. Freire (1970) notes clearly that learning should be decodified – learners must see themselves and their experiences in their learning. This is even more important for dyslexic learners that their context is prioritised in the intervention process. The data emerging from the study has highlighted contextuality as hugely significant while neatly knotted with the discourse of visualisation, over-repetition, and multimodality.

4.7 Conclusion

In this chapter, I presented the data analysis and discussion simultaneously, to better accommodate the qualitative richness emerging from the data. The themes that emerged from coding the data are contextuality, multimodality, over-repetition and speculative imagination. I situated my study within the discourses that emerged from my review of the literature and theoretical framework and showed the new insights that emerged from my data. The most significant emergence was an awareness of how the use of African speculative fiction plays out in the recollection of dyslexic learners. In the final chapter, I show how the findings allow me to answer my research questions, make a case for future research, and discuss the conclusions of my study.

CHAPTER 5: CONCLUSION

In this conclusion chapter, I present the summary of the findings of my study. I made some recommendations for future study based on the data that has emerged from this study. I discuss some limitations to my study and wrap up the story of my six-weeks intervention with four participants in Grade four who are dyslexic.

5.1 Summary of the Data Presentation and Finding

I present a summary of the data presentation and finding. Here, I direct it towards answering the research questions and research problem stated in Chapter One.

5.1.1 Main Research Question

The main research question for my study was stated as: "How does using an African speculative fiction text, *Ikenga* by Nnedi Okorafor, in a reading intervention for Grade four dyslexic learners at a Johannesburg special school affect the learners' reading recollection?". The finding from the research shows that there was a positive response in the learners' reading recollection with the utilisation of an African speculative fiction text. The text was familiar and contextual to the participants – specifically, they were able to decodify the text (Freire, 1970) and relate it to their own life worlds. The participants shared how the text was interesting and how it was not like the ones they usually read that were Euro-American centred. This was compared to the text the participants were reading in their class before the six-weeks intervention. They were reading Roald Dahl's novel, *James and the Giant Peach,* and they were finding it hard to recall the information as confirmed by their class teacher. Dahl's book is also a speculative fiction but rooted in Britain. The finding here is captured in the theme of contextuality and its narrowed discussion of familiarity. The contextual-familiar discussion has been engaged by other scholars and educators

– this shows the contribution of my research to existing discourse (Staudt, 2009; Awes, 2014; Cantor et al., 2018). Moreover, this is a solid buttress of the urgency to include more decodified (African) texts in the intervention process and the general school curriculum.

In chapter two (2.5), I had elaborated in that section on dyslexia interventions in South Africa. The review demonstrated that the two realities of the public and private schools in South Africa. While the public school mainly followed the directives of the White paper 6 and the LSEN documents, it is not tailored specifically for dyslexic learners, or any other kind of special needs differences. In the private schools, while there are more productive signs of tailored dyslexic interventions, they fall short in how densely Eurocentric they constitute. Both the lack of specificity and the lack of decodified materials in these spheres are exposed by the findings that has emerged from my study. Dyslexic intervention needs to be specific, it cannot be papered over in the grand discourse of inclusive education, nor can a better intervention for the learner emerged when his or her context is overlooked. Dyslexic interventions must be specific and contextual.

5.1.2 First Sub-question

The first sub-question emanating from the main question was posed as: "How do the specifically African contexts of the novel shape what emerges as salient in the learners' recollection, and how does this salience reveal itself in their recollection?" There were positive affirmations of salience that emerged from the data. I posit that the specifically African contexts of the novel allowed the participants to be comfortable and accepting of their contexts. The African contexts showed the participants' that their own Johannesburg lived experience is valid and worthy of narration and interpretation. They did not struggle with trying to fit their life worlds into the book or to decodify it. One of the predominant revelations of salience in the participants' recollection was through the multimodal representations (arts and visual modes). The participants were able to think in pictures

which allowed for different nuances to appear in their multimode (Wolf, 2007; Mills, 2018). For example, in their different representation of the Man, it is noticeable how they reframe the Man into their own individual contexts within their Johannesburg realities.

The above sits within Paulo Freire's decodification theory used in this research. Freire (1970) maintains that learning happens when the learner can see their realities and experiences in the learning process. In chapter two (2.6), I made the case for the term 'African' used in this study. I argued for how 'African' is used to mean everyone who lives on the continent, whether pre-colonisation or post-colonisation, despite their race. The data that emerged from the study shows that there is an emphasis to recognise this nuance and construct an appreciation for decodification. The representation of the Man by the participants from their different racial contexts within South Africa attests to this claim. This is an indication of how multimodal images are also contextual, shifting in how they are seen, felt and perceived from specific contexts, and how an activation of these contexts is helpful in recollection for the dyslexic learners. This is also Cantor et al.'s (2018) position, that learning difficulties are social and cultural, and they can be improved when attention is paid to these contexts. Again, during this research period, I visited some of these private schools in Johannesburg while seeking a place for data collection, I observed that most of the principals were White South Africans, and even a good number of the students were White. There could be a temptation to easily run along with the Eurocentric interventions at their school and ignore that even though these learners could be White, their socialisation and context is South African. This nuance cannot be ignored, and it is important in our educational and social complexities (Griffiths & Prozesky, 2010).

5.1.3 Second Sub-question

The second sub-question for this research was: "How do the speculative elements of the novel shape what emerges as salient in the learners' recollection, and how does this salience reveal itself in their recollection?" The main speculative element that the participants engaged with the most was the feature of the Man. This was exemplified in the themes on multimodality and speculative imagination. The participants represented the Man more than any other character or scene of the novel; although they could not relate to the *Ikenga* which transforms Nnamdi into the Man (in its Igbo cosmology), they were able to identify with the fantasy features of the Man's strength and power. They reverted this speculative element into their own contexts and based on their gender and phenotypical race, they revealed how their context and familiar experiences reframed the Man. This also gave support to Cantor et al.'s (2018) research on the consideration for context in dealing with learning problems – the participants displayed frequently that there is benefit in prioritising context. The salience of the speculative elements was captured in the repetition structure that was built into the six-week sessions. The repetition held all the themes and codes of my research together as it gave them the freedom and time to decodify the text weekly and reimagine the salience that was happening for them. Pavey, Meehan and Davis (2013) have highlighted the importance of repetition for dyslexic learners. My current study strengthens their discussion and showing the power of repetition when employed, especially not just as a verbal instrument, but a multimodal convention.

Furthermore, the speculative elements of the novel addressed the research positions of Dewar (2019) and Faulkner (2015). They argue that speculative fiction can invite the attention of listeners especially children and activate their imagination. During the data collection process, I never found the participants to struggle with reaching the images from the novel, especially when they had to

draw or mould them. There were several times when they were indecisive about which characters or image to mould, draw or paint from the novel. They had a gallery of imagination flowing through their minds. This is the emphasis and urgency for using African speculative fiction in recollection interventions for dyslexic learners. Even though the characters and realities of speculative fiction are 'abstract', they are drawn from our real world. In the case of African speculative fiction, especially the version used in this study (Okorafor, 2019), they are drawn from specific contexts in Africa. The approximation can be made for how effective South African speculative fiction will be for the dyslexic learners, if the learners from this study made so much from an African speculative fiction situated in Igboland, Nigeria. The nearness of the story to their realities is one of the affirmations made by the participants on the impact of the novel during the data collection (Class discussion, Week Four).

5.2 Limitation of the Study

I have identified three limitations of this study. The first is the duration of the study which was only six weeks – too short for a story of this complexity. The reduced duration meant that the initial two books planned for this study had to be reduced to one. It also meant that only two chapters of *Ikenga* could be read and explored in during the period. Arguably an advantage of the shorter period was to keep the project simpler and more focused. The short period invited me to focus on what is doable and what is most important. However, I understand how this could have impacted on the participants too – since I read only two chapters from the novel, I had to tell a summarised story of the rest chapter to situate these two chapters for the learners. This was rushed and almost certainly unproductive for the dyslexic learners.

Second, the number of participants was a limitation. There were only four participants in this study which meant that the data was not robust. The complexity of this research would have needed more participants for a broader understanding of African speculative fiction as a dyslexic intervention. But this small population did not prevent the power the study possesses, especially as this study did not intend to confirm or verify any proposition. My intention was to gain an emergent understanding of the recollection intervention for Grade four learners while using African speculative fiction.

Third, I admit that the interpretive approach to this research would have carried my subconscious bias and agendas. For the most part, the participants did not know what I wanted to explore or understand during the sessions. I was the one ladened with interpreting what emerges out of each session. Unlike interviews or surveys, the participants did not get a chance to decide how to respond at each time, since each session was like a normal class day for them. However, the triangulation that I employed in this study ensured that my bias were at least partly reviewed, and I allowed for data emergence – I tried not to predetermine the data that emerged.

5.3 Recommendations

I revert to the significance of the study in chapter one where I mentioned how this study would favour the learners and the key players (stakeholders) who are involved with them, from the school to their parents. The conclusions reached in this study offer some recommendations on how recollection intervention for Grade four dyslexic learners can be strengthened. This can be extended to other grades as well. I recommend the following:

The Department of Education needs to urgently design and implement a decodified curriculum for dyslexic learners. Here, it would be helpful to think through designing a curriculum that integrates decodification and decolonisation. My study has teased out the effects that decodified materials have for dyslexic learners. Given the findings from my study, what is needed is a combination of texts that are as familiar as possible, for example, texts that are emerging from African contexts, combined with a pedagogy that gives the learners time and freedom to decodify these contexts and insert themselves and their lived experiences into the text. I appreciate the concerns about funding and the concerns about staff shortages in servicing regular schools and dyslexic schools. However, I invite the Department to investigate the advocacy of Snowling (2012) who argued that dyslexia diagnosis and 'special' interventions can be avoided by introducing texts that are capable of intervening even when dyslexia is not identified. Decodified texts are not inferior texts, they are not text that are diagnostic, they should not be understood or appreciated as texts which are given as medicine to dyslexic learners.

There is even a greater demand that must go past the Department of Education to the Department of Higher Education and Training. Educators are trained in universities and colleges – this means that dyslexia education must become prioritised in South African higher education. From my experience at my current university and from speaking to a small number of lecturers and students from other universities in South Africa, I gather that dyslexia education is largely absent in these institutions. By extension, not many universities and colleges have a 'Special Education' department that attends specific to 'invisible' differences (disabilities) like dyslexia. There is a priority given to Blind and Deaf Education but not really to invisible differences. Owing to staff and fund shortages in South Africa, especially its implication for under-resourced schools, we need

to train teachers who are equipped to not only identify dyslexia but teachers who commit to teaching a decodified pedagogy.

More immediate, there should focus on expanding the findings in this research by conducting this research and its relations with a larger sample, and across both public and private special schools. The schools should be multiple – I recommend that the research hope in every South African province. I think it will be beneficial to have the research carried out in one full academic year instead of a few weeks. This kind of research can even be done as a group, I suggest that academic across South Africa could come together to make it possible. There could be a group of 15 to 20 academics who take up this research in their provinces. They could source for funding and create a research lab for Masters and PhD students during the duration. Additionally, I have established through the literature in this paper (Staudt, 2009; Cockcroft & Hartgill, 2004), that literature and creative work is effective for dyslexic intervention. I recommend research that is comparative – comparing different genres of fiction and even different kinds of arts, for example literature, drama, music. The participants in this study had shown that they can recall even different art forms – they spoke quite well about different music genres.

5.4 Suggestions for Future Research

I make the following suggestions for future research in this study. I strongly recommend these:

First, this current research worked with a very small population over a short period of time. I recommend that an extended period of research be done in this area with a larger population, especially across different provinces in South Africa and different African countries. It will be interesting to see how decodified and context emergences work in a larger group across different spaces. This will offer a larger and stronger understanding of the matter.

Second, I suggest that research is carried out using different genres of African literature across different school sects: elementary, primary, junior high school, senior high school, and tertiary school. This research could explore beyond the qualitative approach used in my study. I would suggest a mixed-method approach. I believe it would offer more nuance and provide a bigger emergence of meaning on dyslexic intervention using African literature.

Third, I typically observed that during my research, that the participants were not keen on reading with me. They did not even look through their own text as I read to them. They listened to me with rapt attention and yet were able to recall and actively follow me while I read. I suggest research is done to strengthen and extend the discourse on the science of the reading brain. What does reading mean? What should it look at? What are the forms of reading available that our pedagogy is not allowing to emerge yet? What are the goals of reading – is recollection another goal of reading? If yes, how do we achieve recollection in varied and non-traditional forms? These are some of the concepts that could be investigated.

Finally, I suggest research is done on the possibility of having an entirely multimodal education for dyslexic learners. The constraints and affordability of having multimodal education for these learners should be explored. Is it possible to make an instructional design for them that is based on modes? I would suggest here to tap into the budding discourse called the pedagogy of possibilities. This is a stemming discourse developing in literacies discourse at this time and it could offer some light for their research.

5.5 Conclusion

In this final chapter of my study, I provided a summary of my findings – contextuality, multimodality, over-repetition and speculative imagination. I proceeded to specifically answer my

research questions based on these findings. Also, I made a research-informed suggestions for future research from the findings and practically highlighted how this will benefit education research and the South African context, and educational neuroscience in general. The principal emergence for this study is that context is important in supporting good recollection on the part of dyslexic learners.

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APPENDIX A: WITS APPROVAL LETTER FOR PROPOSAL

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

FACULTY OF HUMANITIES
POSTGRADUATE OFFICE

20 September 2021
Student Number: 2363971

Mr. Larry Erhuvwuoghene Onokpite
93a 5th Avenue Melville
Johannesburg
2109 Gauteng
South Africa
By Email:
2363971@students.wits.ac.za
Cc: Supervisor

Dear Mr. Onokpite

RESULTS FOR THE DEGREE OF MASTER OF EDUCATION PROPOSAL

I am pleased to be able to advise you that the readers of the Graduate Studies Committee has reviewed your proposal entitled "***African Science Fictions as Reading Intervention for Grade Four Dyslexic Learners".*** The research proposal can pass subject to minor revisions to the satisfaction of the supervisor. I confirm that **Dr. Maria Prozesky** has been appointed as your supervisor in the School of Education.

The research report is normally submitted to the Faculty Office by 15 February, if you have started the beginning of the year, and for mid-year the deadline is 31 July. All students are required to RE-REGISTER at the beginning of each year.

You are required to submit 2 bound copies and a CD with a word and pdf (Adobe) format of your research report to the Faculty Office. The 2 bound copies go to the examiners and are retained by them and the CD (Not USB) is retained by the Faculty Office as back up.

Please note that should you miss the deadline of 15 February or 31 July you will be required to submit an application for extension of time and register for the research report extension. Any candidate who misses the deadline of 15 February will be charged fees for the research report.

Kindly keep us informed of any changes of address during the year.

Note: All MA and PhD candidates who intend graduating shortly must meet your ETD requirements at least 6 weeks after your supervisor has received the examiners reports. **A student must remain registered at the Faculty Office until graduation.**

Yours Sincerely
Faith Herbert
Faith Herbert
Senior Faculty Officer
Faculty of Humanities

Private Bag 3, WITS 2050, South Africa I T + 27 11 717 3018 I E help.humanities@wits.ac.za I www.wits.ac.za/humanities

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APPENDIX B: PARENT'S INFORMATION SHEET

Dear Parent,

My name is Larry Erhuvwuoghene Onokpite, and I am a Masters student in Education at the University of the Witwatersrand Johannesburg. As part of my studies, I have to undertake a research project, and I am researching on *African Science Fiction as Reading Intervention for Grade Four Dyslexic Learners* under the supervision of Dr Maria Prozesky. The aim of this research project is to assess the challenges and opportunities of using African science fiction in reading interventions for dyslexic learners.

I am conducting my research at your child's school, and I asked the principal to assist me in identifying learners who could benefit from taking part in my project. I would therefore like to invite your child to take part in my research as a participant. In a group with four other Grade four learners, your child will attend a 30–45-minute extra class with me every week for 6 weeks, on the school premises. These sessions will involve extra reading lessons for the learners, using selected African science fiction stories. The sessions will take place after school hours at a time that suits you and the other families involved in the study. All the school's Covid prevention protocols will be strictly observed. Over the six weeks I will observe any changes in your child's reading proficiency over the six weeks of the intervention, by keeping notes during the sessions and analysing any written work or pictures that your child produces during our sessions. With your permission, I would like to audio record the sessions using a digital device, so that I can analyse our classroom conversations.

There will be no personal costs to your child if they participate in this project; your child may benefit from the extra reading practice provided during the intervention sessions but there are no disadvantages or penalties if you do not consent for them to participate or if your child withdraws from the study. During the sessions, your child may withdraw at any time, or not answer any question if they do not want to. The five learners will know each other, and the sessions will be carried out with them alone and not include their other classmates. Similarly, the information and data I gather from the sessions will be held securely and not disclosed to anyone else. I will be using a pseudonym (false name) to write about the data I gathered from your child and other

participants your child's participation in my final research report; I will also use a pseudonym when writing about the school. If your child experiences any distress or discomfort at any point in this process, we will stop the extra class.

If you or your child have any questions during or after this research, feel free to contact me using the details provided below. This study will be written up as a research report and if you wish to receive a summary of this report, I will be happy to send it to you. Your child will also not be paid for participating in this research. The data collected from this research project will be stored in a password protected computer and will be destroyed after three years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the Head of Wits School of Education Ethics Committee:
Dr Paul Goldschagg, email: paul.goldschagg@wits.ac.za.

Yours sincerely,
Larry Erhuvwuoghene Onokpite

Researcher:
Larry Erhuvwuoghene Onokpite
2363971@students.wits.ac.za

Supervisor:
Dr Maria Prozesky
maria.prozesky@wits.ac.za

APPENDIX C: PARENTS' CONSENT FORM

Title of the Project: African Science Fiction as Reading Intervention for Grade Four Dyslexic Leaners

Name of researcher: Larry Erhuvwuoghene Onokpite

I, ……., agree to allow my child to participate in this research project. The research has been explained to me and I understand what my child's participation will involve. I agree to the following:

(Please circle the relevant options below).

I agree that my child's participation will remain anonymous.	YES	NO
I agree that the researcher may use anonymous quotes in his research report.	YES	NO
I agree that the research session may be audio recorded.	YES	NO
I agree that the researcher may analyse any written work or pictures that my child produces.	YES	NO

…… (Signature of parent)
…… (Name of participant's parent)
…… (Date)

APPENDIX D: PRINICIPAL'S LETTER

Dear Principal,

My name is Larry Erhuvwuoghene Onokpite, a Masters student at the University of the Witwatersrand in the School of Education. As part of my Masters degree in Education, I am conducting a research project titled *African Science Fiction as Reading Intervention for Grade Four Dyslexic Learners* under the supervision of Dr Maria Prozesky. The aim of this research project is to assess the challenges and opportunities of using African science fiction in reading interventions for dyslexic learners in the intermediate phase.

Because your school caters for learners who are differently abled, I would like to invite learners from the Grade Four class to participate in my study. The research will take the form of classroom ethnography conducted as a six-week extra-mural intervention. I will ask your assistance in identifying five Grade Four learners who are dyslexic, to take part in the study with their parents' or guardian's consent. The weekly intervention sessions will involve reading lessons focusing on selected African science fiction stories. Each session will last for 30 to 45 minutes once every week for six weeks, held on the school premises after school hours at a convenient time arranged with the families of the participants. All the school's Covid prevention protocols will be strictly observed. I will gather data by taking notes during and after the sessions, and examining any written work or pictures produced by the learners during the sessions. With your permission and that of the learners' parents or guardians, I would also like to audio record the sessions using a digital device, so that I can analyse the classroom conversations I have with the learners. This recording will be stored in a password protected computer and only I as researcher and my supervisor will have access to this recording. The recording will be deleted after three years.

There will be no personal costs to the learners if they participate in this project. The learners may benefit from the extra reading practice they receive over the six weeks, and there are no disadvantages or penalties if the school or parents withdraw them from the study or if the learners withdraw. The intervention sessions will be held privately in a classroom so that the sessions will remain confidential to the participants and myself, and the information and data I gather from the session will be held securely and not disclosed to anyone else. I will be using a pseudonym (false

name) to represent the school's and the learners' participation in my final research report. If learners experience any distress or discomfort at any point in this process, we will stop that classroom ethnography session or continue it at another time.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report and if you wish to receive a summary of this report, I will be happy to send it to you. The data collected from this research project will be stored in a password protected computer and will be destroyed after three years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the Head of Wits School of Education Ethics Committee, Dr Paul Goldschagg, email: paul.goldschagg@wits.ac.za.

Yours sincerely,
Larry Erhuvwuoghene Onokpite

Researcher:
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2363971@students.wits.ac.za

Supervisor:
Dr Maria Prozesky
maria.prozesky@wits.ac.za

APPENDIX E: PRINCIPAL'S CONSENT FORM

Title of the Project: African Science Fiction as Reading Intervention for Grade Four Dyslexic Leaners

Name of researcher: Larry Erhuvwuoghene Onokpite

I, ……., agree to allow this research project to be carried out at my school. The research has been explained to me and I understand what my school's participation will involve.

…… (Signature of Principal)

…… (Name of Principal)

…… (Date)

APPENDIX F: SCHOOL GOVERNING BOARD LETTER

Dear Sir/Madam,

Head: School Governing Board

My name is Larry Erhuvwuoghene Onokpite, and I am a Masters student at the University of the Witwatersrand in the School of Education. As part of my Masters degree in Education, I am conducting a research project titled *African Science Fiction as Reading Intervention for Grade Four Dyslexic Learners* under the supervision of Dr Maria Prozesky. The aim of this research project is to assess the challenges and opportunities of using African science fiction in reading interventions for dyslexic learners.

Because your school caters for learners who are differently abled, I would like to invite learners from the Grade Four class to participate in my study. The research will take the form of classroom ethnography conducted as a six-week extra-mural intervention. I will ask the Headteacher's assistance in identifying five Grade Four learners who are dyslexic, to take part in the study with their parents' or guardian's consent. The weekly intervention sessions will involve reading lessons focusing on selected African science fiction stories. Each session will last for 30 to 45 minutes once every week for six weeks, held on the school premises after school hours at a convenient time arranged with the families of the participants. All the school's Covid prevention protocols will be strictly observed. I will gather data by taking notes during and after the sessions, and examining any written work or pictures produced by the learners during the sessions. With your permission and that of the learners' parents or guardians, I would also like to audio record the sessions using a digital device, so that I can analyse the classroom conversations I have with the learners. This recording will be stored in a password protected computer and only I as researcher and my supervisor will have access to this recording. The recording will be deleted after three years.

There will be no personal costs to the learners if they participate in this project. The learners may benefit from the extra reading practice they receive over the six weeks, and there are no disadvantages or penalties if the school or parents withdraw them from the study or if the learners

withdraw. The intervention sessions will be held privately in a classroom so that the sessions will remain confidential to the participants and myself, and the information and data I gather from the session will be held securely and not disclosed to anyone else. I will be using a pseudonym (false name) to represent the school's and the learners' participation in my final research report. If learners experience any distress or discomfort at any point in this process, we will stop that classroom ethnography session or continue it at another time.

If you or any member of the School Governing Board have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report and if you wish to receive a summary of this report, I will be happy to send it to you. The data collected from this research project will be stored in a password protected computer and will be destroyed after three years. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the Head of Wits School of Education Ethics Committee, Dr Paul Goldschagg, email: paul.goldschagg@wits.ac.za.

Yours sincerely,
Larry Erhuvwuoghene Onokpite

Researcher:
Larry Erhuvwuoghene Onokpite
2363971@students.wits.ac.za

Supervisor:
Dr Maria Prozesky
maria.prozesky@wits.ac.za

APPENDIX G: SCHOOL GOVERNING BOARD CONSENT FORM

Title of the Project: African Science Fictions as Reading Intervention for Grade Four Dyslexic Leaners

Name of researcher: Larry Erhuvwuoghene Onokpite

I (We), ……., agree to allow this research project to take place at the school. The research has been explained to us and we understand what learners' participation will involve.

…… (Signature of SGB Chairperson)

…… (Name of Chairperson)

…… (Date)

APPENDIX H: PARTICIPANT'S ASSENT FORM

Dear Learner,

My name is Larry Erhuvwuoghene Onokpite. I am studying for a Masters degree at the University of Witwatersrand, here in Johannesburg.

I am very interested in how learners with dyslexia learn to read, so I am doing a study of learners reading African science fiction stories. I invite you to join my reading class! If you say yes, you and four other learners from your class will meet for 30 to 45 minutes once a week for six weeks. During our classes we will read some exciting science fiction stories and discuss them together. We will meet in a classroom at school, after regular school has finished.

I am inviting you to join my reading class. You do not have to say yes as nothing bad will happen to you if you say no. If you do join, our classes will not be for marks, and you can stop at any time if you feel uncomfortable.

Will you join my reading class? Circle the picture that shows your answer.





Thank you so much!

Yours sincerely,

Larry Erhuvwuoghene Onokpite