Evaluating Strategies Special Needs Teachers Employ in Assisting Learners with Poor Memory in Selected Primary Schools in Mzuzu City

By

Faith Mtungambera Harawa

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Declaration

I, Faith Mtungambera Harawa, hereby declare that this thesis is my original work, under the supervision of Dr Rhodian Munyenyembe. This work has not been previously submitted, either in part or full, for the degree of any other university. Where materials published by any other persons are used, this has been appropriately acknowledged.

Signed:_____

(STUDENT)

Date:_____

Signed:_____

(SUPERVISOR)

Date:_____

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It is my belief that in this world, our existence is a result of cooperative efforts. I have only made it this far because of some valiant individuals who urged me to overcome my wanting to quit the academic journey when it felt insurmountable. So, in a special way, I would like to extend my sincere gratitude to the great men and women who made some sacrifices just so my academic journey would be a success.

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Dedication

I dedicate this research to God Almighty, my creator, my strong pillar, and my source of inspiration and wisdom. He has been the source of strength, knowledge and understanding throughout this programme and on His wings only have I soared. I also dedicate this work to my parents, Mr and Mrs Mtungambera Harawa, for always believing in my capabilities and for being my role models.

Abstract

Poor memory is one of the examples of learning difficulties in Malawi. Memory problems often contribute to the cognitive defects that result in learning difficulties in children. Special Needs Teachers assist learners with various challenges, including those with poor memory. This study intended to explore special needs teachers' knowledge on poor memory as a learning disability, investigate the strategies special needs teachers apply when assisting learners with poor memory, and examine challenges special needs teachers encounter when assisting learners with poor memory.

The research had a sample size of four participants, who were four primary school special needs teachers. The study used constructivist research paradigm as it made use of teachers' experiences and understanding of poor memory as a learning disability to respond to the research questions. The researcher employed the qualitative research approach and selected the participants using purposive sampling. In addition to that, data was collected through semi-structured interviews, document analysis and lesson observation. The qualitative data collected was analysed through thematic analysis.

The research revealed that special needs teachers use a number of strategies when helping students with poor memory such as chunking, group work and visual aids . However, some strategies were effective to one teacher and ineffective to another, or effective in one lesson but ineffective in another. The ineffectiveness of some of the strategies were influenced by the teachers' limited knowledge of the concept, poor execution of the strategies, lack of clarity, the complexity of the topic, high student teacher ratio and inadequate teaching and learning resources. Consequently, I argue that strategies alone without corresponding understanding of the disability and the provision of enough teaching and learning resources, teachers and a differentiated curriculum by the Ministry of Education cannot yield positive results.

Glossary of Abbreviations\Acronyms

CPD	:	Continuous Professional Development
IE	:	Inclusive Education
MZUNIREC	:	Mzuzu University Research Ethics Committee
NED	:	Northern Education Division
NEP	:	The National Education Policy
NES	:	National Education Standards
SEN	:	Special Education Needs
SNE	:	Special Needs Education
UNCRC	:	The United Nations Convention on the Rights of the Child
UNCRPD	:	The United Nations Convention on the Rights of Persons with Disabilities
UNICEF	:	United Nations Children's Fund

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CHAPTER ONE: INTRODUCTION

1.1 Chapter Overview

This chapter presents an introduction to the study on an evaluation of the strategies special needs teachers apply when assisting learners with poor memory, using selected primary school teachers in Mzuzu City as a case study. The chapter provides an in-depth understanding of poor memory as a learning difficulty.

1.2 Background

1.2.1 History of Inclusive Education in Malawi

According to Chimwaza (2015), although the Department of Education was formed in 1926 in Malawi, it was not until early 1950 when the provision of Special Needs Education (SNE) started by the Dutch Reformed Church Mission (DRCM) and South Africa General Mission at Chilanga in Kasungu and Lulwe in Nsanje districts, respectively. Provision of Special Needs Education service began with assisting learners with visual impairments only. Later, in 1968, Special Needs Education for learners with hearing impairment started at the Montfort campus in Chiradzulu district by the Fathers of the Immaculate Conception of the Roman Catholic Church. In 1996, the Ministry of Education introduced another SNE programme for learners with learning difficulties. Later, in 2004, the Malawi government established the Department of Special Needs Education, which has been acting as a link between other stakeholders interested in achieving the right to education. In addition to that, the provision of SNE services for learners with special educational needs (SEN) is done through special schools and resource classroom centres within the mainstream schools (Kantema, 2015).

1.2.2 Disability Related Policies and Legislative Frameworks that Support Inclusive Education in Malawi

1.2.2.1 International Context

The Malawian Constitution under section 211 (2) asserts that the state is bound by international agreements entered into before the commencement of the constitution and after (Republic of Malawi, 2017). These international agreements or covenants form part of the laws of the Republic. In line with this provision, Malawi is a signatory to a number of international instruments which it has signed and ratified (Chimwaza, 2015). Below are some of the legal frameworks and policies which relate to children with disabilities and their rights to education.

1.2.2.1.1 The Salamanca Statement of 1994

Inclusive education was first introduced from an international perspective at the Salamanca World Conference in 1994 in Spain where papers on how to assist children with special needs were presented. Internationally, it was agreed that inclusive education was to be seen as a system which caters for the needs of a diverse range of learners and supports diversity, effectively eliminating all forms of discrimination (The Salamanca Statement and Fram**e**work for Action on Special Needs Education, 1994).

1.2.2.1.2 The United Nations Convention on the Rights of the Child (UNCRC)

This legal instrument was adopted in 1990 of which Malawi ratified on 21 January 1991. The convention is a comprehensive legal and policy framework for respect, protection, promotion and fulfilment of the rights of a child, especially Article 23, which states that children with disabilities have the right to special care, education and training. Whereas, Article 28 states that every child has the right to education regardless of his or her status, such as disability (The United Nations Convention on the Rights of the Child, 1990). The convention gave Malawi an obligation to provide free and compulsory primary education, accessibility to secondary school education to every child and the same to the higher education level (Chimwaza, 2015).

1.2.2.1.3 The UN Convention on the Rights of Persons with Disabilities (UNCRPD)

The Convention was adopted on 13 December 2006 and advocates for the recognition and promotion of education of persons with disabilities. Malawi is among the signatory countries whose obligation is to report to the UN on the status of persons with disabilities. The convention also advocates and lobbies for inclusive education and promotion of awareness and implementation of the Convention on the Rights of Persons with Disabilities (United Nations, 2016).

1.2.2.2 The National Context

1.2.2.2.1 *Constitutional Framework*

The review of the country's constitution was made soon after Malawi experienced the political shift from one party era to the multi-party democracy that took place in 1994. A new constitution was drafted and adopted. This new constitution contained among other things the rights of persons with disability. For example, the constitution prohibits discrimination of any kind including discrimination against persons with disabilities. Further, the constitution provides that Malawi is obligated to actively promote the welfare and development of the people by progressively adopting and implementing policies and legislation aimed at supporting the disabled through greater access to public places, fair opportunities in employment and fullest possible participation in all spheres of Malawian society (Republic of Malawi, 2017).

1.2.2.2.2*The Disability Act 2012*

The enactment of the Persons with Disability Act 2012, is a major step towards enabling children with disabilities realise their rights on the equal basis with others. It prohibits discrimination based on disability, it promotes access to quality education and other social services for people with disabilities and there is a provision for equal opportunity for anyone with disability to develop their skills. Under the Act, denial of admission by any learning institution on the basis of disability is criminalised (Malawi Government, 2012).

1.2.2.2.3 *The National Education Policy (NEP, 2016)*

The National Education Policy was established in order to promote enhancement of inclusive education by aspiring equitability to access, quality and relevant special and inclusive secondary education. This directive was under the government's promise to ensure that mainstream education provides for all learners regardless of their (dis)abilities. The National Education Policy also promotes mainstreaming of inclusive education in teacher education. This comes in after the national education observes that teachers lack the necessary expertise for inclusive education. In response to the problem, the policy directs that special and inclusive education should be mainstreamed in teacher education. The directive responds to the teachers' lack of inclusive education expertise (Government of the Republic of Malawi, 2016**).**

1.2.2.2.4 *National Strategy for Inclusive Education (2017)*

The National Strategy for Inclusive Education was established in order to promote education in inclusive settings. By ensuring that learners with diverse needs have equitable access to quality education in inclusive settings at all levels through the removal of barriers to learning, participation, attendance and achievement (Malawi Government, 2017).

1.2.3 Poor memory as a learning disability

Poor memory is one of the examples of learning disability in Malawi. Memory problems often contribute to the cognitive defects that result in learning difficulties in children **(**Cockcraft, 2015). According to the Malawi Education Statistics Report by the Ministry of Education in 2022, it was reported that the country had 164,130 students with special needs ranging from visual impairment, hearing impairment, learning difficulties, albinism, deaf and blind and physical impairment enrolled in the primary school sector. The highest numbers of learners with special needs are those with learning difficulties who are about 87,361 in number.

Memory, in academic circles, is a term used to describe the ability to hold mentally manipulated information in mind over a long period of time (Gathercole and Alloway, 2007). It is often

thought of as a mental workspace that one can use to store important information in the course of one's mental activities. Studies have shown that there is a personal limit to memory, with each individual having a relatively fixed capacity that may be greater or less than others (Gathercole and Alloway, 2007).

Memory has long been viewed as a key aspect of learning since having a good memory can help students retain information long enough to use it, do better in school, perform well on tests, and achieve better grades. That is why memory is also regarded as a sort of jotting pad. Belluck (2021) also believes that memory is central to the functioning of the mind since it correlates with many general abilities and outcomes, such as intelligence and scholastic attainment. Memory also provides a mental workspace in which we can hold information while mentally engaged in other relevant activities.

The capacity to do this is crucial to many learning activities in the classroom. Students often have to hold information in mind while engaged in an effortful activity. The information to be remembered may, for example, be the sentence that they intend to write while trying to spell the individual words. It could also be a list of instructions given by the teacher while carrying out individual steps in the task (Gathercole 1and Alloway, 2007).

It is believed that students with poor memory capacities will struggle in these activities simply because they are unable to hold in mind enough information to allow them to complete the task. In these situations, their memory is overloaded. Losing crucial information from one's memory is a result of failing to interpret and organize new skills and knowledge. This will cause them to forget many things, such as the instructions they are trying to follow and the details of what they are doing. This, in turn, will result in their likelihood to struggle to achieve normal rates of learning (Gathercole and Alloway, 2007).

The mainstream classroom set-up, however, takes in students with various backgrounds, abilities, and challenges. One of the challenges that teachers experience involves dealing with learners with poor memory (Klemm, 2007). This is a challenge because many of the learning activities students engage with in the classroom impose quite a considerable burden on one's memory.

Teachers are mostly interested in having students remember their lessons long after the time they first presented them. Effective memorization occurs when you make an association between the new and what you already know. New information must make contact with the long-term knowledge store in order for it to be categorically coded. It is true that the ultimate goal should be to teach people how to solve problems and create, but central to these capabilities is the ability to remember things. The more one remembers the more intellectual competencies one has to draw upon for thinking, problem solving, and even creativity (Klemm, 2007).

1.2.4 Intervention programs

Individual intervention programs aimed at improving memory have yielded positive preliminary results for increasing memory capacity. Strategies such as curriculum differentiation, cooperative learning, visual aids, peer learning, ability grouping, one-on-one support, building on the basics, extra practice and repetition, prompting, chunking of information, minimizing distractions, positive reinforcement and building self-esteem, play-based learning, modeling, as well as accommodation and modification of assignments and assessments, among others, have been suggested by a number of scholars to be key when it comes to assisting learners with poor memory across all subject disciplines (Sarode, 2018).

These individual intervention programs need to be incorporated into inclusive education because learners with learning difficulties are found in mainstream classrooms. Inclusive education was accepted as a global policy for attending to learners with barriers to learning and

diverse learning needs at the Salamanca World Conference on Special Needs in 1994. The aim of the conference was not to put learners into the school system but rather to change the school system of education to ensure equal access to education for all learners. Malawi has defined "Inclusive Education" as a process of reforming the education system, cultures, policies, and practices to address and respond to the diverse needs of all learners (Ministry of Education, Science and Technology, 2018).

Inclusive education focuses on all subject disciplines and demands that teachers identify, accommodate, and support different levels of learning using the needs of children. Inclusive education is also about accepting that all children can learn and that they need support to ensure effective learning. This support entails adjusting and reconstructing school structures, learning styles, and strategies to address and accommodate the different learning needs of learners. Providing support also includes improving the classroom behavior of learners, applying a variety of teaching methods, differentiating the curriculum, and modifying the classroom environment in order to meet the various needs of learners (Makoella, 2010).

Banks and Zuurmond (2015) argued that providing support for learners with additional needs should be seen as an everyday practice in the classroom and should also be provided in such a manner that the barriers to accessing the curriculum and learning opportunities are removed and addressed. Teachers, in particular those who specialised in Special Needs Education need to provide support using various teaching strategies.

1.3 Statement of the Problem

Teachers use various strategies to support students with poor memory challenges (Yoro et al, 2020). Although that is the case, the effectiveness of these strategies in the classroom context remains under explored. Exploring the effectiveness of the strategies employed is important because it is one way of checking if the National Education Standard (NES) number 13 for

Primary and Secondary School Education in Malawi is being met. NES 13 titled "Teaching Which Meets the Needs of All Students" requires teachers to know about specific barriers to learning and how to adopt teaching and learning approaches to meet the needs of students who learn more slowly than others (Ministry of Education, Science, and Technology, 2015).

There was, therefore, a need to research in this area so that the implementation of the National Education Standard number 13 should be explored.

1.4 Purpose of the Research

The purpose of this research was to understand the strategies that primary school special needs teachers apply when assisting learners with poor memory in Mzuzu City.

1.5 Research Objectives

In order to accomplish the aim, the specific objectives were to:

1. Explore teachers' knowledge on poor memory as a learning disability.
2. Investigate the strategies teachers apply when assisting learners with poor memory.
3. Examine challenges teachers encounter in attempting to assist learners with poor memory.

1.6 Significance of the Study

The significance of the study is threefold. First, the study will provide insights and valuable information to teachers on how to identify and assist learners with poor memory. Second, the study might influence the revision of courses outlines that have to do with learning difficulties in colleges and universities in order to fill the gap in knowledge teachers have, which makes them fail to assist learners with poor memory effectively. Third, the study will also give the government insights into particular areas to improve to meet the National Education Standards number 13 for Primary and Secondary Schools in Malawi.

1.7 Theoretical Framework

This study was guided by the Atkinson and Shiffrin's model of memory and The Social Learning Theory as articulated by Bandura 1971. Atkinson and Shiffrin's model of memory describes how memory works and its processes by looking at how information is lost as well as how it is kept and remembered (Atkinson and Shiffrin, 1968). The model works as follows: first, senses that people smell, hear, taste, touch and view are placed into the sensory memory. From there if anything gets attention it is transferred into the short-term memory (Atkinson and Shiffrin, 1968). If the information in the short-term memory is repeated over and over again, decay is prolonged. Afterwards, the information is encoded into the long-term memory. According to Atkinson and Shiffrin (1968), encoding is the way information is changed so that it can be stored in the long-term memory. There are three types of encoding strategies namely: visual (picture), acoustic (sound) and semantic (meaning) encoding.

This model does not, however, explain how teaching and learning can take place in order to help learners with poor memory. Below is the model's diagram according to Atkinson and Shiffrin (1968).

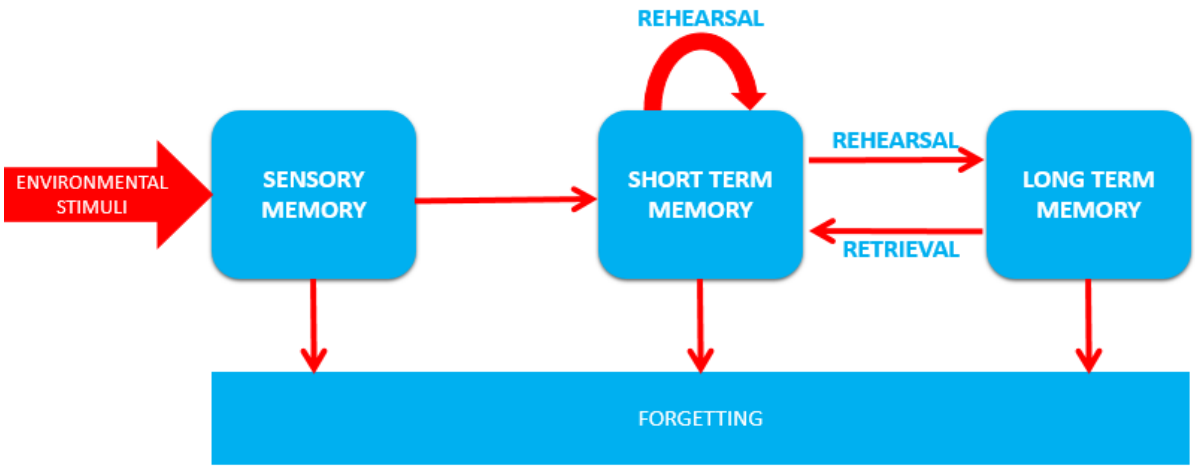

Figure 1: A Diagram Showing the Atkinson and Shiffrin's Model of Memory Retention (Atkinson and Shiffrin, 1968,p. 17)

The Social Learning Theory comes in to establish how teachers teach students with poor memory for them to improve academically through social imitation after knowing how information can be kept or lost. According to Bandura (1971), Social Learning Theory believes that all behaviours are learned from the environment through observational learning. The processes of observation learning are in line with what Atkinson and Shiffrin memory model claims to be ways of sending information to long term memory. These processes include: attention, retention, production and motivation (Bandura, 1971).

According to Bandura(1971), a person cannot learn much by observation if he or she does not pay attention to the essential features of the model. In this case the model can be the teacher or any material the teacher brings. Learning is therefore highly influenced by determining which models were closely observed and which ones were ignored.

Bandura (1971) continues to argue that a person cannot be much influenced by observation of a model's behaviour if he has no memory of it. Long term memory of the activities that have been modelled at one time or another has to be there. Meaning to say, students must be able to retain information they heard or saw successfully. Teachers have to therefore come up with activities that can aid retention.

In order to check if retention was successful, a learner must put together a given set of responses according to the modelled patterns (Bandura, 1971). Here, the learners must be able either to answer questions or demonstrate what they retained.

Finally, observational learning encourages reinforcement and motivational processes. Bandura (1971), argued that a person can acquire, retain and possess the capabilities of skilful execution of modelled behaviour, but the learning may rarely be activated into overt performance if it is negatively sanctioned or unfavourably received. Teachers have to make comments that encourage the students to showcase what they have retained.

These processes of observational learning helped the researcher understand the reasons why some strategies are effective while others are not.

1.8 Limitations of the Study

Since the research took place in Mzuzu City only, the findings may not apply to all special needs teachers

1.9 Chapter Summary

The introductory chapter has given an overview and background of poor memory and inclusive education. In addition to that, the statement of the problem, research objectives, significance of the study and finally theoretical framework have also been presented. In the chapter to follow, the literature review of the study will be presented.

CHAPTER TWO: LITERATURE REVIEW

2.1 Chapter Overview

This chapter will provide a review of the literature on poor memory as a learning disability, inclusive education, knowledge teachers have on poor memory as a learning disability, the strategies teachers apply when assisting learners with poor memory, and the challenges teachers encounter in attempting to assist students with poor memory. The aim of the literature review is to assist in identifying gaps in the current body of knowledge under the study by indicating what has been done but also being alert to research areas that have been overlooked.

2.2 Poor Memory Impairment

Memory problems often contribute significantly to the cognitive defects that result in learning difficulties in children. According to the Malawi Education Statistics Report by the Ministry of Education in 2023, it was reported that the country had 11271 students with special needs ranging from visual impairment, hearing impairment, learning difficulties, and physical impairment enrolled in the primary school sector. The highest numbers of students with special needs are those with visual impairment, with 4072 students, followed by learners with learning difficulties at 4051 students.

Memory impairment can be defined as the inability to remember information that one previously learned. Remembering begins with understanding. Children often learn by listening, talking with others and experiencing events within their environment. If children listen, talk and experience things they do not fully understand, they are less likely to remember them (Gathercole and Alloway, 2007). Once information has been lost by failure to send it to long-term memory, it is gone for good. The only possible way forward is to restart the process of entering the information into the long-term memory (Gathercole and Alloway, 2007).

2.2.1 Characteristics of Children with Poor Memory

According to Gathercole and Alloway (2007), below are some of the characteristics of children with poor memory:

- They are often reserved when involved in group activities in the classroom
- They behave as though they have not paid attention. For example, forgetting part or all instructions or messages
- They fail to see tasks through to completion
- Make poor academic progress
- They are considered by their teacher to have a short attention span and to be easily distracted
- Fail to follow lengthy instructions because they forget the instructions before the whole sequence of actions has been completed.

2.2.2 Limits to Memory

According to Belluck, (2021), there are some situations that often lead to loss of information in the memory of a person, for example, destructions. Destructions can be defined as unrelated thought that springs to one's mind or interruptions such as a telephone ringing or when someone speaks to you. In a classroom set-up, distractions can be daydreaming and noise from both inside or outside the classroom (Belluck, 2021).

The second situation that often leads to loss of information in the memory of a person is when the person is trying to hold in his or her mind too much information. This is simply because there is a limit to how much information can be held in one's memory (Banks and Zuurmond, 2015)

Finally, engaging in a demanding task can also lead to a loss of information in the memory of a person. This is because activities that require difficult processing reduce the amount of space

in one's memory in order to store information. This then results in the loss of information that was already held (Banks and Zuurmond, 2015).

It is recommended, therefore, that teachers should monitor the students' classroom learning activities and modify them where necessary in order to ensure that the students are working and succeeding in a number of activities (Gathercole and Alloway, 2007).

2.3 Inclusive Education

Inclusive education is the process by which students with disabilities or exceptionalities are integrated with the regular, general classroom or with their peers. This means all general education teachers are responsible for understanding all exceptionalities and how to teach students with exceptionalities in the general classroom (Souza, 2022). Inclusive education envisages the improvement of the quality of education for all learners. This further implies that schools must adjust all systems of teaching and learning to accommodate all learners regardless of their diverse needs. The reduction of educational inequalities through inclusive practices is aimed at supporting the accomplishment of academic outcomes for all (Souza, 2022).

2.3.1 Inclusive Education in Different Countries

2.3.1.1 Thailand

In order to promote inclusive education in Thailand, there is a reported increase in inclusive education training programmes. This has also resulted in an increase of students with various disabilities attending regular schools, from 25,000 in 2012 to 60,000 in 2015 (Vibulpatanavong, 2018). However, schools have the right to refer children with disabilities to one of the integration schools nearby if the schools find themselves unequipped to accommodate students with disability (Vibulpatanavong, 2018). This indicates that there is still a need to enhance the training of regular teachers on curriculum and instructional adaptations in order to promote the inclusion of all students in regular classrooms. In addition to that, in order to improve the

promotion of inclusive education in Thailand, the government has to improve on the provision of teaching and learning resources for students with special needs in mainstream schools so that mainstream schools are able to accommodate all students (Vibulpatanavong, 2018).

2.3.1.2 Bangladesh

In Bangladesh, many people regard disability as a misfortune and a source of shame for their families. Despite this belief, only a few systematic interventions have been drafted and implemented in order to improve awareness of what it means to be born with disabilities. This has also resulted in the bearing of the attitude that the pre-service and in-service instructors have on teaching students with disabilities. Some of them feel that it is not their responsibility to teach such students, while some feel that they are not well-equipped to address the requirements of disabled students (Sabarna et al., 2022).

2.3.1.3 India

After fifty-four years of being independent, India got its long-awaited National Education Policy in the year 2020. The policy covers all levels of education, including inclusive education. Under inclusive education, some of the recommendations the policy brought forward is barrier free access for the differently- abled children. This is because India believes that inclusive education can be achieved when teachers have access to the content related to special education such as intervention, sensitization, support and special pedagogy (Government of India, 2020).

2.3.1.4 Colombia

According to Cortes (2021), Colombia has had legislation that recognizes the right to education for all persons with disability. However, attitude towards mainstream participation of children with special needs remains a big problem when it comes to implementing the legislations. This is because of the continuing predominance of the medical model of disability, with the consequence that teachers believe that students with disability need special teachers and therapy.

2.3.1.5 South Africa

The South African constitution, Section 29(1) lays the foundation for an inclusive approach to education because it guarantees the right of every child to be educated free from prejudice and discrimination of any kind (Republic of South Africa, 1996). Embedded to this approach is the belief that every child can learn and achieve. Majoko et al (2018) believes that the inclusive education approaches the government developed, could help stakeholders to understand that the key to learner success at school is not to allow preconceptions about ability to limit what one believes to be possible, but create the right conditions for learning for all children. However, Majoko et al (2018) notes that that the holistic understanding of inclusive education is still new and requires advocacy, communication, training and support through teacher education (Majoko et al, 2018).

2.3.1.6 Malawi

In Malawi, inclusive education is being implemented using a twin-track approach, where severe cases still go to special schools while mild cases go to inclusive schools. In mainstream schools Malawi decided that inclusive education will be implemented with support from resource rooms whereby students with special needs will be taught in regular classrooms but receive additional support in the resource rooms. Unfortunately, not every mainstream school has a resource room. For example, in 2017 there were 140 primary school resource centres nationwide against 6, 065 primary schools. This meant that some students with disability had to walk a distance to access these resource centres (Norad, 2020).

In addition to that, the government of Malawi addresses the educational needs of children with disabilities through the training and deployment of special needs education teachers to support clusters of mainstream schools and through placement in mainstream schools. However, increased training of teachers for inclusive education takes a slow progress as the country only

relies on Montfort Special Needs Education College for qualified special needs teachers (Norad, 2020).

From the literature review it has been noted that most countries have developed policies and legislative frameworks to help supporting the project of inclusive education. However, these policies and legislative frameworks are ineffective due to predominated attitudes of teachers towards inclusive education, lack of appropriate teaching and learning resources to help students with special needs that are found in the mainstream classes, lack of training of teachers in inclusive education as well as lack of confidence in the teachers to help students with disabilities.

2.4 Teachers Knowledge on Learners with Poor Memory

Knowledge in Inclusive Education is defined as being fully of or well informed about a particular disability in children (Adebowale and Moye, 2012). This section explores how well-informed teachers are on poor memory as a learning disability.

In research done by Atkinson et al,(2021) in the United Kingdom, titled, “Exploring the understanding and experience of working memory in teaching professionals in 2021”, it was discovered that teachers generally have a basic, but incomplete understanding about poor memory. For example, teachers were requested to define poor memory both by giving free response and circling the correct answer in the multiple-choice section. It was discovered that only 1382 of the teachers got free response correctly out of 2434 teachers representing 56%. Surprisingly, when the teachers were asked the same question but with multiple choice answers, 2022 out of 2434 of the teachers got the definition correctly, representing 83%. The researchers decided to set the system in order not to allow the respondents to go back to respond or refine their answers in the free response sections after getting hints from the multiple-choice questions. The results indicated that the majority of educational professionals could select the correct

definition of poor memory when given alternative responses but when asked to provide a free-text definition, there was a wide variety of responses reflecting less knowledge on the disability (Atkinson et al, 2021).

In order to explore the teacher's knowledge on poor memory, Atkinson, et al (2021) also asked respondents to state the signs of poor memory they had come across or the signs they think belong to learners with poor memory. The most frequently listed sign of poor memory from both the teachers that had come across students with poor memory and those who had not, was, poor retention. Poor retention is the inability to recall information immediately after discovering it. The second sign that was listed is inability to hold an answer in their heads while doing something else. The third sign they mentioned was difficulties in following instructions, steps or routines, whereas the last sign was difficulties with classroom activities and short attention span (Atkinson et al, 2021).

A smaller number of respondents, however, gave information that incorrectly referred to a sign belonging to a different type of memory such as "remembering what you had for lunch yesterday" or "how much one remembers at work". Further, the smallest number of respondents gave signs that contained both correct and incorrect information, or correct and ambiguous information and this raised doubt in the researchers if these teachers indeed had adequate knowledge on students with poor memory (Atkinson et al, 2021).

Atkinson et al, (2021) align the partial knowledge of poor memory to lack of training as only 226 out of 1410 respondents had received training during their time in the education sector, and 171 out of 1410 used the information they got from the training. However, the few that claimed to have received the training said it was often brief in nature.

The literature within this section has demonstrated that teachers generally have a basic, but incomplete understanding about poor memory. Given the misconceptions identified, and the

large individual differences in understanding observed, teachers should be given further training on poor memory as a learning disability.

2.5 Strategies Teachers Apply when Assisting Learners with Poor Memory

A teaching strategy can be defined as a generalised plan for a lesson(s) which has an outline of planned tactics necessary to make teaching and learning a success. Teaching strategies also refer to methods used to help students learn the desired course contents and be able to develop achievable goals in the future (Sarode, 2018). In the teaching profession, there is a pool of teaching strategies which teachers choose according to their preference and learner characteristics. This section will focus on various strategies that teachers have acknowledged to be of help towards learners with poor memory.

2.5.1 Curriculum Differentiation

The first strategy that teachers use when assisting learners with poor memory is curriculum differentiation. Differentiation is simply attending to the learning needs of a particular learner or small group of learners rather than the more typical pattern of teaching the class as though all individuals in it were basically alike (Ministry of Primary and Secondary Education, 2019). Teachers teaching students with poor memory use this strategy in order to bridge the gaps between the curriculum expectations and the learners' current content knowledge. The goal of a differentiated curriculum is maximum learner growth and individual success. Without differentiation, schools strive to ensure that everyone masters a prescribed set of skills in a specified length of time (Ministry of Primary and Secondary Education, 2019).

In a differentiated classroom, learner differences are expected, appreciated, and studied as a basis for instructional planning. That is why a teacher is expected to observe everything a learner says or creates as useful information both in understanding the particular learner and in

crafting instruction to be effective for that learner (Ministry of Primary and Secondary Education, 2019).

One of the ways of carrying out curriculum differentiation is through intervention classes which are designed to assist learners who have difficulties during the main lesson. According to Yoro (2020), intervention classes are used to break down the planned teaching activities into smaller chunks, using improved strategies such as mind maps, reading and writing exercises, and taking time to explain until the proper understanding of the concept is established.

2.5.2 Cooperative Learning

The second strategy that teachers apply when assisting learners with poor memory is Cooperative Learning. Cooperative Learning can be defined as a student-centred, instructor-facilitated instructional strategy in which a small group of students is responsible for its own learning and the learning of all group members (Har, 2013). Yoro (2022), argued that cooperative learning is important to students with poor memory because it enhances their ability to think creatively and actively engage with other students. In addition, learners with poor memory can effectively master the curriculum when tasked to learn in small groups where they will learn from their peers. It is advisable that these students must be given the role of group leaders in their respective groups. This support strategy helps to increase their attention span and it helps them focus more on the task given (Yoro, 2020).

2.5.3 Visual Aids

The third strategy that teachers use when assisting learners with poor memory is the use of visual aids. Visual aids are tools that help to make an issue or lesson clearer or easier to understand and know. Visual aids can also be understood as sensory objects or images which initiate or stimulate and support learning by making the experience more real, more accurate and more active. These visual aids range from pictures, models, charts, maps, videos, slides, real objects and many others (Shabiralyani et al, 2015).

In research carried out by Yoro (2020), the participants argued that visual aids helped learners with memory problems with enhancement of their understanding of concepts introduced in the classroom. In so doing, students with poor memory had a better understanding of the subject matter. Visual aids are said to be of great significance especially when explaining or introducing a new or major concept in the classroom. This is because visual aids ensure learners have a mental picture of the concept taught in the class by clarifying different concepts and terms that seem to be too difficult (Yoro, 2020).

2.5.4 Remedial Lessons

The National Strategy on Inclusive Education, through the roles assigned to mainstream schools, requires mainstream teachers to provide remedial lessons to learners with diverse needs including those with poor memory that have transitioned to mainstream schools. According to Louge (2020), remediation is an instructional program designed to support struggling students who have not developed expected curricular competence and help them strengthen their basic skills so they can succeed in school by giving them individualised attention and extra time. The remedial programme is designed to address common challenges that may frustrate learners by helping them to function independently on critical tasks that impact their academic performance. This strategy has proven to be significant for helping students with poor memory because it recognises the need for intense support for the student with poor memory impairment.

2.5.5 Chunking

Chunking is another strategy that has been provided by scholars to assist learners with special needs, especially those with memory challenges. According to Adebowale and Moye (2012), chunking is a deliberate conscious process of breaking down complex or difficult concepts into smaller and simpler components such that information is given in parts rather than as a whole. After a particular smaller component has been achieved, other smaller components are added until they finish the entire complex or difficult concept. This strategy is important to students

with memory difficulties because their memory will only be given small bits which will not overload their poor memory.

2.5.6 Adjusting the Learning Environment

Adjusting the learning environment is yet another strategy that teachers apply when assisting learners with memory challenges. According Adebowale and Moye (2012), the inclusive classroom environment must be arranged in a way that helps intellectually disabled learners to stay focused. These students ought to be seated in a position where teachers can easily monitor them and help them quickly if needed. The teacher can also adjust the environment by minimising noise and distractions so that it should not restrain their memory.

2.5.7 Rehearsal Strategy

Chang (2015) suggested that Rehearsal Strategy can also be another strategy that can help students with memory challenges. Rehearsal strategy is commonly used to help retain information for the short term. Any time the students repeat information several times aloud, whether it is a person's name, a definition, or an address, it is being locked into the memory's auditory, which later goes to the long-term memory. Teachers using this strategy have to make use of more than one repetition because several repetitions increase the possibility of long-term retention.

2.5.8 Building from the Basics

Furthermore, building from the basics has been suggested to be among the strategies that teachers use when assisting students with poor memory. The lack of remembering basic knowledge and skills poses serious problem when teachers try to deliver grade level curriculum to their students. Building from the basics is therefore a necessary strategy for such students since prior to continuing with their grade level material they have to revisit materials from earlier grades in order to establish a clear link between prior knowledge and the new knowledge (Vanderlaan, 2012). This strategy has been argued to be very beneficial especially when

introducing new concepts because students with poor memory will still have something to recap and build new knowledge from.

2.5.9 Prompting

Furthermore, Prompting is another strategy that teachers apply when assisting learners with poor memory. According to Vanderlaan (2012), prompting is used to draw learners' attention to instruction or specific components of a task, or to direct students' thinking. Prompting is often carried out through probing. Probing can be defined as statements made by the teacher to encourage a student to further develop an answer. For example, during individual, large or small group instruction, a teacher can ask probing questions to help students narrow their thinking to produce direct answers. Prompting is important because it helps students with poor memory to think through the steps required to complete their work hence preventing them from making mistakes by allowing them to complete tasks accurately which ends up boosting their confidence and self-esteem.

2.5.10 Minimising Distractions

Additionally, Vanderlaan (2012), also suggested Minimising distractions as another strategy that teachers use when assisting learners with poor memory. Distractions are anything that can prevent students from listening, or staying on task. Teachers, therefore, implement this strategy by making the student with memory challenges stay alone on the desk or moving them to a quiet corner in the room. The aim of doing so is to ensure that these students are not being disturbed by their colleagues. The teachers can also minimise distractions by checking if the student has all the required tools such as pencils, erasers, and glasses etc. before the beginning of the class. In addition to that, teachers can also minimise distractions by tending to social problems that might distract the student in the classroom, strategically assigning seats, and others.

2.5.11 Positive Reinforcement and Building Self-esteem

Lastly, positive reinforcement and building self-esteem is the last but not the least strategy that teachers use to assist learners with poor memory. These strategies consist of anything the teacher does in order to prevent students from feeling bad. Although this strategy does not directly help students to complete tasks, its purpose is to keep students motivated and maintain positive self-concept from the learner (Vanderlaan, 2012).

From the reviewed literature it has been revealed that the strategies that teachers come up with in order to assist students with memory challenges are dominantly focusing on the teacher rather than the students themselves. This is in line with Adebowale and Moye (2012), who claimed that teachers can successfully help students with various learning difficulties by reducing the way the teachers present information, provide assistance to the students and by adjusting the assessment standards. However, very little is known on the effectiveness of the strategies hence the importance of this research.

2.6 Challenges Special Needs Teachers Encounter when Assisting Learners with Poor Memory

2.6.1 Lack of Knowledge

Banks and Zuurmond (2015), argued that special needs teachers still feel like they are lagging behind in terms of the knowledge they have especially when it comes to identifying and providing required assistance to students with poor memory. These teachers argue that the training they underwent was general and focused more on the need to include children with disabilities in the classroom without providing any practical tools for inclusion. This results in their failure to identify and assist learners with learning difficulties such as poor memory. In addition to that, some of the special needs teachers specialise in specific types of disability. This can encourage continued segregation when these teachers go into mainstream classes and

meet students with other types of disabilities in which they did not specialise (Banks and Zuurmond, 2015).

Souza (2022) aligns the teacher's lack of knowledge to lack of qualified special needs lecturers and necessary facilities in teacher training colleges. Since lecturers and teacher training colleges lack the skills to train the teachers in all types of special needs education, the teachers they produce lack the necessary expertise when deployed to the schools.

2.6.2 Lack of Recommended Curriculum Differentiation

The second challenge that teachers encounter in their attempt to help learners with poor memory in mainstream classes is lack of a recommended curriculum differentiation handbook. Since teachers are expected to incorporate curriculum differentiation in their teaching in the mainstream classes, the handbook can help teachers transform the existing systems and content to cater for all learners in a correct, recommended and uniform way. The unavailability of the handbook forces teachers to use the general curriculum which does not meet the needs of students with poor memory. The coming in of a recommended handbook would enhance teachers' expertise in inclusive teaching and learning methodologies (Yoro, 2020).

2.6.3 Inadequate Material Resources

The third challenge that teachers encounter when assisting learners with poor memory is inadequate material resources. According to UNICEF Malawi (2020), there is a general lack of material resources to effectively educate children with special needs. The lack of instructional materials is a common problem all through from primary level to tertiary level.

2.6.4 Large Classes

The other challenge that teachers encounter when assisting learners with poor memory is having a large number of students. This is a major and common challenge highlighted by all teachers across all types of schools that have resource centres because they enrol students with various

disabilities including the non-disabled students. This means that these teachers often lack the capacity to provide individualised attention to all the students in their care. According to Banks and Zuurmond (2015), the maximum class size under Malawi educational policy is 60 students per teacher while the majority of teachers have more than 100 children entrusted to them in a single class. Consequently, this results in few children with disabilities receiving the support they need in the classroom.

2.6.5 Work Overload

The final challenge that teachers encounter when assisting learners with memory challenges is work over load. Cook and Ogden (2022) argued that in instances where teachers had genuine desire to help learners with learning difficulties, they were restricted by other pressures and commitments which prevented them to provide the recommended and appropriate support to students with poor memory who require constant individualised attention and time.

2.7 Chapter Summary

This chapter has looked at perimeters surrounding poor memory as a learning difficulty. The literature discovered that teachers generally have a basic, but incomplete understanding about poor memory. For example, some teachers do not know signs of poor memory and how to help students with poor memory. Although is the case, a number of strategies were used to help students with poor memory such as remedial lessons, chunking, rehearsal, positive reinforcement, visual aids and probing. In addition to that, the literature also reviewed that teachers face challenges of lack teaching and learning resources, curriculum differentiated handbook, large classes and work overload. It is important to note that the researcher has reviewed the knowledge, strategies and challenges of general teachers as no literature was found that was focusing on the knowledge of specialised special needs teachers. This research will therefore help to unearth what the special needs teachers are doing in order to help students with poor memory, thereby contributing to filling the gap in knowledge.

CHAPTER THREE: METHODOLOGY

3.1 Chapter Overview

This section describes and justifies the researcher's suggested research design which is the researcher's plan to answer the outlined research questions as well as the suggested research method which is the strategy suggested to implement that plan. This is followed by a description of measures taken to address issues of trustworthiness and ethical considerations of the study.

3.2 Research Paradigm

A research paradigm can be defined as beliefs and assumptions that provide the structure of a research (Kivunja et al, 2017). The researcher used constructivism paradigm. Constructivism philosophical paradigm is an approach that asserts that people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. It is based on the analogy that people form or construct much of what they learn through experience. The constructivist philosophy portrays the idea that learning does not happen from merely listening but when the person discovers the knowledge through the spirit of experimentation and doing (Adom et al, 2016). This paradigm made use of the teachers' experiences and understanding of poor memory as a learning difficulty which helped in the evaluation of the strategies these teachers applied when assisting learners with poor memory.

3.3 Research Approach

The researcher used a qualitative research approach. According to Creswell and Creswell, (2018), qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. This is done by focusing on the specific contexts in which people live and work, in order to understand the historical and cultural settings of the participants. Qualitative research recognises that participants' backgrounds shape their interpretation, and the way they position themselves in the research to acknowledge how their

interpretation flows from their personal, cultural, and historical experiences. The researcher chose this approach because it provided a forum for participants to express diverse beliefs or views in their own worlds since according to Creswell and Creswell(2018), the goal of research is to rely as much as possible on the participants' views of the situation.

3.4 Research Design

A case study is a methodological research approach used to generate an in-depth understanding of a contemporary issue in a bounded system. Case study research requires in depth-investigation conducted into an individual, group or event to gain an understanding of a real-life phenomenon in its context (Cohen et al, 2018). The researcher employed a case study design because it is used to understand the perspectives of participants in their context by trying to understand their lived experiences, as well as thoughts and feelings for a particular situation. In this case, the researcher sought to understand the perspectives of various teachers located in the Northern Education Division.

3.5 Study Area

Mzuzu City which is in the Northern Education Division (NED) was the social setting of the study. The city has a culturally heterogeneous population with the Tumbuka people making the largest number of the population (United Nations Human Settlements, 2011). The city was selected because it is one of the places with a good number of resource centres were most of the special needs primary school teachers are found. In addition to that, the city has a number of students with learning difficulties. The study targeted four primary school zones. From each zone one school with a special needs teacher was involved. A zone consists of six to ten schools for easy management. The total number of zones in a district may vary according to the total number of primary schools in that particular district. The researcher chose a school in different zones because she wanted to get a variety of information from each zone in different schools.

The researcher also wanted to compare the data obtained from the four schools so as to add credibility of the study findings and conclusion (Creswell and Creswell, 2018). The study was conducted for three months.

3.6 Population

Population refers to entire group of individuals, objects or events that share a common characteristic and are the focus of the study. It represents a complete set of elements that the researcher aims to study and draw conclusions from(Ahmad et al, 2023). Mzuzu City has five specialised primary school special needs teachers. Each teacher is deployed at a resource centre within the city.

3.7 Sampling

A sample refers to a subset of the population that is selected for study purposes. The sample represents a smaller, manageable group that researchers use to make inferences and draw conclusions about the entire population (Ahmad et al, 2023). The study sampled 4 primary schools special needs teachers in Mzuzu City.

3.7.2 Sampling Technique

Sampling technique refers to a procedure to obtain samples and data from a target population. The researcher used Purposive Sampling technique. Purposive sampling technique refers to judgemental sampling that involves the conscious selection of participants during data collection. The researcher chose this technique because the qualitative research approach is about purposefully selecting participants or sites (or documents or visual material) that will best help the researcher understand the problem and the research question (Creswell and Creswell, 2018). The researcher, therefore, selected Mzuzu City because it is one of the areas that have a higher number of primary school resource centres where these special needs teachers are found. On the other hand, the four special needs teachers were selected based on their first-hand

experience on the phenomenon of interest. In this case, the four teachers were purposively selected only if they were familiar with learners with poor memory and were also able to give their views on strategies they apply when assisting learners with poor memory.

3.7.3 Sample size

According to Ahmad et al (2023), sample size is the number of subjects included in a sample for a study. This sample is selected from the general population and is considered representative of the targeted population. This study had a sample size of four primary school special needs teachers found in Mzuzu City.

3.8 Data Collection Instruments

Data collection instruments are tools used by researchers to collect data in the research process (Kawulich, 2012). This research used an observation guide, interview guide, and document analysis guide.

3.8.1 Observation Guide

An observation guide is a document that is mostly developed by the researcher himself or herself in order to collect data in a more organised way by focusing the attention on the activities that are likely going to help the researcher to answer the research questions (Kawulich, 2012). According to Kawulich (2012), the data collected through observation is frequently more accurate than that obtained through interviews or questionnaires.

3.8.2 Interview Guide

An interview guide is a list of topics that a researcher plans on covering in an interview with questions that need to be answered under the topic. An interview guide, therefore, is either a face to face or online conversation guide between a researcher and participants with the sole purpose of collecting relevant information to satisfy a research purpose (Kawulich, 2012).

3.8.3 Document Analysis Guide

Document analysis guide is a detailed systematic procedure that guides a researcher to analyse documentary evidence in order to answer specific research questions (Kawulich, 2012). According to Kawulich (2022), document analysis is advantageous because it is an effective and easy method of gathering and organising different data. This is because document analysis has to do with data selection and not data collection.

3.9 Data Collection Methods

There are several procedures that are used in collecting data in qualitative research namely: observation, interview, questionnaire and document analysis (Creswell and Creswell, 2018). This study utilised the following methods: semi-structured interviews, lesson observation and document analysis. This is because qualitative researchers typically gather multiple forms of data from different sources so that the researcher can form an interpretive inquiry in which to make an interpretation of what they saw, heard, and understood (Creswell and Creswell, 2018).

3.9.1 Lesson Observation

It has been observed that what people say they believe and do are often contradicted by their behaviour. Given the frequency of this very human inconsistency, observation can be a powerful check against what people claim to believe and do (Kawulich, 2012). The researcher used this data collection method because it provided the practical information on the strategies special needs teachers use when assisting learners with poor memory.

There are to two major types of observation. The first type is participant observation, which involves the observer being in the setting under study as both observer and participant. The second type of observation is called non-participant observation which involves the observer observing without interacting with the objects or people in the setting. This study used non participant observation. In addition to that, the participants were told that they were being

observed. Although Kawulich (2012), argued that the knowledge that participants are being observed can make them act differently, the researcher triangulated the findings of the class room observation with semi structured interviews and document analysis to verify what she saw in class and what was reported and written in the participant's documents.

3.9.2 Document Analysis

Document analysis is a technique used by researchers to evaluate various types of documents in order to interpret them, gain an understanding of their meaning and develop the information they provide (Morgan, 2022). The researcher analysed the teachers' schemes and records of work and lesson plans in order to establish a link between what the teachers plan and what they actually do in class.

3.9.3 Semi-Structured Interview

A semi structured interview can be defined as a qualitative research method that combines a pre-determined set of open questions with the opportunity of the interviewer to explore particular themes or responses further. Semi structured interviews were advantageous because they made better use of the knowledge-producing potentials of dialogues by allowing much more lee way for following up on whatever angles were deemed important by the interviewee; the interviewer also had a greater chance of becoming visible as a knowledge-producing participant in the process itself, rather than hiding behind a pre-set interview guide. And, compared to unstructured interviews, the interviewer had a greater say in focusing the conversation on issues that she deemed important in relation to the research project (Cohen et al, 2018).

The data in the semi structured interview was collected using audio recordings. Audio recording allowed the researcher to get everything the interviewee said word for word. It also helped the researcher to jot down notes on non –verbal communication the interviewer was portraying during the interview. Rutakumwa et. al. (2020), argued that recorders can make some

interviewees nervous. In order to minimise this, the researcher assured the interviewees that all recordings will be destroyed after the study is completed.

3.10 Data Management Methods

Data Management is a conscious process of collecting, analysing, using and preserving data with the aim of making decisions, reaching conclusion, creating new knowledge, adding to or modifying existing knowledge and providing a platform for easy retrieval and re-use in the future (Owan and Bassey, 2019). This study used the following data management methods.

3.10.1 Data Collection

The generation of data in educational research is as important as the research process itself. Educational research data needs to be generated using appropriate instruments and methods because proper generation of data provides a platform for validity of the findings of studies in education (Owan and Bassey, 2019). This study generated its data using document analysis, lesson observation, and semi structured interview method. The researcher used questionnaire, classroom observation guide and semi structured interview guide.

3.10.2 Data Conversion

Data conversion refers to the process of converting data into information or the process where textual contents in research instruments are converted into numeric values or codes in order to facilitate analysis (Owan and Bassey, 2019). The researcher converted the textual content into codes.

3.10.3 Data Transformation

Data transformation occurs in a situation where a researcher changes the data used by an earlier study to suit the purpose of his or her study (Owan and Bassey, 2019). The researcher transformed the data in the literature review section and discussion of findings by paraphrasing and analysing the previous data to suit the context of the study.

3.10.4 Data Citation

Owan and Bassey (2019) argued that when data is collected and utilized from sources that are not of the researcher, it is ethical to cite the sources from where such data were collected. The researcher cited information from other sources.

3.10.5 Data Utilization

Data utilisation refers to a stage where the results emanating from research data analysis and synthesis are used in making decisions and in solving problems (Owan and Bassey, 2019). The researcher utilised the data by coming up with recommendations based on the results that emanated from the research.

3.10.6 Data Backup

Data backup refers to the activity of making sure that the research data does not get lost. This is done by storing it in various files (Owan and Bassey, 2019). The researcher backed up the data manually using files, folders and flash drives and also using the internet through e-mail and cloud storage.

3.10.7 Data Security/ Confidentiality

Data security refers to the protective measures applied to private data sets in order to prevent theft, alteration, hacking, viruses and damages (Owan and Bassey, 2019). The researcher secured the data through anti-viruses and passwords.

3.11 Data Analysis

According to Cohen et al (2018), the process of qualitative data analysis is typically inductive. Meaning to say the researcher reads, re-reads, reflects on, infers from and interprets the raw data/transcripts/memos etc. From this, without preconceptions or deductions from a pre-given framework the researcher develops interpretations of the data and derives themes, concepts,

theories, explanations, understandings, summaries, models etc. which comprehensively explain the data or phenomenon.

The study used thematic analysis when analysing data. Thematic analysis involves analysing data by identifying patterns of meaning across the data to derive themes. A theme captures something important about the data in relation to the research question in order to provide a coherent overall story of the data. The researcher chose this type of data analysis technique because it allowed her to associate the frequency of a theme with one or the whole content.

3.11.1 Data Familiarization

According to Dawadi (2020), thematic analysis has six steps, beginning with familiarization. Under this step, the researcher got an overview of all the data before she went into analysing individual items. This also involved transcribing audios and reading through the classroom observation notes.

3.11.2 Coding

The second step of data analysis was coding. Coding means highlighting sections of the text which are usually phrases or sentences and later, coming up with shorthand labels or codes in order to describe the contents. The codes allowed the researcher to gain a condensed overview of the main points and common meanings that recurred throughout the data (Dawadi, 2020).

3.11.3 Generating Themes

The third step was generating themes. This involves the researcher looking into the created codes so as to identify the patterns in order to generate themes. Themes are generally broader than codes. The researcher mostly combined several codes to form a single theme (Dawadi, 2020).

3.11.4 Reviewing Themes

The fourth step involved reviewing themes. This step ensured that the themes portray an accurate representation of the data. This step involved themes being combined, removed and recreated (Dawadi, 2020).

3.11.5 Defining and Naming Themes

The fifth step involved defining and naming themes. At this stage, the researcher had the final list of themes which were named and defined. Naming themes involved coming up with a succinct and easily understandable name for each theme. While, defining themes involved formulating exactly what the researcher means by each theme and figuring out how it will help the researcher (Dawadi, 2020).

3.11.6 Writing Up

Finally, the last step involved writing up. The researcher had to put the entire research finding into writing. Each theme was addressed in detail in the result section with attention paid to frequency (Dawadi, 2020).

3.12 Research Dissemination Strategy

Research dissemination strategy refers to the process of sharing research findings with stakeholders and the wider audience. This research used the partners or influences strategy. This strategy has to do with the people the researcher will engage with in order to apply the message (Dawadi, 2020). The researcher will engage with the inclusive education office of the Northern Education Division in order to share her findings.

3.13 Trustworthiness

Trustworthiness of a study refers to the degree of confidence in data, interpretation and method used to ensure the quality of a study. In each study researchers are expected to establish the

procedures necessary for a study to be considered worthy of consideration by readers (Cohen et al, 2018). This research used following procedures.

3.13.1 Triangulation of Data

Triangulation of data refers to the process of using multiple methods, data sources or perspectives to gain a more comprehensive understanding of a research problem (Cohen et al, 2018). This research triangulated the same phenomenon of evaluating the strategies special needs teachers apply when assisting learners with poor memory by using different data collection methods which are semi-structured interviews, lesson observation and document analysis.

3.13.2 Member Checking

Member checking involves returning to participants to confirm or clarify findings and interpretations of the research in order to enhance credibility, dependability, confirmability and transferability of research results (Cohen et al, 2018). The researcher shared drafted reports with the participants in order for the researcher to provide an opportunity to the participants to provide feedback, clarify of any misunderstanding and ensure the accuracy of the research results.

3.13.3 Peer Review

Peer review has been defined as a process of subjecting an author's scholarly work, research or ideas to the scrutiny of others who are experts in the same field. The purpose of peer review is to evaluate the research's quality. It is also a useful source of feedback that can be used by the researcher to improve his or her work (Cohen et al, 2018). This study was reviewed by the researcher's classmates and a panel of lecturers which enhanced its quality and trustworthiness.

3.14 Ethical Consideration

Research ethics is about being clear about the nature of the agreement a researcher has entered with a research participant. Flemming (2018) states that a researcher who carries out the research should always act in an ethical manner and should have respect and concern for the dignity and welfare of the people who are participating. This means that in any study a researcher has the responsibility of ensuring that a study is conducted ethically. To ensure that ethical issues are adhered to, in this study the researcher took into consideration informed consent and confidentiality.

3.14.1 Informed Consent

Informed consent is a mechanism for ensuring that people understand what it means to participate in a particular research study so they can decide in a conscious way whether they want to participate or not (Flemming, 2018). In this case, before gaining access to the study area the researcher was given permission by Mzuzu University Research Ethics Committee. The researcher also acquired informed consent from the Northern Education Division to be allowed access to the selected schools under the division.

After getting the permission letters, the researcher visited the schools and presented the letters to the Head Teachers where she further explained the purpose of her study. The head teacher identified and consulted the teachers who met the characteristics of the people the researcher was looking for.

The researcher explained the purpose of her study to the selected participants who were later requested to sign an informed consent form before interviewing them, reviewing their documents and observing their lesson. They also had to give their permission to be recorded. Every participant signed the consent form and agreed to be interviewed.

3.14.2 Confidentiality

In a qualitative study, it is important to protect the privacy, confidentiality and anonymity of the participants. This study has made all names of the participants anonymous. Further, the study has used pseudonyms of the teachers and students names that were mentioned in the course of the research.

All participants' information and responses that were shared during the study have been kept private and treated with strict confidentiality. The significance of hiding the identities of the participants is to protect them from any harm because of their participation (Flemming, 2018). However, since it is qualitative research, the subjects are known by the researcher.

3.15 Methodology Matrix

S/N	COMPONENT	EXPLANATION
1	Research Paradigm	Constructivism paradigm
2	Research Approach	Qualitative
3	Research Design	Case Study
4	Research Site	Northern Education Division
5	Study Area	Mzuzu City
6	Population	5
7	Study Sample	4
8	Sample Participants	Special needs teachers
9	Sampling method	Convenience sampling
10	Sampling Technique	Purposive sampling

11	Sample Size	4
12	Data Collection Instruments	Observation guide, interview guide and document analysis guide
13	Data collection method	Lesson observation, semi structured interviews and document analysis
14	Data management methods	Data collection, data conversion, data transformation, data citation, data backup and data security and confidentiality
15	Data analysis	Thematic analysis
16	Data dissemination strategy	Partners of influences strategy
17	Trustworthiness	Triangulation of data, member checking and peer review
18	Ethical consideration	Informed consent and confidentiality
19	Study period	9 months

3.15 Chapter Summary

The methodology section reviewed that the study used constructivist research paradigm as it made use of teachers' experiences and understanding of poor memory as a learning disability to respond to the research questions. The study employed the qualitative research approach and selected the participants using purposive sampling. In addition to that, data was collected through semi-structured interviews, document analysis and lesson observation. The qualitative data collected was analysed through thematic analysis.

CHAPTER FOUR: PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Chapter Overview

In this chapter a discussion and analysis of the study findings obtained through interviews, document review and lesson observation is presented through the lens of the Atkinson and Shiffrin's model of memory and the process of observational learning of Social Learning Theory. An attempt has been made to make sense of the data through data organization, questioning the data to see patterns, creating themes, establishing relationships, explaining the data as well as criticizing it (Creswell and Creswell, 2012). Through both inductive and deductive coding, theme development was successfully done. The developed themes helped the researcher analyse and explain the strategies that special needs teachers apply when assisting students with poor memory.

The study was guided by the three research objectives. It starts with exploring teacher's knowledge on poor memory as a learning disability. It then proceeds with evaluating the strategies teachers apply when assisting learners with poor memory. Finally, the discussion and analysis is sealed with an examination of the challenges encountered in an attempt to assist learners with poor memory. The chapter also provides a detailed discussion on the themes that emerged in relation to the objectives, literature review and theoretical framework that guided the study. The profile of the participants has also been presented as it helped the researcher in interpreting and analysing the information generated in the study.

Table 4.1 Profile of Participants (Source, Field Data, 2024)

Participant	**Qualification**	**Years of service**	**Age range**	**Sex**	**Type of inclusive model used**
W	Diploma in Special Needs Education	31	55-60	Male	Partial inclusive model
X	Diploma in Special Needs Education	19	40-45	Male	Partial inclusive model
Y	Diploma in Special Needs Education	20	40-45	Female	Full inclusive model
Z	Diploma in Special Needs Education	17	35-40	Female	Non- inclusive model

4.2 Types of Inclusive Models

According to Gard et al (2024) Inclusive models are plans or guidelines which help a teacher in creating and managing educational activities of students with special needs while minding the type of environment and classroom that will advantage them so that they receive the same quality of education as their friends.

4.2.1 Full Inclusive Model

This model advocates for the integration of students with special needs into general education classrooms for the entirety of their educational experience. This model is known for fostering social inclusion, promoting academic achievement, and enhancing self-esteem among special needs students. However, this model is criticised because most teachers who use this model end up failing to provide equal support to both special needs and general education students (Gard et al, 2024).

4.2.2 Partial Inclusion Model

Partial inclusion model is an alternative model that promotes the idea that all students should learn in mainstream classrooms. However, in this model, students with special needs may also speed time away from the mainstream classroom to receive specialised support. This model emphasizes on flexibility and customization, hence allowing for tailored interventions and support services while promoting interaction between both general and special needs students. Research also suggests that the partial inclusion model may offer a balanced approach that addresses the diverse needs of special needs students while reducing potential challenges associated with inclusion (Gard et al, 2024).

4.2.3 Exclusion Model

This model does not promote the idea of students with special needs to learn in an inclusive classroom whether it is full time or part time. This model requires the teachers to spend all their time with the students with special needs alone and away from other students. This approach allows the teacher to have a one-on-one time with the students. However, social inclusion is destroyed (Gard et al, 2024).

4.3 Teacher's Knowledge on Poor Memory as a Learning Disability

The first research objective aimed at exploring teacher's knowledge on poor memory as a learning disability. In order to achieve this, the researcher had to ask the participants a set of questions. The first question required the participant to narrate what they know about poor memory as a learning difficulty. The second question wanted the participants to mention the number of students with poor memory in their classes and describe how they managed to identify them. The last question was looking for the teacher's experience of students with poor memory being able to improve. The assumption of the researcher was that if teachers would give correct responses to the questions, it would mean their knowledge of poor memory as a learning disability is wide. In this case, through a rigorous process of oral questioning, the study revealed that most teachers have limited knowledge of the concept under discussion perhaps, because poor memory is covered under the topic of learning disabilities and since there are a number of learning disabilities, only the basics are learnt.

4.3.1 General Knowledge of Poor Memory as a Learning Disability

The study revealed that most special needs teachers have a limited knowledge of poor memory as a learning disability. Despite the participants mentioning different aspects of poor memory, all of them pointed towards one thing, which is the inability to remember information that one previously learned (Gathercole and Alloway, 2007). The conclusion was arrived at basing on the responses that different participants submitted in the process of oral interviews. For instance; participant W (15 May 2024) shared his understanding of poor memory by stating that:

> In short, poor memory is not a topic on its own, it comes under intellectual disabilities, and under intellectual disabilities we have got categories, one of them is poor memory which in our term we all it Dysnomia

From the response given, it can be noted that participant W (15 May 2024) knows something about poor memory. He was able to provide the correct category of learning difficulties where poor memory falls. In addition to that, the participant also provided the correct technical term for poor memory which is Dysnomia. According to Goldstein and Naglieri (2022), Dsynomia is an inability to retrieve the correct information from the memory when needed. This definition correlates with the definition of poor memory which this research is using, thus the inability to remember information that one previously learned (Gathercole and Alloway, 2007).

Participant Y (1 July 2024) came up with the main indicator of learners with poor memory. She said that these learners have unusual forgetfulness on most of the things they learn in class .The indicator correlates with Gathercole and Alloway (2007), who argued that these students tend to forget part or all instructions or messages given. This shows that Participant Y (1 July 2024) has some general knowledge of what poor memory is as her response tried to define poor memory as a learning disability in a classroom set up.

In another response to a similar question, Participant X (3 June 2024) shared a contrary general understanding of poor memory as a learning disability. The participant demonstrated a rough general knowledge on poor memory as a learning disability as he said that poor memory belongs to the category of specific learning difficulties.

This is what he said:

> We learnt this topic under dyscalculia that learners can have difficulties remembering big numbers for examples, numbers that reach 100, 200 or even 300. (Participant X, 3 June 2024).

This response shows that participant X (3 June 2024) has a rough understanding of the concept because he thinks that poor memory occurs in Mathematics only. On the contrary, students with poor memory can have difficulties in remembering anything they learn in class.

Participant Z (11 July 2024) also shared her different general understanding of poor memory as a learning disability. The participant demonstrated a wrong general knowledge of the concept being questioned as she said poor memory belongs to the family of specific learning difficulties. This is what she had to say:

We learnt the topic of poor memory under specific learning difficulties. (Participant Z, 11 July 2024)

On the contrary, Special Attention Project (2012) defines Specific Learning Difficulties as learning difficulties in specific area of the child's learning. For example, a child may have problems with reading only but perform very well in other areas. The participant's response is wrong because poor memory as a learning difficulty does not only affect the child's specific learning area or subject but the majority of the learning area or subjects.

Since all the participants are agreeing that these students have problems remembering things, the researcher assumed that they would be able to come up with strategies that would help the process of memory retention. These strategies would have to encompass encoding techniques as well as having elements of observational learning such as attention, retention, production and motivation (Bandura, 1971).

4.3.2 Identification Techniques

In an attempt to further explore the teacher's knowledge on poor memory as a learning disability, the study had to find out how many students with poor memory the teachers have and how they managed to identify such students. The question unveiled various identification techniques, with some teachers using more than one technique. The study also revealed that most of the identification techniques depended on the teacher's keen observation. The conclusion was arrived at basing on the responses that different participants submitted in the process of oral interviews. Through inductive coding the following themes emerged.

4.3.2.1 Observation

Observation can be defined as a processes where one has to watch carefully especially with attention to detail or behaviour for the purpose of arriving at a judgement. According Johnson et al (2021), teacher observations can help identify learners with special needs by evaluating instructional practices, understanding student difficulties and providing targeted feedback for improvements.

Participant Y (1 July, 2024) who has 4 students with poor memory in her class, said:

> We identify them on our own through observation and performance because at our school we have so many teachers who are also trained in inclusive education (Participant Y, 1 July, 2024).

This response shows participant Y (1 July, 2024) and other teachers in her school use observation technique that enables them identify students with poor memory because the signs of poor memory in students requires a teacher to be observant. These students are reserved in group activities in the classroom, they rarely volunteer, behave as though they have not paid attention, fail to see tasks through to completion, are easily distracted and fail to follow lengthy instructions because they forget the instructions before the whole sequence of actions has been completed (Gathercole and Alloway, 2007). Gathercole and Alloway (2007) further argued that failure to be observant makes the teacher assume that the student was either not paying attention, day dreaming or was playing.

4.3.2.2 Academic Performance

Participant Y's response unveiled two themes. Firstly, observation, which has been discussed already and secondly, academic performance. Academic performance can be defined as the level of success achieved in specific or general areas concerning scholastic or academic work, encompassing a student's ability. Smeets and Roeleveld (2016) argued that teachers often

identify students with Special Needs based on their academic performance. Students who repeatedly perform below expectations often have Special Educational Needs that a teacher should take note of.

In this case, Johnson et al (2021) and Smeets and Roeleveld (2016) agree that observation and students' academic performance can help teachers identify students with special needs, including those with poor memory. One of the reasons that came out clearly as the driving force for the above identification skills is training in inclusive education. Participant Y (1 July 2024) claimed that at her school many teachers are trained in inclusive education. This might assist in early identification of students with poor memory across all the classes as the special needs teacher may not manage to observe all the students around the school.

4.3.2.3 Teacher- Student Interactions

Teacher-Student interaction plays a crucial role in identifying and addressing student problems, particularly behavioural and academic issues. Teacher-Student interaction does not only promote identification of students with poor memory but also helps in improving educational outcomes and foster a supportive learning environment. Teachers can identify behavioural problems through differences in student attention to task and scanning behaviour during instructions.

Participant Z (11 July 2024), who has 12 students with poor memory claimed that she was able to identify her students with poor memory by interacting with and observing their patterns for some time. This is what she said:

> Aaah as for me here in my class, I told, a certain learner to go to the head teacher, I gave him a pen saying that go to the head teacher and give her this pen, then he said I have…. I forgot to give to the head teacher, I knew that this learner has this problem of poor memory. And I did not send the child on an errand only once, this conclusion was reached after several interaction.

Apart from that, a certain learner told me that she had forgotten to put on underwear.

Basing on the first instance, it shows that the teacher's conclusion was based on her suspicions that the forgetfulness was not usual especially after interacting with the students for some time. Multiple interactions can help the teacher identify students in need of additional support. Makarova E. (2021) argued that in the course of interacting, it is important that teachers should not use demeaning words so that the teacher should not plant a spirit of anxiety in the students she or he is interacting with.

As for the second instance, it shows that the girl who confided in her teacher that she had forgotten to put on her underwear trusts her teacher and this trust comes due to frequent interactions. Felten et al (2023) argued that one necessary part of high-quality educational interactions is trust, which is the confidence that the student has in his or her teacher. This confidence comes into play after several interactions, and it is this trust that will make a student to open up and end up giving hints of his or her problems.

4.3.2.4 Memory Test

Memory Test is crucial for early identification of cognitive impairment which can significantly impact learning. According to Chalmers and Freeman (2019), poor memory tests for children has shown reliability and validity in predicating academic performance, making it a useful tool for early detection of working memory deficits in school children. Memory test was the most popular identification technique as three of the four participants claimed to be using it. However, it is important to note that three teachers were using the term screening instead of memory test. According to World Health Organisation (2020), screening involves physical examination which requires blood test and diagnostic test of the brain in order to check if the brain tissue is damaged or there is a mild brain injury. Memory test on the other hand, involves asking various questions repeatedly in order to establish the possibility of memory loss. Those

who mix or forget common words when speaking or storing objects in appropriate places are regarded to have memory befits (Gathercole and Alloway, 2007).

Basing on the responses of the participants, it has been noted that the teachers carry out memory tests and not memory screening because their responses showed that they merely ask questions to the students. For example, Participant X (03 June 2024) who has 59 students with poor memory said:

> In the first place, there was screening across this campus so during screening we would ask learners questions and interviews and perhaps giving them a test so basing on the outcome that's why we identified that these learners are in the group of poor memory.

The participant's response correlates with Gathercole and Alloway (2007) who said that memory tests involve asking various questions in order to establish the possibility of the student having poor memory. It also helps the teacher to know the degree of the student's problem in order to provide suitable intervention measures.

Participant Z (11 July 2023) had this to say on memory tests:

> We have screening services that also helps us in identifying students with poor memory. Like here at our school, we do it three times in a term. One is for you as a specialist teacher at your own school, the other one we do it as a cluster and the other one is from the Ministry of Education through the Education Divisions.

The participant's response shows that at their school they value multiple memory tests. This correlates with Roediger et al (2021) who argued that multiple memory tests are important because most of the times these tests are subjective hence multiple tests help to consolidate the findings as well as share methods on how they can assist these learners.

And participant X (3 June 2024) said:

> We do the screening individually because the moment we involve the other stakeholders they will claim for allowances…….. so, the school cannot afford. That's the challenge. Even if we are trying to refer. The point of referring that means I have to involve others who will claim something so sometimes it's not easy because we don't have funds.

The response shows that unlike the school of participant Z (11 July 2023), which values multiple tests, the school of participant X carries out individual memory tests because of failure to provide allowances for multiple memory tests. Although the school seems to save money by not involving other stakeholders like the hospital personnel, it is prone to have subjective results which according to Roediger et al (2021), can compromise the type of help given to these students.

However, some participants brought in identification techniques that help them to identify students with poor memory without needing them to observe the students keenly. Regardless of the teachers not observing the students, the mentioned techniques still help when identifying these students.

4.3.2.5 Information from Parents

Parents identification of children with learning difficulties can assist teachers by facilitating early intervention through the provision of useful information for diagnosis and improving access to support and resources. It can lead to timely interventions that improve academic outcomes. Participant W (15 May 2024) who has 32 students with poor memory claimed this identification technique helps him to start assisting the students as quickly as possible which can result to tremendous improvement in the students. This is what he said:

> When they were enrolling the parent described about the challenge of the learner because we had the knowledge of this student we started helping her as early as standard 1, term 1. Now she is standard 2 and she has improved that's why I did not even bring her here in the resource room.

This response above supports what Korea and Alexopoulos (2023) said that parents' observation can provide valuable insights into the unique challenges of their children, making teachers to be able to develop tailored interventions to support these learners effectively.

Social Learning Theory states that teachers should be able to manipulate the environment in order to meet the instructional goals (Bandura, 1971). The teachers who were able to identify students with poor memory on their own manipulated the learning environment so that they would be able to identify these students from the crowd.

4.3.3 Teachers' Thinking of Students with Poor Memory being Able to Improve

The study revealed that some teachers think students with poor memory can improve while others doubt the possibility of these students ever improving. Gathercole and Alloway (2007) argued that if teachers can apply intervention strategies there can be remarkable improvements, especially on the students' concentration and focus which can delay decay of information hence reducing forgetfulness. Therefore, teachers who claim not to know that students with poor memory can improve have limited knowledge on this learning difficulty. While those who have an idea on the intervention strategies that can help improve the condition of students with poor memory appear to have adequate knowledge.

Those who said these students cannot improve think that poor memory has to do with brain dysfunction which cannot be restored in any way (Dhakal and Bobrin, 2023). Participant X (03 June 2023) had this to say:

> So far, because am saying no, because poor memory has largely to do a mother board, the brain. So, if there is a brain dysfunction it means that resolution cannot be there because at times it starts with the onset during birth. So, if there was a problem during birth it is very difficult to recover. Because I should also add that, the learners that are here in the resource centre, they are the ones that are the most vulnerable in as far as SNE is concerned.

The participant's response shows that the he has a limited knowledge on poor memory as he thinks that poor memory may only result from birth or a result of brain dysfunction only. In actual sense poor memory is as a result of various causes because poor memory is a cognitive impairment which means that it is a destruction of acquiring knowledge and understanding through experience and senses (Dhakal and Bobrin, 2023). Cognitive impairment may be from birth or caused by environmental factors such as brain injury, stress, mental illness, malnutrition and pre-maturity. Regardless of the cause of the cognitive impairment, there is room for improvement if intervention strategies are applied. However, the improvements rate may not be the same across the students (Gathercole and Alloway, 2007).

While those who said students with poor memory can improve had instances of these students actually improving. These teachers align such improvements to early identification and one-to-one approach. For example, participant W (15 May 2024) said:

> …and as of now I haven't brought that learner in here, maybe the reason is because she is in standard 1, when we were enrolling the parent described about the challenge of the learner and we had to take it from there. Because we had knowledge that the parent had given us so we have to use all the methods which I can try to assist. As of now when I go to the class the teachers say that this student should be excluded from this group and I say no, we evaluate at the end of this academic year.

Gathercole and Alloway (2007) argued that detecting memory issues in their initial stage allows effective management and support. It also helps teachers to understand and take required steps to support the children and ensure their optimum development and learning. No wonder, even general teachers were able to see the improvement in the child.

Participant Z (11 July 2024) said:

> I have a very good example by the name xxxxxxxxxx she was in standard 1 for 4 years, when she came here she didn't even know how to write 1, if we say write 1 here today she

> is going to write then tomorrow she will say I have forgotten but as of now she is one who is able to add 4 plus 3, 5 plus 2 because of the one-to-one support I was giving her.

The participant was able to see an improvement in his learners because of one-to-one approach. According to Louge (2020), in a one-to-one setting there are no distractions from classmates, allowing students to maintain heightened focus and attention. No wonder participant Z (11 June 2024) was able to yield results.

The first objective revealed that most special needs teachers knew something about poor memory as a learning difficulty. Despite the participants mentioning different aspects of poor memory which they know, all of them pointed towards one thing, which is the inability to remember information that one previously learned (Gathercole and Alloway, 2007). The participants were also able to mention the technical term of poor memory which is Dysnomia as well as identifying the category to which this problem belongs, which is a learning difficulty. However, some participants were likening the problem to dyscalculia which is a specific learning difficulty in understanding numbers which can lead to difficulties with mathematics.

The first objective also unveiled various identification techniques which teachers use in order to identify students with poor memory. It was noted that some teachers use more than one technique while others had just a single technique. The study also revealed that most of the identification techniques depended on the teacher's keen observation. For example, observation, academic performance, student-teacher interaction and memory test. Nevertheless, some identification techniques depended on other faculties such as a parent's account.

Finally, the first objective also uncovered the teacher's thinking on students with poor memory being able to recover. The study revealed that some teachers think students with poor memory can improve while others doubt the possibility of these students ever improving. Those who believe these students can improve rely on early interventions as well as one-to-one approach

while those who think these students cannot improve claim that poor memory is as a result of brain dysfunction which cannot be restored in any way.

4.4 Strategies Teachers Apply when Assisting Learners with Poor Memory

The study also aimed at evaluating the strategies which special needs teacher apply when assisting learners with poor memory. To achieve this, the researcher had to ask participant a set of three questions which aimed at evaluating the strategies that teacher apply when assisting learners with poor memory. The first question aimed at describing the strategies teachers apply when assisting learners with poor memory. The second question required the participants to put across the most effective strategy and the last question required the participants to identify the least effective strategy. In addition to asking the participants questions, the researcher also observed the strategies the participants use and analysed the causes of each employed strategy being effective and ineffective. Lastly, the researcher also checked the strategies the teachers planned to use during the school team by checking the participants' lesson plans and scheme as well checking if the strategies effectiveness or ineffectiveness were mentioned in the records of work. The assumption of the researcher was that through the participants' responses and the researcher's observation and document analysis, the researcher would be able to evaluate each strategy that the teachers use when helping students with poor memory in order to see which is most effective and the reasons behind its effectiveness as well as to see the strategy that is least effective and the reasons behind its ineffectiveness.

4.4.1 Description of the Strategies Teachers Apply to Assist Learners with Poor Memory

A teaching strategy can be defined as a generalised plan for a lesson(s) which include structure, desired learner behaviour in terms of goals of instruction and an outline of planned tactics necessary to implement the strategy. Teaching strategies also refer to methods used to help students learn the desired course contents and be able to develop achievable goals in the future (Sarode, 2018). The participants described a number of strategies which they use. In addition

to that, during lesson observation, the researcher observed that the participants use other strategies which were not mentioned during interviews. Also, during document analysis, the researcher came across other strategies that were mentioned during lesson evaluation.

4.4.1.1 Chunking

Chunking as a teaching strategy to help students with poor memory was mentioned by participant W (15 May 2024) and participant X (3 June 2024) to be one of the strategies they use when assisting these students. According to Adebowale and Moye (2012), chunking is a deliberate conscious process of breaking down complex or difficult concepts into smaller and simpler components such that information is given in parts rather than as a whole. After a particular smaller component has been achieved, other smaller components are added until they finish the entire complex or difficult concept.

Chunking helps in sending information in bits so that it should not overload the short-term memory. This is because the student is able to pay attention to few items at a time. Attention helps in delaying decay so that the information should be remembered (Atkinson and Shiffrin, 1968; Bandula, 1977).

4.4.1.2 Group Work

Participant X (3 June 2024) and participant Y (1 July 2024) stated that group work was one of the strategies that they use in order to help students with poor memory. According to Zambrano et al (2019), group work promotes learning and socialisation across a range of the curriculum. It is specifically beneficial to students with poor memory because the coming in of other students increases memory complexity as they negotiate, delegate, coordinate, disagree, resolve and explain. When children work cooperatively together, they learn to give and receive help and construct new understanding and knowledge. The result is that students attain higher academic outcomes and are more motivated to achieve than they would be if they worked alone.

In order to achieve the proposed learning objectives, the students need to be active and willing to cooperate and the teacher should systematically monitor the group work.

The element of pacing that occurs in group work prolongs decay as the information is repeated over and over again during the negotiation, delegation, disagreements, explanations and resolutions which will result in the long-term memory successfully encoding the information (Atkinson and Shiffrin, 1968).

4.4.1.3 Repeated Drill

Repeated drill is a method of instruction which is characterized by systematic repetition of concepts, examples and practice (Chang, 2015). Repeated drill as a strategy was mentioned by participant W (15 May 2024) to be one of the ways he uses to help students with poor memory. This strategy is believed to aid in the memory retention of students by employing memorisation methods by way of spaced repetitive practice. Drilling can be done by listening to a teacher or a model provided by the teacher or a tape or a student repeating a particular concept, example or practice. Repeated drill is important because it provides enough time to correct misunderstandings or respond to the learner's challenges. Students' retention can be improved through repeated drill when a teacher gives vivid, logical and clear demonstrations and explanations over and over again (Chang, 2015).

Participant X wrote in his lesson plan evaluation that the way forward for the challenge he met of students having difficulties working with big numbers was to give them more work to practice on multiplication so that they can improve. More practice prolongs decay which is essential for encoding the information so that it can be retained and reproduced in future (Atkinson and Shiffrin, 1968; Bandura, 1971).

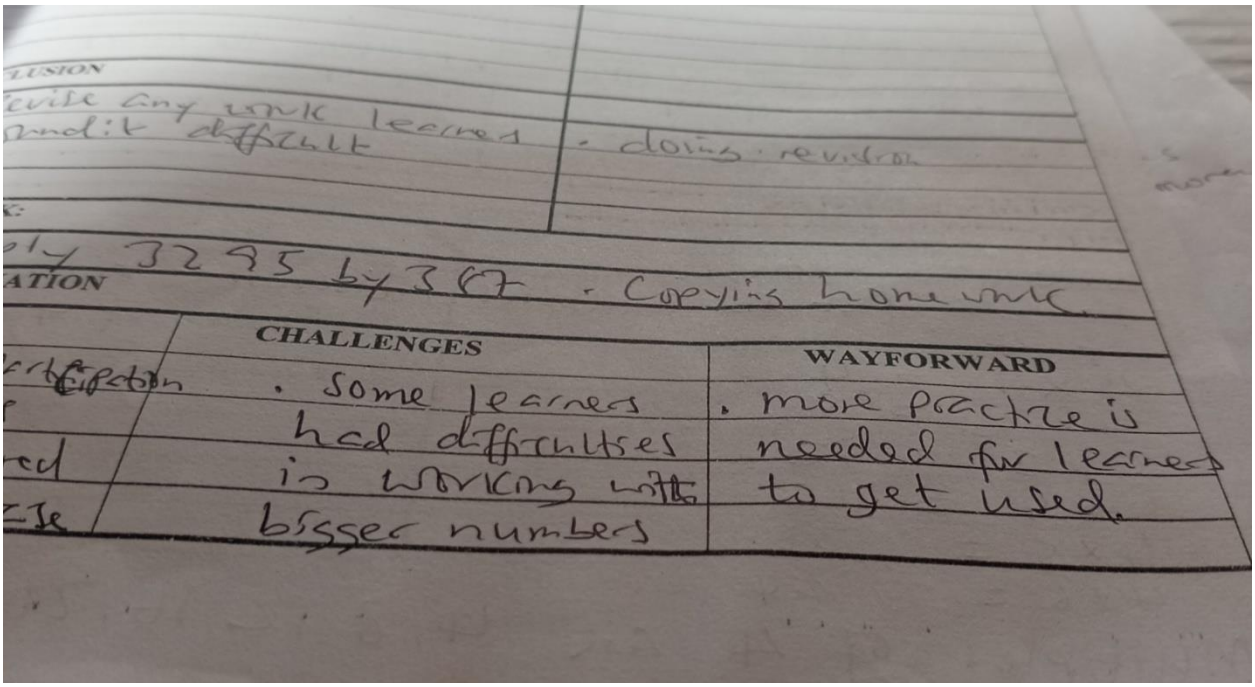

Figure 4.1: An example of repeated drill being filled in the lesson plan as a way forward strategy to help learners with poor memory that had difficulties.(Source: Field Data, 2024)

The element of repetition prolongs decays because when information is repeated the mind categorises that information as an important information that has the potential to be used in future. Consequently, the mind will send that particular information in the long-term memory for future use (Atkinson and Shiffrin, 1968). In addition to that, repetition is an element of rehearsal which is essential for the production of the information that was retained (Bandura, 1971).

4.4.1.4 Role Play

Participant X (3 June 2024) mentioned role play as one of the strategies used to help students with poor memory. Role plays provide students with the opportunity to take part in real life situations which mirror what happens in the society's various sectors. These situations can be stressful, unfamiliar, complex or controversial. Role play is an interesting example of an active learning and teaching strategy which can incorporate drama, simulation, games and demonstrations of real-life cases (Yoro, 2020). Role play is also regarded as a social space that

develops speaking and listening skills, as well as giving students the opportunity to reflect on and develop their knowledge of a topic, whilst enhancing creativity and imagination. When listening skills are enhanced, memory retention is improved (Yoro, 2020).

Role play can assist students with poor memory as the information will be encoded by both the visual and acoustic encoding strategies. That is to say, the mind will keep the information by capturing the pictures of the role play and the words that were said during the role play (Atkinson and Shiffrin, 1968). In addition to that, role play is one of the ways in which the students would be able to produce what they paid attention to and retained (Bandura, 1971). In so doing, the teacher knows what part of the lesson was retained and which one was not.

4.4.1.5 Peer Tutoring

Participant Y (1 July, 2024) and participant Z (11 July 2024) stated that they use peer tutoring when assisting students with poor memory. According to Kapil and Malini (2016), peer tutoring is a strategy in which students support other students in the learning process. Peer tutoring is regarded as an effective teaching strategy for all the students because most students find it interesting to interact with their peers and ask them questions without hesitation and are comfortable to learn from them. Peer tutoring is believed to increase literacy scores as it is believed that students who read and discuss story passages with their peers recall more content and score higher on assessments. Peer tutoring is therefore an effective strategy for students with poor memory because it enables a fellow student to grab the attention of the other students, including those with poor memory. In addition to that, it enables these students with poor memory get motivated to ask questions to their peers without fearing that they will be judged. Attention and motivation are elements of observational learning according to Bandura (1971).

4.4.1.6 Individual Exercises

Participant Y (1 July 2024) stated that she uses individual exercises strategy when assisting students with poor memory. According to Adebowale and Moye (2012), individual exercises

enable the teacher to know which information was retained and which one was not. Gathercole and Alloway (2007) argued that long term memory is enhanced when students engage in retrieval practices. Taking an exercise helps to recall information that has been stored in long term memory. Individual exercises are a means of achieving behaviour reproduction as a learner must put together a given set of responses without checking the modelled patterns or guidelines (Bandura, 1971).

4.4.1.7 Multi-Sensory

Participant Y (1 July 2024) said she used multi-sensory approach to help students with poor memory. According to Yoro (2020), multi-sensory strategy involves using different senses to learn and remember information. This strategy is helpful because it engages multiple senses, making it easier to remember information. For example, if you are teaching a student a new vocabulary word, you can ask the student to say the word, write it down and create a picture that represents the word.

Multi-sensory teaching strategy can help students with poor memory to remember most of the information that was encoded as the information is encoded in multiple strategies such as visual, acoustic and semantic strategy (Atkinson and Shiffrin, 1968). These strategies make retrieval simple as there is the presence of some backup. For example, if the student will not remember how a particular thing looked, he or she can remember how it was heard, felt, or smelt.

4.4.1.8 Question and Answer

Participant Y (1 July 2024) said she uses question and answer when assisting students with poor memory. According to Nephawe and Lambani (2022), question and answer involves students asking and answering questions on a topic. In addition to that, question and answer method assists teachers with feedback from learners as they grasp the success and failures of the lesson. Teachers can therefore identify the gaps in the lesson and immediately improve the means to fill them immediately by rephrasing and simplifying difficult concepts. In this case, teachers

are able to know the areas students with poor memory are failing to remember while the lesson is still on and provide assistance instantly. Nephawe and Lambani(2022) cautioned the teachers who make use of this strategy to discourage students answering in unison as some hide behind the voices and answers of others while making teachers unable to identify the gap of the students with poor memory.

Question and answer enables a student to reproduce what they retained. In so doing the teacher is able to check if there is any process or not. Question and answer also enables students to pay attention to the teacher to check if what they produced was correct or not. For there to be a successful session of question and answer, the students should always feel motivated to answer the teacher's question. Therefore, question and answer correlates with elements of behaviour learning since it has elements of Retention, production and motivation (Bandura, 1971).

4.4.1.9 One-to-One Teaching Strategy

Participant Z (11 July 2024) said that she uses one to one teaching strategy when assisting learners with poor memory. One to one teaching strategy is the interaction of teacher and student where the teacher checks to see how things are working by asking the student a number of questions and the student offers immediate feedback by answering the teacher's questions (Liebfreud and Amendum, 2017). The teacher then determines the forward motion that should be taken depending on his or her analysis of the situation. One to one teaching strategy provides a safe learning space for students as it takes the pressure off students who may feel embarrassed to ask when they did not grasp a concept in class, especially if it seems like the rest of the class got it. With one-to-one teaching approach it is easy to gauge a student's progress. When a teacher works directly with one student, the teacher is able to get a strong sense of their student's progress, strength and weakness. In this way, these teachers have a deep understanding of what the student needs most (Liebfreud and Amendum, 2017). One to one approach also reduces distraction. Students with poor memory are characterised by low attention span, hence they are

easily destructed by many things in a classroom setting. These distractions can impact success (Vanderlaan, 2012).

One to one teaching strategy can assist students with poor memory by reducing distractions which helps the student to pay attention to the information he or she is receiving which can make the information not to decay but rather be sent for encoding (Atkinson and Shiffrin, 1968; Bandula, 1971).

4.4.1.10 Singing and Dancing

Singing and dancing was mentioned by participant Z (11 July 2024) as one of the strategies used by the teacher in order to help students with poor memory. Syarah (2021) defined singing as the act of creating musical sounds with voice while dancing is a creative expression of physical movement that includes rhythmic movements that accompany music. According to Syarah, et al (2021) singing and dancing has an element of repetition. It is argued that children's skill development happens more quickly when the component of a task is introduced clearly and repetitively. Dancing practice helps strengthen memory as dance has to do with memorisation of dance movements. When one is able to memorise dance steps, he or she can transfer the skill to be able to memorise other concepts such as the school work embodied in singing.

Memorisation is important to students with poor memory as it comes after a series of repetition which is the element that delays decay (Atkinson and Shiffrin, 1968). This makes the student able to encode the message, which is later sent to long term memory. In addition to that, Bandula (1977) argued that a student pays attention to models who possess interesting and pleasing qualities. Songs and dances are known to be attractive to various audiences.

4.4.2 Description of Effective Strategies in Various Classes

The researcher came up with the descriptions of the effective strategies in various classes by asking the teachers which strategy is most effective to them through interviews, by observing the strategy which was most effective during interviews and checking if any strategy was recommended as effective in the course of teaching in the teachers records of work or lesson plan's evaluation.

4.4.2.1 One to one Approach

Participant Z (11 July 2024) stated that one to one approach works in her class because she knows that every learner has individual differences and which calls for customized interventions and pace in order for learning to take place. This is what she had to say;

> According to Special Educational Needs learners who in short we call them SEN learners, they do learn better through one to one as you know that every learner has individual differences so they have their own pace of learning yaa so if you teach them using one to one method, they are capable of capturing what they need to.

Participant Z's response aligns with Liebfreud and Amendum (2017), who argued that one to one approach allows teachers to customise activities according to students' strength and address their weaknesses while including the students' interests in order to keep them engaged. One on one also incorporates tailored learning and communication style where students are able to convey the learning style that works for them.

One to one teaching strategy can assist students with poor memory by reducing distractions which helps the student to pay attention to the information she or she is receiving which can make the information not to decay but rather be sent for encoding (Atkinson and Shiffrin, 1968; Bandula, 1977).

4.4.2.2 Question and Answer

Participant Y (1 July 2024) explained that question and answer is most effective in her class because that is one of the strategies where most students get involved. This is what she said:

> Most effective among the six… mmmmm question and answer because its where most of the learners are involved. (participant Y, 1 July 2024)

Although the participant seems not to be sure as to which strategy is most effective from the six strategies she provides, her response is in line with Cardenes (2021), who argued that Question and answer strategy involves students in discussion hence promoting interaction. This interaction helps obtain a direct output from students and assesses how the process of learning is progressing. Question and answers also gives teachers the chance to find out what students know and understand as it also allows students to look for clarification and help on areas they did not understand.

Question and answer enables a student to reproduce what they paid attention to, retained and rehearsed. In so doing, the teacher is able to check if there is any process or not. Question and answer also enables students to pay attention to the response of their production. It is important to note that for there to be a successful session of question and answer the students should always feel motivated to answer the teacher's questions. Therefore, question and answer correlates with elements of behaviour learning since it has elements of retention, production and motivation (Bandura, 1971).

4.4.2.3 Role Play

Participant X (3 June 2024) argued that role play is the most effective strategy for helping students with poor memory because it makes that learner to be fully involved in the activity. This is what he had to say:

> The one that is effective is the role play because the learner is fully in the activity. (Participant X, 3 June 2024)

Participant X's responses agree with Yoro (2020), who says that Role play assists the students to be involved in real situations because it serves as a vehicle for students to explore feelings, share insights of their attitude, improve self-confidence, problem solving skills and remove shyness. Students also learn new knowledge while exchanging dialogues with each other to represent a specific character they are role playing. Yoro(2020) continues to argue that after role play, debriefing session provides feedback to students.

Role play enables the teacher to check if retention was successful by checking how the students are role playing the information they verbally or imaginary captured. In addition to that, role play can also be a form of rehearsal which is an important element in Bandula's (1977) observational learning since people who mentally rehearse or actually perform modelled pattern of behaviour are less likely to forget.

4.4.2.4 Task Analysis

Participant W (15 May 2024) stated that while helping students with poor memory, task analysis has been an effective strategy. He attributed the effectiveness of this strategy to its style that allows concepts to be broken down into bits such as from a sentence to phrases to words. This is what he had to say:

> Aaaa… this things to me because I use them interchangeably but the best, the best one aaaa maybe can be task analysis. Because we are talking on poor memory eti you give a sentence, a learner cannot complete that sentence, you break it, maybe into phrases, he or she is still struggling, you further break maybe in a single word you will find that maybe a student get it. So, it means you are changing so that's why this one is really helpful.

Although the participant seemed to struggle to choose the most effective strategy, his choice of task analysis correlates with Mcconomy et al (2017), who said that Task analysis as a sequenced list of the subtasks or steps that make up a task can be used for a task that requires a series of logically ordered discrete skills. Task analysis does self-monitoring as students realise that they have not got the step on their own and they can try again.

Task analysis helps students to retain information easily as the learner only focuses on small bits of information at a time. After the teacher has approved that retention was successful through reproduction, the teacher can then add another task for the students to do. The fact that the teacher moves to another task after verifying that the previous step was a success is a form of motivation on its own. Retention and motivation are essential when it comes to observational learning as they are key for a modelled behaviour to be produced and approved to be correct (Bandura, 1971).

Apart from listening from the participant which strategy they regard to be effective; the researcher also observed the participants teaching and was able to see which strategies were effective among a number of strategies employed. The researcher noted that teachers had strategies which were in line with Social Learning Theory's process of observation. This is because most of the strategies had to do with obtaining and sustaining the attention of the students, coming up with approaches that can increase retention, making sure students are able to produce what they retained through answering questions or demonstrations and finally be motivated by reinforcing their efforts. The participants argued that the following strategies were effective;

4.4.2.5 Building from the Basics

Participant Z (11 July 2024) when teaching Mathematics, under the topic of addition, the teacher first took two pieces of chalk, held one piece of chalk in the left hand and another in the right hand then asked the students how many pieces of chalk she had. This question was asked

to 5 students. After the students got the question right she then first started asking students to first add simple numbers such as 5 +1, then 11+ 0 then 15+ 4. Moving from simple to complex motivates learners especially when they are getting the answers right as the possibility of getting the answers wrong is minimised. The teachers therefore are expected to reinforce even simple questions because when positive enforcements are provided, observational learning which previously remained unexpressed can promptly be translated into action (Bendura, 1977). In this case students who were motivated to express themselves more will retrieve more information.

4.4.2.6 Rehearsal

Participant Z (12 July 2024), while teaching the topic of addition and writing numbers in Mathematics, she asked the students the answer of 3+2. The students counted using their bottle tops and were able to arrive at the response of 5. Then, the participant had to ask the students to write the number in the air. As students were writing in the air the participant was able to notice students who were getting it wrong and corrected them. Afterwards, the participant nominated 4 students to write 5 on the board. Only 1 wrote it as an 'S' and the participant corrected him. After teaching, the exercise contained a question of 4 +1 whose answer is also 5. The researcher noted that most of the students got the task right and were able to write 5 correctly.

Rehearsal strategy also manifested its effectiveness when participant W (May 2024) was teaching English under the topic: describing oneself. The participant asked one of the students where she lives and she responded by simply saying Area 4. The teacher expected the student to say I live at Area 4. Hence, he constructed the sentences for the student and asked her to repeat what he said. Unfortunately, it took the girl 5 trials to pronounce all the words correctly. Finally, when the participant was recapping the lesson, he asked the same girl where she lives and she was able to answer correctly, with mispronunciations.

The success of the two students can be attributed to the rehearsal strategy that the participants employed as Bandura (1977) argued that rehearsal serves as an important memory aid as people who mentally rehearse modelled patterns of behaviour are less likely to forget them than are those who neither think nor practice what they have seen.

4.4.2.7 Visual Aids

Participant Y (1 July 2024) when teaching about time, she brought a wall clock and was demonstrating how, quarter-past, half-past, quarter- to and o'clock hours look like. This captured the attention of the learners as the class was quiet and almost everyone was seen to look at the visual aid. When the participant gave an exercise on time, most of the students passed, including the one with poor memory. The success of this strategy can be attributed to the attention which the visual aid brought to the class as Bandura (1977) argued that a person cannot learn much by observing if he does not attend or recognise the essential features of the model through paying attention.

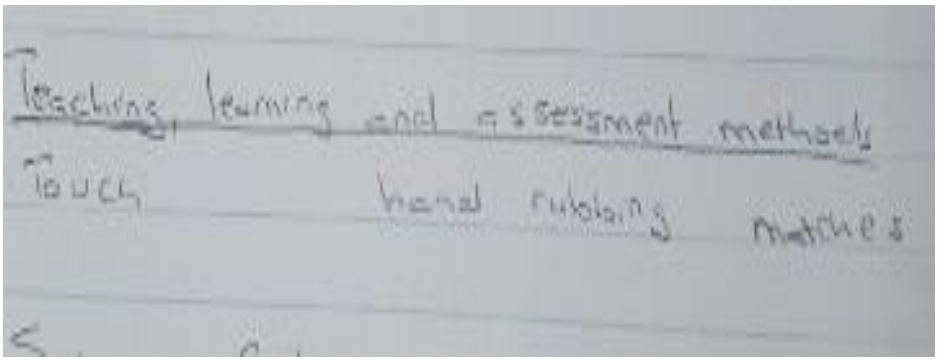

Figure 4.2 : Showing an example of a lesson plan that had touch and matches as their visual aids. (Field Data, 2024)

4.4.2.8 Chunking

Participant Y (1 July 2024) when revising addition of numbers in Mathematics, she first revised addition of numbers that have to do with ones, then tens, then hundreds. This helped the students to follow as the teaching was moving from simple to complex. Most of the students therefore

where able to add even numbers in the group of hundreds which was the complex activity of the lesson. This can be attributed to the retention of information which was happening in bits to avoid overloading the memory during memory coding. This is in line with Bandura (1977) who argues that when they have been a successful transferring of the message from the model to the brain then the student can learn and retain the information better.

4.4.3 Description of Ineffective Strategies in Various Classes

The researcher came up with the descriptions of ineffective strategies in various classes by asking the teachers which strategy is ineffective to them through interviews, by observing the strategy which was ineffective during lesson observation and checking if any strategy was mentioned as ineffective in the course of teaching in the teachers records of work or lesson plan's evaluation. The researcher noticed that most of the strategies that were mentioned to be ineffective during interviews were also noted to be ineffective during lesson observation.

4.4.3.1 Individualised Attention

Individualised attention was the most common strategy as all the four participants were seen using it during class observation. Although this was the case, all participants failed to execute this strategy properly resulting in students losing their attention as it was evidenced by some students playing around as the teacher was giving individualised attention to a particular student with poor memory. For example, Participant Z (11 July 2024) when teaching the topic of adding numbers she was assisting every learner who got the answer wrong by helping him or her add with his or her bottle tops. Although that helped most students to come up with the correct answer, the rest of the students were seen making a lot of noise as the teacher was helping their fellow student.

Participant X (04 June 2024) after teaching the topic of sources of energy, the teacher gave the students an exercise. After marking the exercise, the teacher was calling who had challenges with the exercise aside in order to assist them. However, as the teacher was helping the students

who had challenges, the students who got the exercise right where left idle and they began to make noise.

Participant W (15 May 2024) when teaching the topic of self-introduction in English and when the students constructed a wrong sentence, the teacher was correcting the construction and telling the student to repeat what he said. One student, for example, was asked where she lives, and answered area 4. Although the response was correct, the teacher wanted her to exactly say what area 4 has done by saying, I live at area 4. It took 6 trials for the student to say all the words correctly. Since the student was taking long to grasp what the teacher was saying, the other students began to murmur because it seemed like this particular student with poor memory was delaying this class. This resulted in the class making noise as well.

Participant Y (02 July 2024) asked one student with poor memory to solve a particular mathematical problem pertaining to division of numbers in front of his friends. When he failed, the teacher kept on probing him in order to help him solve it. The student still could not do what the teacher wanted. This angered the teacher as she said, "*Iwe*, be serious!" (You, be serious!) in an angry tone.

From the observation, it was noted that the teacher had good intentions, however, the strategy was ineffective because the teacher failed to balance the attention of those who had problems and those who seemed not to have any problems. The finding correlates with Ilik (2017), who argued that the effectiveness of individualised attention dwells on the teacher being able to balance the attention of those who seem to need attention since they failed a particular task and those who seem not to need attention because they got the given task correctly. Failure to balance the attention of the two groups of students is mostly because of large classes.

Making students lose their attention in classroom set up affects the recognition of important information which has to be rehearsed, retained and produced. Bandura (1971), argued that a person cannot learn by observation if he or she does not pay attention.

4.4.3.2 Peer Tutoring

Peer tutoring is known for being able to enhance students' attitudes to learning, foster personalised learning and engage students through cooperative learning among others. Although this is the case, when the teacher has not explained to the amateur teacher how to teach his or her peers, the strategy becomes ineffective.

Participant Y (1 July 2024) for example, called a student in front to solve a mathematics problem and when he failed, the teacher directed his peers to teach him. The peers were only dictating what he should write. The student was even missing the exact positions to write the answer, meaning that he did not know what was happening.

From the observation, it has been noted that the peer tutor was not guided on how to tutor his or her peer so that the information can be retained. The finding correlates with Aboud (2016), who argued that peer tutoring strategy often has an element of inadequate peer knowledge on how to effectively teach their fellow peers, as a result their efforts are ineffective.

Due to inadequate peer knowledge, the reproduction of the modelled patterns is faulty that is why the peer missed the exact positions to write the answer. Bandura (1971) argued that the amount of observational learning that a person can exhibit depends on whether or not he has acquired component skills. One cannot acquire component skills by means of dictation.

4.4.3.3 Question and Answer

The researcher noted that question and answer was ineffective because when students got the answers wrong, most of the participants were not explaining to the students where they got it wrong. In addition to that, some participants were not motivating their students to answer the

questions asked. For example, participant W (17 May 2024) during a Mathematics lesson, the teacher asked students to subtract 12 from 7. Some of the students said the answer was 17, others 18 others 3. The teacher simply provided the correct answer without guiding the students where they missed in their calculations.

When the teacher simply provides the answer without guiding the students where they went wrong, the students may not learn the concepts or develop the skills needed to solve problems independently. In other words, students cannot reproduce a modelled pattern on their own. According to Bandura(1971), failure to reproduce a modelled pattern means learning did not take place.

Participant X (3 June 2024) was seen answering his own questions during a mathematics lesson as his students were not raising hands nor responding after requesting them to identify various types of angles.

This can be due to the fact that the teacher did not motivate the students enough to enable them to be free to produce what they retained through answering questions. In addition to that, the teacher did not promise any rewards to the students who got the answers correctly. This is contrary to what Bandura (1971) argued that a model which physically prompts the behaviour when it fails to occur and then administers powerful rewards will eventually get some responses.

4.4.3.4Group Work

Group work was the second common employed strategy. Although that was the case, it was also the common ineffective strategy. This is because most teachers failed to manage the groups as the majority of the students were leaving the work to few individuals in the group. The rest of the members were either not paying attention or playing during the group discussions. For example,When participant Y (02 July 2024) was teaching addition of tens, and asked the

students to be in groups, students with poor memory were not participating in their groups. In addition to that, some groups were seen not even discussing, counting nor writing. This was because the teacher was not moving up and down to monitor the students and to assist them whenever they got stuck.

In addition to that, when participant X (03 June 2024) was teaching about angles and asked the students to identify the given angles, most group members were not participating. They were only leaving the work to only one or two members of the group. When the passive members were asked to answer questions, they failed to present what their group discussed. This was also because the teacher was not moving up and down to monitor the students and to assist them where necessary.

In addition to what was observed, some participants had to say this about group work:

> Students with intellectual disability like poor memory do not participate much and they just live the task to their friends. (Participant Y, 1 July 2024).

> During group work these learners are not easily handled. They mostly chat with their friends and monitoring all groups at once is not easy. (Participant X, 3 June 2024).

All what was told and observed centres around the teacher failing to monitor the group work so that everyone pays attention to what is being discussed. Attention, according to (Bandura, 1971), is very important as a person cannot learn by observation if he or she does not pay attention to what is happening. Hence failure to pay attention results to failure to reproduce what was modelled. No wonder some students were failing to present what they discussed.

4.4.3.5Chunking

Chunking was mentioned by participant X (3 June 2024) to be ineffective because it depends with the students' willingness to pay attention to what is being chunked.

> The strategy that does not work for me is chunking because when am doing chunking, it means a learner has also to do on his or her part so most of them do fail to manage their part due to poor memory (Participant X 3 June, 2024).

Failure to pay attention results to failure to produce the observed model as Bandura (1971) argues that a person cannot learn by observation if he or she does not pay attention to what is happening.

In addition to that, chunking was also noted to be ineffective when Participant Y (1 July 2024) was revising addition and subtraction of numbers. The teacher decided to chunk the content by firstly recapping about number groupings from ones to thousands. Although the first part of the lesson looked successful as students seemed to follow the additions of groups of ones and tens by counting and answering questions correctly, the addition of hundreds and thousands was ineffective; the students stopped answering but the teacher kept answering and solving the problems on the board on her own. In addition to that the teachers also revised subtraction of ones, tens and thousands within a 30-minute lesson. Although it was a revision class, the teacher chunked a lot of content which resulted to its ineffectiveness.

Chunking a lot of work can result to memory overload which can interfere with the coding of the information, resulting to unsuccessful retrieval and reproduction of the behaviour. No wonder, when the students' memory was overloaded, the students stopped responding. According to Bandura (1971), failure to respond is failure to reproduce to a given set of responses according to modelled patterns.

4.4.3.6 Lecture Method

Participant Z (11 July 2024) argued that lecture method was ineffective for her. She characterised it as the method that has to do with preaching where the preacher is regarded as a know it all and the church members only listen without questioning. This is what she said:

> The method which is more boring and the results are poor is this one which we say… The preaching one mmmm what do we call it mmm lecture method. Yaaa lecturing to special needs learners… mmmm 0 out of 10.

Lecture method can easily make one lose attention as it does not possess winsome qualities that attract and sustain the attention of the students as regards to other strategies. Bandura (1971) argued that models who possess interesting qualities are sought out, where as those who lack pleasing qualities tend to be ignored. In this case, lecture method is 0 out of 10 for students with poor memory because it does to gain and sustain their attention.

The second objective revealed that teachers make use of a number of strategies ranging from one-to-one, group work, chunking, role play, singing and dancing, individual exercise, multi-sensory, task analysis, repeated drill and question and answer. All the strategies that were suggested can assist learners with poor memory as they possess elements of attention, retention, reproduction and motivation, which are essential for observational learning according to Bandura (1971).

In addition to that, the second objective also revealed that strategies such as rehearsal strategy, visual aids, role play, building from the basics, question and answer, chunking and one to one approach were said and seen to be effective. The strategies that the participants said are effective and what the researcher observed to be effective were agreeing with Social Learning Theory's process of observation learning which argues that teachers should make sure that during teaching and learning, there should be attention, retention, production and motivation (Bandura, 1971).

Finally, the second objective uncovered that strategies such as chunking, group work, lecture method, peer tutoring, individualised and question and answer were said and heard to be ineffective. The least effective strategies were as a result of the teacher's failure to manipulate

the environment so that attention should be gained and sustained throughout the classroom's activities, failure to execute strategies that can increase retention and production and lack of motivation.

The researcher noted that some strategies were effective to one teacher and ineffective to another, or effective in one lesson but ineffective in another. Examples of such strategies were chunking, visual aids, rehearsal and question and answer. This was due to poor execution of the strategies, lack of clarity and the complexity of the topic among others reasons. Therefore, teachers should be flexible to change strategies which are not working.

4.5 Challenges Teachers Encounter when to Assisting Learners with Poor Memory

The study also aimed at examining the challenges teachers encounter when assisting learners with poor memory. To achieve this, the researcher had to ask the participants some questions which aimed at uncovering the challenges encountered by the teachers as they help students with poor memory. The first question aimed at describing the challenges the teachers encounter as they endeavour to assist learners with poor memory. The second question required the participants to make recommendations on what they want the Ministry of Education do in order to assist both the teachers and students with poor memory. In addition to asking the participants these questions, the researcher also observed some of the challenges teachers encounter when assisting students with poor memory during classroom observation. The assumption of the researcher was that the encountered challenges may hinder the effectiveness of the strategies. But if the recommendations can be looked into, the challenges would be minimised and the strategies could be effective.

4.5.1 Description of Challenges Special Needs Teacher Encounter when Assisting Students with Poor Memory

A challenge is a task, a duty or a situation that is difficult to handle and requires a lot of effort, determination and skill to overcome it successfully (Minois et al, 2021). The participants described a number of challenges which they encounter as they assist students with poor memory. In addition to that, the researcher also observed some challenges during lesson observation. Below are some of the challenges.

4.5.1.1 Inadequate Knowledge

Knowledge in Inclusive Education is defined as being fully of or well informed about a particular disability in children (Adebowale and Moye 2012). The study discovered that both special needs teachers and regular teachers have inadequate knowledge how best they can assist students with poor memory. For example, participant Z (11 July 2024) said:

> We do not have enough trainings like CPD's which can help us as special needs teachers and other teachers…. mmm especially them (regular teachers) its worse even if you can ask them these questions they will not even know because they don't have the knowledge.

CPD is an abbreviation standing for Continuing Professional Development which is meant to help professionals develop and enhance their skills. Participant Z (11 July 2024) thinks luck of CPD is a challenge to both special needs teachers and regular teaches because they end up lacking relevant information on a given special need. This correlates with Barik and Saha(2023), who argued that CPD allows educators to learn about new teaching methods, technologies and research findings, which improve their teaching practice.

In addition to that, participant W (15 May 2024) also said:

> Regular teachers have less knowledge on how to handle inclusive classroom. For example, our school uses partial inclusive system because the specialist teacher cannot handle all

> students with special needs at once, when these students go to the mainstream classes they are not fully helped because regular teachers have less Knowledge on how to handle both special needs learners and other learners. We have had instances where teachers complain that they cannot deal with students with learning difficulties any more.

Participant W's (15 May 2024) arguments correlate with Banksand Zuurmond (2015), who argued that teachers still feel like they are lagging behind in terms of the knowledge they have especially when it comes to identifying and providing required assistance to students with poor memory. These teachers argue that the training they underwent was general and focused more on the importance of including children with disabilities in the classroom without providing any practical tools for inclusion.

Inadequate knowledge can affect the choice of strategies teachers use to assist students with poor memory as the teacher will not know the things to consider before choosing and applying a particular method. Hence, strategies that have the processes of observational learning such as attention, retention, production and motivation may not be used (Bandura, 1971).

4.5.1.2 Inadequate Teaching and Learning Resources

Inadequate teaching and learning resources are materials that are not sufficient. However, these materials are meant to promote student learning and improve the educational system. All the four participants complained that they are unable to assist students with poor memory appropriately because they cannot teach students with poor memory in abstract. For example, participants Y (1 July 2024) said:

> Teaching and learning resources we do not have enough because when you talk of inclusive education system it must have other extra additional resources. When you talk of learners with poor memory you cannot teach a thing in abstract… it needs a practical thing, students have to see it.

Participant X (3 June 2024) said:

> We talk of resources, teaching and learning resources, If we are to go ahead with education in assisting these learners, we need to have books, we need to have papers, we talk of past papers if they are standard 8 learners, we need to have charts as well as other things like sensory resources so as to help these learners with poor memory.

Participant Z (11 July 2024) also said:

> We do have mmmmm we do not have enough teaching resources. For example, you have a deaf…. a learner who is deaf like the one there … like for me I even bought this (pointing at a mini erasable board) in China shop, its wealthy 4,500. I used my own money not government money just for sake of…. Just for the love of my learners….so we use it to teach them how to write numbers maybe we say write one she writes wrongly then we erase rather than using an exercise book now and then because seeing a number of wrong ticks they may become discourage.

Participant Y (1 July 2024) said:

> Learners with poor memory need a variety of resources to be used in one lesson. Unfortunately, because we don't have enough resources, we just use maybe charts and realia. (Participant Y, 1 July 2024).

The research has shown that all the four participants bear witness that inadequate resources is a common and huge challenge because students with poor memory require having resources that can appeal to their senses for easy encoding and retention. However, the problem of inadequate teaching and learning resources is a common problem in all the sectors of education in Malawi as UNICEF Malawi (2020), observed that there is a general lack of material resources to effectively educate children with special needs. The lack of instructional materials is a common problem all through from the primary schools up to university level.

Inadequate teaching and learning resources can demean the attention that students give to a lesson as teaching and learning resources act as sensory objects or images which capture the

attention of students as they stimulate and support learning by making the experience more real, more accurate and more active. Bandura (1971) argued that a person cannot learn much by observation if he or she does not pay attention to the model. Hence, inadequate resources results in failure to use strategies that require teaching and learning resources.

4.5.1.3 Lack of Recommended Curriculum Differentiation Handbook

Participant W (15 May 2024) said that another challenge that teachers encounter when assisting learners with poor memory is lack of recommended curriculum differentiation handbook which would help the teachers with ways of teaching students with learning difficulties. The unavailability of the handbook forces teachers to use the general curriculum or to teach the students any way they feel like would help, which may end up not even helping the students in question.

> Let's talk about the system we are using, the curriculum itself, very poor….it has nowhere it says you are going to assist these learners you are going to assist these learners with these type of skills in this type of curriculum so each teacher uses his or her own initiative because the curriculum is not guiding us. (Participant W, 5 May 2024).

The argument of Participant W (5 May 2024) correlates with what Yoro (2020) said that since teachers are expected to incorporate curriculum differentiation in their teaching in the mainstream classes, the handbook can help teachers transform the existing systems and content to cater for all learners in a correct, recommended and uniform way. The unavailability of the handbook forces teachers to use the general curriculum which does not meet the needs of students with poor memory. The coming in of a recommended handbook would enhance teachers' expertise in inclusive teaching and learning methodologies (Yoro, 2020).

4.5.1.4 Large Classes

Participant Y (1 July 2024) said that large classes is one of the challenges that she encounters when she wants to assist students with poor memory. Large classes means the classes are surpassing the recommended student teacher ratio. According to Banks and Zuurmond (2015), the maximum class size under Malawi educational policy is 60 students per teacher, the majority of teachers have more than 100 children entrusted to them in a single class. Consequently, this results in few children with disabilities receiving the support they need in the classroom. The disadvantage of having a large class is that the teacher fails to provide the needed individualised attention and assistance. This is what she said:

> Overcrowding in classes in which makes very difficult for the teacher to give individual assistance to those learners. (Participant Y, 1 July 2024).

The Participant's concerns agree with Banks and Zuurmond (2015), who said that the problem of large classes is a major and common challenge highlighted by all teachers across all types of schools that have resource centres because they enrol students with various disabilities including the normal students. This means that these teachers often lack the capacity to provide individualised attention to all the students in their care.

4.5.1.5 Work Overload

Participant W (15 May 2024) and Participant X (3 June 2024) claimed that work overload makes them fail to assist students with poor memory accordingly because they are often occupied with other equally important things. For example, Participant W (15 May 2024) said that:

> Being a special needs teacher is very tiresome, apart from overseeing all students with special needs at my school, I also have other responsibilities such as overseeing all primary and secondary schools in xxxxx zone which has 7 schools in total. When I reach a particular school I have to assess the situation in on that school then give brief my view on the

progress of assisting students with special needs. And later, make a program to follow up each and every team. In addition to that, I don't only focus on special needs students I have a regular class which I teach as well.

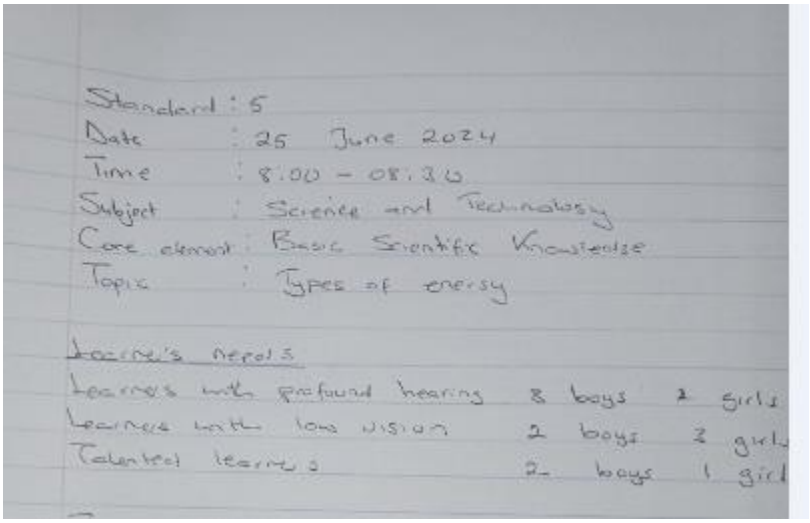

Figure 4.3: Showing learners with different special needs in one class (Source: Field Data, 2024)

Figure 4.3 correlates with Participant W (15 May 2024) who claimed that they do not only oversee students with learning difficulties but all learners with different special needs which is a lot of work as each special needs category has its own strategies that can result to success of their students. While Participant Z (11 July 2024) says:

> Work overload is a huge challenge for me, xxxxxxx being an exclusive school I have students in various classes in one class and I have to come up with a topic's success criteria that is targeting all the students depending on their progress which is not easy, it is like doubling the work. In addition to that, a part from teaching the normal subjects, I also teach daily living skills such as how to communicate, mop, request for something.

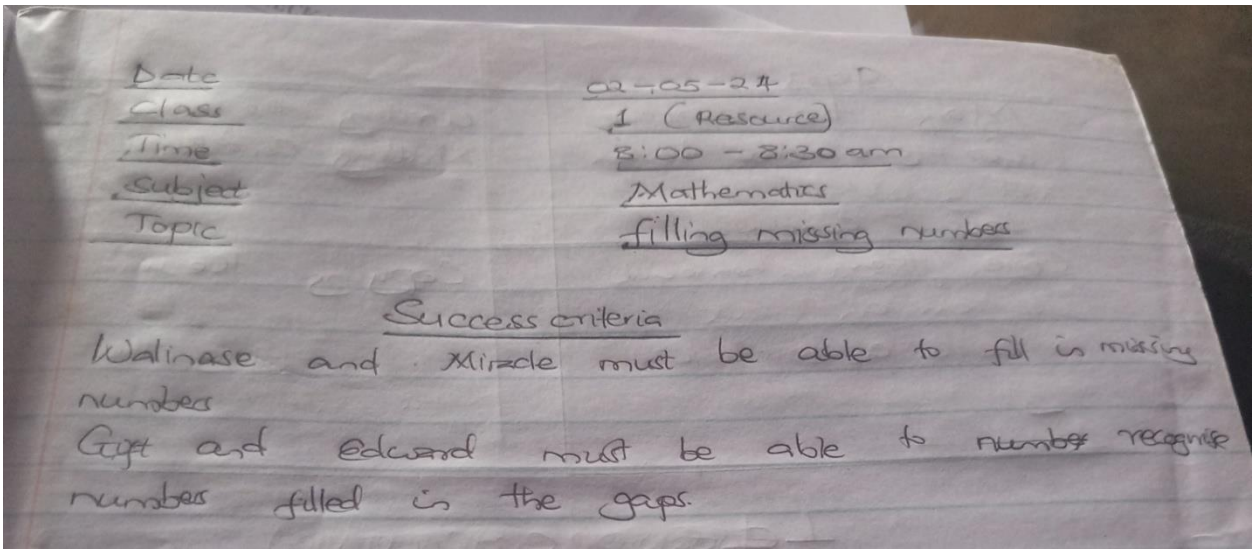

Figure 4.4 : Showing success criteria that is targeting particular students in one lesson (Source: Field Data, 2024)

Figure 4.5 demonstrates the challenge that participant Z (11 July 2024) explained that she has to come up with success criterion that targets a group of students who have the same abilities. Khazaei and Ahmadi (2016) argued that teaching one topic to students of different abilities requires extra planning, preparation and management of the class which is extra work.

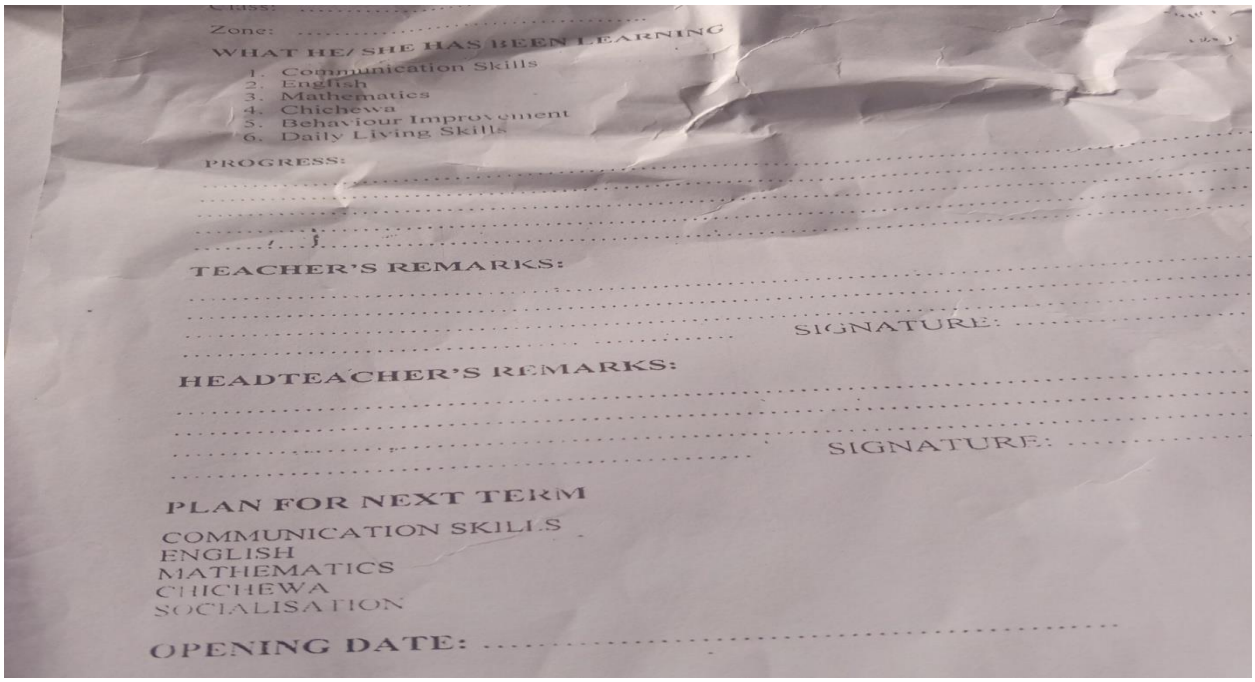

Figure 4.5 : Showing a report card for learners with learning difficulties (Source: Field Data, 2024)

Figure 4.5 shows the report card for learners with learning difficulties which has some activities and subjects which these learners are supposed to learn. A report card reflects what the student has been learning over a period of time (Aitken, 2016). The above report card therefore, is a proof that apart from teaching the curriculum subjects, learners with learning difficulties also learn skills of daily living such as communication skills, how to behave and do various chores.

The participants arguments agree with Cook and Ogden (2022) who argued that in instances where teachers had genuine desire to help learners with learning difficulties, they were restricted by other pressures and commitments which prevented them to provide the recommended and appropriate support to students with poor memory who require constant individualised attention and time.

A teacher with work overload can fail to use effective strategies that can assist his or her learners with poor memory even when he or she has the knowledge that that the strategies he or she is not applying would have brought effective change.

4.5.1.6 Emotional Behaviour Difficulties

Participant Z (11 July 2024) believed that another challenge that is making her fail to assist students with poor memory effectively is that these students portray attributes of emotional behaviour difficulties which make them have mood swings and fight a lot in class. This is what she said:

> These students also have emotional behaviour difficulties hence they fight a lot and I sometimes worst my whole period settling disputes rather than teaching. Mmmmm, they also have mood swings. Sometimes they can decide not to talk to you or answer you the whole day.

The participants' observation matches with Stathopoulou and Karathanasi (2023), who argued that students with learning disabilities are likely to have emotional and behavioural difficulties

than students without learning difficulties. Children with learning difficulties and especially those suffering from dyslexia, present mainly internalized emotional problems. Students with dyslexia exhibit depression and stress, physical problem, a feeling of withdrawal, social and attention problems. Girls present symptoms of depression in higher percentages than the boys who tend to have a more aggressive behaviour Stathopoulou and Karathanasi (2023).

One of the characteristics of students with emotional behaviour difficulties is attention problems. These students have difficulties in paying attention to what is happening. Although this is the case, Bandura (1971) argued that a person cannot learn much by observation if he does not pay attention to the module. This means that most of the strategies that have to do with attention will be ineffective to learners with poor memory due to their emotional behaviour difficulties.

4.5.1.7 Lack of Incentives

Participant Z (11 July 2024) claimed that lack of incentives hinder her from assisting students with poor memory efficiently. She said she wants to be receiving a token of appreciation on the good job she does. This is what she said:

> No incentives to say that you are doing a great job we should motivate you… no. another example every Friday I visit one special need student for a follow up but am not given transport either from the school or the office.

Abubakar(2024), argued that teacher incentives are important because they can motivate teachers to increase their performance and improve their satisfaction. Incentives also help create a sense of value and appreciation for teachers which can lead to better educational outcomes. Motivation is therefore needed especially to special needs teachers because they often times work as general teachers and special needs teachers at the same time.

Lack of incentives will demoralise the efforts the teachers would have put in making sure learning takes place such as gaining and sustaining the attention of the students, helping the students retain the information, checking the reproduction of the retained information and motivating and reinforcing the learners' efforts, which are they key aspects of moving the information to long term memory (Atkinson and Shiffrin, 1968; Bandura, 1977).

4.5.1.8 Few Qualified Teachers

Participant W (15 May 2024) complained that the schools had a few qualified teachers which is a challenge because most students end up being assisted by unqualified teachers who often complain that they do not know how best to assist these learners. This is what the participant said:

> The school does not have enough qualified teachers. The unqualified teachers are difficult to mentor on how to assist students with learning difficulties such as poor memory but yet since the school is a partial inclusive school, students with poor memory are also taught by these unqualified teachers.

Unqualified teachers argue that the field of inclusive education is complex and that they find the concepts of inclusive education difficult to grasp in theory and practice which results in developing ambivalent attitudes towards full inclusion (Warnes et al, 2023).

Unqualified teachers have inadequate knowledge on how to assist students with poor memory. Inadequate knowledge can affect the choice of strategies teachers use to assist students with poor memory as the teacher will not know the things to consider before choosing and applying a particular method. Hence, strategies that have the processes of observational learning such as attention, retention, production and motivation may not be used (Bandura, 1971).

The researcher discovered that special needs teachers encounter a number of challenges ranging from inadequate knowledge, inadequate teaching and learning resources, work overload, few

qualified teachers, lack of incentives to the teachers, large classes and learners with poor memory also have emotional behaviour difficulties. These challenges hinder the application of effective strategies that have elements of sending the information to long term memory and observational learning such as attention, retention production and motivation.

4.5.2 Recommended Solutions to the Challenges

A solution can be defined as an action or process of solving a problem. In this case, the participants explained the actions they felt the Ministry of Education should undertake in order to eradicate the problems they claimed they undergo as they help students with poor memory. This information was uncovered through semi structured interviews between the researcher and the participants.

4.5.2.1 Recruit More Special Needs Teachers

Most participants thought that recruiting and deploying more special needs teachers would reduce the student teacher ratio and work overload these teachers go through. For example, Participant Y (1 July 2024) said the government should train more teachers in inclusive education. On the other hand, *P*articipant X (3 June 2024) said:

> The ministry should reconsider sending more special needs teachers to schools. So that we should be managing well these learners because the ratio of 1:59 as it is here is hard, because I need each and every learner as an individual.

In addition to what Participant Y (1 July 2024) said, participant Z (11 July 2024) also said:

> The government should employ more teachers because in special needs we say that one learner is equivalent to 10 learners so here if am having 17 meaning to say I have 170 which is not fair to me I cannot even assist properly.

Finally, participant W (15 May 2024) said the government should train more specialist teachers so that each zone should have at least three teachers, not one teacher per zone as it is now.

Recruiting more special needs teachers would reduce the student teacher ratio which will in turn make teachers to give individualised attention to their students with special needs as most teachers in Cook and Ogden (2022) argued that they have genuine desire to help learners with learning difficulties, but they are restricted by other pressures and commitments which prevent them from providing the recommended and appropriate support to students with poor memory who require constant individualised attention and time.

A teacher who has few students would give recommended attention and make sure he or she does anything possible for learning to takes place such as gaining and sustaining the attention of the students, helping the students retain the information, checking the reproduction of the retained information and motivating and reinforcing the learners' efforts, which are they key aspects of moving the information to long term memory (Atkinson and Shiffrin, 1968; Bandula, 1977).

4.5.2.2 Provision of Incentives

Participant Z (11 July 2024) thought that the ministry of education should be providing incentives and allowances to motivate them as they carry out their daily duties as well as help them during their special needs student follow up sessions. This is what she said:

> The ministry should be proving incentives or allowance. The work we do requires some kind of motivation. For example, every Friday as I said I visit special need students at their homes but not even transport money is provided which is very demotivating.

Abubakar (2024) argued that teacher incentives are important because they can motivate teachers to increase their performance. Incentives also help create a sense of value and appreciation for teachers which can lead to better educational outcomes. Motivation such as transport allowance is needed so that these teachers can travel and assist their learners with learning difficulties much easily.

Provision of incentives and allowances will enable teachers to be motivated. One of the things that a motivated teacher can do is applying effective strategies that will bring noticeable change in his or her learners.

4.5.2.3 Provision of Teaching and Learning Resources

The participants recommended that they should be given teaching and learning resources if they are to provide quality assistance to students with poor memory. This is because these learners can hardly learn through abstract concepts. For example, participant Y (1 July 2024) said there should be provision of resources which can assist the teachers to help these learners with short memory span. Participant Z (11 July 2024) said:

> First and foremost, we talk of teaching and learning resources. The Ministry of education should give us more resources.

In addition to that, participant W (15 May 2024) said:

> Teaching and learning resources we don't have enough, these students with poor memory cannot be taught in abstract.

Provision of teaching and learning resources to students with poor memory is important because these resources can appeal to their senses for easy encoding and retention. Encoding is the way information is stored so that it goes to the long-term memory (Atkinson and Shiffrin, 1968).

4.5.2.4 Curriculum Differentiation

Curriculum differentiation is simply attending to the learning needs of a particular learner, or small group of learners in a different way rather than the more typical pattern of teaching the class as though all individuals in it were basically alike (Ministry of Primary and Secondary Education, 2019). Participant W (15 May 2024) argued that the Ministry of Education should to come up with a curriculum for inclusive education where the needs for both regular students and students with special needs are met. This is what he said:

> The curriculum we are using, very poor. There is nowhere it says you are going to assist these learners with this type of schemes. Now we are promoting inclusive education, but the curriculum is not reflecting inclusivity in the mainstream classes.

A differentiated curriculum will have suggested teaching and learning methods that cater for learners with learning difficulties. Some of these methods can be those which have to do with gaining and sustaining the attention of the students, helping the students retain the information, checking the reproduction of the retained information and motivating and reinforcing the learners' efforts, which are they key aspects of moving the information to long term memory (Atkinson and Shiffrin, 1968; Bandura, 1977).

The research revealed that the participants want the government to recruit more teachers in order to reduce their work load and the student teacher ratio. The participants also want the government to provide incentives, teaching and learning resources as well as a differentiated curriculum.

The third and last objective exposed the challenges that special needs teachers encounter as they help students with poor memory. The objective has exposed challenges such as inadequate knowledge, inadequate teaching and learning resources, work overload, few qualified teachers, lack of incentives to the teachers, large classes and learners with poor memory also have emotional behaviour difficulties. These challenges hinder the application of encoding strategies and the process of observational learning.

The third objective also provided recommended solutions for the exposed challenges. The participants recommended the Ministry of Education to recruit more teachers and to provide incentives, a differentiated curriculum and teaching and learning resources.

4.6 Chapter Summary

This chapter has presented a discussion and analysis of the research findings basing on the research objectives indicated in chapter one. The discussion and analysis has been done in relation to Atkinson and Shiffrin model of memory and Social Learning Theory by Albert Bandura. It has first assessed teachers' knowledge on poor memory as a learning disability. It then investigated the strategies teachers apply when assisting learners with poor memory. The study finally examined the challenges special needs teachers encounter in an attempt to assist learners with poor memory. The chapter uncovered that teachers are employing various strategies in order to assist students with poor memory. However, the effectiveness of the strategies depends on other factors such as the knowledge of the teachers, availability of teaching and learning resources and low student- teacher ratio. Consequently, I argue that strategies alone without corresponding conducive environment for teachers can not yield positive results. It is therefore incumbent upon for the government and other educational stakeholders to make sure that special needs teachers are given the necessary support for them to be effective in their work.

CHAPTER FIVE: SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Chapter Overview

This chapter summarizes the main findings of the study in relation to the research objectives. It stresses on uncovering the strategies teachers use when assisting students with poor memory. It also highlights some of the critical areas calling for further research in relation to helping learners with poor memory. The chapter eventually makes some recommendations on what should be done to make sure that learners with poor memory are also progressing academically.

5.2 Summary of Major Findings

The first objective uncovered that the selected primary school special needs teachers have partial knowledge on poor memory as a learning difficulty. Despite the participants mentioning different aspects of poor memory which they know, all of them pointed towards one thing, which is the inability to remember information that one previously learned. Some, however, associated poor memory to dyscalculia which is just a specific learning difficulty in understanding numbers which can lead to difficulties with mathematic. In addition to that the participants also expressed the correct identification techniques which they claimed to use when helping students with poor memory. The study also uncovered that some teachers think students with poor memory can improve while others doubt the possibility of these students ever improving. Those who think these students cannot improve have limited knowledge as there is room for improvement if intervention strategies are applied. Partial knowledge of the disability can affect the choice of strategies the teachers choose for helping students with poor memory.

The second objective discovered that teachers make use of a number of strategies ranging from one to one, group work, chunking, role play, singing and dancing, individual exercise, multi-sensory, task analysis, repeated drill and question and answer. In addition to that, it has been

revealed that strategies such as rehearsal strategy, visual aids, role play, building from the basics, question and answer, chunking and one to one approach were said and seen to be effective. These strategies enabled students with poor memory to retrieve information which was encoded during the previous lessons and or the same lesson. The study also uncovered ineffective strategies such as chunking, group work, lecture method, peer tutoring, individualised and question and answer. The least effective strategies were as a result of the teacher's failure to manipulate the environment so that attention should be gained and sustained throughout the classroom's activities and failure to execute the strategies properly.

The third and final objective also established that primary school special needs teachers encounter a number of challenges as they help students with poor memory such as inadequate knowledge, inadequate teaching and learning resources, work overload, few qualified teachers, lack of incentives and allowances to the teachers, large classes and learners with poor memory also have emotional behaviour difficulties. These challenges hinder the application of effective strategies which will end up hindering the implementation of National Education Standard number 13. Apart from exposing their challenges the participants also made recommendations to the Ministry of Education. In their recommendation, they pointed the need to recruit more special needs teachers and to provide incentives, a differentiated curriculum and teaching and learning resources. The teachers use of ineffective strategies can affect the implementation of National Education Standard number 13 as the teaching will fail to meet the needs of all students.

The study has in overall established that primary school teachers know and apply strategies that can help students with poor memory. However, some strategies were effective to one teacher and ineffective to another, or effective in one lesson but ineffective to another. Such as chunking, visual aids, rehearsal and question and answer. This was due to poor execution of the

strategies, lack of clarity and the complexity of the topic among others reasons. Therefore, teachers should be flexible to change strategies which are not working.

5.3 Conclusion

The study found out that teachers use a number of strategies when helping students with poor memory but the ineffectiveness of these strategies are influenced by the teacher's limited knowledge of the concept, the high student teacher ratio, inadequate teaching and learning resource and students with poor memory having behaviour problems. It must be established that students with poor memory deserve to excel in their academics like other regular students hence applying strategies that are producing positive results is every important. Furthermore, the study has reaffirmed that the Atkinson and Shiffrin Model of Memory and the Social Learning Theory are more relevant and practical when checking which strategy will be effective when teaching students with poor memory. The reason being that, these theories provide characteristics of what should be contained in the strategy to make them effective for students with poor memory. After evaluating the strategies that special needs teachers use when assisting students with poor memory, the study has shown that not all strategies that teachers use are effective. This has an implication on the well-being of students with poor memory within the mainstream classrooms. This also shows that National Education Standard number 13 is not being met since the teachers are failing to meet the needs of all students.

5.4 Recommendations of the study

In relation to the research findings, the following recommendations have been made to ensure that the strategies that special teachers choose and apply are effective to students with poor memory.

5.4.1 Intensification of Continuous Professional Developments (CPDs)

Despite the teachers being trained as special needs teachers who can assist students with various special needs including those with poor memory, some teachers are seen to have difficulties in identifying and applying effective strategies that can help these students. Therefore, there is need for schools to intensify Continuous Professional Developments (CPDs) as a platform of sharing knowledge and skills on how to identify students with learning difficulties as well as effective strategies to use when helping such students.

5.4.2 Recruit More Special Needs Teachers

The study revealed that most participants were responsible for their school and an entire zone where they have to assist students with various special needs. This leads to work overload and ineffective execution of their duties. Therefore, there is need for the Ministry of Education to recruit more special needs teachers. At least, one special needs teacher per school.

5.5 Areas for Further Study

The study has made some strides in evaluating the strategies that primary school special needs teachers use when assisting learners with poor memory in Mzuzu city. The study remains vital as it has been conducted when Malawi is making sure all the National Education Standards for Primary and Secondary Education are being met. This research falls under National Educational Standard number 13, titled "Teaching Which Meets the Needs of All Students". In pursuit of the main objective, the study has unveiled a number of critical issues surrounding the knowledge the teachers have on poor memory which can affect their choices and execution of the strategies as well as challenges the teachers meet when helping these students which can also affect their choices and execution of the strategies. Issues of this nature provide a yardstick for future research. As such, other researchers need to dwell on the issues explained in the discussion that follows.

5.5.1 The Training of Primary School Special Needs Teachers in Colleges and Universities

The study established that most teachers demonstrated lack of competence in executing teaching and learning strategies that can favor students with poor memory. Perhaps, the reason could be that most of them have a limited understanding of the situation. Therefore, some researchers need to investigate the type of training that teacher educators provide to special needs student-teachers in institutions of higher learning.

5.5.2 The Impact of Having Students with Different Special Needs in One Class

The study established that most of the teachers have students with different special needs in their classes. Although this is the case, these learners require different strategies for them to learn. Therefore, some future researchers need to explore the impact of having students with different special needs in one class.

5.5.3 Ministerial Support Given to Learners with Learning Difficulties

The study has established that the special needs teachers do not receive enough support that they can use to assist the students with poor memory. Therefore, some future researchers need to investigate the kind of ministerial support that goes to learners with learning difficulties and how often does that support reach the students and teachers.

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APPENDICES

Appendix I: MZUNIREC Letter of Approval

MZUZU UNIVERSITY

DIRECTORATE OF RESEARCH

Mzuzu University
Private Bag 201
Luwinga
Mzuzu 2
MALAWI
TEL: 01 320 722
FAX: 01 320 648

MZUZU UNIVERSITY RESEARCH ETHICS COMMITTEE (MZUNIREC)

Ref No: MZUNIREC/DOR/24/35 **17/04/2024.**

Faith Harawa,
Mzuzu University,
P/Bag 201,
Luwinga,
Mzuzu 2.

Email chigomezgo98@gmail.com

Dear Faith,

RESEARCH ETHICS AND REGULATORY APPROVAL AND PERMIT FOR PROTOCOL REF NO: MZUNIREC/DOR/24/35: AN EVALUATION OF THE STRATEGIES TEACHERS APPLY WHEN ASSISTING LEARNERS WITH POOR MEMORY: A CASE STUDY OF SELECTED SECONDARY SCHOOL TEACHERS IN MZUZU CITY.

Having satisfied all the relevant ethical and regulatory requirements, I am pleased to inform you that the above referred research protocol has officially been approved. You are now permitted to proceed with its implementation. Should there be any amendments to the approved protocol in the course of implementing it, you shall be required to seek approval of such amendments before implementation of the same.

This approval is valid for one year from the date of issuance of this approval. If the study goes beyond one year, an annual approval for continuation shall be required to be sought from the Mzuzu University Research Ethics Committee (MZUNIREC) in a format that is available at the Secretariat. Once the study is finalised, you are required to furnish the Committee with a final report of the study. The Committee reserves the right to carry out compliance inspection of this approved protocol at any time as may be deemed by it. As such, you are expected to properly maintain all study documents including consent forms.

Committee Address:
Secretariat, Mzuzu University Research Ethics Committee, P/Bag 201, Luwinga, Mzuzu 2; E-mail address: mzunirec@mzuni.ac.mw

Wishing you a successful implementation of your study.

Yours Sincerely,

Gift Mbwele

SENIOR RESEARCH ETHICS ADMINISTRATOR

For: CHAIRMAN OF MZUNIREC

Committee Address:
Secretariat, Mzuzu University Research Ethics Committee, P/Bag 201, Luwinga, Mzuzu 2; E-mail address: mzunirec@mzuni.ac.mw

Appendix II: Approval to Conduct Research from Educational Foundations Department

Mzuzu University
Private Bag 201
Luwinga
Mzuzu 2
MALAWI

Tel: (265) 01 320 575/722
Fax: (265) 01 320 568
mdolo.mm@mzuni.ac.mw

MZUZU UNIVERSITY

Department of Teaching, Learning and Curriculum Studies

22nd April 2024

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

LETTER OF INTRODUCTION MS FAITH HARAWA

Ms Faith Harawa is a registered Master of Education (Teacher Education) Program student at Mzuzu University. She has been cleared by the Mzuzu University Research Ethics Committee (MZUNIREC) to collect data for the research study she is conducting as a requirement for the program.

Kindly assist her accordingly.

Yours faithfully,

Dr Margaret M. Mdolo
Program Coordinator

Appendix III: Request for the Study to the Education Division Office

Mzuzu University,

Private Bag 201,

Mzuzu.

23rd April, 2024.

The Education Division Manager,

Northern Education Division,

P.O Box 133,

Mzuzu.

Dear Sir,

REQUEST FORPERMISSION TO COLLECT DATA AT VARIOUS PRIMARY SCHOOLS IN MZUZU CITY

I am Faith M. Harawa (MEDTE1022) a Master of Education in Teacher Education student at Mzuzu University. In partial fulfilment for the award of Master of Education degree in Teacher Education, I am expected to conduct a research. My study is titled **"An Evaluation of the strategies Special Needs Teachers apply when assisting learners with poor memory: A case study of selected primary school special needs teachers in Mzuzu City". The research has received ethical approval from Mzuzu University Research Ethics Committee (MZUNIREC/DOR/24/35).** The study will target primary school special needs teachers.

I kindly request your office to allow me to collect research data in some Primary Schools within Mzuzu City.

Your favourable consideration will be highly appreciated.

Yours Faithfully,

Faith Harawa

Appendix IV: Letter of Introduction from NED

Telephone: +265 1 312 144
+265 1 312 107
Fax: +265 1 312 640

Communications should be addressed to
MINISTRY OF EDUCATION
EDUCATION DIVISION MANAGER (NORTH)
P.O. BOX 133
Mzuzu

Ref No: REF/NED/ADMIN/2/1A

2nd May 2024

TO: HEADTEACHERS

RE: FAITH HARAWA

The above captioned subject matter refers.

This letter serves as a permission for Faith Harawa, who is a student at Mzuzu University, to collect data in selected secondary schools in Mzuzu City for her academic research. Please provide the research candidate with the support required in her research. You can always refer to this office for guidance.

Your support in this regard is highly sought for.

NDONGOLERA C. MWANGUPILI, PQAO
FOR THE EDM (NORTH)

Appendix V: Letter to Research Participants

Mzuzu University
Private Bag 201
Mzuzu

Dear Sir/Madam,

PARTICIPATION IN RESEARCH STUDY

Thank you for volunteering to be a participant is this research. This letter outlines information regarding the research and your role in it. The title of the research will be; **Evaluating strategies special needs teachers employ in assisting learners with poor memory in selected primary schools in Mzuzu City.** The study will be conducted in three main phases; semi structured interviews with special needs teachers, classroom observation as well as analysing documents such schemes of work and lesson plans. The researcher will ask questions to analysing your understanding of strategies used when teaching students with poor memory as a learning disability. The data from oral interviews will be audio-taped based on your approval. The data collected will help evaluate strategies used when teaching students with poor memory.

Finally, I will bring the findings of the study to you for you to confirm or disconfirm, and this will help me in the final publication of my thesis. It must also be pointed out that confidentiality will be observed in the process of the study. The final results will be published as Master's degree thesis which will be submitted to the Faculty of Education of Mzuzu University. If you have any concerns you wish to discuss with me, my contact details are: 088566740/0994149997, chigomezgo98@gmail.com

Regards

Faith M. Harawa (Researcher)

Appendix VI: Informed Consent Form for Research Participants

I, _____ have read the accompanying information and that clear clarifications on areas of concern have been addressed to my satisfaction. I therefore accept to participate in this study on the strength that I may withdraw at any time without being cautioned and restricted.

I agree that the data collected for this research may be published for academic purposes on the condition that confidentiality and privacy will be observed and upheld.

I also agree to have my interviews audio-taped YES NO (Please tick)

Participant **Date**

_____ _____

Researcher: Faith M. Harawa **Date**

Appendix VII: Semi Structured Interview Guide for Primary School Special Needs Teachers

1. During your training as special needs teachers, did you learn topics that have to do with poor memory as a learning difficulty?
2. If yes, summarise what you learnt under that topic.
3. Do you have students with poor memory in your class?
4. If yes, how many are they?
5. How did you manage to identify such students?
6. Based on your experience as a special needs teacher, have you ever had a scenario where you had students who once had poor memory challenges but later recovered?
7. If yes, what do you think was the reason behind the recovery?
8. Describe the strategies you apply to assist learners with poor memory.
9. Out of all the strategies you apply, which one is the most effective in your class? And which one is the least effective?
10. What do you think are the reasons that make the strategies mentioned (in 9 above) most and least effective?
11. Describe the challenges you encounter in your endeavour to assist learners with weak memory challenges.
12. What do you recommend the Ministry of Education should do in order to assist both you, special needs teachers, as well as learners with poor memory?

Appendix VIII: Document Analysis Guide for Primary School Special Needs Teachers

OBSERVATION DATE: OBSERVATION TIME

OBJECTIVES	OBSERVATION RECORDINGS
Sitting Position of students with poor memory	
Distribution of questions to students with special needs	
Leadership positions of students with poor memory	
Individualized attention to students with poor memory during the lesson	

Description of Teaching strategies employed	
Effectiveness of each strategy employed (indicators of effective strategy)	
Ineffectiveness of each strategy employed (indicators of effective strategy)	
Challenges encountered by the teacher when assisting students with poor memory	