Gender Dynamics in Mnemonic instruction: Enhancing Reading Skills Among Grade Three Learners with Dyslexia through Mnemonic Instruction in Mpumalanga Public Schools, South Africa

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Abstract

Two theories were applied: the information processing and Skinner's reinforcement theory. A method for estimating causal links without random assignment was employed. There were two institutions: an experimental one and a normal one. Using judicious sampling methods, 43 participants from the two chosen schools were included in the study. The questionnaires were completed by 23 parents from the intervention school. Information was gathered using the Bangor Dyslexia Test (BDT), pre- and post-tests, and a literacy assessment exam. There was a statistically significant difference between the reading scores of boys and girls with dyslexia, according to the results of the independent samples t-test. When examining reading skill alone as a component of reading ability, female students' results (M=26.7; SD=7.7) were significantly higher than those of male students (M=13.0; SD=6.7), t (21) = 4.563, p =.000 <.001. This suggests that gender plays a significant role in improving reading ability through mnemonic intervention, with female students outperforming male students. According to the study, the Department of Education (DBE) should create early assessments for male learners with dyslexia in their early school years.

Keywords: Primary Schools; Learners; Dyslexia; Reading Ability; and Mnemonic Instruction (MI)

Introduction

Over five million South Africans struggle with reading and writing at work or in school, according to published studies (Asiko 2013). It is critical that both adults and children acquire literacy abilities, according to Leseyane et al. (2018), who were investigating the impact of phonemic awareness deficit on schooling. Additionally, learners with dyslexia (LWD) may have psychological or social consequences as a result of their academic challenges (Leseyane et al., 2018). Many pupils in grades R through 7 have difficulty reading, despite the fact that statistics on the prevalence of reading difficulties in South African lower primary schools are currently unavailable. No research has yet given statistics on the number of LWD in public primary schools. Speaking at a conference in September 2013, Asiko (2013), manager of Strive International, a nonprofit organization

that aims to enhance the academic experience of African students with reading difficulties, said that the conference's objectives were to increase awareness of the challenges faced by LWD, identify the most effective interventions to put into practice in South Africa, and come to an agreement on policy recommendations.

The effects of LWD's marginalization and the lack of a widely recognized definition of dyslexia in Africa were also covered by Asiko (2013). It has been recognized from earlier studies that the effectiveness of mnemonic reinforcement therapies on LWD has been overlooked in South Africa. Few authors have discussed memory aids as a means of improving pupils' reading skills. According to Geertsema et al.'s (2022) study, the majority of South African parents of children with dyslexia were aware of the condition, struggled to cope with the social stigma attached to it, and recognized their role in their children's education. However, the lack of resources in the country led to poor parent-school involvement. Many researchers have employed memory coaching as a teaching strategy for children with a variety of difficulties, pupils with impairments and special needs. Few writers have addressed memory aids as a way to help students become better readers. The majority of South African parents of children with dyslexia were aware of the disorder, found it difficult to deal with the social stigma associated with it, and understood their role in their children's education, according to a study by Geertsema et al. (2022). However, little parent-school involvement was caused by the nation's lack of resources.

Memory coaching has been used by numerous researchers as a teaching method for children with a range of challenges, students with particular needs and disabilities. Memory aids have been used to encourage students who may be struggling. According to the aforementioned studies, mnemonic instruction can be used by both mainstream and special education teachers. Snowling (2020) and International Dyslexia Association (I.D.A.) (2021) agree that dyslexia is typified by difficulties with spelling and reading aloud. According to Wu et al. (2022), dyslexia is characterized by a restricted capacity to understand written and printed words. Wu et al. (2022) further note that pathological panel data show the high prevalence of dyslexia, which affects 10–20% of individuals of all genders. Additionally, a study by Kurniati et al. (2019) found a striking difference in children with cognitive impairment's fundamental English interpersonal abilities before and after they were taught visual memory aids. According to Kurniati et al. (2019), educators should use visual memory aids when instructing students with special needs. This implies that LWD might benefit from visual mnemonics. The current study is significant because educational settings need to be aware of the occurrence of sensory-related disorders like dyslexia that impact learning abilities like reading (Sabaricos et al., 2021).

Research on developmental delay is important because teachers could strive to grasp an outline rather than concentrating on therapeutic support for teaching

abilities connected to developmental coordination issues. Therefore, the current study's objective was to help grade three LWD symptoms improve their reading abilities before they developed into struggling readers. The current study examined the impact of gender on mnemonic reinforcement strategies to improve declarative memory recovery and recollection utilizing sight and hearing cues. For an end-of-term assessment, the current study examined how grade three LWD in two state-run schools in the Bohlabela district of Mpumalanga, South Africa, read agreed words. Additionally, the study examined the effectiveness of mnemonic and sub lexical reinforcement views as treatment for various age groups and genders.

The effectiveness of mnemonic reinforcement interventions on LWD has received minimal attention, according to the research currently available on the situation in South Africa. Few writers have discussed using mnemonic methods to improve pupils' reading skills. Many academics have used mnemonic training to teach children with different kinds of disabilities. Mnemonic devices have long been used to help students retain information taught in programs that improve their general knowledge, literacy, skills, and competencies as well as in settings that assist children with special needs and disabilities, according to Lubin and Polloway (2016). Additionally, mnemonic acronyms may be used to help pupils remember ideas and subjects, according to a 2019 study by Radovic and Manzey. Mnemonic devices have been used to encourage students who may be having difficulty in reading. According to the aforementioned studies, mnemonic instruction can be used by both mainstream and special education teachers.

Dyslexia is characterized by difficulties with spelling and reading aloud, according to Snowling (2020) and I.D.A. (2021). According to Wu et al. (2022), dyslexia is characterized by a reduced ability to understand written and printed words. Wu et al. (2022) further note that the substantial prevalence of dyslexia, which affects 10–20% of individuals of all genders, is shown by epidemiological longitudinal data. Additionally, a study by Kurniati et al. (2019) discovered a substantial difference in children with intellectual disabilities' basic English communication skills before and after they were taught picture mnemonics. According to Kurniati et al. (2019), teachers should use picture mnemonics to instruct students with special needs. This implies that LWD may benefit from visual mnemonics.

The current study is important because educational institutions need to know about neurologically related disorders like dyslexia that impair academic abilities like reading (Sabaricos et al., 2021). Research on learning difficulties is important because it allows teachers to focus on understanding a scenario rather than remedial support for teaching skills related to specific learning disorders. Therefore, the current study's objective was to help grade three learners who showed signs of dyslexia improve their reading abilities before they become problem readers. The current study investigated

how gender affects mnemonic reinforcement strategies to improve long-term memory retrieval and retention utilizing visual and aural cues.

For an end-of-term evaluation, the current study examined how grade three LWD in two state-run schools in the Bohlabela District of the Mpumalanga Province of South Africa read pre-selected words. The effectiveness of mnemonic and sub-lexical reinforcement techniques as therapies for various age groups and genders was also examined.

Structure of Theory

The information processing theory and Skinner's operant conditioning theory provided a framework for the investigation. B.F. Skinner's operant conditioning theory relies heavily on reinforcement (Rafi et al., 2020). Overskeid (2018) defines a reinforcer as a stimulus that either strengthens or weakens a behaviour.

Examining the notion of reinforcement, grade three LWD who fulfilled a set word count were allowed to choose any short story book from the library and spend a week reading it at home. According to Skinner's method of teaching, which uses rewards and penalties to modify behaviour (Schunk 2012), students had to answer every question right away. Good behaviour would persist in this scenario because intermittent reinforcement is highly effective. The method of providing support enables students to react again each time they provide an accurate response and receive a positive response (Schunk 2012).

According to Schunk (2012), the process of rewarding a pattern of behaviour when it is demonstrated in order to encourage the actions to continue is known as the learned connection between a behaviour and an outcome. Reinforcers are situational since they may be effective for certain individuals under specific conditions but not for others (Skinner, 1957; Critchfield & Miller, 2017). Additionally, Skinner (1953) stressed that in some circumstances, it is feasible to forecast what will result in a change in behaviour or the body. Additionally, the Information Processing Theory (IPT) served as a guide for this effort. The theory describes how our brains encrypt information and balance the capacity to retrieve little amounts of recent memory with the capacity to recall long-term memories. The idea explains how our brains encrypt information and weigh the ability to recall long-term memories against the ability to recollect little quantities of memory from recent times. The initial idea refers to any important unit, such as numbers, names or faces, as well as the short-term storage that temporarily stores information. Miller (1956) emphasized that information might be temporarily stored in working memory or temporary storage. Secondly, the next notion uses the data processor as a portrayal of an individual (Miller, 1956). There are three kinds of recollection, that is, one that collects information that an individual discerns, one

that keeps facts for a short while and one that restores and remembers data for long periods and is infinite.

Literature Review

Dakhiel and Abu Al Rub's (2017) experimental study in Saudi Arabia, which used children with learning disabilities generally but concentrated on grade three LWD, did not find any significant gender-related demographic differences or interactions. In a different study, Tabatabaei and Hejazi (2011) discovered that, in the vocabulary immediate post-test, girls did better than males in terms of percentage scores. Second, there was a substantial difference in retention scores between boys and girls in the delayed post-test. Third, a comparison of the groups revealed that women performed much better than men in terms of language retention and immediate post-test outcomes. Although the study was quantitatively examined using vocabulary pre- and post-tests, it lacked qualitative in-depth results that would have allowed respondents to exhibit a greater grasp of experience, phenomena, and context. The current study, on the other hand, employed triangulation, a mixed-methods research design with the overarching objectives of corroboration and breadth and depth of understanding, which integrates data collecting, analysis, and inference procedures with mixed methods of research viewpoints.

A 26-year-old Indonesian student who had recently started as a first-year student at a specific Australian university received an intervention using the mnemonic keyword approach for learning foreign language vocabulary. The findings showed that compared to her other study methods, the Key Word Mnemonic (KWM) had a greater impact on the learner's ability to acquire and remember Bahasa Indonesian. Since there was just one female student in the case study, gender had no discernible impact on therapy. However, studies comparing the vocabulary growth of male and female learners using the keyword strategy are scarce. In a different study, Goh & Foong (1997) found significant differences between men and women in terms of learning strategies and compensation for managing both positive and negative emotions.

The majority of earlier research on students' opinions and preferences about vocabulary learning processes at the university level was started in ESL settings, despite the fact that the majority of English language learners and teachers work in EFL environments. In a related study, Osuh and Mwankon (2022) found that although there was no significant difference between the sexes in the recall test on the word repetition mnemonic, Nigerian women were able to retain more material and performed better than men on mental image and sentence mnemonics. Gender had no appreciable effect on the reading comprehension skills of students with intellectual disabilities, according to a quasi-experimental study conducted in Nigeria by Oyundoyin and Bolaji (2018).

Additionally, gender had no discernible effect on students' academic achievement, interest in biology, or attitude. Additionally, the Okenyi (2022) study in Nigeria found that the prior knowledge educational technique performed better than the mnemonic teaching strategy, even if gender had no effect on the results. Similar findings were found in Nigeria by Musa, Dauda, and Umar (2016), who found that while there was no sexuality contrast in math presentation or a significant masculine or feminine effect on students' orientation toward learning goals favouring males, there were gender effects on students' competence and avoiding failure in front of others. In an experimental study, Fuentes & Desrocher (2013) used a modified version of the mnemonic keyword technique to teach students German nouns, meaning, and grammatical gender. The findings demonstrated that understanding the gender and the translation instance appeared to impede the acquisition of native translations. Fuentes and Desrocher used a modified version of the mnemonic keyword strategy to teach students German noun meaning and grammatical gender in their 2013 experimental study. Although there were interventions, LWD were not included in the investigation; instead, grade three LWD participated in the current study.

Hussein's (2025) study in Tanzania emphasized how assistive and adaptive technologies might help LWD improve their literacy abilities. Examining how cutting-edge technology tackle these issues and advance inclusive education was the goal of the research. Additionally, Sau (2024) conducted a study in India with the goal of addressing dyslexia as a defect and outlining the ways in which educators may help identify and diagnose LWD. Han's (2025) study provided an updated view of the prevalence, aetiology, and educational implications of dyscalculia and dyslexia in school-age children in Australia by synthesizing literature from the previous ten years (2015–2024).

On the one hand, the current study emphasized the efficacy of the mnemonic reinforcement strategy in relation to gender, whereas Hussein's (2025) paper examined the function of adaptive and assistive technology in improving literacy abilities for children with dyslexia. Additionally, the current study included grade three boys and girls with dyslexia, whereas Hussein's paper did not specify the age or gender of the pupils it dealt with. Furthermore, the current study concentrated on students in their third year of formal education who were 8 to 9 years old, whereas Sau's (2024) study examined students between the ages of 6 and 10. However, whereas Han's (2025) study focused on the prevalence, causes, and educational implications of dyscalculia and dyslexia as co-occurring learning disorders, the current study primarily addressed dyslexia and how to help affected learners improve their reading skills. Zega et al.'s (2024) qualitative study examined how gender was portrayed in textbooks, the presence of gender representation inequality, and whether the textbook still contained gender prejudice or stereotypes. The study was conducted in India once more.

Additionally, Lim's 2024 study in the Philippines examined how 117 primary school teachers assessed the National Reading Program's execution as well as the reading proficiency of primary school students in Subic District, Schools Division of Zambales, during the 2024–2025 academic year. Using a validated questionnaire, the study used a quantitative-descriptive, causal comparative, and correlational research design. Additionally, Jamdani's (2025) study evaluated the measures related to reading difficulties among Patikul West District public elementary school students. The researcher used either the descriptive-exploratory research design or the quantitative approach in the same investigation.

The current study used a quantitative strategy to examine the effect of gender on reading abilities among grade three LWD, whereas Zega et al. (2024) used a qualitative study with a content analysis approach. Both Lim's (2024) and Jamdani's (2025) studies used quantitative approaches, just like the current study.

Research Theory

The resulting statistical hypothesis was assessed. The effectiveness of mnemonic teaching in improving reading skills among third-grade LWD is not statistically significantly influenced by gender.

Methods

Research Design

When practical or social factors are taken into account for random assignment, on-the-spot processes encounter a variety of concepts that can be modified according to their conditions (Iwahori et al., 2022). According to de Vocht et al. (2021), non-randomized pre-post interventions are marginally more susceptible to bias than other approaches. According to Handley et al. (2018), the current study employed a real-world context, including tests in which the researcher orders distribution in a non-random manner.

Research Participants

Forty-three (43) year three LWD from two government schools in the Bohlabela region of Mpumalanga province, one from Ximhungwe and the other from Mkhuhlu Circuits, made up the study's quantitative sample.

There were twenty (20) LWD in the control group and twenty-three (23) LWD in the intervention group. The researcher employed a selective sample strategy to gather learners. When collecting data, researchers can save time and money by employing a set of non-probability sampling strategies that choose units according to the qualities required in a specimen. According to Campbell et al. (2020), these methods are "used to select respondents that are most likely to yield appropriate and useful information."

Because it clearly placed numerical and descriptive results, related reliability information gathering and interpretation, the purposeful sampling technique was relevant to the investigation.

Research Tools

Pre-testing for this study included the Bangor Dyslexia Test (BDT) and a short text to measure comprehension.

All scales are valid since (p=0.6) according to validity results from the Bartlett's test for sphericity (Tabachnick & Fidell, 2001). This was done to ascertain the extent to which the recorded results accurately represent the individuals under investigation and are not the consequence of test or survey errors. Internal consistency, a measure of how comparable a set of items are, had a group value of 0.833 in the surveys. Each subscale's scale dependability metric demonstrates that each test component made an equal contribution to the study's measurement. This is in line with the idea put forth by Oso and Onen (2009) that an interdependence of at least 0.60 denotes adequate trustworthiness, which means that the outcome can perform as expected over time.

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Procedure

First, a method to assess how ethically the inquiry process was conducted was approved by the University of the Witwatersrand Human Research Ethics Committee. The Mpumalanga Department of Education and the school officials then gave the researcher permission to carry out the study. A total of 43 students, 20 from the conventional school and 23 from the experimental school, were selected at random while taking the number of wrong answers into consideration. A third grader was considered to have dyslexia if they answered seven or more of the 19 questions incorrectly. In the end, 43 students were selected.

For six months after the pre-test, LWD from the intervention school got intervention lessons on mnemonic reinforcement techniques for an hour every day, five times a week, whereas those from the control school continued to get their regular reading lessons without any intervention. Tests were administered to the LWD at the two research sites six months after the intervention program ended in order to assess the students' improvement.

Analysis of Data

Data that could be measured or tallied in numerical numbers were examined using estimates and hypothesis testing. Inferential statistics made it easier to draw inferences. The differences between the variables were examined using inference tests and a statistical analysis to see whether the difference between the means of two groups statistically significant given gender and age is. All significance tests were calculated at $\alpha = 0.05$. A statistical data analysis software tool, version 26.0, was used to analyse the facts. Results The present study investigated the effects of gender on the reading abilities of third-grade LWD using mnemonic reinforcement techniques. "There is no statistically significant gender influence on the effectiveness of the mnemonic instruction reinforcement on enhancing of reading ability among the grade three LWD," was the null hypothesis being investigated.

The hypothesis was tested using field data, taking into account two LWD groups: the experimental group and the standard group. Group 1, the intervention group, improved their reading, comprehension, interpretation, and decoding abilities by using the mnemonic reinforcement technique. Group-2, on the other hand, was only taught to read in the conventional way and is the control group where unequable is not being explored. A pre-test reading assessment was given to both groups. Students in the intervention group received memory help after the diagnostic test, whereas those in the regular group continued to receive uninterrupted study instruction.

Students in the intervention group received memory help after the diagnostic test, while students in the normal group continued to receive uninterrupted study instruction. Uncontrolled tests and assessments that compare the mode of two computations taken from the same individual were used to measure the difference in reading abilities when comparing the mode of one group to that of another LWD group during the time when students received supplemental instruction without interfering with the core curriculum. The pupils' reading skills were assessed using two sub-scales: the literacy test and the comprehension test. A reading test and a comprehension test were used to determine the students' literacy proficiency.

	Gender	n	Mean	Std. Deviation	Df	t	p-value	Effect Size
Reading	Male	13	13.00	6.71	21	4.563	.000	0.498
	Female	10	26.70	7.67				
Comprehension	Male	13	1.85	1.28	21	5.160	.000	0.559
	Female	10	3.90	.57				
Overall Reading Skills	Male	13	14.85	6.85	21	5.070	.000	0.550
	Female	10	30.60	8.04				

Table 1: Gender differences on effectiveness of mnemonics interventions

The results of the study, which are shown in Table 1, show that mnemonic interventions generally increase girls' performance in reading comprehension and overall reading ability more than they do for boys. For example, girls improved their general reading skills by an average of 30.6 with a predicted error of 8.0, but boys only improved by an average of 14.9 with a predictable error of 6.9. In both reading ability components, girls did better than boys. After the mnemonic intervention, females improved by an average of 26.7 (SD=7.7) in reading, while boys only improved by an average of 13.0 (SD=6.7); in comprehension, girls improved by an average of 3.9 (SD=.57), while boys only improved by 1.9 (SD=1.3). To ascertain whether the differences in scores between boys and girls are statistically significant, it was also required to look at the descriptive statistics.

The results of independent samples t-tests, which confirm the disparities, are shown in Table 5.12. It shows that girls fared better than boys in reading, and there was a statistically significant difference between the two components of their overall reading ability performance. For example, the results of the two-sample t-test comparing the literacy skills of dyslexic boys and girls showed a statistically significant difference between the sexes. Female learners' scores (M=26.7; SD=7.7) were significantly higher than male learners' (M=13.0; SD=6.7) in a study that looked at interpretation alone as a component of reading ability; t (21) = 4.563, p =.000

Additionally, the extent of the mean differences (eta squared=.498) demonstrated a striking divergence in the means. This suggests that there is a statistically significant difference in reading between boys and girls within the intervention group. The fact that female students performed better than male students indicates that gender has a significant role in enhancing reading ability through mnemonic intervention. This suggests that gender is a determinant that affects how well mnemonic instruction improves reading among LWD. Similarly, when reading comprehension was evaluated separately, there was a statistically significant gender difference (t (21) = 5.160, p =.000).

Similarly, an independent assessment of comprehension, a component of reading skills, revealed a statistically significant gender difference (t (21) = 5.160, p =.000). Additionally, the significant magnitude of the mean differences was shown by the eta squared value of.559. This suggests that 55.9% of the variation in reading comprehension among third-grade LWD can be attributed to the learner's gender. The girls outperformed their male counterparts in reading comprehension. The results of the study also reveal a statistically significant difference between boys and girls in terms of the increase of general reading.The average reading improvement score for girls was 30.6 (SD=8.04), whereas the average score for boys was 14.9 (SD=6.7). These scores differed significantly from each other (t (21) = 5.07, p =.000 <.001). This suggests that overall reading improvement is substantially different for

boys and girls, with the latter attaining higher scores than the former. Males seemed to do worse overall in their reading abilities, according to the results, suggesting that gender influences how well mnemonic instruction reinforcement improves overall reading skills among grade three LWD. Gender accounted for 55.0% of the variation in the mnemonic intervention's effectiveness in raising the grade three LWD's overall reading proficiency, according to the size effect (eta squared=0.550). Thus, it can be said that the effectiveness of mnemonic teaching in raising the general reading proficiency of third-grade LWD is significantly influenced by gender differences. Consequently, the statistical hypothesis was refuted. In conclusion, gender was found to have a substantial impact on the effectiveness of mnemonic instruction reinforcement in enhancing reading abilities in third-grade LWD.

In conclusion, it was found that gender greatly enhanced the effect of the memory help strategy on the third-grade LWD's reading proficiency.

Hypothesis Testing: Effect of Gender on the Effectiveness of Mnemonic Instruction on Improving Reading Ability H 1: Among the third-grade LWD, gender has a statistically significant impact on the effectiveness of mnemonic instruction on improving reading ability. The study aimed to investigate the impact of gender on the effectiveness of memory aid training on reading competency in third-grade LWD. The null hypothesis, "There is no statistically significant gender influence on the effectiveness of the mnemonic instruction reinforcement on enhancing of reading ability among the grade three LWD," was put to the test.

In order to evaluate the hypothesis using experimental data, two LWD groups were considered: the experimental group and the standard group. The intervention group, or Group 1, received reading instruction using mnemonic reinforcement techniques. Group 2, the control group, on the other hand, received no treatment other than standard reading training. A reading assessment screening was assigned to either the intervention or control groups. The students in the intervention group got the first intervention utilizing the mnemonic reinforcement approach, whereas the students in the control group continued to attend their normal reading sessions without any intervention after the pre-test. After the intervention session ended, a post-test 1 was administered to both groups.

Because the study used the traditional pre-test-post-test two-group design for both the intervention and standard groups, either atypical or correlated t-tests were used to evaluate the difference in reading proficiency between the two batches. By employing different mixes of pre- and post- for the experimental and standard groups, the investigator was able to ensure that remarkable factors and unrelated constituents

did not alter the results. Reading proficiency was measured using two subscales: the comprehension test and the reading assessment.

Discussion

The quantitative findings generally demonstrated that, in comparison to boys, girls' performance in reading ability and its components (reading and comprehension) was enhanced by mnemonic intervention. Furthermore, there was a noticeable impact of gender identity on the enhancement of reading ability with mnemonic intervention, with female students outperforming male students. Qualitative results showed that girls participated more actively and were more interested and curious than boys in the experimental class. Previous studies have shown that men and women use various mnemonic devices to retain knowledge and have distinct memory for gender-stereotyped items.

These findings are in line with previous studies that demonstrated a significant impact of gender on the effectiveness of mnemonic education. Female participants were often shown to do better than male participants in a number of situations, such as achieving higher percentage scores (Goh & Foong, 1997; Tabatabei & Hejazi, 2011; Osuh & Mwankon 2022). However, this result contradicts previous research (Musa et al., 2016; Dakhiel & Abu Al Rub, 2017; Oyundoyin & Bolaji, 2018; Funmilayo, 2022) & Okenyi, 2022, which revealed no appreciable gender-based differences. Furthermore, research has not definitively established the specifics of these modifications. These results imply that in order to train instructors, the DBE should routinely hold workshops on methods to enhance reading abilities, such mnemonic instruction. This is due to the fact that these tactics facilitate students' access to the public agency's goals and objectives by giving them the resources they require to more effectively transfer information into a memory system, which makes it much easier to retrieve it later. On the one hand, the quantitative data indicated that there was a significant gender difference in reading, comprehension, and overall reading, with girls outperforming males in reading comprehension. However, when it came to oral reading and writing in grade three, the qualitative findings demonstrated that girls were better than boys at understanding concepts, had a sharper memory, and could recall information more easily.

Additionally, the qualitative results demonstrated that girls performed better than boys in reading, handwriting, participation, word recognition, and attention span. Girls were more likely to read for comprehension, enjoyment, fluency, peer reading, and guided reading, according to the qualitative findings. These results are consistent with earlier studies that demonstrated female students performed better than male students in both word stock and storing (Goh & Fong, 1997; Tabatabei and Hejazi, 2011), as well as mental image and sentence mnemonics (Osuh & Mwankon, 2022). However, there were

no statistically significant gender-based differences, according to Musa et al. (2016), Dakhiel & Abu Al Rub (2017), Funmilayo (2022), and Okenyi (2022).

Based on these findings and additional research, we can conclude that gender may influence young text comprehension, for example, between boys and girls between the ages of 10 and 15, but not necessarily because of genetics or the idea that girls are smarter than boys, but rather because of the attitudes of boys toward reading at an early age. Males should therefore be encouraged to cultivate positive attitudes toward learning from a young age, both at home and in school. These findings highlight the significance of implementing inclusive interventions in preschool and first grade to ensure that every student is heading in the right direction for learning throughout the school year.

Conclusion & Recommendations

The study found that mnemonic intervention generally enhanced girls' overall reading ability more than it did boys', and that gender had a substantial impact on how effectively mnemonic intervention improved reading performance, with female students surpassing male students. Additionally, the study discovered that girls participated more actively in the experimental class and were more interested and engaged than boys. Girls outperformed boys in reading comprehension, according to the study, which also identified significant gender differences in general interpretation, comprehension alone, and scanning alone. The results of the study show that girls had stronger memories than boys, were better at understanding concepts, and could recall grade three-level content while writing and reading aloud.

The results of the study showed that girls scored better than boys in reading, handwriting, participation, word recognition, and attention span. The qualitative results also revealed that reading for comprehension, enjoyment, fluency, peer reading, and guided reading were all dominated by girls. The study's recommendations state that the DBE should develop early examinations for males with dyslexia in the early school years. Assessment is usually essential to the early detection and avoidance of any potential learning or developmental barriers that a learner may encounter since it is necessary to evaluate children with dyslexia in the early years of schooling.

Teachers in the foundation phase must therefore counsel and advise parents on the appropriate course of action if a learner is identified as being at risk for dyslexia. Boys must be assessed for possible reading difficulties in the early years of schooling because they generally perform worse than girls in a number of categories. This is because the findings demonstrated that girls had a greater memory than boys, were better at comprehending concepts, and could recall information presented

in grade three oral reading and writing. The results of the study showed that girls scored better than boys in reading, handwriting, participation, word recognition, and attention span. The results of the study also demonstrated that girls were more likely than boys to read for comprehension, enjoyment, fluency, peer reading, and guided reading.

Limitations of the study

It is inevitable that any study of this type will have limitations. The constraints that arose during the collection of data for this study are described in the section that follows. One of the limitations was the language barrier because there were few opportunities for meaningful communication. The parent participants who took part in interviews and completed questionnaires could not communicate in the researcher's English. To get over this limitation, the researcher used XiTsonga, the parents' native tongue, as she could at least converse in it.

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