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Teaching Strategies for Enhancing Reading Fluency and Comprehension Among Learners with Mild Hearing Impairment in Mainstream Classrooms

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Abstract. This paper presents the findings of a qualitative case study, which adopted the concept of communicative democracy to investigate the teaching strategies teachers use to enhance reading fluency and comprehension among learners with mild hearing impairment who were in mainstream classrooms. The purposively selected sample comprised two female teachers and 15 Grade 8 learners, aged between 14 and 15, from a public school in Gauteng province, South Africa. The data-collection methods included classroom observations and unstructured interviews with the teaching staff. Systematic sampling was used for the selection of suitable participants. Employing this technique meant acquiring a sample by selecting a random starting point close to the beginning of the target population list, and subsequently selecting every fourth name in a uniformly spaced unit thereafter. The findings revealed that the teachers' use of strategies that emphasised active participation and learner-centred approaches considerably contributed to improving reading fluency and comprehension among learners with mild hearing impairment. These strategies included interactive reading activities, visual aids for vocabulary building, phonological awareness and rhyming techniques using visual aids, text immersion through peer collaboration, the adaptation of materials to suit individual learning needs, and word identification. The researcher concluded that learner-centred activities can be effective in enhancing reading fluency and comprehension amongst learners with mild hearing impairment. The recommendation is that future research should explore the long-term impact these teaching strategies have on the academic achievement and social inclusion of learners with mild hearing impairment in mainstream classrooms.

Keywords: inclusion; mainstream classroom; mild hearing impairment; reading fluency; teaching strategies

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1. Introduction

In the South African education system, the English language serves as the primary medium of instruction across a wide range of subjects. The Curriculum and Assessment Policy Statement (CAPS) issued by the Department of Basic Education (DBE, 2011) mandates that, during the Senior Phase (grades 7–9), the learning of English language should aim to foster the development of those communication and academic skills that are essential for effective learning across various subjects contained in the curriculum. Many learners are not native speakers of the English language, yet they are expected to use it for communicating and engaging with texts and other educational materials. This presents challenges to learners who are not English first language speakers; hence the need to review the educational policy consistently. Policy review implies creating educational settings that can accommodate diverse learners, including those who struggle to read fluently.

The CAPS (DBE, 2011) policy envisages, amongst other objectives, the development of reading, writing, listening and communication skills to facilitate learner access to the curriculum, thus building on the Revised National Curriculum Statement (Department of Education [DoE], 2002). In addition, the policy recommends that learners become immersed in the English language through activities aimed at enhancing reading fluency and the comprehension of written texts. Therefore, policy suggests that the teachers must constantly expose the learners to reading activities to improve reading fluency and comprehension. As contended by Fakazali (2021), reading plays a crucial role in language development. Specifically, achieving reading fluency is paramount for accurately decoding words, enhancing comprehension, and instilling confidence in learners as they engage with written materials. Learners with mild hearing impairment encounter challenges in attaining fluency in reading English due to their limited exposure to reading materials. Easterbrooks and Lederberg (2021) state that these learners often only have opportunities to engage with reading matter while at school. Consequently, they have limited time to practise and develop their reading skills in a consistent manner (Easterbrooks & Lederberg, 2021).

The decision to adopt English as the language of learning and teaching (LoLT) in many black schools is often motivated by the lack of available materials that support instruction in indigenous African languages (Makalela, 2005). Proficiency in English is seen as a “passport” to improved opportunities, a symbol of status, and a source of linguistic capital (Alexander, 2006). It could therefore be argued that the government needs to avail adequate resources, both human and material, to support the teaching of indigenous African languages. English is also perceived as a subject that facilitates academic success, social advancement, and economic empowerment (Rose et al., 2020). Consequently, the ability to speak, write, and read English is regarded as providing learners with avenues for academic and social progress.

In South Africa, the education policy highlighted in the Education White Paper 6 (Special needs education, building an inclusive education and training system) (DoE,

2001) explicitly mandates that all learners – including those with mild hearing impairment who attend mainstream schools – should receive support to develop the reading skills independently which are deemed essential for accessing the curriculum. The Education White Paper 6 (DoE, 2001) emphasises the importance of employing cognitive instructional strategies that can help learners overcome barriers to curriculum access. The policy also requires teachers to assist the learners during reading tasks and subsequently allow them to read independently.

For mainstream learners with hearing impairment, challenges related to reading are often linked to the insufficient development of their English language skills. Andrews and Jones (2021) highlight that such learners must first recognise words and understand their contextual meanings if they are to improve their reading fluency. Since reading fluency is crucial for comprehension and academic success, consistent engagement with reading material is essential for mainstream learners with mild hearing impairment. Teachers should therefore create opportunities for active participation in classroom activities to strengthen the reading skills of these learners. As Feller et al. (2020) argue, reading proficiency is central to literacy development as it encompasses word recognition and comprehension. When learners with mild hearing impairment struggle to recognise word sounds and face challenges to connect such sounds during reading, it delays their ability to construct meaningful sentences and express themselves (Trezek et al., 2007), thus negatively impacting their writing and comprehension skills. In addition, since these learners often lack a strong language base for reading, difficulties in reading adversely affect their overall literacy development and academic success. Feller et al. (2020) further assert that inadequate development in these areas contributes to poor literacy levels for mainstream learners with mild hearing impairment, resulting in challenges with reading fluency and accuracy.

2. Reading Fluency

Reading fluency is described as the ability to read a text with speed and accuracy. It allows the reader to focus on the meaning of a text, rather than on words. Reading fluency is conceptualised in several ways, for example, as encompassing the speed of reading, reading words correctly, and reading words with some form of expression (Metsala & David, 2022). Arguably, reading fluency is a necessary skill that can foster learner confidence in interacting with text. Because reading fluency is also underpinned by word recognition, its link with other linguistic skills could have a profound effect on vocabulary development (Prezbindowski & Lederberg, 2003). The acquisition of vocabulary thus plays a key role in text comprehension which is also crucial for language development. Therefore, the ability to read fluently and comprehend content is important for curriculum access.

When a learner is able to integrate word knowledge with the formation of whole texts, it facilitates their grasp of the larger discourse (Noordman & Vonk, 1998), thus supporting their academic progress. A learner who reads fluently is thus able to connect the spoken words that he/she understands, with the written words. For this

reason, Kim et al. (2021) contend that reading fluency mediates the connection between word reading and comprehension. Several studies, including that of Sabatini et al. (2019), have identified a strong link between reading fluency and reading comprehension. Admittedly, however, a gap exists in the literature with regard to the direct relationship between reading fluency and comprehension – that is, whether reading fluency is a predictor of reading comprehension. This relationship is highlighted by Metsala and David (2022) who argue that fluent reading allows the reader to pay attention to comprehending the text, rather than pronouncing the words properly.

In this way, reading fluency has been found to assist readers to monitor their reading progression, which in turn facilitates their comprehension of text (Price et al., 2016). As fluency improves, the reader thus invests less of his/her cognitive resources on decoding text, and more on comprehending the meaning of text (Stevens et al., 2017). It is worth noting, however, that these cognitive resources, which are critical for reading comprehension, can also be coupled with other elements, notably motivation and self-confidence. The latter are enhanced by an environment of respect and equality which are embraced by Young's (1996) concept of communicative democracy. This concept advocates for treating others with respect and embracing equality. It is possible to conclude that such elements reflect the readers' view of their reading ability, which in turn fosters their interest and motivation in reading tasks (Kasperski & Katzir, 2013).

Reading motivation could be driven by the personal goals and values that influence reading processes. As such, readers who are motivated to read are often deemed fluent readers (Kyaw & Tin, 2020). Suitable teaching strategies, such as interactive reading aloud (IRA), which are employed to teach reading, could potentially enhance learners' motivation to read, advance their reading fluency and improve their reading comprehension. IRA is described as the prearranged reading of books aloud, guided by the teacher. During IRA, the teacher, by modelling thinking aloud, teaches learners reading strategies for comprehension before, during, and after reading. In the process, learners' vocabulary is expanded, and their reading interest is stimulated – two aspects which improve their reading fluency and comprehension. It is for this reason Nevo et al. (2020) contend that reading fluency is understood as a skill that can be learned, practised, and improved. Despite efforts by teachers to foster reading skills among learners, reading fluency continues to be neglected and, in some cases, misunderstood (Rasinski et al., 2011). Thus, it is crucial to investigate reading fluency owing to its established significance in reading efficiency and comprehension outcomes for all learners, including those with hearing impairment (Kieffer & Christodoulou, 2020).

3. Reading Fluency, Comprehension, and Hearing Impairment

Over the years, the scholarly discourse on fluent reading by learners with hearing impairment has witnessed a decline in attention from researchers. There is a dearth of literature which specifically covers the development of reading fluency in learners without adequate auditory access to spoken language, particularly those with mild hearing impairment. For example, Luckner and Urbach (2011), who investigated the reading fluency of learners with hearing impairment, found that little research had been conducted on the topic. Among the studies is that of Enns and Lafond (2007), who suggested that reading exercises involving word lists or passages of predetermined duration could potentially enhance learners' reading ability. Although several studies, for example, those of Chan and Yang (2018) and Qi and Mitchell (2012), emphasised the importance of reading practice in acquiring reading fluency, they provided limited guidance on effective teaching strategies for enhancing reading fluency. Zhang et al. (2021) corroborate these findings, highlighting the consistent research findings which report that reading fluency among learners with hearing impairment is markedly lower than that of their hearing counterparts.

Despite concerted efforts to enhance the reading fluency of the hearing impaired, these learners consistently lag behind their hearing counterparts in this regard (Qi & Mitchell, 2012). However, it is noteworthy that significant variations exist in terms of reading abilities amongst learners with hearing impairment, with some surpassing the reading proficiency of their hearing counterparts (Zhang et al., 2021). Previous studies have noted the significance of improving reading instruction for learners with hearing impairment and have identified phonological awareness as one of the factors that contribute to reading fluency (Chan & Yang, 2018). Phonological awareness, which pertains to the capacity to identify and manipulate speech sounds, serves as a foundational skill in the reading development of learners with typical hearing. The skill is also important for advancing reading competency in learners with hearing impairment – particularly those with mild impairment.

Studies conducted by Landerl et al. (2019) have shown the considerable influence which phonological awareness has on reading fluency. Earlier, Perfetti and Sandak (2000) had established a connection between phonological awareness and reading fluency among learners with hearing impairment. Their research revealed that sensitivity to phonemic structure contributes significantly to word reading accuracy and fluency. It is, however, crucial to note that this connection may not extend to learners who are deaf as they encounter challenges in respect of sound recognition due to profound hearing impairment.

Evidence of the relationship between phonological awareness and reading fluency in learners with hearing impairment is somewhat vague owing to inconsistent findings being reported across studies. Some studies, for example, Landerl et al. (2019), highlight the importance of phonological awareness on reading fluency for learners with hearing impairment. However, some, for example, Perfetti and Sandak (2000),

argue that phonology is not the best pathway to teach reading to these learners as they are unable to hear certain sounds. This inconsistency can be attributed to a range of demographic factors, including chronological age and cognitive ability, which may have an impact on the reading proficiency of hearing-impaired learners (Zhang et al., 2021). It is therefore important to address the challenges related to both reading fluency and comprehension when supporting learners with hearing difficulties to acquire the necessary reading skills for academic success. In this study, the researcher investigated what strategies teachers employed to enhance the reading fluency and comprehension of learners with mild hearing impairment who learn in mainstream classrooms.

The study aimed to answer these two questions:

- What strategies do teachers employ to teach reading fluency and comprehension to learners with mild hearing impairment?
- How does reading fluency contribute to reading comprehension for learners with mild hearing impairment?

4. Theoretical Framework

The study employed Young's (1996) concept of communicative democracy to examine how teachers used various strategies to teach reading fluency, and how these contributed to reading comprehension. Communicative democracy underscores the significance of equalising forms of communicative interactions (Young, 1996). Thus, it offers opportunities to engage in communicative situations, rather than mere discussions. In this study, the concept implies inclusivity and the optimal and respectful contribution of all learners. The concept was invaluable in examining how effective the teaching strategies were for learners with hearing impairment included in mainstream classrooms. The question was how the teaching strategies adopted, facilitated and developed equalising forms of communication and reciprocal respect among learners within a classroom set-up (Reich, 2007). Also considered was the manner in which teachers varied their teaching strategies to enhance cooperative learning through inclusive pedagogical approaches as fundamental to democratic language education. This revealed the teachers' competencies in presenting an inclusive English-language curriculum (Ada & Campoy, 2004). In particular, it revealed how reading fluency and comprehension were taught through, for instance, learners' exposure to reading activities. To foster the learners' reading fluency, teachers also employed teaching strategies such as repeated reading, peer-assisted reading and shared reading. For learners to be fluent readers, it could be argued that the use of these reading strategies be on weekly basis.

5. Research Design and Methodology

The study adopted an exploratory qualitative case study design which allowed for a methodical examination of events, and saw data being generated and analysed in natural contexts (Zainal, 2017). According to Merriam (2002), this design allows researchers to observe participants in their natural settings; thus it was essential to observe and analyse the participating teachers' actions during classroom instruction.

In addition, as Klingner and Boardman (2011) state, the design provides opportunities for participants to share their perspectives and experiences regarding their pedagogical approaches within the context in which they teach.

5.1 The Research Site

For this study, the research site was in Soweto, which is located in the Gauteng province of South Africa. The selected school had a significant enrolment of learners with hearing impairment, rendering it the ideal setting for collecting data on the strategies teachers used to enhance reading fluency and comprehension among the learners in question. The research site was a public school, selected based on the availability of learners with mild hearing impairment, and teachers with over two years of experience in teaching hearing-impaired learners. Lanza (2008) notes the importance of selecting an appropriate research site to ensure the credibility of the research findings. In this instance, the school accommodated a total of 103 learners with hearing impairment, further enhancing the study's relevance and affording potential insights into the effective teaching methodologies employed within this context.

5.2 Sampling

The selection of an appropriate research site involved a systematic approach, that is, conducted in a fixed, thought-out plan that considered various factors, including the number of learners with hearing impairment and the experience level of the teachers. Initially, four schools which admitted learners with hearing impediments were purposively selected and visited. While three schools had a limited number of learners with mild hearing impairment, one stood out for having a substantial population of hearing-impaired learners, as well as teachers with two or more years' experience in teaching the group in question.

Familiarity with the culture of the school was of paramount importance for arriving at an understanding of its operational dynamics during and after lessons. To ensure that suitable and reliable participants would be selected, a systematic sampling technique was followed. For the learners, this involved obtaining a sample by selecting a random start close to the commencement of the population list, and then capturing every unit proportionately spaced (Bellhouse, 2014). The technique was deemed suitable for the current study, given its convenience and simplicity. Initially the procedure involved drawing up a sampling frame of all the Senior Phase grades as target population. The researcher focused on four grades – 8, 10, 11, 12 – and, out of the six classes per grade, three grades – 8, 10 and 12 – were listed and selected in a spacing of two. The grades were selected based on years of exposure to English language content, including reading activities aimed at enhancing reading fluency and comprehension.

Engagement with the head of department (HoD) revealed a preference for working with Grade 8s, where learners typically undertake activities which are conducive to developing reading fluency and comprehension. This grade level was prioritised

over others that covered previous content, thus making them less suitable for the focus of the study. In addition, the selection criteria emphasised the inclusion of teachers with more than two years' teaching experience, which ensured their ability to provide relevant insight into teaching reading fluency and comprehension to learners with hearing impairment. For these reasons, the study sample was purposively selected. This approach aligned with Tongco's (2007) recommendation for selecting knowledgeable participants capable of contributing meaningfully to the study's objectives. The total number of selected participants was 15 learners and two teachers.

5.3 Data-Collection Tools

The study employed direct observation as the primary method of data collection. During these observations, the researcher adopted a non-participant observer role to witness which pedagogical strategies the teachers used (Polkinghorne, 2005). This approach permitted first-hand observations of the actions and behaviours of the participants within their natural context, thereby providing insights into their teaching practices. Observational notes were taken to document the lessons and overall classroom dynamics, focusing on key aspects such as learning and teaching activities, participants' interactions, and the integration of learning materials into the lessons, as noted by Potter (1996).

A schedule, developed in collaboration with the researcher and the participating teachers, guided the observations which specifically related to teaching reading fluency and comprehension. The observations spanned a period of two months, with two lessons being observed each week.

Informal post-lesson interviews were also conducted with the teachers to gain a deeper understanding of their perspectives on their strategies for enhancing reading fluency and comprehension. These unstructured interviews were used to gain insight into the pedagogical strategies that the teachers utilised during the lessons to accommodate hearing-impaired learners. The conversations were crucial for understanding these strategies, which also provided opportunities for the teachers to clarify how the strategies were beneficial to learners with hearing impairment and, subsequently, how they helped to address the challenges facing those learners. Data analysis followed upon completion of data collection.

5.4 Data Management and Analysis

Data management involved the identification of patterns, which were broken down and assigned codes to generate categories and develop themes for structured analysis. Bryman and Burgess (2002) point out that coding is important for the identification of any trends, patterns, similarities, and differences that emerge during observations, which are subsequently analysed and interpreted by the researcher. Immersion in the data is a key aspect and, as noted by Tully (2014), it ensures authenticity, allowing the researcher to analyse and report on the study participants' experiences accurately.

The study employed content analysis and thick description as analytical approaches. The latter focuses on elucidating cultural and social relationship patterns and providing interpretations of observed phenomena (Freeman, 2014). This method emphasises pinpointing, examining, and recording patterns, and interpreting data comprehensively. The data collected from observations and informal conversations with both teachers, and from notes organised to identify differences and similarities, facilitated the development of meaningful categories and themes for analysis.

It was deemed important to peruse the observational notes and read the participants' responses systemically as these gave insight into the various teaching strategies the participants employed to teach reading fluency and comprehension to hearing-impaired learners. For example, the teachers' answers to the interview questions were compared with the observational notes to pinpoint similarities and/or differences. Through using this data-analysis approach, the researcher managed to understand and interpret what the teachers viewed as important when teaching reading fluency and comprehension to hearing-impaired learners. The approach was also critical in explaining why the teachers used those strategies, for example, phonological awareness as part of their pedagogical approaches to teaching reading fluency and comprehension.

5.5 Ethical Clearance

Prior to conducting the study, ethical clearance was sought from various authorities, including the University of Johannesburg, the provincial education department, the district office of the DoE, and the identified school where the data were collected. Permission was duly granted, thereafter consent was sought from all the participants involved in the study. The participants were provided with a detailed explanation of the nature of the undertaking, its objectives, time frame, data-collection methods, and how the findings would be presented and used.

During this explanation, the researcher's role was clarified, emphasising that the data collected would be used solely for research purposes and potential academic publication. The participants were assured that their participation was voluntary, and that their privacy, confidentiality, and anonymity would be strictly maintained throughout the study. This is in accordance with the ethical guidelines outlined by Capron (1999). It was also emphasised that their participation in the study would not come with financial gain, and that their involvement would not subject them to exploitation. Instead, their contribution would be valued and respected as integral to the research process.

6. Findings

This section describes the strategies the teacher participants used to teach reading fluency and comprehension, as well as how reading fluency contributed to reading comprehension. The six strategies included interactive reading activities, visual aids for vocabulary building, phonological awareness and rhyming techniques using

visual aids, text immersion through peer collaboration, the adaptation of materials to suit individual learning needs, and word identification.

6.1 Interactive Reading Activity

An interactive reading activity was found to promote comprehension significantly and enhance learner engagement with the material. In particular, the previewing technique was preferable when introducing learners to a new text genre. In this instance, the participating teachers facilitated a pre-reading activity aimed at skimming the text for main ideas. As highlighted by Thuraisingam et al. (2017), pre-reading (as the initial stage of a reading activity) is important for familiarising learners with new vocabulary. This approach effectively primed the learners for their deeper understanding of, and active participation in, the reading process. For example, in a lesson observed, Teacher A explained the expectations of the lesson as follows:

“The purpose of today’s lesson is to introduce you to a pre-reading activity as one of the important steps in reading fluency. We have a storybook that we will read, but first we will engage in pre-reading. What is your understanding of pre-reading as the initial step for a reading activity?”

Learner 1: *“Pre-reading means briefly reading before you understand the story.”*

Learner 3: *“Pre-reading means reading the story without understanding its meaning.”*

Teacher: *“Thank you all for your answers; indeed, pre-reading is about skimming over what you are reading, without looking for the meaning. [...] I will give each of you a copy of a storybook about a trip to a big city by aircraft.”*

The learners silently read the storybook for approximately ten minutes.

6.2 Visual Aids for Vocabulary Building

Using visual aids potentially plays a crucial role in word comprehension. This is consistent with the view of Pateşan et al. (2018) who suggest that employing visuals draws learners’ interest and attention, compelling them to become more participative. As such, the teachers’ incorporation of flash cards as a strategy to introduce key vocabulary words in the lesson seemingly enhanced learner engagement and comprehension. Displaying words on a whiteboard can facilitate active participation and pronunciation practice amongst learners. Furthermore, encouraging learners to select and explain the meaning of a word to their peers can promote a deeper understanding of the vocabulary, thereby reinforcing whole-text

comprehension. For example, when asked to explain the purpose of using visual aids, Teacher A responded:

“Visuals are useful [for] conveying information to learners, particularly during reading tasks. The use of flash cards has provided opportunities for learners to learn the meaning of words by relying on visuals.”

One could safely argue that learners with a hearing impairment have advanced visual processing abilities and respond to visual stimuli more quickly than their hearing counterparts.

6.3 Phonological Awareness and Rhyming Techniques Using Visual Aids

The incorporation of rhyming techniques and phonological awareness activities was found to enhance students' ability to recognise and manipulate sounds in words substantially. For example, Teacher A engaged learners in sorting pictures based on initial and final sounds. She included the use of a box of flash cards with different pictures. Learners picked a flash card, said the word out loud, and stressed its first and last sounds. For instance, if they picked “pat”, they would say “p...at” Similarly, for the word “sheep”, they would say “sh...eep” and blend the sounds to form the word “sheep”.

The teacher emphasised that having an awareness of word sounds contributed considerably to correct pronunciation while reading. This awareness not only helped with word recognition, but also facilitated the accurate pronunciation of words, and enhanced fluency in reading. Teacher A explained:

“Letters make up a word and being able to recognise and correctly say out the letters that form words is the starting point of correctly pronouncing words. I take time with them to practise sounding the letters, and once confidence builds, I ask them to identify words, about four per learner, and ask them to practise sounding the letters first, and the sounds that form the words at home.”

Although Teacher A emphasised the importance of helping learners to recognise and correctly pronounce words, the learners faced challenges in relating sounds to letters, especially in a second-language context. In particular, providing opportunities for all learners to practise pronunciation aligns with Young's (1996) concept of communicative democracy, which advocates for equality and fairness in educational contexts. Notably, the learners' underdeveloped oral language skills made them lack confidence in vocalising sounds, highlighting the need for targeted support and encouragement. As Teacher A remarked:

“Generally, because of their inability to hear certain sounds, especially sounds for new words they come across, it takes time for them to develop confidence to read out the words correctly.”

Park et al. (2013) suggest that learners with hearing impairment can achieve reading abilities comparable to their hearing peers when their phonological awareness is

developed to the extent of enabling them to recognise and accurately read sounds fluently. Word sound recognition plays a fundamental role in language skills such as word recognition, improved fluency in reading, and comprehension (Geva & Yaghoub-Zadeh, 2006). However, Goldin-Meadow and Mayberry (2001) argue that learners with hearing impairment face challenges as readers, primarily due to their limited exposure to sound-based phonological coding. Arguably, a sound-based approach might thus not be the most effective pathway to teaching reading fluency to learners with hearing impairment.

6.4 Text Immersion through Peer Collaboration

The participating teachers engaged their learners in classroom exercises in which they independently read excerpts from sources such as magazines, prescribed books, and newspaper articles. This activity aimed to familiarise them with vocabulary embedded within the texts, foster the ability to recognise words, facilitate pronunciation acquisition, and promote fluent reading. Following this individual reading phase, learners were paired according to their varying capacity in terms of word identification, thus enabling them to assist one another with pronunciation. Through mutual reading aloud, learners were prompted to help each other recognise and articulate words in the texts. Progress was observed since specific words such as *construct*, *snowball*, *upstream*, *behaviour*, *jump*, *grandmother* and *sometimes* were identified and pronounced correctly. This improvement in pronunciation led to increased ease in word recognition. Moreover, as learners became proficient in pronouncing new words, they gained the confidence to ask for their meaning, demonstrating a positive correlation between pronunciation proficiency and vocabulary acquisition.

6.5 Adaptation of Learning Materials to Suit Individual Learning Needs

The deliberate inclusion of learners with diverse reading and pronunciation abilities as well as individual strengths, coupled with the active use of learning materials, resulted in a substantially widened semantic base among learners. This was demonstrated by Teacher B. By creating an environment in which learners with good hearing (who made use of diverse learning materials such as newspapers) supported their hearing-impaired peers, in Teacher B's lesson the researcher observed enhanced vocabulary and improved reading fluency. As learners read together, the collaborative approach employed not only facilitated word recognition and comprehension, but also contributed to meaningful literacy development, highlighting the effectiveness of the teaching strategies used in educational settings. Benner et al. (2022), for instance, argue that reading activities such as the collaborative reading approach provide struggling readers with lifelong literacy outcomes. The following sentences could serve as examples to demonstrate the ability of learners with hearing impairments to create sentences with minimal assistance:

The man swam upstream during the storm.

My father buys his garden tools from the nearest store.

Some members of the group volunteered to explain the meaning of words in the sentences:

Learner 1: *"Upstream means [the] opposite direction of the river flow."*

Learner 3: *"Mailbox – the box in which letters are put."*

6.6 Word Identification

The ability to recognise words was deemed important for enhancing reading and language comprehension. Word recognition encompasses the skills to decode and recognise words, including phonetic awareness, sight word recognition, and understanding word meanings. Table 1 below gives an example of an activity observed in which learners were asked to identify the words in the table by matching similar words. This was done by drawing a line to connect similar words.

Table 1: Word identification task

Word in the text	Response alternative
Bicycle	Puncture
Puncture	Rugged
Rugged	Bicycle

When asked why she followed this strategy, Teacher B said:

"It is important for their language development. In my view, aspects such as identifying and understanding words are key to reading fluency, comprehension, and overall language development."

Teacher B's view is in line with what Majeed (2017) defines as learning that has its underpinnings in, among others, word identification and comprehension. The teacher trusted that once the learners had learned new vocabulary, they would become enthusiastic about understanding it, and about reading the words.

In the lessons observed, the learners with hearing impairment, as well as their hearing peers, felt accepted and embraced. As Young (1996) explains, communication that highlights respect and equality as fundamental principles is democratic in nature. Guided by Young's (1996) viewpoint, Englund (2006) confirms that communicative educational settings are distinguished by tolerance and a respect for one another. Two aspects emerged from the teachers' views: first, they believed that the ability to read fluently enabled the learners to attach meaning to words. Second, they thought that teaching reading fluency to learners with hearing impairment increased their reading comprehension. The following are examples of codes, categories and themes that were used in the study. On discussing the teaching strategies used for reading activities, the code used was 'reading'. Categories for reading included 'word meaning', 'word identification', 'word recognition' and 'comprehension'. From these categories a theme of 'teaching environment and learner participation' was developed.

7. Discussion

Generally, the findings showed that the teachers placed the learners at the centre of reading activities. In this study, the teachers adopted group work to encourage their learners to assist one another during reading activities. With their teaching strategies, the teachers provided opportunities for learners to engage with text through reading to enhance reading fluency and comprehension. Their strategies were also consistent with Young's (1996) concept of communicative democracy, which advocates for equality and respect for others during classroom activities.

Although reading activities were clearly explored as fundamental to promoting reading fluency, it was critical that learners with good hearing assisted their hearing-impaired counterparts as the latter were unable to pronounce certain words owing to their limited phonological awareness. The findings also indicated that, over and above enhancing reading proficiency, the participating teachers emphasised the importance of text comprehension. They believed that constant exposure to reading text augments learners' understanding of the meaning of words, thus improving their overall text comprehension. Furthermore, it emerged from the study that engagement with text through reading improved the learners' reading fluency. Adopting different teaching strategies provided opportunities for learners to be active participants in these activities. This is consistent with Newfield's (2011) view that a classroom setting that encourages participation by all is fundamental to enhancing key aspects such as reading fluency. Thus, it would be fair to argue that, wittingly or not, teachers employed teaching strategies to nurture a culture of reading among their learners, and to promote reading fluency and comprehension.

The teachers used phonological awareness to enable learners to recognise word sounds, pronounce the words appropriately, and read them fluently. The latter is consistent with the findings of Milankov et al. (2021), namely that phonological skills are strongly linked to reading fluency and comprehension development. Furthermore, phonological awareness has been found to be a predictor of reading fluency (Milankov et al., 2021). Although the teachers argued that phonological awareness skills may not be the best pathway to teach reading for all learners with hearing impairment as they are unable to hear certain sounds, they highlighted its significance especially for those with mild impairment. In their views, these learners can hear most of the sounds which their deaf counterparts cannot hear.

In this study, the participating teachers made an effort to avoid being at the centre of classroom pedagogical practices. They employed individual and group work to encourage collaboration amongst the learners. According to Qureshi et al. (2023), collaborative learning is an essential approach which teachers adopt to encourage participation and enhance learner performance. The learners were provided with opportunities to read and search for the meaning of words as individuals and in groups. Doing so helped improve their reading fluency. According to Dominguez et al. (2016), such teaching strategies are directly related to reading proficiency and the capability to deal with the semantic structure of a text.

Generally, the use of different teaching strategies took the learners' diverse language skills into account and promoted an inclusive learning environment which embraced respect for individuals. Thus, Young's (1996) concept of communicative democracy was invaluable for understanding the different teaching strategies the teacher participants adapted to foster reading fluency and comprehension. The strategies had to accommodate diverse learners, including those with mild hearing impairment. It was important for the teachers to embrace the key principles of inclusion and democracy, such as equality, respect for others, and participation by all. The implied adequate ideal explains why an inclusive curriculum is important for learners with hearing impairment be included in the mainstream classroom to access the curriculum content as equally as their hearing peers.

8. Conclusions

It was important to target study participants who could provide insights into how teachers might teach reading fluency and comprehension to learners with mild hearing impairment in mainstream classrooms. Therefore, the participants selected for the study offered crucial insights into the teaching approaches they adapted. For example, repeated reading provided learners with opportunities to engage constantly with text. This engagement enabled the learners to recognise words, pronounce them correctly and read them fluently. In general, the data collected were important for understanding the teachers' pedagogical approaches, which were critical for fostering reading fluency and comprehension. The activities the teachers used were learner centred, offering all learners a turn to participate. Such activities included constantly exposing learners to reading activities to boost their confidence to read fluently. Teaching reading fluency to learners with hearing impairment presents challenges due to their inability to hear certain sounds.

9. Limitations

Classroom observations focused on grade 8 classroom. This grade was the only one with (n=15) learners with a mild hearing impairment. As such, the teachers' experience and classroom practices may not be a true reflection of a wider South African context of schools which include learners with hearing impairment. Possibly the teachers in other contexts would provide different views regarding their pedagogical approaches on the teaching of reading fluency and comprehension.

10. Recommendations

In South Africa, research should be conducted on effective strategies crucial for enhancing reading fluency and comprehension. Evidence-based teaching strategies could be adopted and used to teach South African learners with mild hearing impairment. In other contexts, rigorous research needs to be carried out to develop more evidence-based strategies on teaching reading fluency to this learner cohort. Greater emphasis needs to be placed on encouraging learners to read on their own or in groups, and to assist one another to pronounce words correctly. In addition, it is vital to promote teacher competence in classrooms that accommodate hearing-

impaired learners. For those learners to succeed, teachers need to have the necessary skills to teach and motivate them. Therefore, the teachers of these learners must have the skills to adapt the curriculum – including reading activities – to accommodate all learners.

11. References

- Ada, A. F., & Campoy, F. I. (2004). *Authors in the classroom: A transformative education process*. Pearson Education. <https://lccn.loc.gov/2002038325>
- Alexander, N. (2006). Socio-political factors in the evolution of language policy in post-apartheid South Africa. In M. Putz, J. A. Fishman, & J. A. Neef-van Aertselaar (Eds.), *Along the routes to power: Exploration of empowerment through language* (pp. 241–260). Mouton de Gruyter.
- Andrews, J. F., & Jones, G. A. (2021). The “Silk Road” to literacy for Chinese deaf students. *American Annals of the Deaf*, 166(4), 439–445. <https://www.jstor.org/stable/27113320>
- Bellhouse, D. R. (2014). *Systematic sampling methods*. John Wiley & Sons. <https://doi.org/10.1002/9781118445112.stat05723>
- Benner, G. J., Michael, E., Ralston, N. C., & Lee, E. O. (2022). The impact of supplemental word recognition strategies on students with reading difficulties. *International Journal of Instruction*, 15(1), 837–856. <https://doi.org/10.29333/iji.2022.15148a>
- Bryman, A., & Burgess, R. G. (2002). Developments in qualitative data analysis: An introduction. In A. Bryman, & R. G. Burges (Eds.), *Analyzing qualitative data* (pp. 1–17). Routledge.
- Capron, A. M. (1999). Ethical and human-rights issues in research on mental disorders that may affect decision-making capacity. *New England Journal of Medicine*, 340(18), 1430–1434. <https://doi.org/10.1056/NEJM199905063401812>
- Chan, Y.-C., & Yang, Y.-J. (2018). Early reading development in Chinese-speaking children with hearing loss. *Journal of Deaf Studies and Deaf Education*, 23, 50–61. <https://doi.org/10.1093/deafed/enx042>
- DBE (Department of Basic Education). South Africa. (2011). *Curriculum and Assessment Policy Statement: Grades 7–9, English home language*. Department of Basic Education. <https://www.education.gov.za/Portals/0/CD/National%20Curriculum%20Statements>
- DoE (Department of Education). South Africa. (2001). *Education White Paper 6: Special needs education: Building an inclusive education and training system*. Department of Education. https://www.vvob.org/files/publicaties/rsa_education_white_paper_6.pdf
- DoE (Department of Education). South Africa. (2002). *Revised National Curriculum Statement Grades R–9 (schools)*. Department of Education. <https://www.gov.za/documents/other/revised-national-curriculum-statement-grades-r-9-schools-01-apr-2002>
- Dominguez, A.-B., Carrillo, M.-S., González, V., & Alegria, J. (2016). How do deaf children with and without cochlear implants manage to read sentences? The key word strategy. *Journal of Deaf Studies and Deaf Education*, 21(3), 280–292. <https://doi.org/10.1093/deafed/enw026>
- Easterbrooks, S. R., & Lederberg, A. R. (2021). Reading fluency in young elementary school-age deaf and hard-of-hearing children. *Journal of Deaf Studies and Deaf Education*, 26(1), 99–111. <https://doi.org/10.1093/deafed/enaa024>
- Englund, T. (2006). Deliberative communication: A pragmatist proposal. *Journal of Curriculum Studies*, 38(5), 503–520. <https://doi.org/10.1080/00220270600670775>

- Enns, C., & Lafond, L. D. (2007). Reading against all odds: A pilot study of two deaf students with dyslexia. *American Annals of the Deaf*, 152, 63–72. <https://doi.org/10.1353/aad.2007.0011>
- Fakazali, O. (2021). How does extensive reading promote language development? *Journal of International Social Research*, 14(78), 499–506. https://www.researchgate.net/publication/355189299_HOW_DOES_EXTENSIVE_READING_PROMOTE_LANGUAGE_DEVELOPMENT#
- Feller, D. P., Kopatich, R. D., Lech, I., & Higgs, K. (2020). Exploring reading strategy use in native and L2 readers. *Discourse Processes*, 57(7), 590–608. <https://doi.org/10.1080/0163853X.2020.1735282>
- Freeman, M. (2014). The hermeneutical aesthetics of thick description. *Qualitative Inquiry*, 20(6), 827–833. <https://doi.org/10.1177/1077800414530267>
- Geva, E., & Yaghoub-Zadeh, Z. (2006). Reading efficiency in native English-speaking and English-as-a-second-language children: The role of oral proficiency and underlying cognitive-linguistic processes. *Scientific Studies of Reading*, 10(1), 31–57. https://doi.org/10.1207/s1532799xssr1001_3
- Goldin-Meadow, S., & Mayberry, R. I. (2001). How do profoundly deaf children learn to read? *Learning Disabilities Research & Practice*, 16(4), 222–229. <https://doi.org/10.1111/0938-8982.00022>
- Kasperski, R., & Katzir, T. (2013). Are confidence ratings test- or trait-driven? Individual differences among high, average, and low comprehenders in fourth grade. *Reading Psychology*, 34, 59–84. <https://doi.org/10.1080/02702711.2011.580042>
- Kieffer, M. J., & Christodoulou, J. A. (2020). Automaticity and control: How do executive functions and reading fluency interact in predicting reading comprehension? *Reading Research Quarterly*, 55(1), 147–166. <https://doi.org/10.1002/rrq.289>
- Kim, Y. S. G., Quinn, J. M., & Petscher, Y. (2021). What is text reading fluency and is it a predictor or an outcome of reading comprehension? A longitudinal investigation. *Developmental Psychology*, 57(5), 718–732. <https://doi.org/10.1037/dev0001167>
- Klingner, J. K., & Boardman, A. G. (2011). Addressing the “research gap” in special education through mixed methods. *Learning Disability Quarterly*, 34(3), 208–218. <https://doi.org/10.1177/0731948711417559>
- Kyaw, T. M., & Tin, O. (2020). Creating a learning environment that fosters reading motivation of middle-school students. *Journal of the Myanmar Academy of Arts and Science*, 18(9), 219–230. [https://maas.edu.mm/Research/Admin/pdf/15.%20U%20Tun%20Min%20Kyaw%20\(219-230\).pdf](https://maas.edu.mm/Research/Admin/pdf/15.%20U%20Tun%20Min%20Kyaw%20(219-230).pdf)
- Landerl, K., Freudenthaler, H. H., Heene, M., de Jong, P. F., Desrochers, A., Manolitsis, G., Parrila, R., & Georgiou, G. K. (2019). Phonological awareness and rapid automatized naming as longitudinal predictors of reading in five alphabetic orthographies with varying degrees of consistency. *Scientific Studies of Reading*, 23(3), 220–234. <https://doi.org/10.1080/10888438.2018.1510936>
- Lanza, E. (2008). Selecting individuals, groups, and sites. In L. Wei, & G. M. Moyer (Eds.), *The Blackwell guide to research methods in bilingualism and multilingualism* (pp. 73–87). Blackwell.
- Luckner, J. L., & Urbach, J. (2011). Reading fluency and students who are deaf or hard of hearing: Synthesis of the research. *Communication Disorders Quarterly*, 33(4), 230–241. <https://doi.org/10.1177/1525740111412582>

- Majeed, Z. (2017). *Effect of metacognition strategies instructions on reading comprehension performance of hearing-impaired children* [Unpublished doctoral dissertation]. Allama Iqbal Open University, Islamabad.
- Makalela, L. (2005). "We speak eleven tongues": Reconstructing multilingualism in South Africa. In B. Brock-Utne, & R. K. Hopson (Eds.), *Languages of instruction for African emancipation: Focus on postcolonial contexts and considerations* (pp. 113–118). Mkuki Na Nyota.
- Merriam, S. B. (2002). Basic interpretive qualitative research. *Qualitative research in practice: Examples for discussion and analysis*, 4(2), 37–39.
- Metsala, J. L., & David, M. D. (2022). Improving English reading fluency and comprehension for children with reading fluency disabilities. *Dyslexia*, 28(1), 79–96. <https://doi.org/10.1002/dys.1695>
- Milankov, V., Golubović, S., Krstić, T., & Golubović, Š. (2021). Phonological awareness as the foundation of reading acquisition in students reading in transparent orthography. *International Journal of Environmental Research and Public Health*, 18(10), Article 5440. <https://doi.org/10.3390/ijerph18105440>
- Nevo, E., Vaknin-Nusbaum, V., Brande, S., & Gambrell, L. (2020). Oral reading fluency, reading motivation and reading comprehension among second graders. *Reading and Writing*, 33, 1945–1970. <https://doi.org/10.1007/s11145-020-10025-5>
- Newfield, D. (2011). Multimodality and children's participation in classrooms: Instances of research. *Perspectives in Education*, 29(1), 27–35. https://www.researchgate.net/publication/290089246_Multimodality_and_children's_participation_in_classrooms_Instances_of_research#
- Noordman, L., & Vonk, W. (1998). Discourse comprehension. In A. D. Friederici (Ed.), *Language comprehension: A biological perspective* (pp. 229–262). Springer.
- Park, J., Lombardino, L. J., & Ritter, M. (2013). Phonology matters: A comprehensive investigation of reading and spelling skills of school-age children with mild to moderate sensorineural hearing loss. *American Annals of the Deaf*, 158(1), 20–40. <https://doi.org/10.1353/aad.2013.0013>
- Pateşan, M., Balagiu, A., & Alibec, C. (2018). Visual aids in language education. *International Conference Knowledge-Based Organization*, 24(2), 356–361. <https://doi.org/10.1515/kbo-2018-0115>
- Perfetti, C. A., & Sandak, R. (2000). Reading optimally builds on spoken language: Implications for deaf readers. *Journal of Deaf Studies and Deaf Education*, 5, 32–50. <https://doi.org/10.1093/deafed/5.1.32>
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 52(2), 137–145. <https://doi.org/10.1037/0022-0167.52.2.137>
- Potter, W. J. (1996). *An analysis of thinking and research about qualitative methods*. Lawrence Erlbaum.
- Prezbindowski, A. K., & Lederberg, A. R. (2003). Vocabulary assessment of deaf and hard-of-hearing children from infancy through the pre-school years. *Journal of Deaf Studies and Deaf Education*, 8(4), 383–400. <https://doi.org/10.1093/deafed/eng031>
- Price, K. W., Meisinger, E. B., Louwerse, M. M., & D'Mello, S. (2016). The contributions of oral and silent reading fluency to reading comprehension. *Reading Psychology*, 37, 167–201. <https://doi.org/10.1080/02702711.2015.1025118>
- Qi, S., & Mitchell, R. E. (2012). Large-scale academic achievement testing of deaf and hard-of-hearing students: Past, present, and future. *Journal of Deaf Studies and Deaf Education*, 17(1), 1–18. <https://doi.org/10.1093/deafed/enr028>

- Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2023). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments*, 31(4), 2371–2391.
<https://doi.org/10.1080/10494820.2021.1884886>
- Rasinski, T. V., Reutzel, D. R., Chard, D., & Linan-Thompson, S. (2011). Reading fluency. In P. D. Pearson, & E. H. Hiebert (Eds.), *Handbook of reading research* (Vol. IV, pp. 286–319). Routledge.
- Reich, W. (2007). Deliberative democracy in the classroom: A sociological view. *Educational Theory*, 57(2), 187–197. <https://doi.org/10.1111/j.1741-5446.2007.00251.x>
- Rose, H., Curle, S., Aizawa, I., & Thompson, G. (2020). What drives success in English-medium-taught courses? The interplay between language proficiency, academic skills, and motivation. *Studies in Higher Education*, 45(11), 2149–2161.
<https://doi.org/10.1080/03075079.2019.1590690>
- Sabatini, J., Wang, Z., & O'Reilly, T. (2019). Relating reading comprehension to oral reading performance in the NAEP fourth-grade special study of oral reading. *Reading Research Quarterly*, 54, 253–271. <https://doi.org/10.1002/rrq.226>
- Stevens, E. A., Walker, M. A., & Vaughn, S. (2017). The effects of reading fluency interventions on the reading fluency and reading comprehension performance of elementary students with learning disabilities: A synthesis of the research from 2001 to 2014. *Journal of Learning Disabilities*, 50(5), 576–590.
<https://doi.org/10.1177/0022219416638028>
- Thuraisingam, T. G., Gopal, S., Sasidharan, N., Naimie, Z., & Asmawi, A. (2017). Implementing pre-reading strategies to improve struggling ESL learners' interest and comprehension in English reading lessons. *International Journal of Education, Culture and Society*, 2(3), 94–100. <https://doi.org/10.11648/j.ijecs.20170203.13>
- Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, 5, 147–158. <https://doi.org/10.17348/ERA.5.0.147-158>
- Trezek, B. J., Wang, Y., Woods, D. G., Gampp, T. L., & Paul, P. V. (2007). Using visual phonics to supplement beginning reading instruction for students who are deaf or hard of hearing. *Journal of Deaf Studies and Deaf Education*, 12(3), 373–384.
<https://doi.org/10.1093/deafed/enm014>
- Tully, M. P. (2014). Articulating questions, generating hypotheses, and choosing study designs. *Canadian Journal of Hospital Pharmacy*, 67(1), 31.
<https://doi.org/10.4212/cjhp.v67i1.1320>
- Young, I. M. (1996). Communication and the other: Beyond deliberative democracy. In S. Benhabib (Ed.), *Democracy and difference: Contesting the boundaries of the political* (pp. 120–135). Princeton University Press. <https://doi.org/10.1515/9780691234168-007>
- Zainal, Z. (2017). Case study as a research method. *Jurnal Kemanusiaan*, 5(1), 1–6.
https://www.researchgate.net/publication/41822817_Case_study_as_a_research_method#
- Zhang, L., Hong, T., Li, Y., Wang, J., Zhang, Y., & Shu, H. (2021). Differences and similarities in the contributions of phonological awareness, orthographic knowledge and semantic competence to reading fluency in Chinese school-age children with and without hearing loss. *Frontiers in Psychology*, 12, Article 649375.
<https://doi.org/10.3389/fpsyg.2021.649375>