Teachers' support strategies in enhancing the learning experiences of deaf learners at a special school in Pretoria

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Abstract—Educating Deaf learners can present several challenges. One significant issue is that Deaf learners often achieve lower academic outcomes than their hearing peers. This study explored teachers' support strategies to assist Deaf learners in the classroom. Therefore, it is crucial to understand teachers' perspectives regarding how they adapt their instructional methods to meet the unique learning needs of Deaf learners. We purposefully selected six teachers from a special school in the Tshwane West District of Pretoria and conducted interviews to gather data for this case study. The research is based on Florian's framework of inclusive pedagogy, which investigated the support strategies employed by teachers to enhance the learning experiences of Deaf learners in a special education setting. Adopting an interpretive paradigm, we conducted an inductive data analysis. The analysis revealed four key themes: support strategies, perceptions of their support experiences, challenges related to parental involvement, and the need for emotional support. The findings indicate that the teachers were intrinsically motivated and employed various instructional methods to help Deaf learners improve their educational outcomes.

Keywords: Deaf learners, Inclusive pedagogy, Special schools, Support strategies, Support services

I. INTRODUCTION

EXCHANGE Deafness is characterised by hearing impairment from genetic factors, illness, injury, or ageing (Shoko, 2024). The World Health Organisation (WHO, 2021) describes deafness as hearing loss affecting communication and learning. Additionally, Ngobeni et al. (2020) highlight that Deaf individuals may face challenges with communication, learning, language development, and social interaction. While several studies indicate that Deaf learners tend to achieve poorer academic outcomes compared to their hearing peers (Marschark & Hauser, 2008; Marschark & Knoors, 2012; Knoors & Marschark, 2015; Kelly et al., 2022; Magongwa, 2020; Hawkins-Bond, 2022; Wapling, 2023; Shoko, 2024), it is important to recognise that deafness itself is not classified as a learning difficulty, even though it can affect language development. It can be argued that Deaf learners can achieve academic success when provided with tailored educational approaches and appropriate support. This issue is particularly significant in South Africa, where there is a notable disparity in academic performance between Deaf learners and their hearing counterparts, as seen in the national senior certificate examination results.

In South Africa, Deaf learners encounter difficulties in the classroom. Deaf learners may not fully comprehend written instructions if not provided in South African Sign Language (SASL) (Storbeck & Martin, 2010; Knoors & Marschark, 2014; Wapling, 2023). Deaf learners often encounter significant educational challenges. These include difficulties communicating with their peers and teachers and understanding instructions in the classroom (Stuntzner & Hartley, 2014; Bizuneh, 2022). Additionally, Yoshinaga-Itano (2014), Young et al. (2008), and Freitas et al. (2023) assert that Deaf learners struggle to acquire knowledge as they often find it difficult to express themselves effectively. Therefore, if Deaf children do not receive adequate support from teachers, they may continue to face challenges in school and experience low academic achievement (Olusanya et al., 2014; Bizuneh, 2022).

In contemporary educational settings, enhancing learning experiences for Deaf learners requires the implementation of specialised support strategies by teachers. To foster inclusive learning environments, these strategies must address the unique communication needs and learning styles of Deaf learners (Mokala, 2022; Molala, 2023). Scholars indicated that effective teaching methodologies, such as visual aids, proficiency in sign language, and individualised instruction, enhance the academic success of Deaf learners (Kluwin & Stewart, 2000; Mitchell, 2016; Kelly et al., 2022; Magongwa, 2020; Mokala, 2021; Cosmod & Villarente, 2025). Similarly, incorporating technology and collaborative teaching approaches could enrich the educational experiences of these learners, enabling them to engage more meaningfully with the curriculum (Martin & Strobeck, 2010; Lederberg et al., 2013).

Deaf learners encounter challenges in inclusive education due to communication impairments (Cosmod & Villarente, 2025). These challenges can hinder their ability to navigate the educational system effectively (DoE, 2001; Mokala, 2021).

It is essential to consider that teachers use various strategies to address these challenges. In special schools, teachers ensure positive learning outcomes for Deaf learners by implementing supportive strategies that foster an inclusive learning environment (Maizere, 2020). They are crucial in achieving an inclusive education system. Teachers use various instructional methods to support Deaf learners, including bilingual approaches that integrate sign language with spoken and written language, encouraging learners to engage meaningfully with the content (Iii & Evardo Jr, 2023). The limited parental involvement could be a challenge that deaf learners experience in special schools. However, Muller and Malatji (2019) indicated that adequate supportive learning from teachers could mitigate these challenges. Additionally, visual aids offer alternative means for accessing information and understanding concepts.

Tedla and Negassa (2019) suggested that the individualised instructional practices used by teachers could address the academic gaps among Deaf learners. However, teachers might adapt their teaching methods to enhance Deaf learners' understanding and mastery of academic content (Mokala, 2022; Molala, 2023). Additionally, Mosia (2019) emphasises that teachers' support fosters high self-efficacy among learners, enabling them to succeed academically. Effective teaching strategies are essential to empower these learners to achieve their academic goals. This study investigated how teachers use various pedagogical techniques to support Deaf learners. This study reports on teachers' experiences teaching Deaf learners in a special school setting.

II. LITERATURE REVIEW

The education of Deaf learners requires specialised instructional strategies that address their unique communication needs and learning styles (Mphatsoane, 2024). Research indicates that teachers employ various teaching methods to enhance the learning experiences of Deaf learners (Molala, 2023; Shawula, 2023). It is crucial to recognise the need for diverse approaches tailored to the individual needs of each learner.

Ntinda and Tfusi (2019) explored teachers' perspectives on educating Deaf learners in a special school in Eswatini. They highlighted a competency gap among mainstream teachers, who often feel inadequately trained and use different sign languages to hamper their communication with learners and parents. Effectively, findings from Ntinda and Tfusi et al. (2019) revealed a need for support from language specialists, evaluation tools, and consultations to meet the learners' linguistic needs in special schools. Teachers reported insufficient training for mainstream classroom instruction, resulting in a significant skills gap (Mokala, 2022; Molala, 2023; Shawula, 2023). Furthermore, communication challenges stemming from sign language differences create additional difficulties, underscoring the necessity for specialised support in the education of Deaf learners (Shawula, 2023).

Research has established that teachers who use sign language as their primary medium of instruction enhance Deaf learners' comprehension and participation (Marschark et al., 2015; Kelly et al., 2022). Moreover, Mokala (2021), Molala (2023), and Wapling (2023) highlighted the need for training teachers in Deaf pedagogy, observing that teachers lack experience with Deaf learners, making it challenging to address their specific language and academic requirements. The study underscores the importance of SASL as a crucial skill for teachers. Many teachers felt unprepared to support Deaf learners, despite the brief workshops the Department of Education provided. Those teaching Deaf learners often face significant challenges, particularly in addressing unique language needs. Continuous training, access to necessary resources, and collaboration are essential for teachers to overcome these obstacles. A supportive environment is vital for teachers to perform at their best.

This article examines teachers' experiences of teachers who received internal support and collaborated with specialists at their schools. It also explored the critical roles that audiologists and therapists play in supporting inclusive teaching programmes. We gathered data for this study through in-person and telephonic interviews with teachers, taking inspiration from researchers at a special school for Deaf learners and focusing on teaching experiences within this context. One study conducted by Ehlert (2017) emphasised the need for teachers to receive training to support Deaf learners effectively. Teachers knowledgeable about hearing loss and trained in collaborating with Deaf learners can offer suitable support and guidance.

Using specialised information and communication technologies can significantly contribute to developing Deaf learners. Teachers can use these technologies to enhance the engagement and initiative-taking behavioural strategies of Deaf learners by providing accessible materials and resources that incorporate visual supports and captions or subtitles for improved comprehension. Furthermore, early identification and intervention are effective strategies that promote Deaf learners' ability to build social relationships with their hearing peers.

This study builds on Florian's inclusive pedagogy framework (Florian, 2012, 2014, 2015, 2017). This framework emphasises the importance of creating learning environments that embrace diversity and promote equitable opportunities for Deaf learners. By integrating these principles into our research, this study examines how inclusive practices can create a holistic learning environment for Deaf learners (Shawula, 2023). Florian's framework of inclusive pedagogy emphasises the importance of supporting every learner by recognising that individuals are different. According to this framework, there is no such thing as a fixed ability in learners (Florian, 2015). It suggests that the actions teachers take or choose not to take at any given moment can significantly impact a child's future learning potential (Molala, 2023). The framework emphasises that recognising and embracing differences is vital for human development throughout the learning process. Therefore, it is important to stress that Florian's framework advocates changing teachers' attitudes to support all learners better (Florian, 2017; Molala, 2023). It promotes teaching practices that are inclusive and beneficial for every learner.

Florian's inclusive pedagogy framework (2017) is particularly relevant in this study as it emphasises the importance of providing diverse educational options and supportive practices that cater to individual learning needs. By promoting a positive view of each learner's potential, this framework encourages teachers to recognise learning differences as strengths, fostering an inclusive environment that enhances engagement and achievement among Deaf learners (Florian, 2017; Molala, 2023; Mokala, 2021). The framework promotes a comprehensive approach, encouraging teachers to challenge assumptions about Deaf learners and address biases that may hinder inclusive practices (Florian, 2017). Additionally, the framework highlights the necessity for ongoing professional development, ensuring that teachers acquire the competencies and knowledge to support Deaf learners optimally. Overall, Florian's framework provides a robust foundation for understanding and enhancing Deaf learners' educational experiences in inclusive settings (Florian & Black-Hawkins, 2011; Shawula, 2023).

Florian and Black-Hawkins (2011) assert that inclusive pedagogies offer equal learning opportunities for all learners, regardless of perceived differences. This study investigated how teachers can effectively support Deaf learners in line with inclusive pedagogy principles. The authors emphasise the importance of inclusion in enhancing classroom activities and reject academic hierarchies. This viewpoint is crucial to this study. It examines how internal support for Deaf learners can foster a more enriching learning environment.

III. OBJECTIVE OF THE STUDY

The study's overarching aim is to explore teachers' views on how they improve the learning experiences of Deaf learners.

IV. METHODS

This study, which advocates for a supportive educational environment for Deaf learners in South Africa, employs a qualitative approach, specifically interpretivism. Cresswell (2013) states that qualitative research is often used to study practices, processes, and events, as it allows for detailed analysis while considering individuals' perspectives. Similarly, Richards (2014) notes the frequent use of qualitative research in examining such matters. Research involves people in its data collection. Thus, the results come from contextualised interactions and observations. Cresswell (2013) states that qualitative research is effective for analysing practices, processes, and events due to its in-depth approach and recognition of individual perceptions. We employed interviews with teachers to ensure data triangulation and increase the accuracy and reliability. We used systematic sampling to select teachers with relevant knowledge and experience.

The interpretive paradigm serves as a foundational framework for comprehensively understanding the qualitative research undertaken for

this inquiry. This model was intentionally selected to capture the complexity of teachers' feedback. It allowed for a thorough exploration of the rich emotional landscape, core values, and unique behavioural patterns that influence their interactions with Deaf learners. By adopting this interpretive lens, we can uncover social phenomena's subtle yet significant dynamics, as Mapepa and Magano (2018) articulated. Furthermore, utilising qualitative research methodology allows us to examine teachers' diverse experiences while supporting Deaf learners thoroughly. This focus highlights their challenges and innovative strategies, critical to fostering effective communication and learning outcomes in this unique educational context (Bell & Foiret, 2020).

An analysis of data collected from a special school in Pretoria examined how teachers support Deaf learners to enhance their learning experiences (Molala, 2023). This study aimed to identify what teachers find meaningful in their teaching experiences to understand better the academic support provided to Deaf learners. The data was further analysed and correlated using rigorous techniques to uncover patterns and relationships. To start processing the interview data, we used word processors to convert it into manuscript form. Our next step involved evaluating existing theories through a general inductive data analysis. After identifying the categories, we analysed the data to see if any contradicted the established themes.

We synthesised our findings to create a coherent understanding of the overall themes present in the data. Adhering to Henning's (2017) guidance, we followed a systematic approach to ensure our process was thorough. This enabled us to draw reliable conclusions and uncover meaningful trends (Molala, 2023). We organised the data using a systematic coding process to ensure reliability and validity. This approach allowed us to identify patterns within the data and draw valid conclusions. By analysing the data in depth, we developed meaningful insights.

While conducting this study, we used Berg's (2007) procedures combined with Creswell's (2013) six-step process. The initial step involved sorting and organising the data for analysis. We then manually classified the data using codes after going through the transcription. Furthermore, we described the themes that emerged to understand the data. We interpreted each theme. The data we analysed was transcribed from interviews. Data analysis involved categorising the study results and employing inductive thematic analysis to examine the codes. We followed Charmaz's (2012) guidance to ensure a comprehensive coding process. We then developed inductive themes and interpreted them based on the research questions.

Research approach

Qualitative, quantitative, and mixed methods are the three major approaches to research (Creswell, 2015; Masunungure, 2019). Qualitative approaches are well-suited to exploring the views of Deaf learners and ToDs regarding how resilience can be enhanced in Deaf learners (Olafson et al., 2015). We have chosen this specific method to better understand teachers' and learners' views on how resilience can be enhanced in Deaf learners. A qualitative study explains its hypothesis through descriptive or literary means. Qualitative techniques are suitable when the researcher aims to interpret data more descriptively, leading to a comprehensive understanding of the society in question (Mohajan, 2018; Akyıldız & Ahmed, 2021). Each study must follow a specific, organised, and structured method to achieve more effective outcomes (Akyıldız & Ahmed, 2021). Qualitative techniques are relevant in examining how teachers and Deaf learners perceive the enhancement of resilience in Deaf learners.

Qualitative research focuses on understanding interpretations and perspectives within a particular environment (Corbin & Strauss, 2014; Levitt et al., 2017; Akyıldız & Ahmed, 2021). It allows an in-depth exploration of how teachers and Deaf learners perceive how resilience for Deaf learners can be enhanced. This approach can provide a richer understanding of the contextual factors that influence educational outcomes for Deaf learners. It emphasises how individuals interpret and derive meaning from their perceptions, especially about their social

context (Zohrabi, 2013; Akyıldız & Ahmed, 2021).

Dudwick et al. (2006), Creswell (2009), and Akyıldız and Ahmed (2021) assert that qualitative studies are practical because they are grounded in real-world contexts and utilise various data processing and interpretation methods. This study focuses on the real-life experiences of teachers and Deaf learners related to how resilience can be enhanced in Deaf learners through qualitative inquiry. Therefore, a qualitative research approach is ideal for exploring these contexts and examining how resilience in Deaf learners can be enhanced.

We have opted for the qualitative research approach due to its naturalistic emphasis, allowing research to occur in natural settings and facilitating interactions (Maree, 2013). Furthermore, this approach was chosen because it enabled exploratory research questions and prioritised understanding phenomena. Qualitative approaches also foster creativity and a deeper understanding of human experiences (Maree, 2013).

Research design

My interest in the participants' subjective realities led me to choose a qualitative research design. This decision is made due to its inherent acknowledgement of the subjective construction of the experiences and perceptions of those individuals being studied (Mdikana et al. 2024). Qualitative research design takes place in a natural setting, allowing for a more open and involved investigation of phenomena (Denzin & Lincoln, 2005; Clark & Ivankova, 2015). In a qualitative research approach, participants express their experiences in their own words, giving the researcher a deeper understanding of their uniqueness (Guba & Lincoln, 2004). "A research design situates researchers in the empirical world and connects them to specific sites, people, groups, institutions, and bodies of relevant interpretive material, including documents and archives" (Holstein et al., 2024). This study used a descriptive phenomenological design to explore the perspectives of teachers of the deaf regarding ways to enhance resilience in Deaf learners (Human-van der Westhuizen, 2012). A research design is a plan or strategy that moves from the underlying philosophical assumptions to specifying the selection of participants, the data-gathering methods to be used, and the data analysis to be used" (Creswell & Poth, 2016, p. 72). Research designs are systematic approaches researchers use in carrying out studies (Creswell, 2015).

Research paradigm

Research paradigms are patterns of values, methods, and beliefs used to interpret research findings (Creswell, 2015). We used the interpretive paradigm for this research study. The interpretive paradigm is deemed most appropriate as it allows for a wide range of valid responses and closely aligns with the reality of the participants' experiences (Creswell, 2015; Mokala, 2021). Furthermore, Creswell (2015) suggests that researchers and participants create multiple realities as they share their experiences and communicate. Thus, we examined teachers' and learners' views on how resilience can be enhanced in Deaf learners and the complexities involved in this context (Creswell, 2015). Furthermore, we encouraged participants to reflect on their experiences and answer questions by sharing their experiences.

One of the limitations of this paradigm is that responses are not addressed in terms of their political and ideological impact; instead, this paradigm targets individual and societal empowerment (Hammersley, 2013; Creswell, 2015). Interpretation paradigms are also criticised for being subjective rather than objective in their ontological views (Mack, 2010). Ontology in research refers to philosophical viewpoints concerning nature and social reality (Creswell, 2015). Nevertheless, we argued that this paradigm is most suitable for use due to its advantages and the necessity of understanding the participants' experiences.

Participants

Sampling refers to selecting a subset from the larger target population for observation (Babbie, 2010; Masunungure, 2019). This proposed study utilised purposive sampling to recruit participants. "Purposive sampling uses the researcher's judgement to select participants likely to offer particularly valuable insights" (Jensen &

Laurie, 2016, p. 100). Thomas et al. (2010) also suggest that purposive sampling involves selecting specific individuals based on the researcher's interest. Therefore, purposive sampling was utilised to gather targeted data for this study. Maree (2013) and Mertens (2010) suggest that purposive sampling can provide a deeper understanding and insight into specific phenomena. This method involves selecting a particular group of individuals based on their characteristics and the interests of the research inquiry. Moreover, in qualitative research, it is also important to note that sampling is flexible and determined by data saturation.

This study's sample comprised six teachers from a special school in the Tshwane West district in Pretoria, Gauteng. Participants in the study were selected based on specific characteristics. Participants were selected from diverse backgrounds to gather multidimensional information about their experiences related to how to enhance resilience in Deaf learners. Diverse backgrounds were sought to gather a comprehensive understanding of their assessment experiences. Biographical information, including gender, ethnic group, and age, was collected to gain insights into how participants experience and understand assessments. These factors helped us understand the various perspectives and approaches participants bring to the assessment process. This comprehensive approach allows us to identify themes, patterns, and potential areas for improvement in assessment practices for Deaf learners.

The sample included middle-class African teachers with at least five years of experience teaching Deaf learners. It is comprised of both male and female teachers aged 24 to 60. These one-to-one interviews, lasting between 30 minutes and one hour, aimed to gather participants' experiences and opinions on improving resilience in Deaf learners. We conducted in-depth interviews to generate qualitative data through extensive individual discussions guided by specific questions (Guest et al., 2006; Legard et al., 2003; Tenza et al., 2017; Biggs et al., 2021). Interviews were held at the respective school in Gauteng province after school hours to minimise disruptions to teaching and learning. Furthermore, the interviews were conducted in English.

Sandelowski (2000) and Wolbers et al. (2023) note that an optimal sample size for qualitative analysis allows for in-depth, case-based analysis while still providing a detailed examination of the phenomenon. The sampling method is carefully chosen to target a specific group, specifically Deaf learners, and ToD's from the Deaf schools. The participants in this study are purposively selected because of their potential to provide valuable insights and perspectives on how to enhance resilience in Deaf learners. All participants in the research come from diverse socioeconomic backgrounds, including poor and middle-class African participants. Thirty-three teachers and thirty Deaf learners were purposively sampled in this study. It should be noted that throughout the study, sample diversity was ensured by considering participants' gender, race, socioeconomic status, ethnicity, and age (Mertens, 2010). The sampling method is carefully chosen to target a specific group, specifically Deaf learners, and ToD's from the special school.

Data generation tools
Qualitative data collection methods can include interviews, focus group discussions FGDs and open-ended questionnaires (Creswell, 2015). Each method allows researchers to gather in-depth data that provides insights into individuals' experiences, perceptions, and behaviours. Data collection is a complex process in qualitative research, involving several interlinked steps such as interviews aimed at answering the research question through the collection of information (Maree, 2013). This study utilised individual interviews to generate data.

Research site
The research site for this study was a school located in the northern township of Soshanguve in the Tshwane West district (D15) in Pretoria. This institution plays a vital role in the community by fostering an inclusive environment that caters to diverse abilities, ensuring that each learner receives personalised support and resources. The school's staff includes experienced teachers and specialists who work collaboratively to create individualised learning plans. By focusing on academic and social development, the school empowers Deaf learners, helping them thrive in and out of the classroom. This setting provides an ideal context for investigating effective teaching strategies and outcomes for children with special educational needs.

Ethical considerations
Before conducting our research, we sought ethics clearance from both the Gauteng Department of Education and the Ethics Committee at Wits University. This process ensured that we adhered to ethical standards throughout the project. Informed consent involves a voluntary agreement signed by research participants, signifying their understanding of the risks associated with their involvement in the study (Rose et al. 2009; Mokala, 2021). We distributed consent forms and informational letters to participants before initiating the research. To conduct the study, we obtained permission from Wits University and the Department of Basic Education and provided a detailed letter outlining our plan to protect the anonymity of the participants. To ensure confidentiality, we referred to participants using pseudonyms instead of their real names in any written documentation related to the research. The consent forms clearly explained the measures to protect participants from harm. We approached sensitive questions carefully and attentively, paying close attention to nonverbal cues that might indicate discomfort.

V. RESULTS

Biographic results
Table 1: Biographic results

Thematic results
The investigation primarily focused on exploring strategies teachers use to enhance the learning experiences of Deaf learners. According to the teachers, regular in-service training participation is crucial for effectively supporting these learners. This training increases their confidence in their teaching abilities and ensures they are well-prepared to assist Deaf learners. Furthermore, the teachers highlighted that such training helps them stay updated on current teaching methodologies and equips them with valuable classroom management techniques.

Ongoing professional development
The investigation primarily focused on exploring strategies teachers use to enhance the learning experiences of Deaf learners. According to the teachers, regular in-service training participation is crucial for effectively supporting these learners. This training increases their confidence in their teaching abilities and ensures they are well-prepared to assist Deaf learners. Furthermore, the teachers highlighted that such training helps them stay updated on current teaching methodologies and equips them with valuable classroom management techniques.

"The school occasionally arranges training sessions for hearing teachers to learn sign language, enhancing our teaching methods" (P5).

"The school supports us by offering short sign language courses from Wits for all teachers working with Deaf learners. We also receive training on implementing the Technical Occupational Curriculum (TOC) and the Disability Curriculum Assessment Policy Statement (APS). This curriculum is tailored for learners with Severe Intellectual Disabilities (SID) and Moderate Intellectual Disabilities (MID) at our school" (PT4).

"We receive training from e-Deaf each year, but this is only basic sign language training for teachers" (P3).

To use inclusive pedagogies practices and fully accommodate Deaf learners in their classrooms, teachers indicated that they receive ongoing in-service training, especially in sign language. This indicates they know current teaching practices and trends in the field. Thus, teachers can confidently teach and support Deaf learners.

Curriculum differentiation
Differentiating curriculum is a strategy teachers use to enhance the learning experiences of Deaf learners. In special schools, teachers tailor their instruction to meet the varied needs of their learners through

curriculum differentiation, according to McKenzie et al. (2019). Curriculum differentiations require teachers to vary their preparation and tasks, thus becoming "a significant feature of inclusive education (Lindner & Schwab, 2020, p. 3). By adapting the curriculum, teachers can reach

The findings seem consistent with Mokala's (2021; 2017) studies on curriculum differentiation.

Most participants suggested implementing curriculum differentiation to support deaf learners in their classes. This is captured in verbatim excerpts below:

The second research question focused on teachers' teaching methods in supporting Deaf learners. The findings point to teachers employing curriculum differentiation to support Deaf learners. Participants expounded:

We need to adapt the curriculum to meet the needs of our learners. (PT.2).

Learners might struggle to grasp the material sometimes, so modifying the curriculum to better align with their understanding is crucial. (PT3).

We need to adapt the curriculum to meet our learners' needs, as they sometimes struggle to understand everything included. (PT6).

These data suggest that when teachers differentiate the curriculum, they can address different ranges of learners' needs. This means that teaching strategies are tailored according to each learners' `needs, thus each can succeed as it enables effective teaching and learning.

Collaboration

Another teaching strategy that teachers use in supporting Deaf learners is collaboration.

"I believe that sharing best practices and strategies with other teachers to support Deaf learners is beneficial because we can learn from others' teaching methods" (Participating Teacher; PT3).

"When she struggles with a specific sign, I have a colleague who approaches me as a sign language teacher for assistance. She maintains a very positive attitude in supporting Deaf learners" (PT4).

From the foregoing verbatim extracts, it is evident that teachers value collaboration, as the findings reveal that they can offer adequate support to Deaf learners when they work closely as a team. The results showed that teachers work together with the specialists within the school.

"The speech therapist came by and shared insights on recognising hearing-ability learners and providing them with appropriate support. She advised that when teaching Deaf who use hearing aids and can hear, I should utilise both my voice and sign language" (PT5).

It is evident from the study's findings that collaboration is a tool used to support Deaf learners. The implication is that learners get quality education through collaboration, are included, and have their needs.

Incorporating technology

Another finding that emerged from the data is the incorporation technology into teaching. The evidence from interviews with the teachers is captured below:

"I often use the Deafinition app if I encounter a new sign I do not know. It helps me significantly with learning new signs and provides various videos in sign language" (PT5).

"We have a WhatsApp group dedicated to the foundation phase, where we exchange resources, including videos of poems and links to useful websites" (PT1).

"I am responsible for my materials and resources. Fortunately, we have SLED and Wits, which provide free online sign language materials that are very helpful. You can log into your account and search for any item you need signs for" (PT3).

Based on the research findings, it is evident that teachers use technology to enhance their teaching. This implies that they vary their teaching methods and address a range of learners' needs. We must also highlight that incorporating technology in teaching has various benefits, such as collaboration and open communication, which thus enhance learning experiences.

Verbal communication and sign language

Teachers use verbal and sign language to instruct Deaf learners simultaneously, which aligns with Mokala's (2021) and Molala (2023) studies.

"The speech therapist advised me that to support hard-of-hearing learners, I must use both sign language and voice while teaching" (PT3).

"To accommodate all learners, I simultaneously talk and sign; some use hearing aids while others are completely deaf" (PT5).

Use of simple words

Teachers support Deaf learners by using simple words to break down their teaching content. The study's findings reveal that when teachers break down complex concepts into simple language, learners understand better and feel more supported. The text below includes verbatim extracts for reference.

"You need to change certain terms because some terms are difficult, so they understand" (PT6).

"If I am teaching NS, for example, there are long, complicated words, I need to come up with a shortened explanation and change the words. You need to restructure the sentence" (PT4).

"In mathematics, maybe you are teaching addition, and you can see this strategy is not working, the learners do not understand. Then I simplify the words so that they understand" (PT2).

Most participants have reported breaking down difficult concepts into smaller chunks and using simple terms to ensure understanding. This helps Deaf learners understand better as they rely more heavily on visual than written information.

Using videos to teach

"They also motivate us to exchange videos that can assist Deaf learners" (PT4).

"For instance, if I need to create a video about a little red hat, I will use a video to explain" (PT1).

"When I explain a concept and notice that the learners are having difficulty grasping it, I provide video resources in sign language since they are visual learners" (PT5).

Based on the verbatim extracts above, the findings indicate that to present concrete information, teachers use videos. Inclusive teaching practices are reflected in visuals like videos, thus learners' needs are fully addressed. Teachers consider that they are teaching Deaf learners. As such, when they use videos, leaners' experiences are enhanced as the learning environment allows them to be fully engaged.

VI. DISCUSSION

The current study focused on understanding support strategies employed by teachers to enhance Deaf learners' learning experience in Pretoria. Teachers used different strategies, such as ongoing training, modified teaching approaches, collaboration, various teaching methods, ongoing professional development, and the use of technology in their teaching. Teachers report high satisfaction with the support from continuing professional development. Mokala (2025) affirms that when teachers are supported through ongoing training, they develop positive attitudes towards their teaching experiences, thus retaining their jobs. This training aimed to enhance teachers' confidence and provide them with the skills needed to address the various needs of their learners (Walton & Rusznyak, 2017). Moreover, teachers must continually develop their skills in working with Deaf learners, as it can expose them to collaboration with their peers and the exchange of ideas on best practice guidelines and technologies. By staying informed about advancements in Deaf education, teachers can enhance their instructional techniques. Additionally, ongoing training helps teachers remain adaptable and responsive to changes in educational standards and learner requirements, improving outcomes for Deaf learners.

Contrary to the current study, Mdikana et al. (2024) point out that many teachers lack the necessary skills to support learners. It indicates that schools do not sufficiently support teachers during implementation (Mdikana et al., 2024). Furthermore, visual aids are fundamental in enhancing the learning experience of Deaf learners. Teachers use various resources, including diagrams, charts, and multimedia presentations, to reinforce concepts (Schindler, 2019)..

A key strategy used by teachers when teaching Deaf learners is sign language, which serves as the primary form of communication.

According to Mayer et al. (2021), teachers who use sign language accurately and fluently enhance communication and help Deaf learners feel included. Teachers have indicated that sign language is the most effective classroom communication tool. The teachers emphasised how essential fluency in sign language is for effective teaching and learning. Teachers also use gesture-based communication, visual aids, and written materials to reinforce learning. The concept of individualised instruction is critical in special education. Teachers in Pretoria often adapt their teaching strategies to meet the diverse needs of Deaf learners. This includes personalised lesson plans, differentiated instruction, and flexible grouping. According to Kauffman et al (2018), individualised interventions improve academic outcomes and higher self-esteem among Deaf learners.

Teachers involved in this study concurred that differentiated instruction is a practical approach to teaching Deaf learners. Differentiated learning helps teachers address the needs of a range of learners and support those who need it most. Research has revealed that many teachers struggle with curriculum adaptation (Shongwe et al., 2020). According to Onyishi and Sefotho (2020), teachers struggle to use differentiated learning as it is time-consuming; they also have large classes and a shortage of teaching materials. Most teachers in the present study indicated that differentiated learning was practical. Differentiated instruction supports Deaf learners in fulfilling their varied educational needs. Teachers adapt their teaching methods, materials, and assessments to align with individual learning styles and proficiency levels. This may involve simplifying instructions, using varied instructional strategies, or providing additional scaffolding for complex tasks (Tomlinson, 2014).

Creating a collaborative learning environment promotes peer interaction and socialisation among Deaf learners (Cosmod & Villarente, 2025). Teachers often employ group work and pair activities, encouraging learners to communicate and share ideas. This approach enhances learning and helps build social skills and confidence (Higgins, 2019). Collaboration among professionals from different disciplines, including speech-language therapists, psychologists, and social workers, enhances the overall support provided to Deaf learners. Collaborating teams can effectively address these learners' multifaceted needs (Turnbull, 2017). Technology plays an increasingly vital role in supporting Deaf learners. The use of digital resources can significantly enhance the educational experience. Visual teaching aids, such as pictures, videos, and interactive whiteboards, were widely used to support learning. These tools helped to bridge the communication gap and facilitated a better understanding of complex concepts (Baker & Cummings, 2021).

VII. CONCLUSION

Teachers' feedback and opinions on support are vital for their satisfaction and professional growth. The support strategies teachers employ are pivotal in enhancing the learning experiences of Deaf learners. Teachers can create inclusive and effective educational environments by utilising sign language, differentiated instruction, collaborative learning, technology, and social-emotional learning. Continuous professional development and research into best practices remain essential to support Deaf learners further and promote their academic success. A recent study explored teachers' experiences of support in special schools for Deaf learners.

In conclusion, the investigation found that teachers receive strong support from school specialists, ongoing in-service training, teams of teachers working together, and supportive leadership. Despite this, teachers noted that counselling is essential for providing psychological support, which is not currently available. This poses a severe challenge to successful teaching in a special school setting. Therefore, Teachers require psychological support from school counsellors or psychologists to manage occupational challenges. This study can bridge the gap in current scientific knowledge and improve educational policies to achieve educational equality.

The rationale for exploring how teachers employ various teaching strategies to support Deaf learners arises from the need to better understand how teachers can enhance the academic outcomes of these learners (Shawula, 2023). This research is significant as it addresses a critical gap in understanding effective educational practices for Deaf learners. By investigating successful teaching strategies, the study could improve educational outcomes and foster a more inclusive learning environment (Makoelle & Chataika, 2025). Furthermore, the findings may inform teacher training programs and policy development, benefiting teachers and learners.

Understanding the specific challenges that Deaf learners face in the classroom allows teachers to adapt their methods to address these issues effectively. Although South Africa has introduced innovative and inclusive education policies, significant gaps remain in their implementation. This disconnect indicates that the needs of Deaf learners are not being fully met (Dreyer, 2017; Maizere, 2020).

This study examined how teachers apply inclusive teaching methods for Deaf learners in the classroom. Understanding these strategies is crucial as it can provide policymakers, curriculum developers, and other stakeholders with valuable insights to enhance the effectiveness of inclusive education, particularly in special education contexts (Molala, 2023). This investigation aimed to contribute to inclusive classroom practices for Deaf learners. Additionally, exploring how teachers utilise different pedagogical strategies can help establish practices specifically tailored to meet the needs of Deaf learners (Uko, 2018; Shawula, 2023).

The strategies teachers employ in Pretoria are crucial for enhancing the learning experiences of Deaf learners. Through effective communication, visual aids, individualised instruction, and collaborative practices, teachers can create a supportive and enriching educational environment. Future research should focus on long-term outcomes of these strategies and explore innovative practices that can further empower Deaf learners in their educational journeys.

VIII. CONFLICTS OF INTEREST

There are no conflicts of interest in this study.

IX. DATA AVAILABILITY STATEMENT

Data supporting this study are openly available from the Wits University Wired repository at https://wiredspace.wits.ac.za/items/79e52dca-6618-4e5c-92c6-3e747bb1d942.

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