CHALLENGES FACED BY SIGN LANGUAGE TEACHERS IN TEACHING PUPILS WITH HEARING LOSS: A CASE STUDY OF THE DEAF EDUCATION CENTRE IN BECHAR, ALGERIA

Mouili Fatiha[1]

Khelf Yakout[2]

Abstract

Teaching sign language to students with hearing loss presents a unique set of pedagogical, social, and logistical challenges that require specialized knowledge and resources. This study aims to explore the difficulties faced by sign language teachers in delivering effective instruction to learners with hearing loss in the context of the Deaf Education Center in Bechar, Algeria. Also, the family members complain from the different ways of communicating with Deaf children and how they can contact other people, mainly strangers, who are cannot aware of the sign language. A questionnaire was designed and distributed to 25 teachers, collecting both quantitative and qualitative data on teaching practices, resource availability, student engagement, parental involvement, and professional development. The results indicate that while teachers are committed and find their work rewarding, they often struggle with limited instructional materials, insufficient training opportunities, and inconsistent parental support. These findings highlight the need for improved educational resources, sustained professional development, and stronger collaboration between teachers, families, and the wider community to enhance the quality of sign language education.

Keywords: Sign language instruction, hearing loss, teaching challenges, special education, teacher development

[1]Assoc. Prof. Dr., Tahri Mohamed University of Bechar, **Algeria**. ORCID: 0009-0003-0752-814X. Email: mouili.fatiha@bechar-univ.dz

[2] Assoc. Prof. Dr., Tahri Mohamed University of Bechar, **Algeria**. yakout.khelf@univ-bechar.dz

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

133

Introduction

Sign language is essential in the education and social inclusion of individuals with hearing loss. As a fully developed visual language with its own grammar and structure, sign language allows deaf and hard-of-hearing students to access knowledge, express themselves, and engage meaningfully with the world around them (Marschark & Spencer, 2010). In educational settings, sign language instruction serves not only as a means of communication but also as a foundational tool for cognitive, emotional, and academic development. However, the effective teaching of sign language poses significant challenges, particularly in contexts where resources, training, and awareness are limited.

Globally, research has shown that sign language teachers often operate under constraints such as insufficient pedagogical materials, lack of standardized curricula, and minimal institutional support (Swanwick & Marschark, 2010; Knoors & Marschark, 2012). These issues are further compounded in regions with limited infrastructure or where deaf education is underdeveloped. In such contexts, teachers must overcome additional barriers, including the absence of ongoing professional development and a general lack of awareness among parents and communities about the needs of students with hearing loss (Kritzer, 2009). These conditions can hinder both teaching effectiveness and student learning outcomes.

Despite the growing international literature on deaf education, the Algerian context has received very little attention. In Algeria, while increasing efforts have been made to improve inclusive education, sign language teaching remains an underexplored area. To our knowledge, this study is among the first to examine the perspectives of sign language teachers in Algeria, with a specific focus on the Deaf Education Centre in Bechar. Highlighting this context is important, as it brings forward a rarely documented experience into international discussions on sign language education. There is a lack of published research addressing the everyday experiences of educators working with deaf students, particularly in specialised institutions such as the Deaf Education Centre in Bechar. Understanding the challenges these teachers face is essential for informing policy, improving teacher training, and developing educational materials that meet the needs of both instructors and students.

This study aims to investigate the challenges encountered by sign language teachers working with students who have hearing loss at the Deaf Education Centre in Bechar. Specifically, the research seeks to identify the difficulties related to instructional materials, classroom engagement, parental involvement, and professional development. The study is guided by the following research questions:

1. What are the main challenges faced by sign language teachers in teaching students with hearing loss?

2. How do teachers perceive the availability and effectiveness of teaching resources and materials?

3. What role does parental and community support play in the educational process?

4. What professional development opportunities are available to sign language teachers, and how adequate are they?

By exploring these questions, the study seeks to shed light on the realities of sign language education in an Algerian context that has rarely been documented internationally and to offer practical recommendations for enhancing teaching practices and student learning outcomes.

Literature Review

Deaf people, around the world, faced a troubled, misunderstood, and overlooked history. They are largely controlled by hearing people, usually their surroundings, who tell them what and how to learn, how to communicate, what jobs to expect, and how to raise their children. Many Deaf people were put into institutions after they were diagnosed as mentally retarded. Not all Deaf people are born to Deaf families; most of them were born and raised in a normal family environment. Research data shows that about 91.5% of deaf children are born in families where all members are normal (Ray 2014).

Deaf students and those who suffer from hard-of-hearing are considered exceptional learners (Hallahan, Kauffman, & Pullen, 2009; Smith, 207, Beveridge, 1999; Bunch, 1987; Moores, 2001). These students need special treatments which must be offered by qualified and skilled teachers in order to respond to their unique needs (Beveridge, 1999). In addition, hearing loss significantly influences the language and speech development of students

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

135

who are deaf and hard-of-hearing that negatively affects their academic achievement, social and emotional interaction, and cognitive milestones (Moores, 2001). Those students had poor expressive writing skills, lack adequate reading skills in general, and problems in communication, academic, social, emotional, and family problems (El-Zraigat 2010).

Definition of the Sign Language

Bhavna and Kumar Dubey (2025, p 76) define the sign language as: *"a visual language used by Deaf and hard-of-hearing individuals to communicate"*. It involves the use of hand shapes, facial expressions, body movements, and gestures to represent words, concepts, and emotions, respectively. Unlike spoken languages, sign languages do not rely on sound, but instead rely on the visual and spatial aspects of communication. Sign language is also regarded as a full language system that conveys meaning. It is a complicated and rich language with its grammar, syntax and vocabulary. Unlike spoken language, SL conveys information through space and movement, allowing for a broad spectrum of nuance and emotion. SL is the first language and major mode of communication for many deaf people. It enables individuals to completely express themselves and engage in discussions, social events, and other elements of life that would be more difficult or impossible to do otherwise.

The sign language is not a universal language. There are several sign languages in use across the world, each with its distinctive traits and qualities. American Sign Language (ASL), for example, is used in the United States and Canada, but British Sign Language (BSL) is used in the United Kingdom. Australian Sign Language (Auslan), French Sign Language (LSF), Japanese Sign Language (JSL), and many more are examples of sign languages. Despite their diversity, all sign languages have basic traits. They all, for example, transmit meaning through a combination of hand gestures, facial expressions, and body language. They also have their grammar and syntax, which may differ from that of spoken language. For both hearing and deaf people, learning sign language may be a joyful experience. Learning SL may help hearing people communicate more successfully with Deaf people, as well as contribute to a more inclusive and accessible society. Learning SL may assist non-hearing people in developing a sense of community and identity, as well as give them a means to express themselves and interact with others. Overall, SL is a vital tool for

encouraging communication, understanding, and inclusion in society, and it plays a significant part in the lives of many deaf people.

According to Wendy and Martin (2006, p 01): "Sign languages are of great interest to linguists, because, although they are the product of the same brain, their physical transmission differs greatly from that of spoken languages". It is not known exactly how many use it as their primary language, but it is known that sign language is finally getting the respect and admiration it deserves (Wendy and Martin, 2006). It is regarded as a visual language with its own grammar and syntax that is widely used for communication among the deaf community. Some deaf individuals even use lip reading and speech for communication, focusing on using hearing aids or cochlear implants to improve auditory access.

Algerian Sign Language descended from French Sign Language (Langue des Signes Française, LSF). It is distributed around different Algerian Deaf communities living in different provinces or villages in the country. Probably, different Algerian Sign Languages are being used as many Deaf communities are in Algeria, at least in some big cities, regardless of their similarities and/or differences. These Algerian Sign Languages could be developed mainly in some villages and used by the Algerian Deaf individuals, and perhaps, some of their family members, relatives, friends, or the ones who work/Deal with them in general (Abdelouafi, 2021).

Hearing Loss

Hearing loss affects over 20% of the present world population, and this percentage is rising over time. Hearing can be defined as the ability to identify and perceive sound waves coming from outside. Hearing is one of the five human senses that enable us to receive information from our environment through our auditory system. People with normal hearing can hear sounds between 20 and 20,000 Hz[3] and between 0 and 130 decibels (dB[4]) (Awad, 2024). Hearing loss is defined by a decrease in sensitivity to regularly heard noises. The increase in the volume necessary before the listener can sense it determines the severity of a hearing loss. Hearing impaired are those who have a relative insensitivity to sound under the

---

[3] Hertz (Hz) is a frequency unit that measures the number of sound vibrations per second.

[4] Decibels measure sound intensity (amplitude), i.e., sounds' pressure or forcefulness. The greater the amplitude of a sound, the louder it is. In everyday life, it is referred to as volume.

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

137

speaking frequencies. Hearing loss can manifest itself in a variety of ways and at a variety of frequencies. Hearing impairment is often characterised by difficulty interpreting speech and hearing noises and suffering from hearing loss between (35-69 dB) (Awad, 2024).

According to Martin et al (2015), hearing loss experienced by a person can vary depending on the degree of auditory acuity, which is divided into several levels whose grouping can be classified based on the time and location of the deafness. Martin et al (2015) reveal that children who are born with hearing impairment or hearing loss before language and speech are formed, are called pre-lingual deaf children, this tends to be included in the category of severe deafness. Meanwhile, if deafness is experienced after the children understand a conversation or language and the speech has been formed, it will tend to be in the moderate or mild category. This is in line with Effendi (2006) who stated that deafness that occurs based on time is divided into two, namely Congenital or deafness that occurs before the child is born (prenatal) and at birth (natal) and Acquired is deafness that occurs when the child is born (post-natal) and begin to perform developmental tasks.

Deaf Education

Bhavna and Kumar Dubey (2025, p 75) define Deaf education as: *"teaching and educational strategies designed to meet the needs of students who are deaf or hard of hearing".* The goal is to ensure that these students have the same access to education and opportunities as their hearing peers, with tailored methods and support to overcome challenges related to communication, language development, and social integration. The main problem of the deaf people is not deafness, but rather literacy, reading and writing, that is, linguistic competence in the surrounding spoken language and the educational level associated with it (Carver 1998). Research demonstrate that the majority of deaf people end up with lower educational levels, and their literacy level remains very low even after they have finished their education (Hammermeister 1971). Individuals with hearing difficulties often have limited available opportunities in their hearing counterparts.

In Algeria, since there are not enough specialists in Algerian Sign Language (e.g., trained teachers and SL interpreters), Deaf children are denied access to education in LSA, for example. Alternatively, they are taught in Signed or Written Arabic merely (Abdelouafi, 2021). This, unfortunately, does not

guarantee full access to information. It does not improve the high-quality of education for Deaf youngsters either, especially because they know that LSA interpreting service itself is not available in classrooms. Fuentes and Tolchinsky (2004, p 103) stated that: " sign languages play a vital role in deaf educational settings. Haualand and Allen (2009, p 65) add that: "it is the Deaf's right to educated in the national sign language".

Pupils with impairments, including those with physical, sensory, and intellectual problems, receive special education in Algeria. The Algerian government offers special education services in either specialised schools or conventional schools with support services. Generalizing the process of opening specialized departments in coordination with the National Education Sector, the process of caring for children with sensory disabilities (hearing impaired and blind) in integration departments in the regular school environment began during the 1990s, before the issuance of the joint ministerial decision issued on December 10th,1998, which included the opening of special departments for the hearing impaired and blind in educational institutions in the national education sector.

The Algerian government, in addition to specialised institutions, offers support services for kids with disabilities in conventional schools. Assistive technology, classroom accommodations, and specialised education from certified instructors or aids are examples of these support services. The Algerian government has also worked to enhance school accessibility and instruction for pupils with impairments. Some schools, for example, have been renovated to accommodate wheelchairs, and braille materials are provided for pupils who are blind or visually challenged. Despite these efforts, Algerian special education programs continue to confront obstacles, including insufficient money and resources, a dearth of certified special education instructors and support staff, and restricted access to specialist equipment and technology. Increased investment in special education programs in Algeria has been called for in recent years to improve access to education and assistance for pupils with disabilities. Some organisations and advocacy groups are also trying to increase awareness about the rights of pupils with disabilities and to encourage more inclusive and accessible educational opportunities.

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

139

Inclusive Education for the Deaf Children

Education for deaf children has always been a matter of debate. Discussions revolve around the type of school, the language of communication, and the support systems utilised. Not only with the advent of cochlear implantation the aim has often shifted towards providing access to spoken language rather than assessing the children's educational outcomes and an accessible curriculum suited to the individual needs of the child. For children who are deaf this must include access in a national sign language, including - where appropriate - access to the written and spoken national language(s). Fluency in a language (namely sign language) is key to accessing any form of information, including the national curriculum. Early intervention programmes must facilitate the learning of sign language, even for children with hearing aids or cochlear implants. Studies have proven that - even if children do choose to use spoken language as a means of communication later sign language is in no way harmful for the child's development; on the contrary: bilingualism is usually seen as an asset in today's competitive world (Ray, 2014).

Inclusive education that fosters the needs of every deaf child should be the standard and must be the primary aim of all educational settings. It has to be noted that a large number of deaf children (even with cochlear implants) still experience difficulties in noisy environments, such as a busy mainstream classroom, missing out on group discussions if not facilitated by additional support, such as sign language interpreters. If deaf children are educated in a mainstream setting, all measures should gear towards the education of several children in one class, using sign language interpreters, and/or a Deaf role model to foster the natural acquisition of sign language. Parents must be supported throughout the whole educational process, giving them access to sign language classes and unbiased information regarding educational outcomes of deaf children.

Access to education is crucial for all deaf children, especially in view of the current ageing population. Children need to be able to become fully-fledged citizens who are employed and contribute to society by becoming taxpayers rather than beneficiaries. The shrinking workforce is a phenomenon that can only be tackled by countermeasures such as the education and training of all members of society, including those who are deaf. Well-educated deaf

children and young adults are the key to a smooth transition into working life and are needed to fulfil the strategy under the flagship initiatives of smart, sustainable, and inclusive growth. This can be provided in a separate residential Deaf school, a unit within a mainstream school or with appropriate support in a mainstream classroom. Investment in children now is a key contributor to a healthy and prosperous society then.

Pedagogical Problems Encountered by Teachers in Teaching Deaf People

 One of the main pedagogical problems faced by the teachers in teaching deaf students is the difficulty in teaching communication and language skills. Deaf students, especially those who are just learning in early grades of elementary school, faced three problems, namely not being able to hear, not being able to pronounce words verbally, and also not understanding sign language. It is not easy for teachers to teach communication skills and language ability to deaf students. Therefore, it is necessary to find a solution, by identifying the teachers' pedagogical problems in teaching deaf students. Generally speaking, the main problem of Deaf people is communication; when they communicate with non-Deaf people, they need an interpreter. In everyday life, it is not possible to always have a translator available. Therefore, it is necessary to develop assistive technology that can facilitate communication and language-speaking between Deaf and non-Deaf and vice versa.

Another problem lies in the lack of resources and training; however, not all schools are adequately equipped to support differently-abled students, especially in less-developed regions. In addition to misunderstandings and societal stigma which can hinder the integration of differently-abled children into mainstream classrooms. Moreover, some children may require additional services, such as therapy or special transportation, which might not be available in all areas. More importantly, regular teachers might be overwhelmed by the need to cater to a wide range of abilities, especially without proper training or support staff (Bhavna and Kumar Dubey, 2025). Additionally, Deaf children who do not have access to a rich language environment early on may experience delays in their language and cognitive development. And without effective communication strategies, deaf students may feel isolated from their peers, which can affect their social development. Some deaf individuals identify as part of the Deaf

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

141

community, which has its own culture and values. Deaf education systems need to respect and integrate this cultural identity into the curriculum.

Efforts to Solve the Problems

Many efforts must be adopted by schools in order to overcome the problems faced by Teachers and Deaf Students. Teachers who do not have communication competency, can make several efforts to improve teacher's competence, namely organising communication method training and internships (Ray, 2014). The teacher should also ask deaf children to repeat their own sign language and then correct their language, teaching the students individually and communicating not only with children but also with all parties such as their peers, teachers and parents. It must also be ensured that children who are deaf or hard of hearing have equal access to education, facilities, and extracurricular activities (Abdelouafi, 2021). There must be support for the inclusion of deaf children in mainstream education settings whenever possible, while providing necessary support.

Both the parents and the state should recognise the right of deaf children to receive education in a language that is accessible to them, whether sign language, spoken language, or a combination of both. Promoting understanding and respect for deaf culture and the use of sign language as a rich and valid form of communication are needed (Awad, 2024). Tailor education plans to meet the individual needs of deaf children, considering their specific level of hearing, language skills, and educational requirements. Offer special programs or schools for deaf children if necessary but also ensure that mainstream schools are equipped to support them. Focus on both the development of spoken and sign language skills, depending on the child's needs and abilities. The state must provide hearing aids, cochlear implants, FM systems, captioning services, and other assistive technologies to help deaf students fully engage with the educational environment (Bhavna & Kumar Dubey, 2025).

The Role of the Sign Language in Cognitive Development

Sign language is used for getting to know and explaining new signs / terms; giving detailed instructions for performing the tasks that pupils need to complete, explaining the instructions previously given in spoken language or simultaneously; explaining language forms from another language, often with the use of the written form, as well as introducing discipline in the classroom. Spoken language is used for simple everyday communication

and for the purpose of learning the spoken language: for introducing and designing new expressions in the spoken language; correcting the child's use of spoken language through repetition; asking familiar questions. Simultaneous communication is used for learning the spoken language. Speech was followed by signs, for easier understanding. Deaf children are helped in reading the spoken language, and teachers in hearing comprehension of what the deaf child is saying. It is used for easier understanding when practising spoken language, for example when reading, retelling. It is used to explain words and / or contexts in spoken language, reading practice, asking questions in spoken language, retelling the text from L2. Written language is not often used for giving instructions and giving explanations, but as a support for learning spoken language, for example for introducing new words and phrases from another language, with an explanation in sign language, in speaking exercises, with dactylology (Bradarić-Jončić and Kolarić, 2012).

Bilingual Education for the Deaf People

The bilingual-bicultural approach to educating deaf children has been very well designed and developed in the Scandinavian countries (Sweden and Denmark), and increasingly dealt with in the other countries of Europe, America, and Australia. The model of bilingual education is called the "Bi-Bi model" (bilingual-bicultural), i.e. a bilingual-bicultural model that implies the restructuring of the entire system of the education of the deaf, from early childhood, preschool institutions, schools, to faculties (Tamara, et al, 2019) . This model implies the inclusion of children in the life of the deaf community, socializing with peers and adults, as well as the education of hearing parents of the deaf children in communicating in sign language. It begins with the application of early intervention programs in working with hearing parents and little deaf babies. Through early intervention programs, hearing parents are enabled to: learn the national sign language; have advisory assistance with regards to the treatment of the child; involvement in the life of the deaf community; socializing with adult deaf people and deaf peers of their deaf children

Deaf adults play an important role as models of speech and social identification of deaf children. Education and employment of deaf teachers in kindergartens and schools for deaf children is necessary, as well. Young deaf persons are provided with university education with the support of an

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

143

interpreter. In school work, new contents are first covered in sign language, and then in spoken language, whereby the integrity of the input of language information is ensured through the use of written word. It is important that a child understands that these are two separate languages, as a premise of transfer from the first to the second language. In communication and learning, the manually coded language of the hearing majority (speech followed by the sign) is not used, the original sign language of the deaf community is used instead. Deaf students learn about the specificities of the culture of the majority community in which they live, but also about the different specifities of their cultural community—history, artistic creation, customs, and values of the deaf community.

The identification and recognition of sign languages in the world has resulted in changes in the policy of educating deaf children. Thirty years ago, bilingual schools for deaf children—in which sign language has the status of the first language, and the language of the hearing environment is learnt by deaf children as a second language— appeared in the world. In bilingual schools, deaf children learn both languages (sign and speech), adopt meta-language knowledge about them, develop expression and creation in both languages, get to know both cultures, and the teachers know both forms of expression. Evaluation of such forms of the education of deaf children has shown excellent results (Kovačević, 2013).

Methodology

This study employed a descriptive, survey-based research design to explore the challenges faced by sign language teachers working with students with hearing loss. A structured questionnaire was developed and administered to collect both quantitative and qualitative data from teachers at the Deaf Education Centre in Bechar, Algeria. This method was chosen for its efficiency in gathering data from multiple respondents and for its suitability in exploring teachers' perceptions and experiences in a localised educational context.

Participants

The participants in this study consisted of 25 sign language teachers working at the Deaf Education Centre in Bechar. These teachers were selected using purposive sampling based on their professional experience in teaching students with hearing loss. The sample included both novice and experienced teachers, with varying years of service and different age

groups taught. Participation was voluntary, and respondents were assured that their responses would remain anonymous and confidential.

Data Collection Procedure

The main data collection tool was a structured questionnaire consisting of three sections. The first section gathered background information about the participants, including years of teaching experience, the age groups taught, and their professional specialization. The second section focused on the challenges faced in sign language instruction. This section included both multiple-choice and Likert-scale items to assess the perceived difficulty of teaching sign language, the availability and effectiveness of teaching resources, and classroom strategies for maintaining student engagement. Teachers were also asked to rate the impact of specific challenges—such as limited resources, teaching abstract concepts, and lack of community support—on their teaching practices. Open-ended questions invited participants to elaborate on the challenges they found most difficult to manage and the factors affecting student engagement.

The third section addressed issues related to parental involvement and professional development. It explored the frequency and quality of teacher-parent interactions, the level of parental support at home, and the availability of professional training specific to sign language instruction. Teachers were also asked to reflect on the most rewarding aspects of their work and to suggest improvements that could enhance their teaching experience.

The questionnaires were distributed to teachers in person during regular school hours with the support of the school administration. The respondents were given adequate time to complete the questionnaire independently. All completed questionnaires were collected within a two-week period and reviewed for completeness and consistency before analysis. All the samples were already informed about the purpose and the procedures of the study before their engagement in the data collection phase. They were assured that their participation was voluntary and they could withdraw whenever possible without any consequences. Written informed consent was obtained from each teacher and sent via email, and their confidence was maintained during the research process. This study

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

145

also adhered to the ethical standards outlined by the University of Bechar, Algeria.

Data Analysis

Closed-ended (quantitative) items were coded and analysed using descriptive statistics (frequencies and percentages) to identify common patterns in teachers' responses. Open-ended (qualitative) responses were reviewed and analysed thematically: recurring ideas were coded and grouped into broader themes (for example: resource limitations, challenges in teaching abstract concepts, parental involvement, and professional development needs). Where appropriate, qualitative excerpts are used in the Results section to illustrate key themes and to contextualise the quantitative findings.
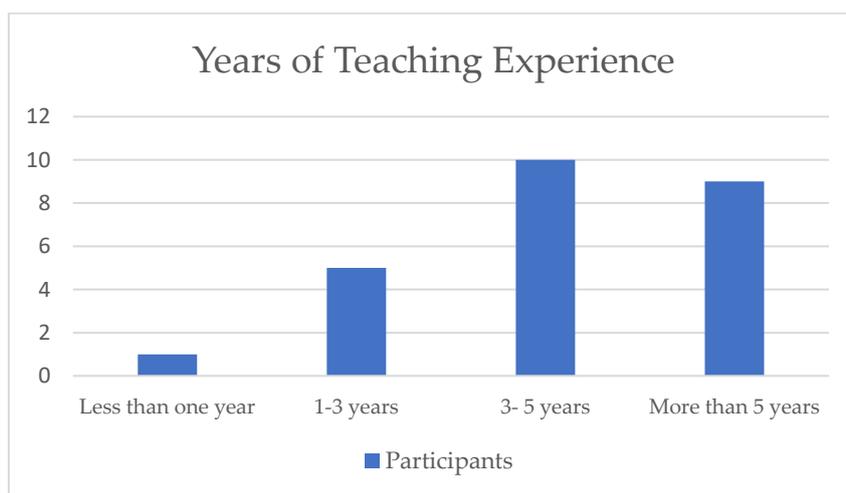
Results and Discussion

Figure 1. Years of Teaching Experience

The majority of teachers reported having 3 to 5 years of experience teaching sign language to students with hearing loss. This was followed closely by those with more than 5 years of experience. Only one teacher indicated having less than 1 year of experience (see Figure 1). This distribution suggests that most sign language teachers at the Deaf Education Centre in Bechar are fairly experienced, with a solid practical foundation in deaf education. The prevalence of teachers in the 3–5 years and more than 5 years categories suggests that the teaching staff are not novices and are likely familiar with both pedagogical methods and classroom challenges specific

to this field. Thus, this level of experience may also contribute to the ability to adapt to limited resources or to innovate in the absence of formal training materials—issues often cited in similar contexts (e.g., Punch & Hyde, 2011; Marschark et al., 2015).
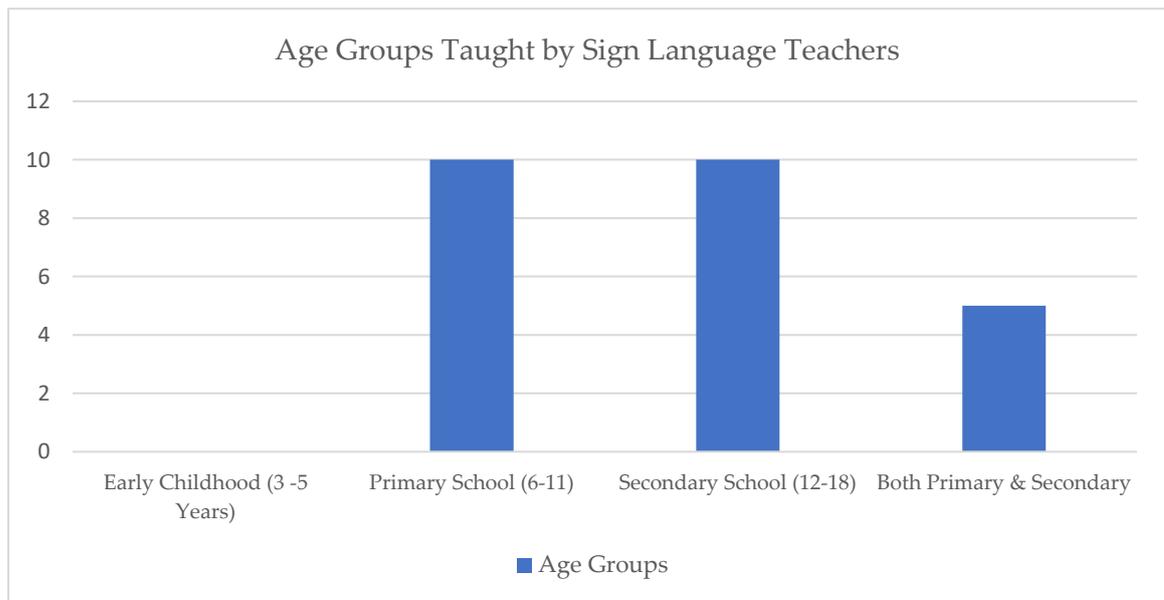

Figure 2. Age Groups Taught

As shown in **figure 2** above, all teachers reported teaching either Primary school (6–11 years) or Secondary school (12–18 years) students. 5 teachers indicated that they teach both groups. No teacher selected Early Childhood (3–5 years) or Adults. This result suggests that the core focus of sign language education at the Deaf Education Centre in Bechar is on school-aged children, particularly those in primary and secondary education.

Focusing educational support during school-age years is consistent with international best practices, where primary and secondary school education is a key phase for cognitive and language development in deaf learners (Marschark et al., 2002). However, the absence of early childhood education may hinder language acquisition, as early exposure to sign language is essential (Mayberry, 2007).
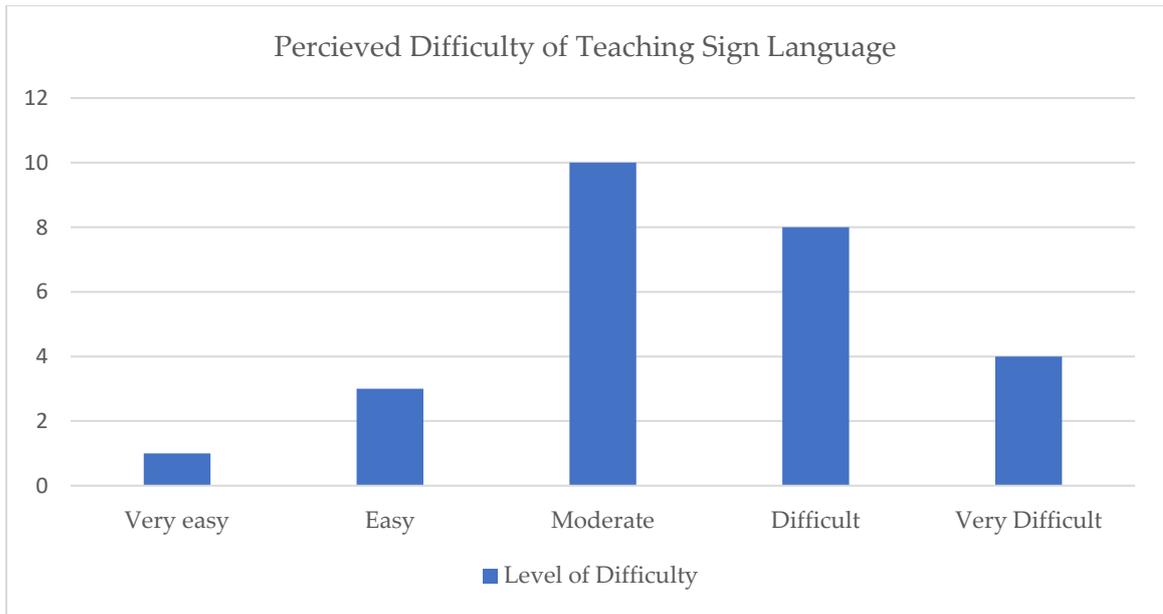
Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

147

Figure 3: Perceived Difficulty of Teaching Sign Language

Figure 3 demonstrates that most of the teachers reported that teaching sign language was either "Moderate" (10) or "Difficult" (8), while fewer found it "Easy" (3) or "Very Easy" (1). This shows that teachers generally perceive the task as challenging.
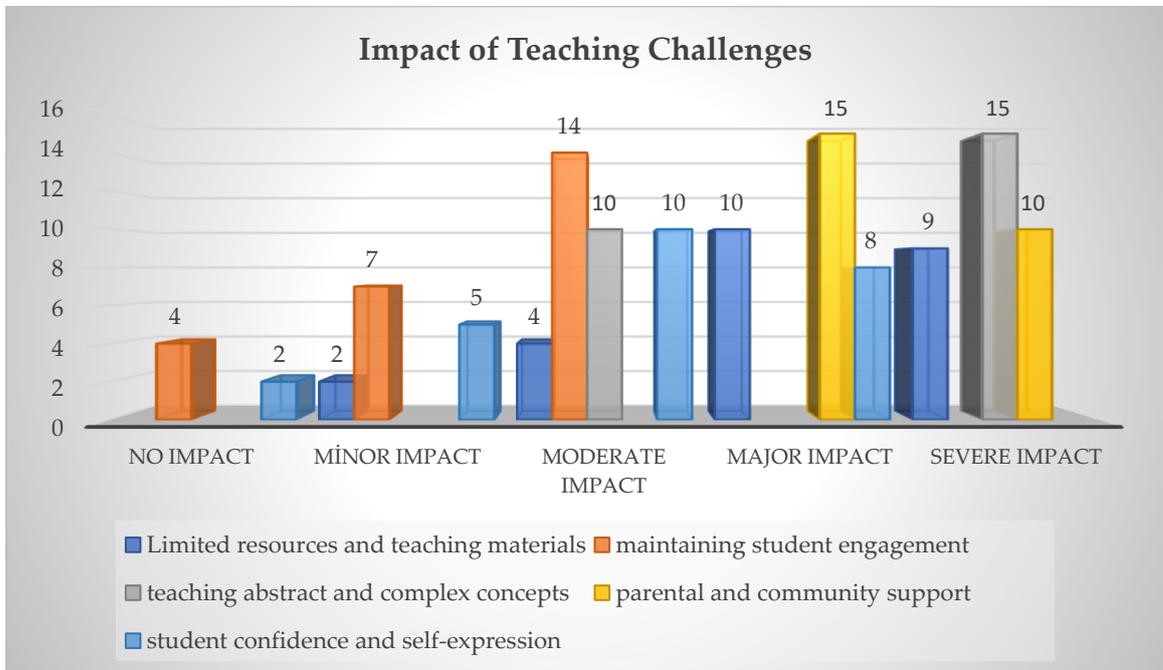

Figure 4: Impact of Teaching Challenges

According to **Figure 4**, the challenges with the greatest impact were

- Parental and community support: Major or severe impact (20 responses combined).

- Limited resources and teaching materials: Major or severe impact (19 responses).

- Maintaining student engagement and Student confidence/self-expression were also notable concerns.

Teaching abstract and complex concepts was moderately to severely impactful for 15 teachers.

Table 1: *Frequency of Engagement Strategies Used by Sign Language Teachers*

Strategy	Never	Rarely	Sometimes	Often	Always
Interactive games	0	3	5	10	7
Visual aids (flashcards, pictures)	0	2	4	9	10
Group activities & peer learning	1	4	8	7	5
Role-playing or storytelling	1	5	7	8	4
Technology (apps, videos, tools)	2	6	9	6	2

The data in table 1 reveals that the most frequently used strategies for maintaining student engagement in sign language classrooms are visual aids and interactive games. Visual aids, such as flashcards and pictures, stand out as the most consistently employed method, with 76% of teachers reporting they use them "often" or "always." This finding reflects the inherently visual nature of sign language instruction and highlights the importance of visual stimuli in facilitating comprehension and retention among learners with hearing loss. Similarly, interactive games are widely favoured, with 68% of respondents using them regularly, suggesting a strong preference for dynamic and participatory approaches that actively involve students in the learning process.

The results of the third section of the questionnaire indicate a moderate level of interaction between teachers and parents of students with hearing loss. A nearly equal percentage of respondents reported that they "sometimes" or "rarely" engage with parents, suggesting that while communication exists, it is not frequent or consistent. This irregular interaction may be due to various factors such as time constraints, lack of structured parent-teacher meetings, or limited parental availability.

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

149

Regarding the level of parental support, the majority of teachers described it as "supportive," reflecting a general willingness among parents to contribute to their children's sign language learning. However, a smaller group of teachers selected "neutral," indicating variability in parental involvement. The absence of responses in the "unsupportive" or "very unsupportive" categories is encouraging but still suggests a need for more consistent and proactive parental engagement. These findings highlight the importance of strengthening the home-school connection to reinforce learning outside the classroom, as parental reinforcement plays a role in the success of students with hearing loss.

For questions 16, 18 and 19, the responses consistently highlight the need for enhanced training and better resources to improve teaching effectiveness in sign language education for students with hearing loss. Teachers emphasised the importance of receiving targeted professional development that equips them with practical strategies tailored to their students' unique needs. Additionally, there is a clear demand for comprehensive, up-to-date, and accessible teaching materials, as well as simplified and adaptable curricula that facilitate clearer communication and learning. These improvements are seen as essential to overcoming current challenges and ultimately enriching the rewarding experience of teaching sign language, enabling educators to better support their students' progress and engagement.

The above findings confirm what previous literature has consistently reported about deaf education. For instance, Marschark et al. (2011) and Knoors & Marschark (2015) highlighted the chronic lack of specialised resources and teacher training in deaf education. Similarly, the current study's finding that "limited resources" and "lack of parental support" were severe challenges supports research by Antia et al. (2002), who emphasised the importance of home–school collaboration and resource adequacy in successful sign language acquisition.

The strong perception of limited resources as a barrier can be explained by the heavy reliance of sign language education on visual materials, specialised textbooks, and adapted technologies, which are scarce in Algerian classrooms. Without these tools, teachers often resort to improvised methods, which may hinder both consistency and effectiveness in instruction. This lack of institutional investment leaves teachers carrying

the burden of resource creation on their own, amplifying their sense of challenge.

Weak parental support was also perceived as a major obstacle. In Algeria, cultural factors such as limited public awareness of the educational needs of students with hearing loss, coupled with social stigma around disability, may discourage active parental involvement. Families may lack information about how to support their children's sign language learning at home, or they may prioritise oral approaches over signed communication due to prevailing attitudes that undervalue sign language. These cultural dynamics contribute to inconsistent home–school collaboration and may explain why teachers frequently identify parental engagement as insufficient.

The challenge of student engagement parallels conclusions in studies like those by Lederberg et al. (2013), which note that students with hearing loss often require multimodal and interactive pedagogies to remain focused and expressive. Moreover, the importance of community involvement, as noted in this study, echoes findings by Powers (2003), who stressed that community attitudes greatly shape the success of inclusive education strategies.

Finally, the fact that many teachers reported difficulty with abstract or complex concepts ties in with research on the cognitive load in visual learning for deaf students (Mayer & Moreno, 2003). Without adapted materials, students may struggle to develop abstract reasoning and expressive language skills.

Conclusion

This study aimed to investigate the challenges encountered by sign language teachers working with students who have hearing loss at the Deaf Education Centre in Bechar, focusing on instructional materials, classroom engagement, parental involvement, and professional development. The findings reveal that teachers face multiple significant challenges, foremost among them being the lack of sufficient and appropriate teaching resources. Educators perceive existing materials as inadequate, outdated, or too complex for their students, which hinders effective instruction and learner engagement. Additionally, limited parental and community involvement

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

151

was noted as a barrier to reinforcing learning beyond the classroom, affecting students' overall educational progress.

Professional development opportunities for sign language teachers are currently scarce and insufficient in scope, leaving many educators feeling underprepared to meet the diverse needs of their students. This lack of targeted training exacerbates difficulties in curriculum adaptation and classroom management. Despite these challenges, teachers expressed a strong commitment to their work and find it rewarding to facilitate communication and learning for students with hearing loss.

In light of these findings, several key recommendations are proposed to improve the educational experiences of both teachers and students at the Deaf Education Centre:

1. Develop comprehensive and ongoing training specifically tailored for sign language educators, focusing on practical teaching strategies, classroom management, and curriculum adaptation. Training should also address the use of technology and new methodologies to better engage students.

2. Create and supply a wider range of accessible, culturally relevant, and up-to-date instructional materials, including visual aids, digital content, and simplified curricula. Materials should be designed to accommodate varying levels of language proficiency and cognitive development to support differentiated instruction.

3. Implement programs and workshops aimed at educating parents and the community about the importance of their role in supporting children's learning. Encourage regular communication between teachers and families to create a collaborative learning environment that extends beyond the classroom.

4. Design curricula that are adaptable to individual student needs and are straightforward for teachers to implement. Simplification should not compromise educational goals but rather ensure clarity and accessibility for learners with hearing loss.

5. Create platforms—such as professional learning communities or online forums—where teachers can share resources, exchange best practices, and provide mutual support. This would foster a sense of professional community and continuous learning.

Limitations and Future Research

This study is limited by its small sample size and focus on a single institution, which may not reflect the diversity of deaf education across Algeria. Moreover, the reliance on self-reported questionnaire data may have introduced bias. Future research should expand the scope by including multiple institutions and regions, using larger samples, and employing mixed-methods designs such as interviews, classroom observations, or longitudinal studies. These approaches would provide deeper insights into both teaching practices and student outcomes.

References

Abdelouafi Hicham. (2021). "Deaf Education in Algeria: Is it a Sustainable Approach? *Sociology Review; 5 (2)*, p 417-429

Antia, S. D., Stinson, M. S., & Gaustad, M. G. (2002). Developing membership in the education of deaf and hard-of-hearing students. *Journal of Deaf Studies and Deaf Education, 7*(3), 214–229. https://doi.org/10.1093/deafed/7.3.214

Bradarić-Jončić, S. & Kolarić, B. (2012). *Bilingual education of deaf children*. Croatian Review for Rehabilitation Education, 48 (1), 104–116.

Beveridge, S. (1999). Special educational needs in schools. London: Roughtledge.

Bhavna Singh and Amit Kumar Dubey. (2025). "Deaf Education and Sign Language: Strategies, Challenges, and Benefits", Naveen International Journal of Multidisciplinary Sciences (NIJMS), ISSN: 3048-9423 (Online), 1 (3), pp. 75-82, December-January 2025. Journal URL: https://nijms.com/ DOI: https://doi.org/10.71126/nijms.v1i3.26

Bunch, G. (1987).The curriculum and the deaf and hard-of-hearing student: Theoretical and practical considerations. Boston: Little, Brown and Company.

Carver, R.J. (1998). *Životvorna riječ. Pismenost i gluho dijete* [*Words alive! - Literacy and the deaf child*]. Zagreb: Croatian Association of the Deaf and Hard of Hearing.

Effendi, M. (2006). Pengantar Psikopedagogik Anak Berkelainan. Jakarta: Bumi Aksara

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

153

El-Zraigat, I. (2010). Assessing reading skills among hearing-impaired students in Jordan and its relation to some variables. (in press).

Fuentes, M., & Tolchinsky, L. (2004). The subsystem of numerals in Catalan Sign Language: Description and examples from a psycholinguistic study. Sign Language Studies 5(1), 94-117. https://doi:10.1353/sls.2004.0022.

Hammermeister, F.K. (1971). "Reading achievement in deaf adults." *American Annals of the Deaf* 116: 25-28.

Hallahan, D., Kauffman, J. Pullen, P. (2009). Exceptional learners: Introduction to special education. Boston: Allyn & Bacon

Haualand, Hilde & Allen, Colin. (2009). Deaf people and human rights. Report of the World Federation of the Deaf. Available at http://www.wfdeaf.org/wp-content/uplpads/2011/06/Deaf-People-and- Human-Rights-Report.pdf

Kritzer, K. L. (2009). Access to early language experiences and literacy: Exploring the evidence for causal relationships. *American Annals of the Deaf, 154*(3), 291–303. https://doi.org/10.1353/aad.0.0104

Knoors, H., & Marschark, M. (2012). Language planning for the 21st century: Revisiting bilingual language policy for deaf children. *Journal of Deaf Studies and Deaf Education, 17*(3), 291–305. https://doi.org/10.1093/deafed/ens018

Knoors, H., & Marschark, M. (2015). *Teaching Deaf Learners: Psychological and Developmental Foundations*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199677770.001.0001

Kovačević, T. (2013*). Function of sign language expression in the development of language in the deaf and hard of hearing children*] . Beograd.

Lederberg, A. R., Schick, B., & Spencer, P. E. (2013). Language and literacy development of deaf and hard-of-hearing children: Successes and challenges. *Developmental Psychology, 49*(1), 15–30. https://doi.org/10.1037/a0029558

Marschark, M., Lang, H. G., & Albertini, J. A. (2002). *Educating Deaf Students: From Research to Practice*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195123084.001.0001

Marschark, M., Rhoten, C., & Fabich, M. (2007). Effects of cochlear implants on children's reading and academic achievement. *Journal of Deaf Studies and Deaf Education, 12*(3), 269–282. https://doi.org/10.1093/deafed/enm046

Marschark, M., Sapere, P., Convertino, C., & Seewagen, R. (2011). Effective teaching of deaf and hard-of-hearing students: What research reveals. *Oxford University Press*. https://doi.org/10.1093/acprof:oso/9780195340437.001.0001

Marschark, M., & Spencer, P. E. (Eds.). (2010). *The Oxford handbook of deaf studies, language, and education* (Vol. 2). Oxford University Press.

Martin, L., Frehadtomo, K., Putri, Dayawati, R. N., Si, S., & Prawita, F. N. (2015). So-Ice (Sign To Voice) Aplikasi Alat Bantu Komunikasi Untuk Tuna Rungu Wicara So-Ice (Sign To Voice) Application As A Communication Tool. 1–8.

Moores, D. (2001). Educating the deaf: Psychology, principles, and practice. Boston: Houghton Mifflin Company.

Mayer, R. E., & Moreno, R. (2003). Nine ways to reduce cognitive load in multimedia learning. *Educational Psychologist, 38*(1), 43–52. https://doi.org/10.1207/S15326985EP3801_6

Munawir Yusuf(B), Fery Adriyanto, Priyono Priyono, and Abdul Rahman1. (2023). "Pedagogical Problem Faced by Teachers in Communication and Language Learning for Deaf Students in Special Schools. Ifdil (Ed.): PSSHERS 2021, ASSEHR 690, pp. 15–27, 2023. https://doi.org/10.2991/978-2-494069-33-6_3

Powers, S. (2003). Community attitudes and their effects on deaf education. *Journal of Deaf Studies and Deaf Education, 8*(1), 1–14. https://doi.org/10.1093/deafed/eng002

Punch, R., & Hyde, M. (2011). Deaf education: International perspectives. In M. Marschark & P. Spencer (Eds.), *Oxford Handbook of Deaf Studies, Language, and Education* (Vol. 2, pp. 1–15). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199747782.013.0015

Ray, Elizabeth. (2014). *The Experiences Of Hearing Siblings When There Is A Deaf Child In The Family*. (Disertasi) University of Catenbury, New Zealand.

Said Awad. (2024). "Attitudes of deaf teachers in teaching sign language according to the sequence of the five language components" . TOBNA Journal for Academic Scientific Studies. ISSN 2661-7633/EISSN 2716-8883/ 2024/ Vol07/ No 02-ps 1888-1910

Smith, D. (2007). Introduction to special education: Making a difference. Boston: Allyn & Bacon

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

155

Swanwick, R., & Marschark, M. (2010). Enhancing education for deaf children: Research into practice and back again. *Deafness & Education International,* *12*(4), 217–235. https://doi.org/10.1179/1557069X10Y.0000000001

Tamara R. Kovačević, Ljubica S. Isaković, Radomir B. Arsić. (2019). *Bilingual approach in the education of deaf and hard of hearing children.* Review Paper 159.946.3-056.263-053.4/.5 81'246.2-056.263-053.4/.5 https://doi.org/10.5937/zrffp49-23596

Wendy Sandler and Diane Lillo-Martin. (2006). Sign Language and Linguistic Universals Cambridge University Press.

Appendix

Teachers' Questionnaire

This questionnaire aims to investigate the challenges faced by sign language teachers in teaching students with hearing loss. Your responses will help us understand the challenges and obstacles of sign language eductation. Please answer the questions honestly based on your experience. Your responses will help us better understand the challenges and needs of sign language teachers.

Your participation is voluntary, and all responses will be kept confidential.

Section 1: Teacher Information

1. **How many years have you been teaching sign language to students with hearing loss?**
   o Less than 1 year
   o 1-3 years
   o 3-5 years
   o More than 5 years
2. **What age groups do you primarily teach?** (Select all that apply)
   o Early childhood (3-5 years)
   o Primary school (6-11 years)
   o Secondary school (12-18 years)
   o Adults
3. **Your speciality …………………………………………………**

Section 2: Teaching Challenges

3. **How would you rate the overall difficulty of teaching sign language to students with hearing loss?**
   o Very easy
   o Easy
   o Moderate
   o Difficult
   o Very difficult
4. **Please rate the extent to which each of the following challenges impacts your teaching:**

Challenge	No Impact	Minor Impact	Moderate Impact	Major Impact	Severe Impact
Limited resources and teaching materials					
Maintaining student engagement					
Teaching abstract and complex concepts					

Challenges Faced by Sign Language Teachers in Teaching Pupils with Hearing Loss: A Case Study of the Deaf Education Centre in Bechar, Algeria

157

Challenge	No Impact	Minor Impact	Moderate Impact	Major Impact	Severe Impact
Parental and community support					
Student confidence and self-expression					

5. **Which of the above challenges do you find most difficult to manage?**(Please explain):

6. **How would you rate the availability of resources (e.g., textbooks, visual aids, digital tools) for teaching sign language?**
    - o Excellent
    - o Good
    - o Fair
    - o Poor
    - o Very Poor

7. **How effective do you find existing resources and materials for teaching vocabulary and concepts in sign language?**
    - o Very effective
    - o Effective
    - o Neutral
    - o Ineffective
    - o Very ineffective

9. **How often do you use the following strategies to maintain engagement in the classroom?**

Strategy	Never	Rarely	Sometimes	Often	Always
Interactive games					
Visual aids (flashcards, pictures)					
Group activities and peer learning					
Role-playing or storytelling					
Technology (apps, videos, online tools)					

10. **In your experience, what are the main factors that impact student engagement and focus in sign language classes?**

Section 3: Parental Support and Professional Development

11. **How often do you interact with the parents of your students?**
    - o Never
    - o Rarely
    - o Sometimes
    - o Often

      o   Very often

12. **How would you rate the level of support from parents in helping reinforce sign language learning at home?**
    - o   Very supportive
    - o   Supportive
    - o   Neutral
    - o   Unsupportive
    - o   Very unsupportive

13. **In what ways could parental support be improved to better support student learning?**

---

14. **How often do you receive training specific to teaching sign language to students with hearing loss?**
    - o   Regularly (more than once a year)
    - o   Occasionally (once a year)
    - o   Rarely (every few years)
    - o   Never

15. **How would you rate the quality of professional development opportunities available to you?**
    - o   Excellent
    - o   Good
    - o   Fair
    - o   Poor
    - o   Very Poor

16. **What additional training or resources would help you improve your teaching?**

---

17. **What do you find most rewarding about teaching sign language to students with hearing loss?**

---

18. **What other challenges do you face that weren't covered in this questionnaire?**

---

19. **What specific changes or resources would improve your experience and effectiveness as a sign language teacher?**

Thank you for your time and insights!