

# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

## PEDAGOGICAL CHALLENGES IN THE STANDARDIZATION OF PAKISTAN SIGN LANGUAGE FOR INCLUSIVE EDUCATION IN PAKISTAN: A QUALITATIVE INQUIRY

<sup>\*1</sup>Dr. Muhammad Kashif, <sup>2</sup>Tayyaba Azhar, <sup>3</sup>Abeer Fatima

<sup>1</sup>Special Education Teacher, Department of Special Education, Government of Punjab, Pakistan

<sup>2</sup>Incharge Uniquely Aabled Students, Advisor Uniquely Aabled Students Club, Kinnaird College for Women, Lahore, Pakistan

<sup>3</sup>PhD Scholar, Department of SLP, Division of Education, Lincoln College, University, Malaysia

[\\*1Muhammad.akashifi@gmail.com](mailto:Muhammad.akashifi@gmail.com), [2Tayyaba.azhar@kinnaird.edu.pk](mailto:Tayyaba.azhar@kinnaird.edu.pk),  
[3mrsabeersajjad@gamil.com](mailto:mrsabeersajjad@gamil.com)

### Article Details

*Received on 12 May, 2026*

*Accepted on 16 June, 2026*

*Published on 18 June, 2026*

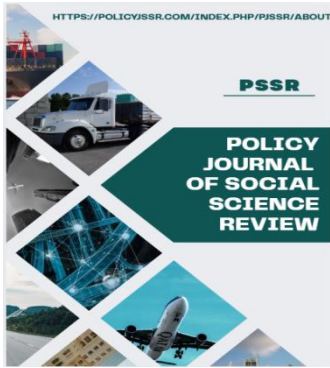
Copyright @Author

Corresponding Author: \*

Dr. Muhammad Kashif

### ABSTRACT

This qualitative study investigated the pedagogical challenges in standardizing Pakistan Sign Language (PSL) for inclusive education in Pakistan. The research aimed to explore the experiences of teachers, interpreters, deaf students, and administrators in inclusive and special education settings to understand the factors affecting effective PSL implementation. A purposive sample of 18 participants, selected based on their involvement in PSL-based teaching, learning, interpretation, and institutional support, contributed to the study. Data were collected through focus group discussions, capturing participants' perceptions and actual classroom practices. Thematic analysis identified four major themes: pedagogical challenges in PSL use, classroom communication barriers, institutional and curriculum-related challenges, and strategies for improving PSL standardization. Findings revealed that inconsistent signs, lack of standardized academic vocabulary, limited teacher proficiency, reliance on interpreters, weak teacher-interpreter coordination, restricted peer interaction, and insufficient PSL-based curriculum resources impeded deaf students' understanding, participation, and academic engagement. Participants highlighted the importance of professional development, collaborative planning between teachers and interpreters, development of subject-wise PSL resources, utilization of visual and digital materials, and institutional policies to support consistent PSL implementation. The study concludes that PSL standardization is both a pedagogical and institutional concern, and that effective



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

standardization requires coordinated classroom practices, structured training, resource development, and administrative support. The findings provide evidence-based recommendations to strengthen inclusive education for deaf learners in Pakistan and underscore the critical role of PSL in facilitating equitable access to curriculum content. This study contributes to understanding how systemic, classroom, and resource-related factors intersect to shape the quality of PSL-based education and offers practical strategies for improving instructional clarity, learner participation, and overall educational outcomes.

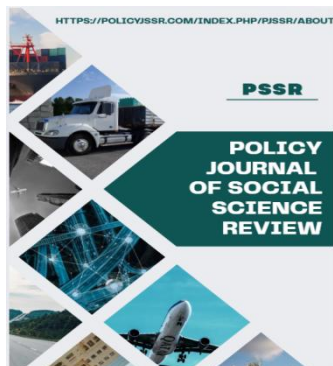
**Keywords:** Pakistan Sign Language, inclusive education, deaf students, pedagogical challenges, PSL standardization, classroom communication.

## Introduction

Inclusive education aims to ensure equitable access, participation, and learning opportunities for all students, including learners with disabilities, by removing linguistic, social, curricular, and institutional barriers (Ainscow, 2020; Florian, 2014; United Nations, 2006). For deaf and hard-of-hearing learners, meaningful inclusion depends on full linguistic access to classroom instruction through an accessible language that supports academic learning, literacy, conceptual development, and socio-emotional engagement (Hall, Hall, & Caselli, 2019; Hall, Levin, & Anderson, 2017; Swanwick, 2017; Tang, 2024). Although sign language is widely recognized as essential for deaf learners' access and participation, many inclusive classrooms face difficulties in its effective integration. These difficulties include inconsistent teaching practices, insufficient teacher training, limited interpreter

support, and lack of standardized instructional materials, which negatively affect classroom communication, engagement, understanding, and inclusion (Eichmann, 2009; Jahangir, Iqbal, & Iqbal, 2025; Charles et al., 2024; Bintoro, Khasanah, & Kusumastuti, 2023).

In Pakistan, Pakistan Sign Language (PSL) is an important mode of communication for deaf individuals and is increasingly used in schools, communities, and social settings. Existing digital dictionaries and learning resources show growing efforts to support deaf education and communication access (Deaf Reach, 2024; Pakistan Sign Language). However, research shows that PSL teaching still faces challenges related to grammatical and syntactic standardization, lack of uniform curriculum material, variation in classroom practices, multiple local sign variants, and limited institutional support (Jahangir et al., 2025; Ali et al., 2023; Afzaal et al., 2024; Bashir et al., 2025).



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

These challenges become more serious in inclusive classrooms where deaf and hearing learners' study together. Deaf students may experience communication barriers when teachers and interpreters lack consistent sign proficiency, while hearing peers may have limited basic sign communication skills, restricting classroom interaction and participation (Afzaal, Amjad, & Kanwal, 2024). Moreover, gaps in scientific and technical PSL vocabulary force teachers and interpreters to use improvised signs or fingerspelling, which may affect comprehension and conceptual learning (Kashif & Parveen, 2025). International literature has discussed sign language policy, interpretation, and language planning, but much of it focuses on broader frameworks rather than classroom-level pedagogical experiences in specific national contexts (Swanwick, 2010; Tang, 2024). Debates also continue regarding whether sign language standardization serves educational systems or Deaf communities, particularly in relation to language ownership and classroom practice (Eichmann, 2009).

In Pakistan, despite increasing awareness of PSL and the availability of digital resources, limited qualitative research has examined how teachers, interpreters, and deaf students experience PSL standardization challenges in actual inclusive classrooms. Existing studies mostly focus on sign uniformity, communication skills, or

exploratory issues, leaving a gap in understanding how lack of PSL standardization affects instructional quality, pedagogical decision-making, classroom interaction, and student participation. Therefore, this study investigates the pedagogical challenges of PSL standardization in inclusive education through a qualitative approach, focusing on the classroom experiences of teachers, interpreters, and deaf students.

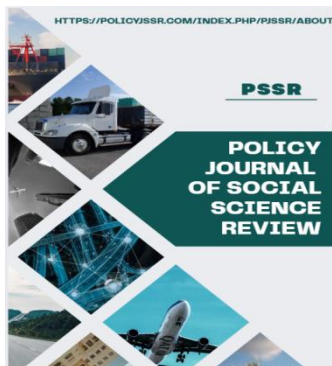
## Research Objectives

1. To explore the pedagogical challenges faced by teachers and interpreters in using Pakistan Sign Language within inclusive educational settings in Pakistan.
2. To investigate the instructional and classroom communication difficulties experienced by deaf students due to the lack of standardized Pakistan Sign Language.
3. To identify strategies and recommendations for improving the teaching, learning, and standardization of Pakistan Sign Language in inclusive education.

## Research Questions

1. What pedagogical challenges are faced by teachers and interpreters in using Pakistan Sign Language within inclusive educational settings in Pakistan?
2. How do deaf students experience instructional and classroom

# Policy Journal of Social Science Review



ISSN Online:3006-4635

ISSN Print: 3006-4627

communication difficulties due to the lack of standardized Pakistan Sign Language?

3. What strategies can be adopted to improve the teaching, learning, and standardization of Pakistan Sign Language in inclusive education in Pakistan?

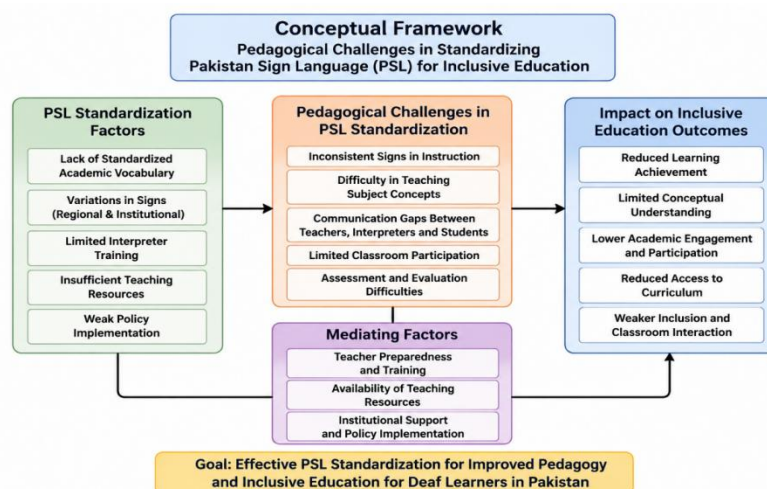
### Theoretical Framework

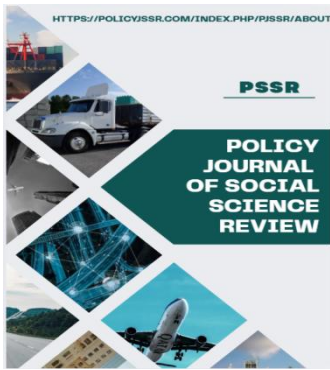
This study is guided by sociolinguistic theory of sign language and Vygotsky's sociocultural theory of learning. Sociolinguistic theory explains language as a socially constructed system shaped by community practices, cultural identity, and institutional contexts (De Meulder, 2016; Reagan, 2019). In the context of Pakistan Sign Language (PSL), this theory helps explain how regional and institutional variations in signs may create pedagogical challenges in inclusive classrooms. It also suggests that PSL standardization should respect Deaf community identity while

### Conceptual Framework

supporting educational consistency and academic communication (McKee & Manning, 2015).

Vygotsky's sociocultural theory emphasizes social interaction, scaffolding, and mediated learning as central to cognitive development (Vygotsky, 1978). In inclusive education, PSL functions as a mediating tool through which teachers, interpreters, peers, and deaf students construct classroom meaning. When PSL signs are inconsistent or not standardized, classroom mediation becomes fragmented, which may affect students' comprehension, participation, and academic engagement (Hall, Hall, & Caselli, 2019). Together, these theories provide a useful framework for examining how linguistic variation, classroom interaction, and pedagogical practices shape the standardization of PSL in inclusive education in Pakistan.





# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

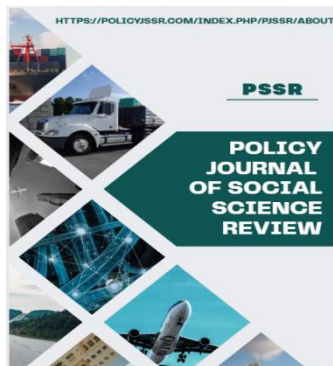
## Literature Review

Inclusive deaf education requires more than the physical placement of learners in mainstream classrooms; it demands meaningful access to language, curriculum, peer interaction, and teacher-student communication. Sign language is a critical linguistic resource, supporting classroom participation, conceptual understanding, identity development, and academic engagement. Deaf students require accessible language input from early schooling, as restricted access can negatively affect learning, literacy, and social development. Consequently, sign language should be recognized as a legitimate medium of instruction rather than a supplementary classroom aid (Humphries et al., 2022; Snoddon & Underwood, 2014; Kusters, 2017).

The standardization of sign language is a complex linguistic and educational process, given that sign languages naturally develop through community interaction and contain regional, social, and institutional variations. While standardization supports curriculum development, dictionary preparation, interpreter training, and classroom consistency, it can create tensions if Deaf communities' voices and linguistic ownership are excluded. Scholars argue that sign language planning must balance educational needs with linguistic rights, community participation, and respect for natural language variation.

Standardization should focus on developing shared academic and pedagogical resources while preserving cultural and linguistic diversity (De Meulder, 2016; McKee & Manning, 2015; Reagan, 2019).

In Pakistan, Pakistan Sign Language (PSL) is used widely by deaf learners, teachers, interpreters, and community members across educational and social contexts (Akram & Bashir, 2012). Available digital resources, including dictionaries and visual materials, demonstrate growing efforts to support communication and learning (Pakistan Sign Language, 2024; Deaf Reach, 2024). However, resource availability alone does not ensure classroom effectiveness; schools require trained teachers, consistent signs, appropriate curriculum materials, and institutional support (Waqar & Abid, 2023). Studies report that variation in signs, lack of uniformity, and insufficient standardized curriculum pose challenges for teaching and learning in deaf education (Hussain et al., 2023; Jahangir, Iqbal, & Iqbal, 2025; Afzaal, Amjad, & Kanwal, 2024; Ali et al., 2023). Pedagogical challenges arise when teachers lack sufficient PSL proficiency or when teaching materials are not adapted to the visual and linguistic needs of deaf learners. Inconsistent or missing academic signs compel teachers to rely on improvisation, fingerspelling, written explanations, or interpreters, which can confuse students



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

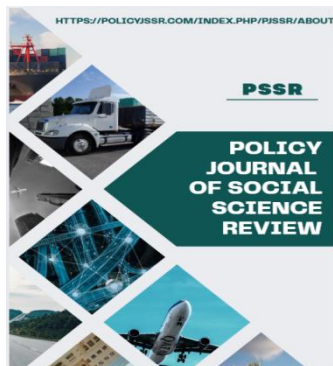
and reduce conceptual understanding. Effective pedagogy requires visual strategies, consistent classroom signs, interactive communication, and teacher awareness of deaf learners' linguistic needs (Marschark & Knoors, 2012; Guardino & Cannon, 2016; Musyoka, 2023).

Teachers and interpreters are central to mediating curriculum content, classroom interaction, and communication access. Teachers deliver lessons, manage classrooms, and assess students, while interpreters facilitate communication between deaf learners, hearing teachers, and peers. However, inconsistent use of signs, lack of subject-specific vocabulary, or limited training can fragment learning. Educational interpreting requires linguistic competence, contextual understanding, ethical awareness, and coordination with teachers (Napier & Leeson, 2016; Russell & Winston, 2014; Powell, Hyde, & Punch, 2014). Classroom communication directly affects academic and social inclusion. Deaf students struggle to follow instructions, participate in discussions, ask questions, or interact with peers when sign use is inconsistent. Communication barriers can lead to social isolation, reduced academic confidence, limited participation, and overreliance on interpreters or written text. Learning improves when communication is visually accessible, socially inclusive, and supported by teachers familiar with deaf students' linguistic and cultural needs

(Oliva, 2004; Antia, Stinson, & Gaustad, 2002; Punch & Hyde, 2011).

The development of academic vocabulary is essential for deaf students' access to subject knowledge in science, mathematics, social studies, and language learning. Missing or inconsistent signs limit comprehension, as students struggle to connect signed explanations with written content. Research emphasizes that linking sign language with academic content and visual strategies enhances literacy and conceptual understanding (Hermans, Knoors, Ormel, & Verhoeven, 2008; Mayer & Akamatsu, 2011; Easterbrooks & Beal-Alvarez, 2013). Institutional support is critical for inclusive education. Without policy implementation, teacher training, resource provision, and curriculum alignment, PSL standardization depends on individual teacher effort, limiting systemic impact. Weak institutional support undermines resource accessibility, teacher preparedness, and classroom implementation of inclusive education practices (Singal, 2016; Miles & Singal, 2010; Srivastava, de Boer, & Pijl, 2015).

Digital technology offers opportunities for PSL documentation, digital dictionaries, video-based learning, and teacher support. Platforms like PSL Sign Bank and Deaf Reach provide structured resources to improve classroom access. However, technology alone cannot resolve pedagogical challenges; tools must be



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

aligned with teacher training, curriculum needs, and Deaf community participation (Imran et al., 2021; Khan et al., 2026; Pakistan Sign Language, 2024; Deaf Reach, 2024). Despite recognition of PSL's importance, research in Pakistan has largely focused on sign variation, interpreter skills, or digital resources. There remains a gap in qualitative studies examining how teachers, interpreters, and deaf students experience PSL standardization pedagogically in inclusive classrooms. This study addresses that gap by investigating these experiences and identifying challenges in instructional practices, communication, and institutional support.

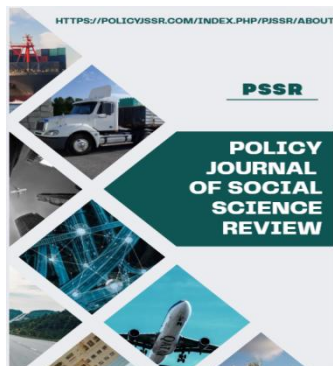
## Research Design

This study will use a qualitative research design to explore and understand the lived experiences, perceptions, and classroom realities of teachers, interpreters, and deaf students regarding Pakistan Sign Language (PSL) standardization in inclusive education. Qualitative design is appropriate when the goal is to explore complex social processes, pedagogy, and language use in natural contexts rather than quantify variables (Creswell & Poth, 2018; Merriam & Tisdell, 2016). This design allows for in-depth data collection through interviews, observation, and document review to capture participants' perspectives on pedagogical challenges and language standardization.

## Population and Sampling Technique

The population of the study consisted of individuals directly involved in the teaching, interpretation, learning, and administration of Pakistan Sign Language (PSL) in inclusive and special education settings in Pakistan. It included PSL teachers, interpreters, deaf students, administrators, and resource coordinators who had relevant experience with PSL-based education. In qualitative research, population refers to information-rich participants whose experiences help explain the research problem (Marshall & Rossman, 2016; Patton, 2015).

The study used purposive sampling to select 18 participants who had direct involvement in PSL use and inclusive education. The sample included teachers, interpreters, deaf individuals, and administrators selected on the basis of their education, professional experience, PSL proficiency, and role in teaching, interpretation, learning, or institutional support. Participants ranged from 16 to 55 years of age and included both males and females. Teachers had 4-10 years of teaching experience, interpreters had 3-7 years of PSL interpretation experience, deaf participants had 3-6 years of learning experience through PSL, and administrators had 8-12 years of experience in managing inclusive or special education settings. All participants had moderate to high PSL proficiency, which



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

helped generate rich and relevant qualitative data about the pedagogical challenges in standardizing PSL for inclusive education.

## Research Instrument

### Focus Group Discussion Guide

Focus group discussions were conducted with teachers, interpreters, deaf students, and administrators to explore their experiences and perceptions regarding the pedagogical challenges of PSL standardization in inclusive education. Each session included 12–17 participants, ensuring representation from all key stakeholder groups, and lasted approximately 60–90 minutes in an accessible setting. A trained PSL interpreter or moderator facilitated the discussion, guiding participants through semi-structured questions on classroom communication, pedagogical challenges, teacher-interpreter coordination, student experiences, administrative support, curriculum resources, and suggestions for improvement. The FGD allowed participants to share insights interactively, highlight collective experiences, and provide recommendations, complementing data from classroom observations for a richer understanding of PSL standardization in practice (Krueger & Casey, 2015; Morgan, 1997).

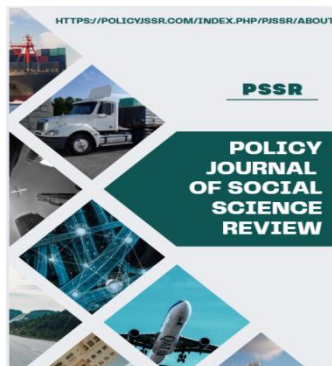
### Data Analysis Procedure

Data analysis followed a thematic analysis approach, commonly used in qualitative

research to identify, analyze, and report patterns (themes) within textual data (Braun & Clarke, 2006; Nowell et al., 2017).

### Steps in Analysis:

1. **Transcription:** All interview recordings were transcribed verbatim. For deaf student interviews, sign language data were translated and transcribed with attention to PSL expression and meaning (Guest, MacQueen, & Namey, 2012).
2. **Familiarization:** The researcher read all transcripts, observation notes, and documents repeatedly to become immersed in the data.
3. **Coding:** Data were coded line by line to generate initial codes capturing meaningful segments related to pedagogical challenges, instructional practices, communication patterns, and PSL standardization experiences.
4. **Theme Development:** Codes were collated into potential themes and sub-themes reflecting the core issues and patterns in the data.
5. **Review and Refinement:** Themes were reviewed for coherence, relevance, and distinctiveness, and refined to ensure they represented participants' perspectives.
6. **Interpretation:** Final themes were interpreted in light of the study's theoretical framework (sociolinguistic and sociocultural theories) and research questions.



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

## Ensuring Trustworthiness

Trustworthiness was ensured through member checking, where participants reviewed and confirmed findings; peer debriefing with academic supervisors; and maintaining audit trails documenting analytical decisions (Lincoln & Guba, 1985; Creswell & Poth, 2018).

## Data Analysis and Thematic Findings

The data obtained from focus group discussions and classroom observations were analyzed through thematic analysis. After repeated reading of transcripts and observation notes, meaningful codes were identified and grouped into major themes and sub-themes. The analysis generated four major themes: pedagogical challenges in PSL use, classroom communication barriers, institutional and curriculum-related challenges, and strategies for improving PSL standardization in inclusive education.

### Theme 1: Pedagogical Challenges in the Use of Pakistan Sign Language

The first major theme reflected the pedagogical difficulties experienced by participants in using Pakistan Sign Language within inclusive classrooms. The data showed that teachers, interpreters, deaf students, and administrators considered the lack of standardized PSL a direct barrier to effective teaching and learning. This issue affected lesson explanation, classroom flow, students' understanding, and participation.

T1: *"When I teach difficult topics, I often face problems because I do not always know the proper PSL sign. I try to explain through examples, gestures, or writing on the board, but it takes more time and students sometimes lose interest."*

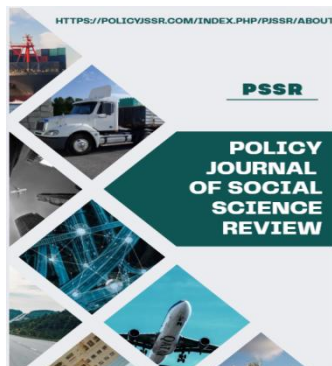
I1: *"In science and mathematics, there are many terms for which fixed PSL signs are not available. Different teachers and interpreters use different signs, and this creates confusion because students cannot connect one lesson with another."*

D1: *"Sometimes the teacher uses one sign and the interpreter uses another sign for the same word"*

These quotations show that the lack of standardized academic signs created confusion during instruction. Teachers were unable to explain some concepts confidently, interpreters had to make immediate decisions during lessons, and deaf students found it difficult to follow the same concept when different signs were used by different people. This weakened instructional clarity and affected students' comprehension.

A1: *"Many teachers are trained in general teaching methods, but they are not fully trained in PSL. Because of this, they depend on interpreters or use informal signs, which affects the quality and consistency of classroom teaching."*

T2: *"When I do not know the exact sign for an academic word, I use gestures, pictures, or examples."*



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

I2: *“Improvised signs help us continue the lesson, but they are not a permanent solution. Students need repeated and consistent signs so that they can understand concepts clearly and remember them.”*

The analysis revealed three sub-themes under this theme. The first sub-theme was limited PSL proficiency among teachers, as some teachers depended heavily on interpreters or informal gestures. The second sub-theme was lack of standardized academic vocabulary, especially in subject-based teaching. The third sub-theme was reliance on improvised signs, which helped temporarily but created inconsistency in long-term learning. Overall, this theme showed that pedagogical challenges in PSL standardization affected teaching confidence, interpreter consistency, and deaf students’ academic understanding in inclusive classrooms.

## **Sub-theme 1: Lack of Standardized Academic Vocabulary**

The first sub-theme was the lack of standardized academic vocabulary in Pakistan Sign Language. Participants explained that many subject-related terms, especially in science, mathematics, English, and social studies, did not have commonly accepted PSL signs. As a result, teachers and interpreters often created their own signs or used different signs for the same concept. This created difficulty for deaf

students because they could not easily connect one lesson with another.

T1: *“When I teach difficult topics, I often face problems because I do not always know the proper PSL sign. I try to explain through examples, gestures, or writing on the board, but it takes more time and students sometimes lose interest.”*

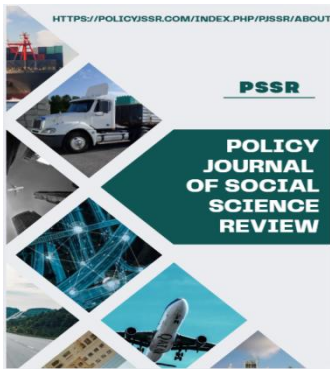
I1: *“In science and mathematics, there are many terms for which fixed PSL signs are not available. Different teachers and interpreters use different signs, and this creates confusion because students cannot connect one lesson with another.”*

D1: *“Sometimes the teacher uses one sign and the interpreter uses another sign for the same word. I feel confused because I do not know which sign is correct, and then I cannot understand the full lesson.”*

These responses show that the absence of standardized academic vocabulary affected instructional clarity and conceptual understanding. Teachers faced difficulty in explaining academic content, interpreters had to make quick decisions during lessons, and deaf students struggled to follow subject-based concepts when signs were inconsistent.

## **Sub-theme 2: Limited PSL Proficiency and Dependence on Improvised Signs**

The second sub-theme was limited PSL proficiency among teachers and the frequent use of improvised signs during instruction. Participants reported that many teachers were trained in general



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

pedagogy but had limited formal training in PSL. Due to this, they often depended on interpreters, gestures, pictures, or temporary signs to explain lessons. Although these strategies helped continue the lesson, they did not provide consistency for long-term learning.

A1: *“Many teachers are trained in general teaching methods, but they are not fully trained in PSL. Because of this, they depend on interpreters or use informal signs, which affects the quality and consistency of classroom teaching.”*

T2: *“When I do not know the exact sign for an academic word, I use gestures, pictures, or examples. It helps for that moment, but later students may face difficulty if another teacher uses a different sign.”*

I2: *“Improvised signs help us continue the lesson, but they are not a permanent solution. Students need repeated and consistent signs so that they can understand concepts clearly and remember them.”*

These quotations indicate that limited PSL proficiency and reliance on improvised signs weakened the consistency of classroom communication. While teachers and interpreters attempted to support deaf students through alternative explanations, the lack of standardized signs created gaps in learning continuity, student comprehension, and instructional confidence.

## Theme 2: Classroom Communication Barriers

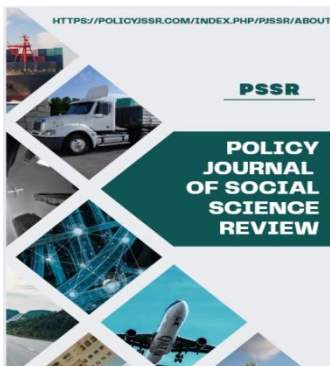
The second major theme highlighted the classroom communication barriers experienced by deaf students due to inconsistent use of Pakistan Sign Language in inclusive educational settings. Participants reported that communication problems appeared during lesson explanation, classroom discussion, group work, and teacher-student interaction. The data showed that deaf students often depended on interpreters for understanding classroom instructions, while teachers and administrators recognized that communication gaps affected students' participation and confidence.

T3: *“When signs are not clear or when different signs are used in the same lesson, students become confused and their participation decreases. I notice that some deaf students stop answering questions because they are not sure whether they have understood the sign correctly.”*

D2: *“I understand better when the same signs are used again and again in every class.”*

I3: *“Sometimes I have to stop and explain the sign again because students have learned another sign before.”*

A2: *“Communication becomes difficult when teachers, interpreters, and students are not following the same PSL signs. In such situations, the classroom becomes*



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

*dependent on repeated explanations, and this affects the pace of teaching as well as students' confidence."*

T4: *"Even when the topic is simple, different signs can make it difficult for deaf students to understand."*

D3: *"I want to ask questions, but sometimes I wait because I am not sure about the sign or meaning."*

These quotations show that classroom communication was strongly affected by sign inconsistency and lack of shared understanding. Deaf students experienced hesitation, confusion, and reduced participation when signs were unclear or unfamiliar. Teachers and interpreters also faced difficulty in maintaining lesson flow because they had to explain, repeat, or clarify signs during instruction. The findings suggest that classroom communication barriers were not only linguistic but also pedagogical, as they directly influenced students' engagement, comprehension, and interaction.

### **Sub-theme 1: Inconsistent Use of Signs**

The first sub-theme was the inconsistent use of signs by teachers, interpreters, and students. Participants explained that different signs were often used for the same concept, especially when there was no agreed PSL vocabulary for academic terms. This inconsistency affected students' ability to connect previous knowledge with new classroom content.

T5: *"One teacher uses one sign, and another teacher uses a different sign for the same word."*

D4: *"I feel confused when the sign changes from one class to another."*

These responses indicate that inconsistent signs created uncertainty among deaf students. Instead of focusing fully on the lesson, students had to interpret which sign was correct or familiar. This reduced instructional clarity and made classroom learning less smooth.

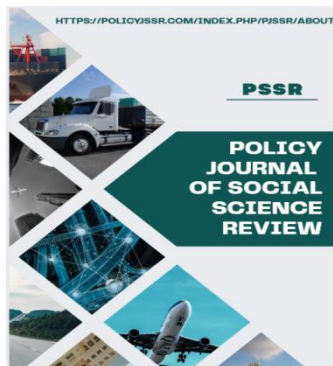
### **Sub-theme 2: Dependence on Interpreters**

The second sub-theme was students' dependence on interpreters for understanding classroom instruction. Participants shared that when teachers were not proficient in PSL, deaf students relied heavily on interpreters for explanations, questions, and classroom interaction. Although interpreters supported communication, overdependence sometimes delayed learning and reduced direct teacher-student engagement.

D5: *"If the interpreter explains clearly, I understand; if not, I miss the lesson."*

I5: *"The student depends on me because the teacher cannot always communicate directly in PSL."*

These quotations show that interpreters played an important role in classroom communication, but overdependence on them also created challenges. Direct interaction between teachers and deaf



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

students remained limited when teachers lacked PSL proficiency. This affected students' confidence and independence in classroom participation.

### Sub-theme 3: Limited Peer Interaction

The third sub-theme was limited interaction between deaf students and hearing peers. Participants reported that many hearing students did not know PSL, which restricted group work, peer discussion, and social participation. Deaf students often communicated only with those who knew signs or depended on interpreters and written notes during peer activities.

D6: *"I talk mostly with friends who know PSL because others do not understand my signs."*

T7: *"Group activities become difficult when hearing students cannot communicate with deaf students."*

A3: *"Inclusive education needs peer communication, but most hearing students are not trained in basic PSL."*

### Theme 3: Institutional and Curriculum-Related Challenges

The third major theme focused on institutional and curriculum-related challenges that affected the standardization of Pakistan Sign Language in inclusive education. Participants reported that the absence of clear institutional policy, limited teacher training, lack of standardized PSL curriculum, and shortage of visual teaching materials made it

difficult to implement PSL effectively in classrooms.

A1: *"There is no proper institutional policy for using standardized PSL in classrooms, so every teacher and interpreter follows their own understanding and experience."*

T5: *"We need regular training and proper teaching material because without guidance, it becomes difficult to teach deaf students through PSL effectively."*

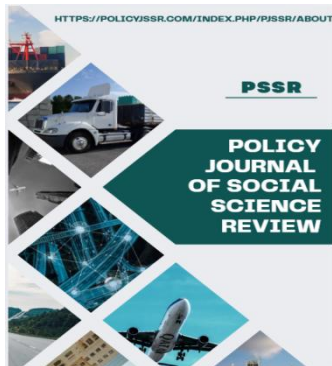
These quotations show that PSL standardization was not only a classroom issue but also an institutional concern. The lack of policy, training, and curriculum support created inconsistency in teaching practices and reduced the effectiveness of inclusive education.

I4: *"Interpreters also need subject-based PSL training because academic terms are difficult to interpret without proper preparation."*

D4: *"Sometimes books are difficult for me because there are no signs, pictures, or videos to explain the lesson clearly."*

A2: *"If schools truly want inclusive education to be effective, they need to develop a structured plan that includes providing trained teachers, equipping classrooms with standardized PSL resources, creating subject-specific signs, ensuring all interpreters follow the same system, and integrating these practices into school policy."*

# Policy Journal of Social Science Review



ISSN Online:3006-4635

ISSN Print: 3006-4627

The analysis indicated that institutional and curriculum challenges were a major barrier to PSL standardization.

### **Sub-theme 1: Lack of Institutional Policy and Administrative Support**

Participants reported that PSL standardization was weak because institutions did not have clear policies, structured guidelines, or regular monitoring systems for using standardized signs in classrooms. As a result, teachers and interpreters mostly depended on their personal experience.

A1: *“There is no proper institutional policy for using standardized PSL in classrooms, so every teacher and interpreter follows their own understanding and experience.”*

T5: *“If the school gives us clear guidelines and training, it will become easier to use the same signs in every class.”*

This sub-theme shows that PSL standardization requires institutional planning, administrative support, and clear school-level policies.

### **Sub-theme 2: Insufficient Curriculum and PSL-Based Teaching Resources**

Participants highlighted that the curriculum was not fully adapted for deaf students because many textbooks lacked PSL-based explanations, visual materials, and subject-specific signs. This made academic learning difficult for deaf students.

D4: *“Sometimes books are difficult for me because there are no signs, pictures, or videos to explain the lesson clearly.”*

I4: *“Interpreters also need subject-based PSL training because academic terms are difficult to interpret without proper preparation.”*

This sub-theme indicates that PSL standardization should be linked with curriculum adaptation, visual learning materials, and subject-wise PSL vocabulary.

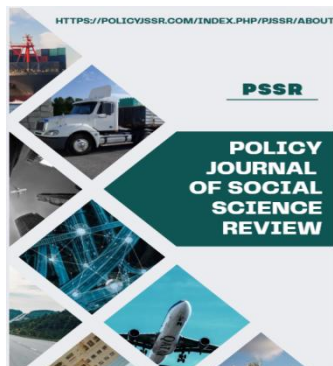
### **Theme 4: Strategies for Improving PSL Standardization**

The fourth major theme focused on the strategies suggested by participants for improving the standardization of Pakistan Sign Language in inclusive education. Participants emphasized that PSL standardization could not be achieved only through individual classroom effort. They suggested regular teacher training, interpreter preparation, development of subject-wise PSL vocabulary, use of digital resources, and stronger collaboration among teachers, interpreters, administrators, and the Deaf community.

T6: *“Teachers need regular PSL training because we cannot teach deaf students effectively if we only know basic signs and do not know academic signs.”*

I5: *“Before lessons, teachers and interpreters should sit together and decide which signs will be used for difficult concepts.”*

D5: *“If every subject has PSL videos and*



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

*same signs, we can revise at home and understand the lesson better.”*

A3: *“There should be a proper system at school level where teachers, interpreters, and administrators follow the same PSL guidelines and use approved resources.”*

These quotations indicate that participants emphasized structured training, classroom coordination, and use of digital resources to ensure consistent PSL instruction. Standardization was seen as essential for improving communication and understanding in inclusive classrooms.

T7: *“Digital dictionaries and visual materials are helpful, but teachers also need training on how to use them in classroom teaching.”*

I6: *“Collaboration between teachers and interpreters is necessary; otherwise, students get confused when different signs are used.”*

D6: *“It would be helpful if we had a handbook or guide with all approved PSL signs for different subjects.”*

## **Sub-theme 1: Professional Training and Teacher-Interpreter Coordination**

Participants emphasized that regular training for teachers and interpreters, along with coordinated lesson planning, is essential to ensure consistent PSL use in classrooms.

T6: *“Teachers need regular PSL training because we cannot teach deaf students effectively if we only know basic signs and do not know academic signs.”*

I5: *“Before lessons, teachers and interpreters should sit together and decide which signs will be used for difficult concepts.”*

This sub-theme indicates that structured training and collaboration are necessary to reduce confusion and improve instructional clarity.

## **Sub-theme 2: Development and Use of Standardized Resources**

Participants highlighted the importance of standardized PSL resources such as digital dictionaries, visual aids, videos, and handbooks for subject-specific vocabulary to support teaching and learning.

D5: *“If every subject has PSL videos and same signs, we can revise at home and understand the lesson better.”*

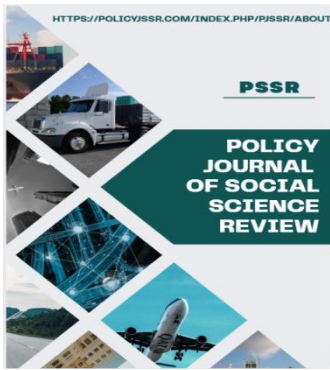
A3: *“There should be a proper system at school level where teachers, interpreters, and administrators follow the same PSL guidelines and use approved resources.”*

T7: *“Digital dictionaries and visual materials are helpful, but teachers also need training on how to use them in classroom teaching.”*

This sub-theme reflects that consistent resources, combined with teacher training, are critical to effectively implement PSL standardization in inclusive education.

## **Theme 4: Strategies for Improving PSL Standardization**

The fourth major theme focused on participants’ suggested strategies for improving the standardization of Pakistan



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

Sign Language in inclusive education. Participants emphasized that PSL standardization required coordinated efforts at classroom, institutional, and policy levels. They suggested that teacher training, interpreter preparation, standardized academic vocabulary, digital resources, and administrative support were necessary to make PSL more effective for deaf students in inclusive classrooms.

T6: *“Teachers need regular PSL training because we cannot teach deaf students effectively if we only know basic signs and do not know academic signs.”*

I5: *“Before lessons, teachers and interpreters should sit together and decide which signs will be used for difficult concepts.”*

D5: *“If every subject has PSL videos and the same signs, we can revise at home and understand the lesson better.”*

A3: *“There should be a proper system at school level where teachers, interpreters, and administrators follow the same PSL guidelines and use approved resources.”*

These quotations show that participants viewed PSL standardization as a shared responsibility. Teachers needed professional training, interpreters needed coordination with teachers, deaf students needed accessible learning resources, and administrators needed to provide institutional support for consistent PSL implementation.

T7: *“Digital dictionaries and visual materials are helpful, but teachers also need training on how to use them in classroom teaching.”*

I6: *“Collaboration between teachers and interpreters is necessary; otherwise, students get confused when different signs are used.”*

D6: *“It would be helpful if we had a handbook or guide with all approved PSL signs for different subjects.”*

These responses indicate that participants did not view standardization only as the development of signs. Rather, they connected it with classroom practice, teacher preparation, student access, and school-level planning.

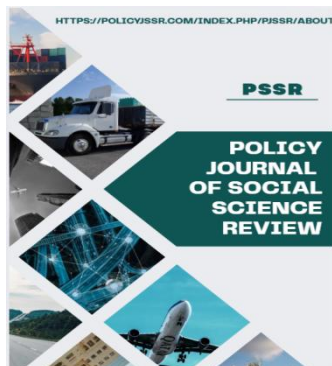
## **Sub-theme 1: Regular PSL Training for Teachers and Interpreters**

Participants emphasized that regular training was necessary for both teachers and interpreters. Teachers reported that basic PSL knowledge was not enough for academic instruction, while interpreters highlighted the need for subject-specific preparation.

T6: *“Teachers need regular PSL training because basic signs are not enough for teaching academic subjects.”*

I5: *“Interpreters also need training in subject vocabulary, especially for science, mathematics, and social studies.”*

This sub-theme shows that professional training was considered essential for



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

improving instructional clarity and reducing classroom confusion.

## **Sub-theme 2: Teacher-Interpreter Collaboration**

Participants stated that teachers and interpreters should coordinate before and during lessons to maintain consistency in signs. Lack of coordination often resulted in different signs being used for the same concept.

I6: *“Teachers and interpreters should discuss important signs before class so that students receive one clear message.”*

T8: *“When I work with the interpreter before the lesson, students understand the topic more easily.”*

## **Sub-theme 3: Development of Standardized Academic PSL Resources**

Participants suggested that subject-wise PSL resources should be developed for inclusive classrooms. These resources may include

A3: *“Standard PSL should become part of school policy, not just an individual teacher’s effort.”*

T9: *“If the administration supports training and materials, teachers can use PSL more confidently.”*

This sub-theme shows that institutional support is necessary for sustaining PSL standardization.

handbooks, glossaries, videos, charts, and digital dictionaries for academic vocabulary. D6: *“A subject-wise PSL guide would help us understand the same signs in every class.”*

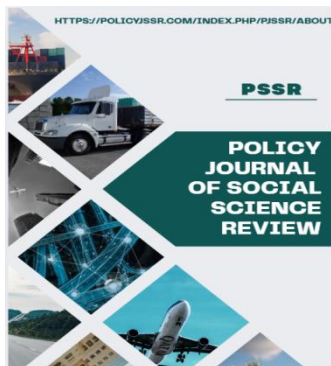
A4: *“Schools need approved PSL resources so that teachers and interpreters do not depend only on personal signs.”*

This sub-theme highlights the need for standardized academic vocabulary and visual materials to support consistent teaching and learning.

## **Sub-theme 4: Institutional and Administrative Support**

Participants explained that PSL standardization could not be achieved without institutional support. Administrators were expected to provide policy guidance, resources, training opportunities, and monitoring systems.

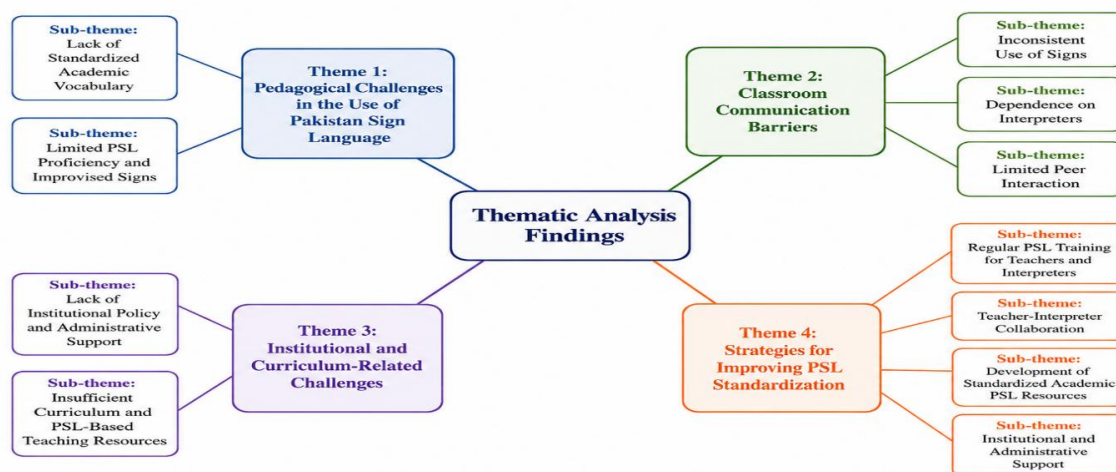
# Policy Journal of Social Science Review



ISSN Online:3006-4635

ISSN Print: 3006-4627

## Thematic Analysis of Pedagogical Challenges in the Standardization of Pakistan Sign Language (PSL) for Inclusive Education in Pakistan

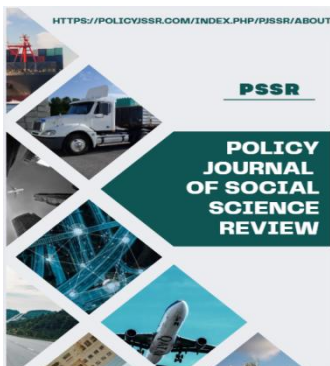


### Discussion

The findings showed that the standardization of Pakistan Sign Language (PSL) is closely linked with pedagogy, communication, curriculum, and institutional support in inclusive education. Teachers and interpreters faced difficulty in explaining academic concepts because many subject-specific signs were unavailable or inconsistently used. This finding supports Ali, Kanwal, and Ishrat (2023), who reported variation in sign language use among teachers of students with hearing impairment, and Jahangir, Iqbal, and Iqbal (2025), who identified lack of grammatical and curriculum-based standardization as a challenge in PSL teaching.

The study also found that limited PSL proficiency among teachers increased

dependence on interpreters and improvised signs. Although gestures, examples, and temporary signs helped continue classroom instruction, they weakened consistency in learning. This aligns with Marschark and Knoors (2012), who emphasized that deaf education requires attention to language, cognition, and learning needs, and Guardino and Cannon (2016), who highlighted the importance of visual and specialized instructional support for deaf learners. Classroom communication barriers were another major finding. Deaf students experienced confusion, hesitation, and reduced participation when signs were unclear or changed across teachers and interpreters. This supports Hall, Hall, and Caselli (2019), who argued that deaf learners need full language access for



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

meaningful learning. Similarly, Swanwick (2017) emphasized that sign language must be meaningfully embedded in classroom interaction rather than treated as a secondary support.

The findings further revealed that institutional and curriculum-related gaps limited PSL standardization. Participants reported weak policy support, lack of training, limited visual materials, and absence of subject-wise PSL resources. This is consistent with Singal (2016) and Srivastava, de Boer, and Pijl (2015), who noted that inclusive education in developing contexts often suffers from weak implementation, insufficient resources, and limited teacher preparation. Overall, the discussion indicates that PSL standardization is not only a linguistic issue but also a pedagogical and institutional concern. Effective standardization requires teacher training, interpreter preparation, subject-specific PSL resources, digital materials, curriculum adaptation, and administrative support. These steps are necessary to improve instructional clarity, classroom participation, and inclusive learning outcomes for deaf students in Pakistan.

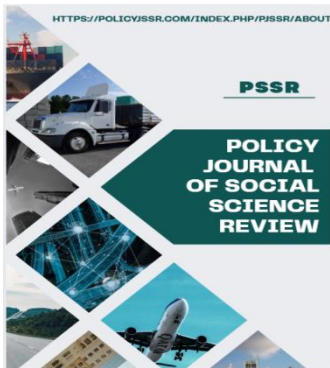
## Conclusion

This study highlights that the standardization of Pakistan Sign Language (PSL) is critical for effective inclusive education. Pedagogical challenges, inconsistent classroom communication,

limited teacher and interpreter training, weak institutional support, and insufficient curriculum resources hinder the learning experiences of deaf students. Findings indicate that improving PSL standardization requires coordinated efforts, including professional development, teacher-interpreter collaboration, development of standardized academic resources, and policy-level institutional support. Implementing these measures can enhance instructional clarity, promote student participation, and strengthen inclusive education outcomes for deaf learners in Pakistan.

## Recommendations

1. **Teacher Training:** Schools and teacher education programs should provide regular and structured PSL training, including subject-specific vocabulary, to improve instructional clarity and reduce dependence on interpreters.
2. **Interpreter Development:** Interpreters should receive ongoing professional development in academic PSL signs and classroom mediation strategies to ensure consistent communication.
3. **Standardized Academic Resources:** Develop subject-wise PSL resources, including visual materials, digital dictionaries, videos, and handbooks, to support consistent teaching and learning across classrooms.
4. **Teacher-Interpreter Collaboration:** Encourage pre-class planning and ongoing



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

collaboration between teachers and interpreters to ensure that consistent signs are used for all academic concepts.

5. **Institutional Support and Policy:** Schools should implement policies to standardize PSL use, monitor classroom practices, and allocate resources for training, curriculum adaptation, and visual learning materials.

6. **Student Access to Digital Resources:** Deaf students should have access to videos, digital dictionaries, and PSL-supported learning materials to reinforce classroom instruction and improve independent learning.

7. **Peer Awareness and Inclusion:** Promote basic PSL awareness among hearing students to support peer interaction, collaborative learning, and social inclusion in inclusive classrooms.

8. **Community Involvement:** Engage the Deaf community in the development of standardized PSL signs and educational resources to ensure cultural and linguistic authenticity.

## References

Adam, R. (2015). Standardization of sign languages. *Sign Language Studies*, 15(4), 432-445. <https://doi.org/10.1353/sls.2015.0015>

Afzaal, H. M., Amjad, F., & Kanwal, A. (2024). Identifying basic sign language communication abilities among hearing students to communicate with their deaf peers at university level.

*Journal of Development and Social Sciences*, 5(3), 1-10. [https://doi.org/10.47205/jdss.2024\(5-III\)01](https://doi.org/10.47205/jdss.2024(5-III)01)

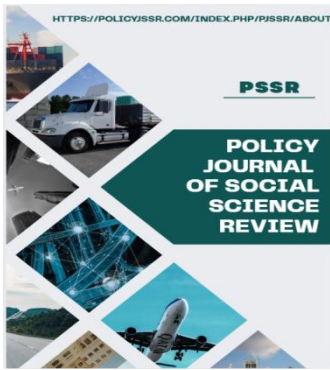
Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, 6(1), 7-16. <https://doi.org/10.1080/20020317.2020.1729587>

Ali, Z. R., Kanwal, A., & Ishrat, G. (2023). Factors affecting the uniformity of sign language: Perceptions of teachers of students with hearing impairment. *Annals of Human and Social Sciences*, 4(1), 12-24. [https://doi.org/10.35484/ahss.2023\(4-1\)02](https://doi.org/10.35484/ahss.2023(4-1)02)

Angrosino, M., & Rosenberg, J. (2011). *Observations in the practice of qualitative research*. Routledge.

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

Bashir, I., Kanwal, A., & Javed, T. (2025). Barriers to inclusivity: Sign language interpreters' challenges in higher education institutions. *Quaide-Awam Journal of Social Sciences*.



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

<https://qjss.com.pk/index.php/qjss/article/view/310>

Bintoro, T., Khasanah, U., & Kusumastuti, G. (2023). The teacher strategies in teaching sign language for deaf students. *Cogent Education*, 10(2), Article 2258294. <https://doi.org/10.1080/2331186X.2023.2258294>

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>

Charles, P., Kumar, S., & Lee, J. (2024). Sign language interpretation and inclusive classroom engagement: Evidence from diverse educational settings. *International Journal of Inclusive Education*, 28(4), 521-538. <https://doi.org/10.1080/13603116.2023.2184721>

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.

De Meulder, M. (2016). Promotion in times of endangerment: The Sign Language Act in Finland. *Language Policy*, 16, 189-208.

<https://doi.org/10.1007/s10993-016-9403-5>

Deaf Reach. (2024). *Pakistan Sign Language (PSL)*. <https://deafreach.com/pakistan-sign-language/>

Denzin, N. K., & Lincoln, Y. S. (2018). *The SAGE handbook of qualitative research* (5th ed.). Sage.

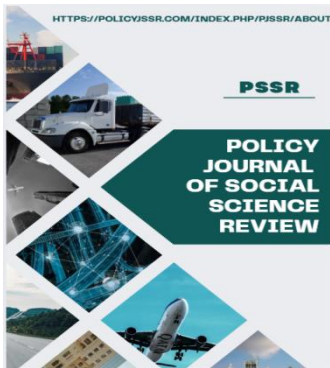
Easterbrooks, S. R., & Beal-Alvarez, J. S. (2013). *Literacy instruction for students who are deaf and hard of hearing*. Oxford University Press.

Eichmann, H. (2009). Planning sign languages: Promoting hearing hegemony? Conceptualizing sign language standardization. *Current Issues in Language Planning*, 10(3), 293-307.

<https://doi.org/10.1080/14664200903116287>

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>

Florian, L. (2014). What counts as evidence of inclusive education? *European Journal of Special Needs Education*, 29(3), 286-294. <https://doi.org/10.1080/08856257.2014.933551>

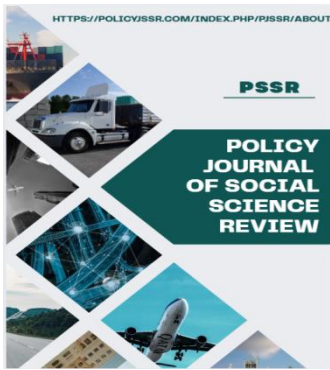


# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

- Guardino, C., & Cannon, J. E. (2016). Theory, research, and practice for students who are deaf and hard of hearing with disabilities: Addressing the challenges from birth to postsecondary education. *American Annals of the Deaf*, *161*(3), 347–355. <https://doi.org/10.1353/aad.2016.0033>
- Guest, G., MacQueen, K. M., & Namey, E. (2012). *Applied thematic analysis*. Sage.
- Hall, M. L., Hall, W. C., & Caselli, N. K. (2019). Deaf children need language, not just speech. *First Language*, *39*(4), 367–395. <https://doi.org/10.1177/0142723719834102>
- Hall, W. C., Levin, L. L., & Anderson, M. L. (2017). Language deprivation syndrome: A possible neurodevelopmental disorder with sociocultural origins. *Social Psychiatry and Psychiatric Epidemiology*, *52*, 761–776. <https://doi.org/10.1007/s00127-017-1351-7>
- Hermans, D., Knoors, H., Ormel, E., & Verhoeven, L. (2008). The relationship between the reading and signing skills of deaf children in bilingual education programs. *Journal of Deaf Studies and Deaf Education*, *13*(4), 518–530. <https://doi.org/10.1093/deafed/enn009>
- Imran, A., Khan, S., Ahmad, J., Ali, S., & Jeon, G. (2021). Dataset of Pakistan Sign Language and automatic recognition of hand configuration of Urdu alphabet through machine learning. *Data in Brief*, *36*, Article 107021. <https://doi.org/10.1016/j.dib.2021.107021>
- Jahangir, A., Iqbal, S., & Iqbal, F. (2025). Practices and challenges of teaching Pakistan Sign Language to hearing impaired students. *Contemporary Journal of Social Science Review*, *3*(1), 1531–1543. <https://contemporaryjournal.com/index.php/14/article/view/301>
- Khan, N. S., Nadeem, M., & Akram, M. (2026). PSL SignBank: A multimodal machine readable dictionary for Pakistan Sign Language. *VFAST Transactions on Software Engineering*, *14*(1), 56–69. <https://www.vfast.org/journals/index.php/VTSE/article/view/2246>
- Krueger, R. A., & Casey, M. A. (2015). *Focus groups: A practical guide for applied research* (5th ed.). Sage.
- Kvale, S., & Brinkmann, S. (2015). *InterViews: Learning the craft of qualitative research interviewing*. Sage.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Marschark, M., & Knoors, H. (2012). Educating deaf children: Language,

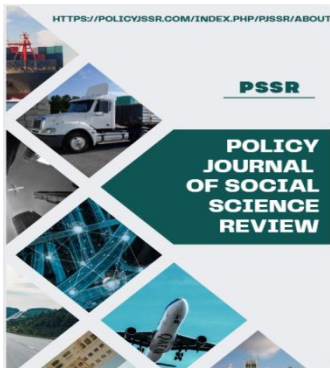


# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

- cognition, and learning. *Deafness & Education International*, 14(3), 136-160.  
<https://doi.org/10.1179/1557069X12Y.0000000010>
- Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.). Sage.
- Mayer, C., & Akamatsu, C. T. (2011). Bilingualism and literacy. In M. Marschark & P. E. Spencer (Eds.), *The Oxford handbook of deaf studies, language, and education* (Vol. 1, 2nd ed., pp. 144-155). Oxford University Press.
- McKee, R. L., & Manning, V. (2015). Evaluating effects of language recognition on language rights and the vitality of New Zealand Sign Language. *Sign Language Studies*, 15(4), 473-497.  
<https://doi.org/10.1353/sls.2015.0017>
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- Miles, S., & Singal, N. (2010). The education for all and inclusive education debate: Conflict, contradiction or opportunity? *International Journal of Inclusive Education*, 14(1), 1-15.  
<https://doi.org/10.1080/1360311080265125>
- Morgan, D. L. (1997). *Focus groups as qualitative research* (2nd ed.). Sage.
- Musyoka, M. M. (2023). Translanguaging in bilingual deaf education teacher preparation. *Languages*, 8(2), 109.  
<https://doi.org/10.3390/languages8020109>
- Napier, J., & Leeson, L. (2016). *Sign language in action*. Palgrave Macmillan.  
<https://doi.org/10.1057/9781137309778>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16, 1-13.  
<https://doi.org/10.1177/1609406917733847>
- Noy, C. (2008). Sampling knowledge: The hermeneutics of snowball sampling in qualitative research. *International Journal of Social Research Methodology*, 11(4), 327-344.  
<https://doi.org/10.1080/13645570701401305>
- Oliva, G. A. (2004). *Alone in the mainstream: A deaf woman remembers public school*. Gallaudet University Press.
- Pakistan Sign Language. (2024). *Pakistan Sign Language digital resources*.  
<https://psl.org.pk/>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection

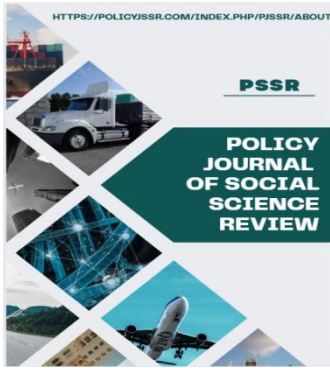


# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

- and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544. <https://doi.org/10.1007/s10488-013-0528-y>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). Sage.
- Powell, D., Hyde, M., & Punch, R. (2014). Inclusion in postsecondary institutions with small numbers of deaf and hard-of-hearing students: Highlights and challenges. *Journal of Deaf Studies and Deaf Education*, 19(1), 126-140. <https://doi.org/10.1093/deafed/ent035>
- Punch, R., & Hyde, M. (2011). Social participation of children and adolescents with cochlear implants: A qualitative analysis of parent, teacher, and child interviews. *Journal of Deaf Studies and Deaf Education*, 16(4), 474-493. <https://doi.org/10.1093/deafed/enr001>
- Reagan, T. (2019). *Linguistic legitimacy and social justice*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-10967-7>
- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Sage.
- Russell, D., & Winston, B. (2014). Tapping into the interpreting process: Using participant reports to inform the interpreting process in educational settings. *International Journal of Interpreter Education*, 6(1), 102-127.
- Shaukat, S. (2023). Challenges for education of children with disabilities in Pakistan. *Intervention in School and Clinic*, 59(1), 61-66. <https://doi.org/10.1177/1053451222130082>
- Singal, N. (2016). Education of children with disabilities in India and Pakistan: Critical analysis of developments in the last 15 years. *Prospects*, 46, 171-183. <https://doi.org/10.1007/s11125-016-9383-4>
- Srivastava, M., de Boer, A. A., & Pijl, S. J. (2015). Inclusive education in developing countries: A closer look at its implementation in the last ten years. *Educational Review*, 67(2), 179-195. <https://doi.org/10.1080/00131911.2013.847061>
- Swanwick, R. (2016). Deaf children's bimodal bilingualism and education. *Language Teaching*, 49(1), 1-34. <https://doi.org/10.1017/S0261444815000348>
- Swanwick, R. (2017). Translanguaging, learning and teaching in deaf education. *International Journal of Multilingualism*, 14(3), 233-249. <https://doi.org/10.1080/14790718.2017.1315808>



# Policy Journal of Social Science Review

ISSN Online:3006-4635

ISSN Print: 3006-4627

- Tang, G. (2024). Sign language and inclusive deaf education: An Asian perspective. *Deafness & Education International*, 26(1), 1-5. <https://doi.org/10.1080/14643154.2024.2302702>
- United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. United Nations. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage.