Annual Methodological Archive Research Review
http://amresearchreview.com/index.php/Journal/about
Volume 4, Issue 4 (2026)

Online ISSN 3007-3197
Print ISSN 3007-3189

http://amresearchreview.com/index.php/Journal/about

Barriers to Effective Speech Therapy Services in Public Special Education Institutions of Punjab, Pakistan

Faheem Ahmad
MPhil Education, Special Education Teacher, Department of Special Education, Lahore, Punjab, Pakistan, Email: ahmadfaheem53@gmail.com

Shazia Anwar
Sign Language Interpreter, Speech Language Pathologist, University of Management and Technology Lahore, Email: Shazia.anwar@umt.edu.pk

Muhammad Kashif (Corresponding author)
Special Education Teacher, PhD scholar, Department of Special Education, Division of Education, University of Education, Lahore, Pakistan.
Email: muhammad.akashifi@gmail.com

ABSTRACT

Objective: This study examined barriers to speech and language therapy service delivery in public special education institutions of Punjab, Pakistan, and emphasized the need for collaborative professional input to address children's communication needs effectively.
Methods: A qualitative research design was employed. Data were collected through semi-structured interviews and focus group discussions with five speech-language therapists and five special education teachers working in public special education institutions. Thematic analysis (Braun and Clarke, 2006, 2021) was used to identify key patterns related to service delivery barriers.
Results: The study identified multiple interconnected barriers affecting speech therapy service delivery in special education institutions, including weak administrative support, lack of structured programs, insufficient coordination between professionals, shortage of trained staff, limited professional development, low parental involvement, and inadequate physical and material resources. These factors collectively resulted in fragmented and inconsistent intervention practices across institutions.
Conclusion: The study highlights that speech and language therapy services in special education settings are shaped by systemic and organizational limitations rather than individual factors alone. These constraints create a gap between intended service provision and actual practice, resulting in inconsistent support for children with communication needs. Improving service effectiveness requires strengthening institutional structures, establishing formal collaboration mechanisms between therapists and teachers, enhancing workforce capacity through continuous professional development, and ensuring adequate provision of physical and technological resources.

Annual Methodological Archive Research Review
http://amresearchreview.com/index.php/Journal/about
Volume 4, Issue 4 (2026)

Online ISSN 3007-3197
Print ISSN 3007-3189

http://amresearchreview.com/index.php/Journal/about

Keywords: Speech And Language Therapy, Special Education, Communication Needs, Barriers, Interdisciplinary Collaboration.

Introduction

Special education has evolved as an organized system by government establishments to offer educational and rehabilitative services to intellectually and developmentally disabled children. These institutions are not just meant to serve academic learning purposes, but also to enhance functional independence, communication skills and social growth in learners with special needs. In spite of this increase in institutional coverage, it has been indicated that the quality of special education services continues to be uneven over settings. The quality of education provision is still affected by differences in institutional planning, resource allocation, and service capacity, which is a persistent disparity between the policy intentions and the practical application of special education systems (Ahmad and Fazil, 2023; Minhas and Munir, 2024). This implies that although access has been improved the issue of consistency and quality of services are major challenges.

Within this broader system, communication development is a fundamental area of concern, as it directly affects learning, interaction, and participation of children with disabilities. Communication skills are essential for expressing needs, engaging in classroom activities, and developing social relationships. Research indicates that communication impairments can significantly hinder cognitive, academic, and social development if not addressed in a timely manner (Vitkovitch, 2008). Children with conditions such as hearing impairment, autism spectrum disorder, and cerebral palsy are particularly vulnerable to persistent communication barriers that limit their educational participation. Therefore, early and effective intervention is crucial in supporting their developmental progress.

In this regard, speech-language therapy is widely recognized as a key intervention for addressing communication difficulties among children with special needs. It plays an important role in improving speech production, language comprehension, and functional communication skills necessary for academic and social engagement. Evidence suggests that speech-language therapy contributes positively to language-based academic skills such as reading, writing, and comprehension, which are essential for learning processes (Pennington et al., 2004; Hassan, 2024). In addition, improved communication abilities enhance classroom participation and peer interaction, thereby promoting social inclusion in educational settings (Ghasemzadeh et al., 2023). However, the effectiveness of therapy is not uniform across contexts, as it depends on intervention type, intensity, professional expertise, and institutional support structures, indicating that therapy outcomes are closely linked with systemic conditions rather than intervention alone.

Despite its recognized importance, speech-language therapy services in special education settings face multiple systemic and institutional challenges. In public special education institutions in Punjab, speech and language pathologists encounter significant administrative and infrastructural constraints, including lack of dedicated therapy rooms, inadequate facilities, limited technological resources, and insufficient

Online ISSN 3007-3197
Print ISSN 3007-3189

institutional support (Hadayat et al., 2025). In addition, shortages of trained professionals further restrict the availability of consistent and specialized services for students with communication disorders. These limitations are further compounded by high workload demands, insufficient therapy time, and communication barriers during intervention delivery, which collectively reduce service effectiveness. Furthermore, weak coordination between therapists and teachers limits the integration of therapeutic goals into classroom instruction, thereby affecting continuity of support (Malik et al., 2022). Similar challenges are also reported in international contexts, where variability in service delivery models, resource constraints, and collaboration gaps continue to affect the effectiveness of speech-language pathology services (Binns et al., 2022).

These challenges reflect that barriers to speech-language therapy are not isolated but exist at multiple interconnected levels. At the institutional level, limited funding, inadequate infrastructure, and lack of dedicated service spaces restrict the quality and consistency of therapy delivery (Binns et al., 2022). At the professional level, shortages of trained speech-language pathologists and variability in practitioner skills affect the reliability and standardization of intervention practices (Shaheen et al., 2025). At the system level, weak coordination between educational and therapeutic services further limits continuity of care and reduces integration of therapy goals into educational planning (Malik et al., 2022). Additionally, family-related factors such as limited awareness and reduced engagement can negatively influence the continuity of therapy beyond clinical or school environments, further affecting long-term outcomes (Büyükköse et al., 2025; Klatte et al., 2023). Collectively, these multidimensional barriers suggest that improving service effectiveness requires not only institutional reform but also systemic coordination and family-centered engagement.

Furthermore, the literature indicates that while several studies have identified challenges in special education and speech-language therapy services, there remains a limited body of in-depth, context-specific research focusing on Punjab's public special education sector. Much of the existing research is descriptive and does not fully capture the lived experiences of teachers and therapists working within these institutions (Tahir et al., 2023). Although studies have highlighted administrative and operational challenges faced by speech-language pathologists in Punjab, there is still a need for deeper qualitative exploration to understand how professionals experience, interpret, and respond to these barriers in real classroom settings (Hadayat et al., 2025). This gap suggests the importance of research that moves beyond identifying challenges to exploring the practical realities of service delivery in constrained environments.

In response to these gaps, the present study is designed to contribute to improving speech-language therapy service delivery by identifying institutional, professional, and contextual barriers within special education settings in Punjab. The findings are expected to provide evidence-based insights for policymakers, administrators, and practitioners to strengthen service structures, improve resource allocation, and enhance coordination among stakeholders. Ultimately, this may contribute to improving educational outcomes for students with communication needs by ensuring more consistent, effective, and equitable intervention services. Accordingly, the study will explore barriers in speech-language therapy service delivery, examine the challenges faced by teachers and therapists, and suggest contextually relevant strategies for

Online ISSN 3007-3197
Print ISSN 3007-3189

improvement. By focusing on real-world experiences of professionals, this research aims to contribute to a more responsive, inclusive, and effective special education system in Punjab, Pakistan.

Objectives of the Study

To explore the barriers affecting the provision of speech therapy services in public special education institutions.

To examine institutional and professional challenges faced by speech therapists and teachers.

To identify possible strategies to improve the effectiveness of speech therapy services

Research Questions

What are the major barriers to effective speech therapy services in public special education institutions of Punjab?

What challenges do speech therapists and teachers face in delivering these services?

How can speech therapy services be improved in special education settings?

Literature Review

Speech and language therapy is widely recognized as a key intervention in special education settings for children with communication disorders. Evidence shows its effectiveness in improving expressive and receptive language, articulation, and overall communicative competence in children with primary speech and language delays (Law et al., 2003; Law et al., 2017). It is also beneficial for children with conditions such as cerebral palsy, where it supports functional communication through verbal and non-verbal strategies (Pennington et al., 2004). However, findings across studies indicate variability in outcomes depending on impairment type, severity, and intervention intensity, reflecting inconsistency in intervention design and delivery and highlighting the need for more standardized yet context-sensitive approaches.

Building on this, communication development is strongly linked to children's academic, social, and adaptive functioning, making early identification and timely intervention essential. Untreated speech and language delays may persist and negatively affect long-term educational and social outcomes (Schwarz & Nippold, 2009). Children with speech and language disorders therefore require structured support within educational systems (National Academies of Sciences, Engineering, and Medicine, 2016), yet access to timely and effective services remains uneven, indicating a persistent gap between evidence-based recommendations and actual service provision.

Extending beyond basic communication outcomes, speech-language therapy also contributes to broader developmental domains such as literacy and cognitive skills. Evidence suggests that speech-language pathologists support not only language development but also higher-order skills such as theory of mind through integrated, literacy-based interventions (Secora, 2024). Furthermore, collaboration with parents enhances therapy effectiveness, emphasizing the importance of coordinated home–school approaches (Klatte et al., 2020). Despite these benefits, service delivery in contexts such as public special education institutions in Punjab remains constrained by

Online ISSN 3007-3197
Print ISSN 3007-3189

systemic barriers, including inadequate resources, poor coordination, and accessibility issues identified in clinical populations such as cochlear implant users (Bukhari et al., 2023). Similarly, therapists in special education settings face workload pressures and limited institutional support, which compromise continuity and quality of intervention (Hadayat et al., 2025), indicating that effectiveness is highly dependent on system capacity rather than clinical evidence alone.

Speech-language therapy, as a structured clinical and educational intervention, involves assessment, diagnosis, and treatment of communication disorders through individualized approaches delivered directly, indirectly, or collaboratively. It is most effective when integrated into inclusive educational practices, where speech-language pathologists support curriculum access and communication through consultation and frameworks such as Universal Design for Learning (Campbell et al., 2016). However, practical implementation is often constrained by workload demands, limited time, and collaboration barriers, creating a gap between policy expectations and real-world practice (Natali & Duff, 2025). This suggests that while the intervention model is well-established, its effectiveness is strongly mediated by institutional working conditions.

In school-based settings, therapy is increasingly delivered through collaborative and embedded models that integrate intervention into natural learning environments. Evidence indicates that stakeholders value improved participation, academic engagement, and functional classroom performance when services are contextually embedded (Cahill et al., 2024). Interdisciplinary approaches such as co-therapy with mental health services further reflect a shift toward integrated care models (Müller et al., 2025). However, sustainability of such models depends heavily on institutional resources and capacity. Poor early language skills are associated with weaker academic performance (Griffiths et al., 2024), while effective school-based therapy improves participation and communication outcomes when adequately implemented (Rupert et al., 2023; Cahill et al., 2024), reinforcing that outcomes are context-dependent rather than uniformly achieved.

Evidence from children with Autism Spectrum Disorder further demonstrates the importance of speech therapy in improving communication and social functioning. Studies show that targeted interventions enhance both expressive and receptive language skills while also supporting social interaction development (Venita & Devina, 2024). Similarly, early social skill development is closely linked to language acquisition in preschool children with ASD, indicating that communication and social domains are interdependent (Latif et al., 2023). However, persistent speech difficulties may have broader psychosocial consequences, affecting emotional well-being, social acceptance, and academic participation in school-aged children (Hitchcock et al., 2015), highlighting the importance of timely and sustained intervention.

Despite these documented benefits, there remains a clear gap between demand and service availability in school systems. Comparative evidence indicates that speech and language therapy needs in educational settings often exceed available services, reflecting structural inadequacies in service provision (Pehlivan & İnal, 2025). In addition, collaborative challenges between speech-language pathologists and educators further reduce service effectiveness and continuity (Malik et al., 2022). This indicates that service delivery issues are not only clinical but also organizational and systemic in

Online ISSN 3007-3197
Print ISSN 3007-3189

nature.

Institutional barriers further intensify these challenges. Studies report inadequate infrastructure, limited funding, overcrowded classrooms, excessive workload, and weak policy implementation as key constraints in special education institutions (Shaheen et al., 2020). These factors suggest that limitations in service delivery are primarily systemic rather than individual, emphasizing a mismatch between policy intentions and institutional capacity to deliver effective therapy.

At the professional level, therapist competencies are essential for effective intervention, but their impact is mediated by working conditions. Evidence from Punjab indicates that speech-language therapists require strong clinical and professional skills, including assessment, intervention planning, and context-adapted strategies (Mumtaz et al., n.d.). However, these competencies are often exercised within constrained environments that limit service quality and consistency. This challenge is compounded by a global shortage of speech-language pathologists, which affects service accessibility and increases workload pressures (Edgar & Rosa-Lugo, 2007; Squires, 2013). Additional barriers include limited professional development, weak collaboration, and unclear role definitions (Gill et al., 2011; Haider et al., 2022), collectively demonstrating that workforce capacity is a critical determinant of service effectiveness.

System-level and policy factors further shape service delivery outcomes. Early intervention practices are affected by inconsistent guidelines and variability in assessment approaches, particularly for dual language learners, which impacts decision-making consistency (Jarzynski & Buac, 2024). Similarly, the integration of supportive tools such as educational technology is constrained by limited training, inadequate resources, and insufficient systemic support (Starks & Reich, 2023). These issues reflect structural weaknesses in policy implementation and highlight the need for clearer frameworks and stronger institutional support systems.

Family and environmental influences also play a significant role in therapy effectiveness. Caregiver participation is shaped by barriers such as time constraints, limited access, and varying levels of engagement, particularly in virtual service delivery contexts where technological access and digital literacy become critical factors (DiFabio et al., 2023). Environmental conditions, including socioeconomic context and home support systems, are also associated with speech and language outcomes (Borges et al., 2021). These findings indicate that intervention success depends not only on clinical services but also on external ecological factors that can either facilitate or hinder progress.

Finally, persistent research practice gap continues to limit the effectiveness of speech and language therapy. Despite the availability of research-based knowledge, its translation into clinical practice remains inconsistent due to contextual constraints and differences between controlled research environments and real-world settings (Costain & Sønsterud, 2023). This issue is compounded by systemic and operational barriers in special education institutions, including those identified by Shaheen et al. (2020), where resource limitations and professional challenges persist. Importantly, there is a lack of qualitative, experience-based research in regions such as Punjab's public special education sector, with most studies relying on descriptive or quantitative designs. This highlights the need for in-depth qualitative inquiry to capture lived experiences and

Online ISSN 3007-3197
Print ISSN 3007-3189

better inform context-specific, sustainable improvements in speech-language therapy services.

The literature consistently shows that speech and language therapy is an effective intervention for improving communication, language development, academic participation, and social functioning in children with speech and language disorders. Its benefits are evident across conditions such as developmental language delay, cerebral palsy, and autism spectrum disorder, particularly when delivered through collaborative and school-based approaches involving teachers and families (Law et al., 2003; Pennington et al., 2004; Venita & Devina, 2024; Cahill et al., 2024). However, its effectiveness varies depending on intervention design, intensity, and contextual factors. Despite these positive outcomes, multiple barriers limit effective implementation, including institutional constraints (e.g., inadequate infrastructure and funding), workforce shortages, limited training, weak collaboration, and system-level issues such as inconsistent policies and limited resources (Shaheen et al., 2020; Edgar & Rosa-Lugo, 2007; Jarzynski & Buac, 2024). Family and environmental factors also influence outcomes (DiFabio et al., 2023; Borges et al., 2021). The literature highlights persistent research–practice gap, especially in low-resource contexts like public special education institutions in Punjab, justifying the need for context-specific qualitative research.

Methodology

This study adopted a qualitative research design to explore barriers to effective speech therapy services in public special education institutions of Punjab, Pakistan. A qualitative approach was selected as it is suitable for examining complex educational and professional experiences in depth and for understanding participants lived realities within their natural contexts (Creswell & Poth, 2018; Costain & Sønsterud, 2023). To enhance triangulation and achieve a more comprehensive and in-depth understanding, data were collected through both semi-structured interviews and focus group discussions (FGDs). Interviews were conducted with speech-language therapists, while FGDs were carried out with special education teachers. This dual-method approach enabled the integration of individual and collective perspectives on institutional, professional, and systemic barriers. The population of the study comprised speech-language therapists and special education teachers working in public special education institutions in Punjab. These professionals were selected due to their direct involvement in service delivery and their ability to provide rich, experience-based insights into barriers affecting speech therapy services (Shaheen et al., 2020; Haider et al., 2022).

Participants

The participants of the study comprised ten professionals working in the field of special education and speech-language therapy, including five speech therapists and five special education teachers. All participants were selected from public special education institutions in Punjab, Pakistan, based on their relevant professional experience and direct involvement with children having speech and language needs. The speech therapists held relevant professional qualifications in speech-language pathology, including an M.A with an MS in Speech-Language Pathology or an M.A/M.Phil. in Special Education with an additional one-year diploma in Speech and Language

Online ISSN 3007-3197
Print ISSN 3007-3189

Therapy, ensuring their clinical competence in communication disorder management. The special education teachers held advanced degrees in special education or related fields (M.Phil., M.A, or M.Ed). All participants had a minimum of five years of professional experience, ensuring sufficient exposure to educational and therapeutic practices. A purposive sampling strategy was used to select information-rich participants with relevant expertise, enabling an in-depth exploration of the phenomenon under study. Detailed demographic information of the participants is presented in the table below.

Table 1: *Participant Demographics (N=10)*

Participant Role	Code	Age (Years)	Gender	Highest Qualification	Professional Experience (Years)
Speech Therapist	ST1	26	Female	M.A with MS SLP	05
Speech Therapist	ST2	30	Male	M.A with MS SLP	07
Speech Therapist	ST3	28	Female	M.A with One-Year Diploma in Speech and Language Pathology	06
Speech Therapist	ST4	35	Female	M.Phil. with One-Year Diploma in Speech and Language Pathology	10
Speech Therapist	ST5	32	Male	M.A with MS SLP	08
Special Education Teacher	T1	24	Female	M.Phil.	05
Special Education Teacher	T2	27	Male	M.Phil.	08
Special Education Teacher	T3	29	Female	M.A	06
Special Education Teacher	T4	31	Female	M.Ed	09
Special Education Teacher	T5	34	Male	M.A	12

Interview Process

Data were collected through semi-structured interviews with speech therapists, allowing consistency across participants while providing flexibility to explore

Online ISSN 3007-3197
Print ISSN 3007-3189

emerging ideas in depth. This method is widely used in qualitative research to obtain rich and detailed insights aligned with research objectives (Kallio et al., 2016; DiCicco-Bloom & Crabtree, 2006). The interview guide focused on institutional barriers, workforce challenges, collaboration issues, and policy-related constraints affecting speech therapy services in special education settings. Interviews were conducted via Zoom, enabling participation from therapists across different districts of Punjab, Pakistan (Walton, 2021). Each interview began with an introduction to the study, followed by demographic information and open-ended questions. The duration of interviews ranged from 30 to 45 minutes. After each session, transcripts were shared with participants for member checking to ensure accuracy and credibility.

Focus Group Discussions (FGDs)

Focus group discussions were conducted with special education teachers to explore their collective experiences and perceptions regarding barriers to speech therapy services. FGDs facilitated interactive discussion, allowing participants to build on each other's responses and generate deeper insights into institutional, professional, and environmental challenges. A semi-structured discussion guide aligned with the study objectives was used. The sessions were conducted via Zoom to ensure participation from teachers across different regions of Punjab, Pakistan. Each FGD lasted approximately 60–90 minutes and was moderated to ensure equal participation of all members. Discussions were audio-recorded with consent and later transcribed verbatim for thematic analysis.

Data Analysis

Data were analyzed using thematic analysis following Braun and Clarke (2006, 2021). A codebook-style thematic analysis approach was employed, allowing for a structured yet flexible coding process within a reflexive qualitative framework (Braun et al., 2019). The analysis was conducted collaboratively to ensure consistency and depth of interpretation.

Initially, all interviews and focus group discussions were transcribed verbatim and repeatedly read to achieve data familiarization. This was followed by systematic coding of meaningful segments relevant to the research questions. Data from semi-structured interviews and focus group discussions (FGDs) were first coded separately; however, findings were later integrated during the reporting phase to provide a comprehensive understanding of barriers to speech therapy services and to ensure triangulation of perspectives from speech therapists and special education teachers.

In the next phase, similar codes were grouped to generate initial themes. These candidate themes were then reviewed and refined through continuous comparison with coded extracts and the entire dataset to ensure coherence, consistency, and accuracy. Regular discussions among researchers were held to resolve discrepancies and reach consensus on theme development. This iterative process ensured that the final themes provided a rich, credible, and comprehensive representation of participants' experiences (Braun & Clarke, 2021).

Results

Theme 1: Institutional and Administrative Barriers

Online ISSN 3007-3197
Print ISSN 3007-3189
http://amresearchreview.com/index.php/Journal/about

Institutional and administrative barriers emerged as a major challenge affecting the effective delivery of speech therapy services in public special education institutions. Participants from both groups—speech therapists and special education teachers—highlighted the lack of organizational support, absence of structured programs, weak interdepartmental coordination, and limited monitoring mechanisms.

Lack of institutional support: A prominent concern was the lack of institutional support, where participants reported that speech therapy is often not prioritized within the school system. Speech therapists expressed dissatisfaction with the limited recognition of their role and insufficient administrative backing:
"Speech therapy is not considered a priority in our institution. Most of the focus is on academic teaching, and our services are often overlooked." (ST-2)
Similarly, teachers emphasized that administrative authorities rarely facilitate or support therapy-related activities:
"We are not given proper support to coordinate with therapists. There is no system from management to ensure collaboration." (FGD-1, P3)

Absence of structured speech therapy programs was another critical issue. Participants noted that therapy services are often delivered in an unplanned and inconsistent manner, lacking formal scheduling or standardized procedures:
"There is no proper schedule or structured plan for therapy sessions. We manage according to availability, which affects consistency." (ST-5)
Teachers also echoed this concern, pointing out that the lack of structure impacts student progress:
"Sometimes students miss therapy sessions because there is no fixed timetable. Everything is informal." (FGD-2, P1)

Coordination between departments further highlighted systemic inefficiencies. Both therapists and teachers reported minimal collaboration and communication regarding student needs, therapy goals, and progress tracking:
"There is very little communication between us and the teaching staff. We work separately, which reduces the effectiveness of intervention." (ST-3)
"We are not regularly informed about the therapy goals or progress of students, so it becomes difficult to reinforce those strategies in the classroom." (FGD-1, P5)

Limited monitoring and supervision Lastly, participants identified it as a significant administrative gap. There was a general perception that no formal system exists to evaluate or improve speech therapy services:
"No one monitors whether therapy is being conducted effectively or not. There is no accountability system." (ST-1)
"There is no follow-up from administration regarding therapy outcomes. It feels like an ignored area." (FGD-2, P4)

Theme 2: Shortage of Qualified Human Resources

Online ISSN 3007-3197
Print ISSN 3007-3189
http://amresearchreview.com/index.php/Journal/about

The shortage of qualified human resources was identified as a significant barrier to the effective provision of speech therapy services in public special education institutions. Participants from both speech therapists and special education teachers highlighted concerns regarding the insufficient number of trained professionals and the lack of specialized skills required to address diverse communication needs.

Insufficient number of speech therapists was one of the most prominent issues, which resulted in increased workload and limited access to therapy services for students. Speech therapists reported being overburdened due to high student caseloads:
"There are very few speech therapists in the system, and one therapist has to manage a large number of students, which affects the quality of therapy." (ST-4)
Another therapist emphasized the impact of this shortage on service delivery:
"Due to the limited number of therapists, we cannot provide individual attention to each child. Sessions are often rushed." (ST-1)
Teachers also acknowledged this issue, noting that the limited availability of therapists creates gaps in support for students:
"The therapist is not available for all students regularly because there are too many children and only one therapist." (FGD-1, P2)

Lack of specialized training among teachers in addition to the shortage of therapists, participants highlighted it as a major concern. Teachers reported that they are often required to support students with speech and language difficulties without having adequate training:
"We have not received proper training in speech therapy techniques, so it becomes difficult to support these children effectively." (FGD-2, P3)
Speech therapists also pointed out that the lack of trained teachers limits the continuity of intervention in the classroom:
"Teachers are not trained in basic speech and language strategies, so the carryover of therapy activities in the classroom is very limited." (ST-2)
The shortage of qualified human resources, both in terms of the limited number of speech therapists and the lack of specialized training among teachers, significantly affects the quality and consistency of speech therapy services. This gap not only increases the burden on existing professionals but also hinders the holistic development of students with communication difficulties.

Theme 3: Lack of Professional Collaboration
Lack of professional collaboration emerged as a critical barrier affecting the effectiveness of speech therapy services in public special education institutions. Both speech therapists and special education teachers highlighted weak coordination and the absence of interdisciplinary teamwork, which limits the consistency and impact of interventions for students with communication difficulties.

Weak coordination between therapists and teachers was a key issue identified. Participants reported that there is minimal structured communication regarding therapy goals, strategies, and student progress. As a result, classroom practices are often not

Online ISSN 3007-3197
Print ISSN 3007-3189
http://amresearchreview.com/index.php/Journal/about

aligned with therapeutic interventions:
"There is very limited coordination between us and the teachers. We usually conduct therapy sessions separately, and there is no proper system to share progress or strategies. This gap makes it difficult to ensure consistency in the child's learning and communication development." (ST-3)
Teachers also expressed similar concerns, emphasizing that they are often unaware of the specific goals set during therapy sessions:
"We are not regularly informed about what the therapist is working on with the child. Sometimes we only get general information, but not detailed guidance." (FGD-1, P4)

Absence of interdisciplinary teamwork was another significant concern, where professionals work in isolation rather than as a cohesive unit. Participants highlighted that there are no formal platforms or systems for collaborative planning or case discussions:
"In our institution, there is no concept of a multidisciplinary team. Everyone works within their own role, and there are no regular meetings to discuss students' needs collectively. This lack of teamwork reduces the overall effectiveness of intervention." (ST-1)
Some teachers also pointed out that collaboration is often informal and inconsistent:
"If we need help, we approach the therapist personally, but there is no proper teamwork or scheduled collaboration. It depends on individual effort rather than an institutional system." (FGD-2, P2)
In some cases, participants described brief interactions that are insufficient for meaningful collaboration:
"We only have short discussions in passing, not detailed planning." (FGD-1, P1)
The lack of structured coordination and interdisciplinary teamwork creates gaps in service delivery, limiting the continuity and effectiveness of speech therapy. Strengthening collaboration between professionals is essential for providing comprehensive and consistent support to students with communication needs.

Theme 4: Training and Professional Development Gaps
Training and professional development gaps were identified as a significant barrier to the effective implementation of speech therapy services. Both speech therapists and special education teachers emphasized the limited availability of structured training opportunities and the lack of exposure to updated therapeutic practices, which negatively affects the quality of intervention.

Lack of in-service training opportunities was widely reported for both professionals. Participants reported that institutions rarely organize formal training sessions, workshops, or refresher courses to enhance their skills:
"There are very few in-service training opportunities provided by the department. Once we are appointed, there is little focus on our continuous professional development, which affects our ability to improve our practice." (ST-2)

Online ISSN 3007-3197
Print ISSN 3007-3189
http://amresearchreview.com/index.php/Journal/about

Lack of exposure to modern therapeutic techniques were identified as another critical issues Speech therapists expressed concern that they are not provided with opportunities to learn or implement updated methods and evidence-based practices:
"We are not exposed to modern techniques or new research in speech therapy. Without proper training and resources, it becomes difficult to apply advanced strategies in our sessions." (ST-5)
Teachers also acknowledged that their knowledge is often outdated, which restricts their ability to support therapy goals:
"We are not familiar with new methods or strategies used in speech therapy. If we had proper training, we could better assist students and reinforce therapy activities in the classroom." (FGD-2, P2)
Some participants also pointed out the absence of continuous learning systems within institutions:
"There is no proper system of professional development. Training is not ongoing, and we are left to manage on our own." (ST-1)

Theme 5: Parental and Environmental Barriers
Parental and environmental barriers were also identified as significant factors affecting the effectiveness of speech therapy services. Participants from both groups highlighted that limited parental awareness and inadequate home support create challenges in ensuring consistency and progress in students' communication development.

Lack of parental awareness was a key issue regarding the importance of speech therapy and their role in supporting their child's communication needs. Speech therapists reported that many parents have limited understanding of therapy goals and often do not follow recommended strategies at home:
"Many parents do not fully understand the importance of speech therapy or their role in it. They think improvement will only happen at school and do not realize that consistent practice at home is equally important. Even when we guide them, they are not always able to follow the strategies properly due to lack of awareness." (ST-4)
Teachers also shared similar concerns, noting that parental involvement is often minimal:
"Parents are not fully aware of how they can support their children's speech development. They usually rely only on the school and do not engage actively at home." (FGD-1, P2)

Limited home support for therapy reduced continuity of intervention, beyond the school setting. Both therapists and teachers emphasized that without reinforcement at home, the effectiveness of therapy is significantly reduced:
"We provide activities and exercises for home practice, but many students come back without completing them. This lack of follow-up at home slows down their progress." (ST-2)

Annual Methodological Archive Research Review
http://amresearchreview.com/index.php/Journal/about
Volume 4, Issue 4 (2026)

Online ISSN 3007-3197
Print ISSN 3007-3189

http://amresearchreview.com/index.php/Journal/about

Theme 6: Inadequate Physical and Material Resources

Inadequate physical and material resources emerged as a significant barrier to the effective delivery of speech therapy services in public special education institutions. Participants highlighted the lack of dedicated therapy spaces, shortage of assessment tools, and limited access to assistive technologies as major constraints that negatively affect the quality of intervention and student outcomes.

A key concern raised was the **shortage of assessment tools and materials**, which speech therapists identified as a serious limitation in accurately evaluating students' communication needs and planning appropriate interventions. Due to the absence of standardized diagnostic instruments and therapy materials, therapists often rely on informal or self-developed methods:

"The biggest challenge is the lack of proper assessment tools. We do not have standardized tests or updated materials, so we rely on informal observation, which is not always reliable. This makes it difficult to accurately identify the severity of speech and language problems. We also lack therapy resources and often have to prepare materials ourselves, which affects the quality of assessment and intervention. Overall, this shortage significantly limits effective service delivery." (ST-5)

A major concern was the **lack of therapy rooms**, which forced therapists to conduct sessions in shared or unsuitable spaces. This not only disrupted therapy sessions but also reduced student concentration and confidentiality. Speech therapists reported:

"We do not have a proper therapy room. Sessions are conducted in classrooms or shared spaces with noise and disturbance, which affects students' focus, privacy, and continuity of therapy. A dedicated room would allow more structured and effective intervention." (ST-3)

Teachers also supported this view, emphasizing that the absence of a proper space limits effective intervention:

"Therapy sessions are not conducted in a proper environment. Sometimes the classroom is shared, and this affects the learning process of children." (FGD-2, P2)

Lack of therapy rooms was a major concern affecting privacy and focus, which are essential for supporting communication development in children with speech and language difficulties. Participants noted that modern devices and communication aids are rarely available in public special education institutions:

"We do not have access to assistive devices like communication boards, speech-generating tools, or other modern technology. We mostly rely on traditional methods, which are not enough for children with severe communication difficulties. If these technologies were available, it would make therapy more effective and engaging for students." (ST-5)

Teachers also highlighted the same concern:

"Children with communication difficulties need assistive tools, but in our schools these facilities are not available." (FGD-1, P4)

Annual Methodological Archive Research Review
http://amresearchreview.com/index.php/Journal/about
Volume 4, Issue 4 (2026)

Online ISSN 3007-3197
Print ISSN 3007-3189

http://amresearchreview.com/index.php/Journal/about

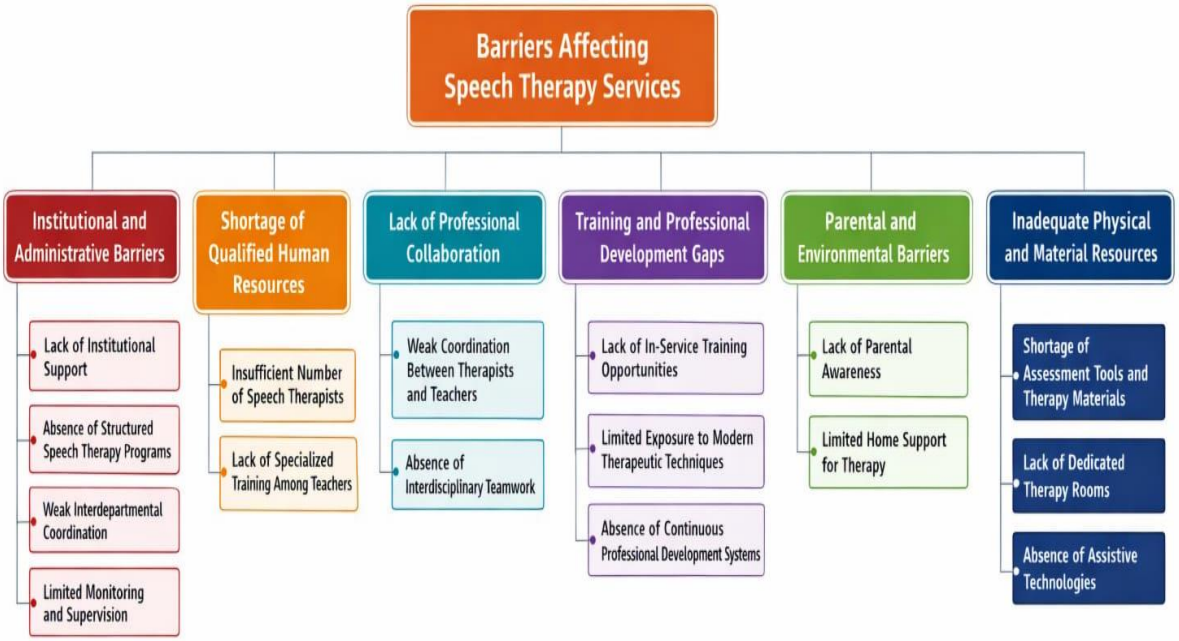

Figure 1. *Thematic hierarchy of barriers to effective speech therapy services*

Discussion

The present study investigated barriers to effective speech therapy services in public special education institutions of Punjab, Pakistan. The findings indicate that service delivery is constrained by interconnected institutional, professional, and contextual factors, including weak administrative structures, shortage of qualified personnel, limited interdisciplinary collaboration, inadequate professional development opportunities, parental constraints, and insufficient physical and material resources. Overall, these challenges reflect a systemic weakness in service organization that undermines the consistency and effectiveness of speech therapy provision.

Institutional and administrative barriers were prominent, particularly the absence of structured therapy programs, weak coordination, and limited monitoring mechanisms. These findings align with Shaheen et al. (2020), who reported similar deficiencies in institutional support and service organization in special education settings. Such weaknesses indicate a lack of formalized systems, resulting in fragmented and inconsistent service delivery that relies heavily on individual practice rather than institutionalized frameworks. The shortage of qualified human resources further compounds service delivery challenges. Participants reported insufficient numbers of speech therapists and limited training among special education teachers, leading to increased workload and reduced capacity for individualized intervention. This is consistent with Farquharson et al. (2020), who highlighted workforce shortages and retention challenges in school-based speech-language pathology services. Such constraints reduce service intensity and compromise the quality and reach of intervention.

Online ISSN 3007-3197
Print ISSN 3007-3189

Lack of professional collaboration between speech therapists and teachers was also evident, characterized by minimal communication and weak coordination. This finding is supported by Haider et al. (2022), who emphasized limited interdisciplinary collaboration in special education contexts. The absence of structured teamwork restricts continuity between therapy and classroom practices, thereby weakening the reinforcement of therapeutic goals. Parental and environmental barriers were also identified, particularly limited parental awareness and engagement. Watts Pappas et al. (2009) similarly noted that although parental involvement is critical for effective intervention, it is often hindered by practical and informational constraints. In the present study, limited parental participation reduced the generalization of communication skills beyond school settings, affecting long-term progress.

Finally, inadequate physical and material resources emerged as a significant barrier, including lack of therapy spaces, assessment tools, and assistive technologies. This aligns with Quratul Ain and Imtiaz (2025), who reported infrastructural and technological limitations in resource-constrained settings. Such deficiencies restrict the implementation of structured, evidence-based practices and negatively affect the quality and consistency of service delivery.

Conclusion

The findings of this study indicate that speech therapy services in public special education institutions of Punjab, Pakistan, are shaped by a complex interplay of systemic, institutional, and contextual constraints that significantly limit their effectiveness. Rather than functioning as an integrated and structured component of special education, speech therapy operates in a fragmented manner, largely influenced by weak administrative prioritization, insufficient human resources, and the absence of standardized service delivery mechanisms. Limited collaboration between therapists and teachers further weakens continuity of intervention, while inadequate professional development restricts the adoption of evidence-based practices. In addition, low parental awareness and engagement reduce the reinforcement of therapeutic goals beyond the school environment, and shortages of dedicated spaces, assessment tools, and assistive technologies further compromise service quality. Collectively, these interconnected challenges highlight a gap between policy expectations and ground realities, indicating that meaningful improvement requires systemic restructuring, stronger institutional accountability, and sustained investment in both human and material resources to ensure consistent and effective support for children with communication needs.

Recommendations

- Based on the findings of the study, the following recommendations are proposed to enhance the effectiveness of speech therapy services in public special education institutions of Punjab, Pakistan:
- Institutional and administrative frameworks should be strengthened through the development and implementation of standardized speech therapy service delivery protocols.

Online ISSN 3007-3197
Print ISSN 3007-3189

- Effective monitoring and supervision systems should be established to ensure consistency, quality assurance, and accountability in service provision.
- The recruitment of qualified speech-language pathologists should be increased to address the existing workforce shortage in public sector institutions.
- Retention strategies, including incentives and professional support mechanisms, should be introduced to reduce staff turnover.
- Regular in-service training programs should be organized for speech therapists and special education teachers to enhance professional competencies.
- Continuous professional development opportunities should be ensured to promote the use of evidence-based therapeutic practices.
- Structured interdisciplinary collaboration between speech therapists and teachers should be formally established within schools.
- Joint planning and coordination meetings should be encouraged to ensure continuity between therapy goals and classroom instruction.
- Parental awareness programs should be implemented to improve understanding of speech therapy processes and their importance.
- Active parental involvement should be promoted through counseling sessions and guidance on home-based reinforcement activities.
- Dedicated therapy rooms should be provided in special education institutions to facilitate effective intervention delivery.
- Standardized assessment tools and relevant therapeutic materials should be made available to ensure accurate evaluation and planning.
- Assistive technologies should be integrated into speech therapy services to support communication development among students with speech and language difficulties.
- Adequate financial and material resources should be allocated to ensure the sustainability and effectiveness of speech therapy services.

References

Ahmad, R., & Fazil, M. (2023). *Effectiveness of special education services in Pakistan: Issues of access and quality*. Journal of Educational Research, 26(2), 45–58.

Binns, A. V., Cunningham, B. J., Andres, A., & Cardy, J. O. (2022). Current practices, supports, and challenges in speech-language pathology service provision for autistic preschoolers. *Autism & Developmental Language Impairments, 7*, 1–12. https://doi.org/10.1177/23969415221120768

Borges, M. G. S., Medeiros, A. M. de, & Lemos, S. M. A. (2021). Environmental factors and their associations with speech-language-hearing diagnostic hypotheses in children and adolescents. *Revista CEFAC, 23*(5), e6421. https://doi.org/10.1590/1982-0216/20212356421

Braun, V., & Clarke, V. (2006). Using thematic analy sis in psychology. Qualitative Research in Psychol ogy, 3(2), 77–101. doi:10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2021). Thematic analysis. In E. Lyons & A. Coyle (Eds.), Analysing qualitative data in psychology (pp. 128–147). Sage.

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic analysis. In P.

Online ISSN 3007-3197
Print ISSN 3007-3189

Liamputtong (Ed.), Handbook of research methods in health social sciences (pp. 843–860). Springer.

Bukhari, S. A., Noor, H. S., Aziz, S., Hussain, A., Inam, I., & Naz, A. (2023). *Barriers for audiology, speech, and language therapy services to cochlear implant recipients. Journal of Health and Rehabilitation Research, 3*(2). https://doi.org/10.61919/jhrr.v3i2.137

Büyükköse, D., Sariyer Temelli, M. N., & Fidan, T. (2025). Family involvement in speech and language therapy for children with special needs. *Current Approaches in Psychiatry, 18*(1), 268–291. https://doi.org/10.18863/pgy.1666266

Cahill, P. T., Ng, S. L., Turkstra, L. S., Ferro, M. A., & Campbell, W. N. (2024). Exploring the valued outcomes of school-based speech-language therapy services: A sequential iterative design. *Frontiers in Rehabilitation Sciences, 5*, 1290800. https://doi.org/10.3389/fresc.2024.1290800

Campbell, W. N., Selkirk, E. K., & Gaines, R. (2016). *Speech-language pathologists' role in inclusive education: A survey of clinicians' perceptions of universal design for learning*. McMaster University.

Costain, K., & Sønsterud, H. (2023). The gap between research and clinical practice: Towards an integrated speech-language therapy. In *Dialogue without barriers: A comprehensive approach to dealing with stuttering* (pp. 19–56). Agere Aude.

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

DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education, 40*(4), 314–321. https://doi.org/10.1111/j.1365-2929.2006.02418.x

DiFabio, D., Moodie, S., & Glista, D. (2023). Barriers and facilitators to paediatric caregivers' participation in virtual speech, language, and hearing services: A scoping review. *Journal (scoping review article)*. https://doi.org/10.1177/20552076231216684

Edgar, D. L., & Rosa-Lugo, L. (2007). The critical shortage of speech-language pathologists in the public school setting: Features of the work environment that affect recruitment and retention. *Language, Speech, and Hearing Services in Schools, 38*(1), 31–46. https://doi.org/10.1044/0161-1461(2007/004)

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

Farquharson, K., Therrien, M., Brandt, A. F., et al. (2020). *How to recruit, support, and retain speech-language pathologists in public schools*. American Journal of Speech-Language Pathology, 32(3), 1052684620966062. https://doi.org/10.1177/1052684620966062

Ghasemzadeh, A., Saadat, M., & Kia Kojori, R. (2023). The role of speech therapy in enhancing communication skills of children with exceptional needs: A critical analysis. https://doi.org/10.61838/kman.prien.2.3.6

Gill, C., White, G., Green, L., & Bird, A. (2011). Addressing the shortage of school-based SLPs: An innovative approach in Texas. *ASHA Leader*, 16(9).

Online ISSN 3007-3197
Print ISSN 3007-3189
http://amresearchreview.com/index.php/Journal/about

https://doi.org/10.1044/leader.FTR4.16092011.np

Griffiths, S., Lucas, L., Gooch, D., & Norbury, C. F. (2024). Special educational needs provision and academic outcomes for children with teacher-reported language difficulties at school entry. *JCPP Advances, 5*(2). https://doi.org/10.1002/jcv2.12264

Hadayat, H., Aftab, M. J., & Mohsin, M. N. (2025). *Challenges faced by speech and language pathologists in special education schools of students with hearing impairment Punjab, Pakistan*. https://doi.org/10.5281/zenodo.15710199

Haider, J., Rehman, A. ur, Saeed, B., Khan, M. A., Khan, S. G., Naeem, U., Malik, M. A., & Sutan, H. (2022). Barriers in collaborative practice among SLP/Ts and special educationists working in special education settings. *International Journal of Rehabilitation and Special Education, 2*(1), 11–24. https://doi.org/10.48165/ijrse.2022.2.1.2

Hassan, A. (2024). Speech therapy and communication development in children with disabilities. *Journal of Rehabilitation Sciences*, 12(1), 33–41.

Hitchcock, E. R., Harel, D., & Byun, T. M. (2015). Social, emotional, and academic impact of residual speech errors in school-aged children: A survey study. *Seminars in Speech and Language, 36*(4), 283–294. https://doi.org/10.1055/s-0035-1562911

Jarzynski, R. L., & Buac, M. (2024). Early intervention speech-language pathologists' beliefs and practices related to assessing dual language learners. *Journal of Communication Disorders, 112*, 106470. https://doi.org/10.1016/j.jcomdis.2024.106470

Klatte, I. S., Bloemen, M., de Groot, A., Mantel, T. C., Ketelaar, M., & Gerrits, E. (2023). Collaborative working in speech and language therapy for children with DLD—What are parents' needs? https://doi.org/10.1111/1460-6984.12951

Klatte, I. S., Lyons, R., Davies, K., Harding, S., Marshall, J., McKean, C., & Roulstone, S. (2020). Collaboration between parents and SLTs produces optimal outcomes for children attending speech and language therapy: Gathering the evidence. *International Journal of Language & Communication Disorders, 55*(4), 618–628. https://doi.org/10.1111/1460-6984.12538

Latif, N., Ashraf, A., Malik, S., & Rafiq, S. (2023). Effects of social skills on language development in preschoolers with autism spectrum disorder. *Journal of Health and Rehabilitation Research, 3*(2). https://doi.org/10.61919/jhrr.v3i2.55

Law, J., Dennis, J. A., & Charlton, J. J. V. (2017). Speech and language therapy interventions for children with primary speech and/or language disorders. *Cochrane Database of Systematic Reviews*, 2017(1), CD012490. https://doi.org/10.1002/14651858.CD012490

Malik, J. H., Rehman, A. U., Qamar, R., Imtaiz, R., Muhammad, A. S., & Bari, S. (2022). Barriers in collaborative practice among SLP/Ts and special educationists working in special education settings. *Journal of the Pakistan Society of Internal Medicine, 3*(1), 20–26.

Minhas, R., & Munir, S. (2024). Special education development in Punjab: Institutional challenges and service gaps. *Pakistan Journal of Education*, 41(1), 15–29.

Müller, E., Offutt, K., Kern, A., Oginz, J., & Stromberg, M. (2025). Description and

Online ISSN 3007-3197
Print ISSN 3007-3189

provider perspectives on a school-based speech/mental health co-therapy model for students with intellectual/developmental disabilities. *International Journal of Language & Communication Disorders, 25*(4), 660–673. https://doi.org/10.1111/1471-3802.70000

Natali, C., & Duff, D. (2025). Implementation of and barriers to collaborative practices in the public school setting: A survey of New York State speech-language providers. *Journal of Education and Practice,* 205(3). https://doi.org/10.1177/00220574251324233

National Academies of Sciences, Engineering, and Medicine. (2016). *Speech and language disorders in children: Implications for the Social Security Administration's Supplemental Security Income program*. The National Academies Press.

Pehlivan, H., & İnal, S. (2025). Exploring the need for speech and language therapy services in Turkish schools: A comparative analysis. *Novitas-ROYAL (Research on Youth and Language), 19*(1), 137–158.

Pennington, L., Goldbart, J., & Marshall, J. (2004). Speech and language therapy to improve the communication skills of children with cerebral palsy. *Cochrane Database of Systematic Reviews*, 2004(2), CD003466. https://doi.org/10.1002/14651858.CD003466.pub2

Professional skills of speech therapist in special education centres of Punjab, Pakistan. (2021). *Journal of Humanities, Social and Management Sciences (JHSMS-Asia), 2*(1), 10-23. https://doi.org/10.47264/idea.jhsms/2.1.2

Quratul Ain, & Imtiaz, R. (2025). The role of technology in speech-language therapy: Perceptions, effectiveness, and challenges in a resource-limited setting. *Journal of Health and Rehabilitation Research, 5*(1), 1–8. https://doi.org/10.61919/jhrr.v5i1.1754

Rupert, J., Hughes, P., & Schoenherr, D. (2023). Speech and language delay in children. *American Family Physician, 108*(2), 181–188.

Schwarz, I., & Nippold, M. A. (2009). The importance of early intervention. *Advances in Speech-Language Pathology, 4*(1). https://doi.org/10.1080/14417040210001669271

Secora, K. (2024). The role of speech-language pathologists in supporting theory of mind through literacy-based activities. *Journal of Communication Disorders, 111*, 106449. https://doi.org/10.1016/j.jcomdis.2024.106449

Shaheen, S., Mumtaz, N., & Saqulain, G. (2020). Barriers faced in public and private special education centers: Speech language pathologist's perspective. *Annals of King Edward Medical University, 26*(1), 30–35. https://doi.org/10.21649/akemu.v26i1.3275

Squires, K. (2013). Addressing the shortage of speech-language pathologists in school settings. *JAASEP*.

Starks, A. C., & Reich, S. M. (2023). "What about special ed?": Barriers and enablers for teaching with technology in special education. *Computers & Education, 193*, 104665. https://doi.org/10.1016/j.compedu.2022.104665

Tahir, M. B., Hassan, K. H. U., & Akmal, F. (2023). A qualitative analysis of the problems and challenges in special education from the teacher's perspective in

Online ISSN 3007-3197
Print ISSN 3007-3189

Sargodha Division. *Global Social Sciences Review, 8*(1), 301–308. https://doi.org/10.31703/gssr.2023(VIII-I).27

Venita, Y., & Devina, A. (2024). Impact of speech therapy on communication skills and social interaction in children with autism spectrum disorder. *International Journal of Nursing and Midwifery Research, 2*(3), 96–103. https://doi.org/10.35335/ners.v2i3.314

Vitkovitch, M. (2008). Communication development in children with language impairments. *Child Language Review*, 18(2), 120–135.

Waqar, F., Fatima, G., & Riaz, S. (2023). Role of speech language therapy in academic achievements of students with hearing impairment at special education schools and centers. *Punjab Law and Humanities Review*. https://doi.org/10.47205/plhr.2023(7-III)45

Watts Pappas, N., McLeod, S., McAllister, L., & McKinnon, D. H. (2009). Parental involvement in speech intervention: A national survey. *International Journal of Speech-Language Pathology, 11*(4), 335–344. https://doi.org/10.1080/02699200801919737