

**ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL**Available Online: <https://assajournal.com>

Vol. 03 No. 02. Apr-Jun 2025. Page#. 2489-2500

Print ISSN: [3006-2497](#) Online ISSN: [3006-2500](#)Platform & Workflow by: [Open Journal Systems](#)<https://doi.org/10.5281/zenodo.17086350>

## **Challenges Faced by Teachers in Developing Social Communication Skills among Students with Autism Spectrum Disorder in Punjab**

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Email: [hinafazil.dse@pu.edu.pk](mailto:hinafazil.dse@pu.edu.pk)**Abstract**

*Teachers in Punjab face significant challenges in developing social communication skills among students with Autism Spectrum Disorder (ASD), yet limited research explores these barriers in the local context. This quantitative study employed a descriptive survey design to examine the challenges and the strategies they currently employ. Employing a quantitative, descriptive survey design, data were collected from 100 teachers using a structured questionnaire. Findings revealed that the most significant challenges reported by teachers were a lack of training in social communication strategies ( $M = 4.42$ ), limited classroom resources ( $M = 4.18$ ), and low parental involvement ( $M = 4.01$ ). Female teachers reported significantly more challenges than male teachers ( $t(98) = 3.13, p = .002, d = 0.63$ ). In terms of strategies, teachers most frequently used visual aids and schedules ( $M = 4.09$ ), while peer-mediated interventions and Augmentative and Alternative Communication (AAC) tools were rarely utilized ( $M = 3.21$  and  $M = 2.75$ , respectively). One-way ANOVA analyses confirmed that years of teaching experience significantly affect both perceived challenges and the use of communication strategies. The study concludes that inadequate training, resource scarcity, and inconsistent policy implementation, exacerbated by cultural stigma and socioeconomic disparities, hinder effective support for students with ASD. Recommendations include mandatory ASD-specific training, improved resource allocation, enhanced parent-school collaboration, and consistent policy enforcement. Implications for policy and future research are also discussed.*

**Keywords:** Autism Spectrum Disorder, social communication, teacher challenges, inclusive education, Punjab, special education

**Introduction**

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental condition characterized by persistent difficulties in social communication and interaction, along with restricted, repetitive patterns of behavior, interests, or activities (American Psychiatric Association, 2013). These challenges typically emerge in early childhood and significantly affect a person's ability to function in social, educational, and occupational contexts. The spectrum nature of ASD reflects the wide variation in the type and severity of symptoms individuals may experience. Core difficulties in ASD involve limited eye contact, challenges in understanding and using verbal and non-verbal communication, difficulties in developing peer relationships (Fazil et al., 2021), and deficits in social-emotional reciprocity (Lord et al., 2020).

One of the most critical areas affected in individuals with ASD is **social communication**, the use of language in social contexts, which includes skills such as initiating conversations, taking turns, understanding figurative language, and interpreting non-verbal cues like facial expressions or gestures. These challenges are often exacerbated by associated features such as sensory sensitivities, cognitive rigidity, and emotional dysregulation (Iqbal et al., 2024). The “double empathy problem,” as described by Milton et al., (2023), further highlights that misunderstandings in communication arise not only from autistic individuals’ difficulties but also from the inability of neuro-typical individuals to understand autistic communication styles, leading to breakdowns in reciprocal interaction.

Globally, the prevalence of ASD is estimated to be approximately 1 in 100 children, with increasing diagnostic awareness in both developed and developing countries (WHO, 2023). In the Pakistani context, although comprehensive prevalence data are limited, studies suggest a rising trend in diagnosis, particularly in urban areas where clinical services are more accessible (Nazir & Noor, 2023). Research conducted in Karachi identified delayed diagnosis and a lack of professional awareness as significant barriers to early identification and intervention (Faiz et al., 2021). These delays are particularly concerning because early intervention in social communication has been shown to produce significantly better outcomes in language development and peer interaction (Khalid, Fazil, & Qureshi, 2023).

In Punjab, the education system faces considerable challenges in supporting children with ASD, especially in mainstream classrooms (Fazil & Sulman, 2014). A major gap exists in teacher training related to the social communication needs of students with autism. According to Ali and Fazil (2022), special education teachers in Punjab often lack practical training in implementing evidence-based practices such as visual supports, Applied Behavior Analysis (ABA), or social stories, which are known to enhance social communication. Moreover, the stigma associated with disability in many parts of Punjab, along with limited awareness among parents and school staff, further hinders effective classroom inclusion (Hassan et al., 2023).

Although, Department of Special Education Punjab has introduced initiatives for ASD, but implementation remains inconsistent (Government of Punjab, 2018). Mainstream schools often lack trained staff, individualized education plans (IEPs), and therapy resources (Usman et al., 2020). Many families rely on teachers as primary facilitators of social and communication skills, yet educators often lack specialized training (Furrukh & Anjum, 2020). Cultural misconceptions and stigma surrounding ASD persist in Punjab, leading to delayed diagnoses and inadequate support (Ayub et al., 2017).

### **Literature Review**

Autism Spectrum Disorder (ASD) is characterized by significant challenges in social communication and interaction, which have been extensively studied through various theoretical frameworks. One of the most influential theories is the Theory of Mind (ToM), which suggests that individuals with ASD struggle to understand others' mental states, such as beliefs, intentions, and emotions (Baron-Cohen et al., 1985). This deficit makes it difficult for them to interpret nonverbal cues, engage in reciprocal conversations, and comprehend abstract social concepts like sarcasm or deception (Tager-Flusberg, 2007). Another key perspective is the Social Motivation Theory, which argues that individuals with ASD may find social interactions less intrinsically rewarding due to differences in brain functioning (Bottini, 2018). Neuroimaging studies support this idea, showing reduced neural activation in response to social stimuli (Kim et

al., 2014). Additionally, pragmatic language impairments are common among individuals with ASD, affecting their ability to use language appropriately in social contexts (Félix et al., 2024). These theoretical foundations highlight the complexity of social communication deficits in ASD and underscore the need for targeted interventions.

Globally, research on ASD and social communication has identified several key trends, including the importance of early intervention and teacher training (Fuller & Kaiser, 2020). Studies from high-income countries emphasize evidence-based strategies such as Applied Behavior Analysis (ABA) and social stories, which require specialized training for educators (Stephanie, 2018). However, in low- and middle-income countries like Pakistan, challenges such as late diagnosis, limited resources, and cultural stigma hinder effective support for children with ASD (Qureshi, 2016). Within Pakistan, research indicates that awareness of ASD remains low, particularly in rural areas, and many teachers lack the necessary skills to support students with social communication difficulties (Abbasi et al., 2025). Punjab, as the country's most populous province, faces unique challenges, including disparities in access to services between urban and rural regions (Parveen et al, 2024). Despite the introduction of Punjab's Inclusive Education Policy 2020, implementation remains inconsistent, and mainstream schools often lack trained staff and individualized support systems (Ali & Fazil, 2022).

Teachers worldwide report significant challenges in supporting students with ASD, particularly in developing social communication skills. International studies highlight issues such as insufficient training, large class sizes, and poor collaboration with special educators and parents (Hurwitz et al., 2022; Kasari & Smith, 2013). In Pakistan, similar barriers exist, compounded by systemic issues such as misdiagnosis, socioeconomic constraints, and a lack of institutional support (Ali & Fazil, 2022). Many children with ASD are incorrectly labeled as "slow learners," delaying appropriate interventions (Ayub et al., 2017). While some research has been conducted in major cities like Karachi and Islamabad, Punjab-specific studies are scarce, particularly regarding teacher preparedness and policy effectiveness (Khan et al., 2024). Additionally, cultural factors such as the role of extended families in caregiving and societal stigma remain underexplored in the context of ASD interventions in Punjab.

The existing literature reveals critical gaps in research related to Punjab's educational landscape. There is a pressing need for studies that evaluate the effectiveness of teacher training programs, assess the implementation of inclusive education policies, and explore culturally adapted strategies for improving social communication skills in students with ASD. Addressing these gaps could inform policy reforms and enhance support for both teachers and students in Punjab, ultimately leading to better outcomes for individuals with ASD in the region.

### **Research Objectives**

- To identify the key challenges faced by teachers in Punjab while developing social communication skills among students with Autism Spectrum Disorder.
- To determine the current social communication strategies employed by the teachers in teaching students with Autism Spectrum Disorder in Punjab.

### **Research Question**

- What are the major challenges faced by teachers in Punjab when developing social communication skills among students with Autism Spectrum Disorder (ASD)?
- What specific social communication strategies are teachers currently using in teaching students with Autism Spectrum Disorder in Punjab?

## Methodology

This study employed a quantitative research approach using a descriptive survey design to explore the challenges faced by teachers in developing social communication skills among students with Autism Spectrum Disorder (ASD) in Punjab. The descriptive design was deemed appropriate as it facilitates the collection of quantifiable data regarding current practices, perceived obstacles, and support needs, thereby allowing the researcher to summarize the phenomena as they naturally occur (Creswell & Creswell, 2017). The survey method was selected due to its efficiency in gathering data from a relatively large population and its suitability for studies that seek to identify patterns, opinions, and trends related to specific educational challenges (Takona, 2024).

## Population

The target population for this study consisted of teachers working in both government and private special education institutions, as well as inclusive mainstream schools across various districts of Punjab. These teachers had experience working with students diagnosed with ASD and were involved in supporting their communication and academic development.

## Sampling and Sampling Technique

From this population, a sample of 100 teachers was selected using purposive sampling. This non-probability sampling technique was employed to ensure that only those teachers with direct experience of teaching students with ASD and engaging in communication-related interventions were included in the study. Purposive sampling is often used in educational research when specific expertise or experience is required to generate meaningful data (Etikan, Musa, & Alkassim, 2016). Below table 1 presents the demographical information of the study's respondents.

**Table 1**

*Teachers' Demographic Characteristics (N = 100)*

Variables	Category	<i>n</i>	%
Age	22–30 years	20	20.0
	31–40 years	26	26.0
	41–50 years	24	24.0
	Above 50 years	30	30.0
Gender	Female	56	56.0
	Male	44	44.0
Qualification	MA	44	44.0
	M.Phil.	55	55.0
	Ph.D.	01	1.0
Experience	Less than 5 years	27	27.0
	6–10 years	22	22.0
	11–15 years	18	18.0
	More than 15 years	33	33.0
Area	Urban	46	46.0
	Rural	54	54.0

### Data Collection Procedures

A structured questionnaire was developed by the researcher to collect data. The instrument consisted of both closed-ended and Likert-scale items designed to assess various dimensions of teacher challenges, including training and preparedness, instructional strategies, classroom environment, availability of resources, and support from parents and administration. The questionnaire was reviewed by a panel of experts in special education to ensure content validity. Data were collected in person 70% and 30% through Google doc., depending on participant availability and school accessibility.

### Data Analysis Techniques

The collected data were analyzed using descriptive statistical techniques such as frequencies, percentages, and mean scores to identify common trends and key areas of concern. Inferential statistics, such as independent samples t-tests and ANOVA, were applied to examine differences across teacher demographics (e.g., experience levels). All analyses were conducted using SPSS v.26, with a significance threshold set at  $p < 0.05$  (Field, 2009).

### Results

#### ***Research Question 1: What are the major challenges faced by teachers in Punjab when developing social communication skills among students with Autism Spectrum Disorder (ASD)?***

For this research question, a descriptive statistical analysis was employed. Specifically, mean scores and standard deviations were calculated for each challenge item reported by teachers. A total of five items were used to assess this, focused on training, resources, parental support, classroom environment, and student behavior. The results of this analysis are presented in Table 2.

**Table 2**

*Challenges Faced by Teachers (N = 100)*

Challenge Item	M	SD	Interpretation
Lack of training in social communication strategies	4.42	0.63	High Challenge
Limited classroom resources (i.e. visual aids)	4.18	0.74	High Challenge
Difficulty managing ASD-related behavioral issues	3.91	0.85	Moderate to High Challenge
Limited parental involvement in communication development	4.01	0.79	High Challenge
Overcrowded classrooms and high teacher-student ratio	3.77	0.88	Moderate Challenge

The highest-rated challenge was a lack of teacher training ( $M = 4.42$ ), indicating that most teachers feel unprepared to use effective strategies for developing social communication in students with ASD. Other high-rated concerns included limited resources ( $M = 4.18$ ) and low parental involvement ( $M = 4.01$ ). Behavioral management and overcrowded classrooms were moderate challenges. This suggests a strong need for targeted training programs and resource provision.

**Research Question 1.1: Are there statistically significant differences in the perceived challenges faced by male and female teachers working with students with ASD in Punjab?**

In response to this question, an independent samples *t*-test was conducted to compare the mean scores of challenges reported by male and female teachers. The purpose of this analysis was to determine whether gender influences the perceived difficulties in teaching students with ASD. The results of this analysis are presented in Table 3.

**Table 3**

*Gender Differences in Challenges Faced by Teachers*

Gender	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t(df)</i>	<i>p</i>	<i>D</i>
Female	60	3.82	0.55	3.13(98)	.002	0.63
Male	40	3.48	0.52			

Note. *M* = Mean; *SD* = Standard Deviation; *d* = Cohen's *d*.

An independent-samples *t*-test revealed a statistically significant difference between female (*M* = 3.82, *SD* = 0.55) and male teachers (*M* = 3.48, *SD* = 0.52) in the level of challenges faced when teaching students with ASD,  $t(98) = 3.13$ ,  $p = .002$ , with a moderate effect size ( $d = 0.63$ ). Female teachers reported more challenges, suggesting the need for gender-sensitive support and professional development.

**Research Question 1.2: Does the level of teaching experience significantly influence the perceived challenges faced by teachers when teaching students with ASD in Punjab?**

In response to this question a one-way ANOVA was conducted to compare mean challenge scores across different job experience groups. The purpose of this analysis was to determine whether years of teaching experience affect teachers' perceptions of difficulties in ASD classrooms. The results of this analysis are presented in Table 4.

**Table 4**

*Challenges Faced by Teachers According to Job Experience*

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i> (3, 96)	<i>p</i>	$\eta^2$
Between Groups	4.216	3	1.405	7.58	<.001	.19
Within Groups	17.805	96	0.186			

Note. *SS* = Sum of Squares; *df* = degrees of freedom; *MS* = Mean Square; *F* = *F*-ratio;  $\eta^2$  = partial eta squared (effect size).

A one-way ANOVA revealed a statistically significant effect of teaching experience on challenges faced while teaching students with ASD,  $F(3, 96) = 7.58$ ,  $p < .001$ ,  $\eta^2 = 0.19$ , indicating a large effect size. Teachers with less experience (<5 years) reported significantly more challenges (*M* = 4.00, *SD* = 0.48) compared to more experienced groups. This suggests that newer teachers require more training and support.

**Research Question 2: What specific social communication strategies are teachers currently using in teaching students with Autism Spectrum Disorder in Punjab?**

For this research question, a descriptive statistical analysis was employed. Specifically, mean scores and standard deviations were calculated. A total of five items were used to assess social communication strategies. The results of this analysis are presented in Table 2.

**Table 5***Use of Social Communication Strategies by Teachers (N = 100)*

Strategy Used	<i>M</i>	<i>SD</i>	Frequency of Use
Use of visual schedules and visual aids	4.09	0.71	Frequently Used
Modeling and prompting appropriate social behavior	3.84	0.82	Moderately Used
Use of peer-mediated social interaction (buddy systems)	3.21	0.94	Occasionally Used
Use of Social Stories or role-playing techniques	3.56	0.88	Moderately Used
Application of Augmentative and Alternative Communication (AAC) tools	2.75	0.98	Rarely Used

Teachers most commonly used visual aids and visual schedules ( $M = 4.09$ ), which are widely recognized as effective tools for ASD students. Modeling and Social Stories were also moderately practiced. However, peer-mediated strategies ( $M = 3.21$ ) and AAC tools ( $M = 2.75$ ) were less frequently used, possibly due to lack of training or access to such resources. These findings highlight a gap between teacher awareness and actual implementation of best practices.

**Research Question 2.1: Does the use of social communication strategies among teachers of students with Autism Spectrum Disorder (ASD) in Punjab significantly differ based on their years of teaching experience?**

To address this research question a one-way ANOVA was conducted. This statistical method was chosen to compare mean usage scores of social communication strategies across groups of teachers with varying lengths of teaching experience. The results of this analysis are presented in Table 6.

**Table 6***Use of Social Communication Strategies among Teachers by Teaching Experience (N = 100)*

Experience Level	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i> (3, 96)	<i>P</i>	$\eta^2$
Less than 5 years	27	3.25	0.48	6.45	<.001	.17
6–10 years	22	3.67	0.41			
11–15 years	18	3.89	0.35			
More than 15 years	33	4.10	0.38			

The one-way ANOVA was conducted to examine whether teachers' use of social communication strategies for students with Autism Spectrum Disorder (ASD) significantly differed based on their teaching experience. The results reveal a statistically significant difference among the four experience groups,  $F(3, 96) = 6.45$ ,  $p < .001$ , indicating that years of experience have a meaningful impact on how frequently or effectively teachers use social communication strategies.

## Discussion

This study provides critical insights into the challenges faced by teachers in Punjab when developing social communication skills among students with Autism Spectrum Disorder (ASD). The findings reveal that teachers consistently experience significant difficulties, particularly due to a lack of professional training, insufficient resources, low parental involvement, and

behavioral complexities associated with ASD. These challenges are further exacerbated by the cultural and socio-economic context of Punjab.

In many regions of Punjab, particularly in rural areas, cultural stigma surrounding disabilities especially invisible disabilities like ASD remains a major barrier. Social beliefs rooted in superstition or misinformation lead to delayed diagnoses and minimal familial support (Khan et al., 2024). As a result, teachers are often left to act as both educators and informal therapists, without appropriate training. Additionally, gender roles and social expectations place an extra burden on female teachers, who in this study reported significantly higher levels of perceived challenges.

Socio-economic disparities across Punjab also play a pivotal role. Schools in rural or under-resourced urban settings often lack access to visual aids, AAC devices, or specialized personnel, making it difficult for teachers to implement evidence-based practices. The scarcity of specialized teacher training institutions in many districts means that in-service professional development opportunities are rare or inaccessible, particularly for early-career educators. Despite the introduction of inclusive education policies in Punjab, their implementation remains inconsistent, and many mainstream schools still operate without Individualized Education Plans (IEPs) or multidisciplinary support teams.

Moreover, while experienced teachers tend to use a wider variety of communication strategies (as shown by significant ANOVA results), newer teachers report feeling underprepared. This reflects a systemic failure to adequately equip early-career educators with the competencies required to support the social communication needs of students with ASD.

### **Findings**

The findings of this study reveal that teachers in Punjab face several substantial challenges in developing social communication skills among students with Autism Spectrum Disorder (ASD). Among the most prominent was the lack of training in evidence-based communication strategies, with a high mean score ( $M = 4.42$ ). This suggests that many teachers feel inadequately prepared to address the unique communication needs of children with ASD. Without formal professional development or specialized knowledge in interventions such as Applied Behavior Analysis (ABA), Social Stories, or Augmentative and Alternative Communication (AAC), teachers struggle to implement effective strategies within classroom settings.

Another significant finding relates to the shortage of classroom resources, such as visual aids and AAC devices, which also received a high challenge rating ( $M = 4.18$ ). Teachers reported that even when they are aware of certain strategies, the lack of physical materials and technological support limits their ability to use them. Furthermore, parental involvement was identified as a major barrier. With a mean score of 4.01, many teachers expressed frustration over the limited collaboration between home and school, which is crucial for reinforcing communication skills beyond the classroom.

The study also found notable gender-based differences in perceived challenges. Female teachers reported significantly higher levels of difficulty ( $M = 3.82$ ) compared to male teachers ( $M = 3.48$ ), with the difference being statistically significant,  $t(98) = 3.13$ ,  $p = .002$ , and a moderate effect size (Cohen's  $d = 0.63$ ). This suggests that gender-based expectations, additional caregiving roles, or lack of institutional support may disproportionately impact female teachers in special education contexts.



Another key finding is the influence of teaching experience on the perception of challenges. Teachers with less than five years of experience reported significantly greater difficulty than those with more experience. A one-way ANOVA showed a significant effect,  $F(3, 96) = 7.58, p < .001, \eta^2 = .19$ , indicating a large effect size. This suggests that more experienced teachers may develop coping strategies over time or have had more opportunities for informal learning, whereas early-career educators often lack the foundational skills and support needed to address the complexities of ASD.

In terms of teaching practices, the data revealed that teachers most frequently used visual aids and schedules ( $M = 4.09$ ), followed by modeling and prompting ( $M = 3.84$ ) and Social Stories or role-playing ( $M = 3.56$ ). However, strategies such as peer-mediated interventions ( $M = 3.21$ ) and AAC tools ( $M = 2.75$ ) were rarely used, indicating a gap between awareness and implementation. These results suggest that while teachers are making efforts to support social communication, their strategy use is limited by resource availability and training gaps.

Finally, teachers' use of social communication strategies was also significantly influenced by their years of teaching experience. A one-way ANOVA showed a statistically significant difference,  $F(3, 96) = 6.45, p < .001, \eta^2 = .17$ . Teachers with more than 15 years of experience had the highest mean score ( $M = 4.10$ ), while those with less than 5 years reported the lowest ( $M = 3.25$ ). This finding reinforces the need to support early-career educators through structured mentorship and targeted professional development programs.

### **Conclusion**

This study highlights the pressing challenges faced by teachers in Punjab in fostering social communication skills among students with Autism Spectrum Disorder. Key issues include inadequate training, limited classroom resources, minimal parental involvement, and the compounded effects of gender, experience, and cultural stigma. Despite policy advancements, practical support for teachers remains insufficient.

Addressing these gaps is critical not only for the academic and social success of children with ASD but also for building an inclusive educational system where all learners can thrive. Empowering teachers with the right tools, training, and institutional support is essential for creating classrooms where students with ASD can develop meaningful communication and connections.

### **Recommendations**

To address the above challenges and support teachers more effectively, the following actionable recommendations are proposed:

#### **For Teacher Training Institutions**

- Integrate mandatory ASD-specific modules into pre-service programs, focusing on social communication strategies and behavior management.
- Offer in-service certification programs in collaboration with speech-language therapists and psychologists to build teachers' practical skills.
- Develop online training portals for rural teachers with limited access to physical workshops.

#### **For Schools**

- Appoint special education coordinators in mainstream schools to support classroom teachers and facilitate individualized planning.

- Conduct awareness sessions for parents and community stakeholders to reduce stigma and improve home-school collaboration.
- Promote a mentoring system where experienced teachers coach and support early-career colleagues in using social communication techniques.

#### **For Policymakers**

- Ensure consistent implementation of Punjab's Inclusive Education Policy by monitoring schools' compliance with IEPs and support services.
- Allocate budget specifically for special education resources, including communication tools like AAC devices and visual schedules.
- Develop provincial guidelines for early identification and intervention of ASD in schools, tailored to cultural and linguistic realities.

#### **Implications for Future Research**

The findings of this study open several avenues for future research in the field of special education, particularly regarding Autism Spectrum Disorder (ASD) in the context of Punjab. One key implication is the need to conduct qualitative research to gain a deeper understanding of the lived experiences of teachers, students, and families dealing with ASD. Interviews or focus groups could explore the socio-cultural barriers that influence parental involvement, teacher perceptions, and community attitudes toward autism. Such insights would complement the quantitative findings and provide a more holistic view of the challenges and opportunities in supporting students with ASD.

Another important area for future research is the effectiveness of specific communication strategies such as Social Stories, peer-mediated interventions, and AAC tools within local classroom environments. Experimental or quasi-experimental studies could evaluate which methods are most effective when adapted to the linguistic, cultural, and infrastructural realities of schools in Punjab.

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