

**TEACHERS' COMPETENCE IN SPECIAL EDUCATION AS A
PREDICTOR OF SOCIAL SKILL DEVELOPMENT OF PUPILS
WITH AUTISM SPECTRUM DISORDER IN PRIMARY SCHOOLS
IN RIVERS STATE**

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Abstract

This study investigated teachers' competence in special education as a predictor of social skill development of pupils with Autism Spectrum Disorder in primary schools in Rivers State. The study adopted a correlational research design of the predictive (regression) type. Two research questions and two corresponding hypotheses guided the study. The population comprised 9,842 public primary school teachers, from which a sample of 384 was drawn using multistage sampling techniques. Data were collected using a structured questionnaire titled Teachers' Competence and Social Skills Development Questionnaire (TCSSDQ). The instrument was validated by experts, while its reliability was established using Cronbach's alpha, yielding coefficients above 0.80. Data collected were analysed using simple regression statistics, while hypotheses were tested at 0.05 level of significance. Findings revealed that teachers' knowledge of special education predicted social skill development to a low extent ($R^2 = .377$), while teachers' instructional skills also predicted social skill development to a low extent ($R^2 = .274$). However, both predictors were found to be statistically non-significant. The study concluded that teachers' competence has limited influence on pupils' social skill development in the study area. It was recommended that teachers undergo continuous specialised training and that educational authorities provide adequate support to enhance effective instructional practices.

Keywords: Teachers' Competence, Special Education, Social Skill Development, Autism Spectrum Disorder

Introduction

The education of children with special needs has increasingly gained global attention, particularly with the growing emphasis on inclusive education and equitable learning opportunities. Among children with special needs, those with Autism Spectrum Disorder (ASD) present unique educational challenges due to their distinctive patterns of communication, behaviour, and social interaction. According to Hodis et al. (2025), ASD is a lifelong developmental condition marked by significant challenges in social interaction, communication, and behaviour, with symptoms appearing early in development and persisting into adulthood. In a similar vein, Posar and Visconti (2023) describe ASD as a condition defined by impairments in social communication skills and the presence of restricted and repetitive behavioural patterns, noting that diagnosis is primarily based on clinical observation rather than laboratory testing. Supporting this view, Yu et al. (2024) assert that ASD involves enduring difficulties in social-emotional reciprocity, non-verbal communication, and relationship-building, all of which are essential for effective social functioning.

Furthermore, Kamp-Becker (2024) notes that ASD is conceptualised within modern diagnostic systems such as the DSM-5 and ICD-11 as a heterogeneous condition with diverse symptom combinations, thereby reinforcing the notion of variability in presentation across individuals. In addition, research evidence indicates that ASD has a neurobiological basis influenced by both genetic and environmental factors affecting brain development, although no single causal pathway has been conclusively identified (Hyman et al., as cited in Dow & Wang, 2025). This complexity underscores the need for early identification and intervention to support affected individuals. Recently, research has it that ASD is characterised by impairments in social communication, restricted interests, and

repetitive behaviours, which significantly affect learners' ability to interact effectively within classroom and social environments. These characteristics make the development of social skills a central focus in the education of pupils with ASD.

The indicators of ASD, often referred to as diagnostic characteristics or symptoms, are broadly categorised into two major domains: deficits in social communication and interaction, and restricted, repetitive behaviours and interests. According to the DSM-5 criteria, as discussed by several scholars, these indicators must be present across multiple contexts and significantly impair daily functioning. One of the primary indicators is difficulty in socialemotional reciprocity. According to Yu et al. (2024), children with ASD often struggle with initiating or responding to social interactions, sharing emotions, or engaging in typical back-and-forth conversations . This may manifest as limited interest in peers, reduced sharing of experiences, or an inability to interpret social cues effectively.

Another critical indicator is impairment in non-verbal communication. According to Hodis et al. (2025), individuals with ASD frequently exhibit difficulties in using and interpreting gestures, facial expressions, and eye contact, which are essential components of effective communication. In line with this, DSM-5-based descriptions highlight abnormalities in body language, limited facial expressions, and challenges in integrating verbal and non-verbal communication during interactions. These deficits significantly hinder the ability of children with ASD to form and maintain meaningful social relationships. Closely related to these challenges is the difficulty in developing, maintaining, and understanding relationships. Zwaigenbaum et al (2025), observe that children with ASD often experience challenges in adjusting their behaviour to suit different

social contexts, making friends, or engaging in imaginative play. As noted by Yu et al. (2024), these difficulties may result in social isolation or limited participation in group activities. This indicator is particularly relevant in educational settings, where peer interaction plays a vital role in learning and development.

Social skill development is fundamental to the overall growth and adjustment of children, as it influences interpersonal relationships, academic achievement, and long-term life outcomes. According to Silveira-Zaldivara et al. (2021), deficits in social skills among children with autism can adversely affect multiple domains, including peer relationships, behaviour regulation, and emotional well-being. In school settings, these deficits often manifest as difficulty in initiating conversations, interpreting non-verbal cues, and maintaining social interactions, thereby limiting participation in collaborative learning activities. Consequently, enhancing social competence among pupils with ASD has become a major goal of special and inclusive education programmes.

The school environment plays a critical role in shaping the social outcomes of pupils with ASD, and teachers are central to this process. Teachers serve not only as instructors but also as facilitators of social interaction, behavioural modelling, and emotional support (Zee et al., 2024). According to Oppenheim et al. (2025), classroom quality, including emotional support and organisation, is significantly associated with improved social competence among autistic learners. This implies that the effectiveness of educational practices in fostering social skills is largely dependent on the competence of teachers in managing inclusive classrooms and addressing the specific needs of pupils with ASD.

Teachers' competence in special education encompasses a range of knowledge, skills, attitudes, and professional dispositions required to effectively

teach learners with diverse needs. It includes understanding the characteristics of ASD, the ability to implement evidence-based instructional strategies, classroom management skills, and the capacity to adapt teaching methods to individual learners (Silveira-Zaldivara et al., 2021). It refers to the integrated set of knowledge, skills, attitudes, and professional dispositions required for effectively addressing the diverse learning needs of pupils with disabilities within inclusive or specialised settings. According to Florian and Pantić (2017), teacher competence in this context involves not only subject mastery but also the ability to adapt instruction, implement inclusive pedagogies, and respond to individual learner differences. Similarly, Shulman's concept of pedagogical content knowledge, as cited in contemporary special education discourse, underscores the importance of combining subject expertise with appropriate teaching strategies tailored to learners' needs (Gupta & Tiwari, 2023).

In addition, according to European Agency for Special Needs and Inclusive Education (2022), competent teachers are those who demonstrate inclusive values, collaborative skills, and reflective practices necessary for supporting all learners, particularly those with special educational needs. The components of teachers' competence in special education therefore include: (i) professional knowledge, such as understanding disability characteristics, policies, and inclusive frameworks; (ii) instructional skills, including the use of differentiated instruction, behaviour management techniques, and evidencebased interventions; (iii) attitudinal competence, which encompasses positive beliefs, empathy, and commitment to inclusion; and (iv) collaborative and reflective skills, involving teamwork with parents and specialists, as well as continuous professional development. According to Sharma and Sokal (2024), teachers' self-efficacy and attitudes significantly influence their ability to implement inclusive practices effectively, while research by Petersson-Bloom, Leifler and Holmqvist (2023)

indicates that targeted professional development enhances teachers' competence in supporting learners with autism and other special needs. Thus, this study focused on teachers' knowledge of special education and instructional skills.

Teachers' knowledge, which encompasses understanding the characteristics of autism, evidence-based practices, and behavioural interventions, equips teachers with the capacity to design appropriate learning experiences that foster social interaction and communication. According to Petersson-Bloom et al. (2023), the development of autism-specific knowledge through professional training significantly enhances teachers' ability to address the complex needs of learners with ASD, thereby improving educational quality and learner outcomes. Similarly, Temple Grandin (2015) emphasises that a deep understanding of autistic cognition enables educators to tailor instruction in ways that support meaningful social engagement. In the same vein, SilveiraZaldivara, et al (2021) assert that effective support and targeted interventions grounded in sound professional knowledge are essential for improving social competence among children with autism, as deficits in social skills can negatively affect relationships and school participation. Supporting this, Tony Attwood (2018) notes that teachers who understand the social and emotional profiles of learners with ASD are better positioned to scaffold appropriate peer interactions. Furthermore, as noted by Simmons et al. (2024), social competence in autistic learners involves the ability to navigate interactions and maintain relationships, which requires deliberate instructional support informed by teacher expertise. In addition, studies by Odom, Collet-Klingenberg, Rogers and Hatton (2010) and Wong et al. (2015) highlight that teachers' mastery of evidence-based practices is strongly linked to improved social and communicative outcomes among learners with ASD.

In addition to teachers' knowledge, teachers' instructional skills, such as the use of structured teaching, social skills training, behaviour management strategies, and differentiated instruction, play a decisive role in predicting pupils' social skill development. According to Ma et al. (2023), structured interventions such as theory of mind and social skills training programmes, when effectively implemented by skilled teachers, significantly improve learners' ability to express emotions, seek help, and interact appropriately with others. Supporting this view, Clarke and Lord (2023) maintain that social competence developed during schooling predicts long-term outcomes such as friendships and independent living, thereby highlighting the importance of effective classroom instruction in shaping these skills. Likewise, Gray (2020) demonstrates that the use of structured instructional approaches such as Social Stories enhances social understanding and interaction among children with ASD. Moreover, research by Kamps et al. (2025) and Reichow et al (2018) indicates that peer-mediated instruction and structured teaching approaches significantly increase social engagement and reduce social isolation in inclusive classroom settings. Additionally, Robert et al (2026) emphasise that naturalistic teaching strategies improve spontaneous social communication when applied effectively by trained educators. Empirical evidence further suggests that when teachers consistently apply evidence-based instructional strategies and classroom management techniques, pupils with ASD demonstrate improved engagement in social behaviours and peer interactions (Wong et al., 2015; Odom et al., 2020). Thus, teachers' professional knowledge provides the foundational understanding required for intervention, while their instructional skills translate this knowledge into practical classroom strategies, both of which significantly predict and enhance the social skill development of pupils with Autism Spectrum Disorder in school settings.

However, despite the recognised importance of teacher competence, many teachers lack adequate training and confidence in handling pupils with ASD. Evidence indicates that while teachers may be willing to support learners with autism, they often report limited self-efficacy in providing appropriate instructional accommodations. This gap in competence can hinder the effective delivery of social skills interventions and limit the ability of pupils with ASD to achieve meaningful social integration within the school environment. In many developing contexts, including Nigeria, the situation is further compounded by inadequate resources, insufficient specialised training programmes, and limited institutional support for inclusive education (European Agency for Special Needs and Inclusive Education, 2022).

Furthermore, social skill development in pupils with ASD is influenced by multiple interrelated factors, including communication abilities, cognitive understanding, and environmental support systems. Research has shown that verbal and non-verbal communication skills are significantly associated with social competence, with non-verbal communication playing a particularly critical role in shaping social relationships (Gupta & Tiwari, 2023). This underscores the need for teachers to possess specialised competencies that enable them to address these complex developmental needs through targeted interventions and structured learning experiences. In addition, Sharma and Sokal (2024) emphasise the use of innovative approaches such as assistive technologies, structured teaching, and collaborative learning strategies to enhance social skills among pupils with ASD. These approaches require a high level of teacher expertise to be effectively implemented. Without adequate competence, the potential benefits of such interventions may not be fully realised, thereby limiting their impact on learners' social development.

Given these considerations, it becomes evident that teachers' competence in special education is a critical determinant of social skill development among pupils with ASD. The ability of teachers to understand, plan, and implement appropriate instructional and behavioural strategies directly influences the extent to which pupils acquire essential social skills. Despite this, there remains a need for empirical investigation into how teachers' competence predicts social skill outcomes, particularly within specific educational contexts such as public primary or secondary schools. Therefore, this study seeks to examine teachers' competence in special education as a predictor of social skill development of pupils with Autism Spectrum Disorder in primary schools in Rivers State.

Statement of the Problem

The development of social skills among pupils with Autism Spectrum Disorder (ASD) in primary schools in Rivers State remains a persistent educational concern, as many learners continue to exhibit difficulties in communication, peer interaction, and adaptive social behaviour within classroom settings. These challenges often manifest in limited participation in group activities, social withdrawal, and inability to interpret social cues, thereby hindering both academic progress and overall inclusion. Observations across public primary schools suggest that despite policy emphasis on inclusive education, the expected level of social competence among pupils with ASD is yet to be fully realised. This situation raises critical questions about the role of teachers, particularly their competence in special education, in addressing these developmental gaps.

A major disturbing issue lies in teachers' knowledge of special education, as many classroom teachers appear to have inadequate understanding of the

characteristics of ASD, appropriate intervention strategies, and evidence-based practices required to support social skill development. Without sufficient professional knowledge, teachers may misinterpret behaviours associated with autism, apply ineffective teaching approaches, or fail to provide structured opportunities for social interaction. Consequently, pupils with ASD may remain socially disengaged and unable to benefit fully from inclusive classroom environments. Furthermore, even where some level of knowledge exists, it may not be current or specialised enough to address the diverse and complex needs of these learners.

Closely related to this is the problem of insufficient instructional skills among teachers. Effective social skill development in pupils with ASD requires the deliberate use of specialised instructional strategies such as structured teaching, social skills training, peer-mediated instruction, and behaviour management techniques. However, in many primary schools in Rivers State, teachers often rely on conventional teaching methods that are not tailored to the unique learning profiles of pupils with autism. This inadequacy in instructional delivery limits opportunities for guided social interaction, modelling of appropriate behaviours, and reinforcement of positive social responses. As a result, pupils with ASD may continue to experience social isolation and poor interpersonal relationships within the school environment.

Therefore, the persistent low level of social skill development among pupils with ASD in primary schools may be strongly linked to deficiencies in teachers' competence, particularly in terms of their professional knowledge and instructional skills in special education. This underscores the need to critically examine how these dimensions of teacher competence predict social outcomes

among pupils with ASD, with a view to addressing existing gaps and improving inclusive educational practices in Rivers State.

Aim and Objectives of the Study:

The aim of the study was to examine teachers' competence in special education as a predictor of social skill development of pupils with autism spectrum disorder in primary schools in Rivers State. Specifically, the objectives seek to:

1. determine the extent to which teachers' knowledge of special education predicts social skill development of pupils with autism spectrum disorder in primary schools in Rivers State
2. ascertain the extent teachers' instructional skills predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

Research Questions

The following research questions were raised to guide the study:

1. To what extent does teachers' knowledge of special education predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State?
2. What is the extent to which teachers' instructional skills predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

Hypotheses

The following hypotheses were tested at the 0.05 level of significance.

Ho₁: Teachers' knowledge of special education significantly does not predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

Ho₂: Teachers' instructional skills significantly do not predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

Methodology

The study adopted a correlational research design of the predictive (regression) type to examine the extent to which the independent variable (teachers' competence in special education) predicts dependent variable (social skill development of pupils with Autism Spectrum Disorder) in primary schools in Rivers State. The population of the study comprised all public primary school teachers and pupils with identified ASD in Rivers State, with an estimated population of 9,842 teachers across 1,052 public primary schools as reported by the Rivers State Universal Basic Education Board in the year 2025. A sample size of 384 teachers was determined using appropriate sampling techniques for large populations, while a multistage sampling procedure involving stratified and simple random sampling techniques was employed to ensure adequate representation across the three senatorial districts of the state. The instrument used for data collection was a structured questionnaire of two sets titled: —Teachers' Competence Scale (TCS) and Social Skills Development Scale (SSDS)¶, designed on a 4-point Likert scale of Very High Extent = VHE, High Extent = HE, Low Extent = LE, and Very Low Extent = VLE. The instrument was subjected to face

and content validity by experts in educational management and special education, ensuring that the items adequately covered the constructs under study. Reliability of the instrument was established using Cronbach's alpha method, yielding coefficients of 0.82 and 0.86 for the respective cluster, indicating high internal consistency. Data were collected through direct administration of the questionnaire by the researcher and trained assistants, ensuring a high retrieval rate. The data obtained were analysed using simple regression statistics to determine the predictive relationship between teachers' competence variables and social skill development, while the level of significance was tested at 0.05 alpha level. The decision rule for judgement as stipulated by Elendu (2010) include: 100%- 76% (Very High Extent), 75% - 51% (High Extent), 50%-26% (Low Extent) and 0% - 25% (Very Low Extent)

Results and Analysis

Research Question 1: To what extent does teachers' knowledge of special education predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State?

Table 1: Simple Regression on the Extent Teachers' Knowledge of Special Education Predict Social Skill Development of Pupils with Autism Spectrum Disorder in Primary Schools in Rivers State

Model	R	R Square	Adjusted R Square	Extent of Prediction	Decision
1	.505 ^a	.377	.375	37.7%	Low Extent

Table 1 revealed that the regression (R) and regression square (R^2) coefficients are .505 and .377, respectively, while the adjusted R-squared is .375. The extent of prediction (coefficient of determination) was calculated to be 37.7% (.377 $\times$ 100). The result shows that teachers' knowledge of special education predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State to a low extent by 37.7%.

Research Question 2: What is the extent to which teachers' instructional skills predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State?

Table 2: Simple Regression on the Extent Teachers' Instructional Skills Predicts Social Skill Development of Pupils with Autism Spectrum Disorder in Primary Schools in Rivers State

Model	R	R Square	Adjusted R Square	Extent of Prediction	Decision
1	.461 ^a	.274	.253	27.4%	Low Extent

Table 2 revealed that the regression (R) and regression square (R^2) coefficients are .461 and .274, respectively, while the adjusted R-squared is .253. The extent of prediction (coefficient of determination) was calculated to be 27.4% (.274 $\times$ 100). The result shows that teachers' instructional skills predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State to a low extent by 27%.

Hypotheses

Ho₁: Teachers' knowledge of special education significantly does not predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

Table 3: t-test Associated with Simple Regression on the Extent Teachers' Knowledge of Special Education Significantly Predict Social Skill Development of Pupils with Autism Spectrum Disorder in Primary Schools in Rivers State

Model	Unstandardized Coefficients		Standardized Coefficient	t	p-value	Alpha level	Decision
	B	Std. Error	Beta				
1	(Constant)	2.951		38.374	.000	0.05	Ho ₁ Accepted (Not Significant)
		.077		3.587			
	Teachers' Knowledge of Special Education	.104	.029		.143		
			.105				

Table 3 revealed that standard beta value and t-trans are .105 and 3.587. The p-value of 0.143 is higher than the level of significance of 0.05. Therefore, the null hypothesis is accepted. By implication, teachers' knowledge of special education significantly does not predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

H₀₂: Teachers' instructional skills significantly do not predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

Table 4: t-test Associated with Simple Regression on the Extent Teachers' Instructional Skills Significantly Predict Social Skill Development of Pupils with Autism Spectrum Disorder in Primary Schools in Rivers State

Model	Unstandardized Coefficients		Standardized Coefficient s Beta	t	p-value	Alpha level	Decision
	B	Std. Error					
(Constant)	2.539	.076		33.343	.000		
1				2.079		0.05	
Teachers' Instructional Skills	.060	.029	.061		.130		H ₀₂ Accepted (Not Significant)

Table 4 revealed that standard beta value and t-trans are .061 and 2.079. The p-value of 0.130 is higher than the level of significance of 0.05. Therefore, the null hypothesis is accepted. By implication, teachers' instructional skills significantly do not predict social skill development of pupils with autism spectrum disorder in primary schools in Rivers State.

Discussion of Findings

The first findings of the study revealed that teachers' knowledge of special education predicts social skill development of pupils with Autism Spectrum Disorder in primary schools in Rivers State to a low and nonsignificant extent.

Specifically, although the coefficient of determination ($R^2 = .377$) indicated that teachers' knowledge accounted for 37.7% of the variance in pupils' social skill development, the hypothesis test showed that this predictive relationship was not statistically significant ($p = .143 > 0.05$). This finding appears to contradict existing scholarly positions which emphasise the centrality of teachers' professional knowledge in enhancing social outcomes for learners with ASD. For instance, according to Petersson-Bloom et al. (2023), the development of autism-specific knowledge through professional training significantly improves teachers' capacity to address the complex needs of learners, thereby enhancing their social and academic outcomes. Similarly, Temple Grandin (2015) posits that a deep understanding of autistic cognition enables educators to tailor instructional approaches that promote meaningful social engagement. In the same vein, Silveira-Zaldivara et al. (2021) assert that interventions grounded in sound professional knowledge are essential for improving social competence, while Tony Attwood (2018) maintains that teachers who understand the social and emotional characteristics of learners with ASD are better positioned to facilitate appropriate peer interactions. Furthermore, Simmons et al. (2024) highlight that social competence in autistic learners requires deliberate instructional support informed by teacher expertise, and studies by Odom et al. (2010) and Wong et al. (2015) establish a strong link between teachers' mastery of evidence-based practices and improved social and communicative outcomes. The disparity between these established findings and the present result may be attributed to contextual limitations such as inadequate training opportunities, insufficient practical application of knowledge, or systemic constraints within primary schools in Rivers State, which may hinder the effective translation of knowledge into practice.

In a similar vein, the second finding of the study showed that teachers' instructional skills predict social skill development of pupils with Autism Spectrum Disorder to a low and non-significant extent, with $R^2 = .274$ indicating that only 27.4% of the variance in social skill development was explained by instructional skills, and the hypothesis test confirming nonsignificance ($p = .130 > 0.05$). This finding also diverges from extant literature which underscores the critical role of instructional practices in fostering social competence among learners with ASD. According to Ma et al. (2023), structured interventions such as theory of mind and social skills training significantly enhance learners' ability to interact appropriately when effectively implemented by skilled teachers. Supporting this position, Clarke and Lord (2023) argue that social competence developed during schooling predicts longterm outcomes, thereby highlighting the importance of effective classroom instruction. Likewise, Carol Gray (2020) demonstrates that structured instructional approaches such as Social Stories improve social understanding and interaction among children with ASD. Empirical studies by Kamps et al. (2025) and Reichow et al. (2018) further reveal that peer-mediated and structured teaching strategies increase social engagement and reduce isolation, while Robert et al. (2026) emphasise the effectiveness of naturalistic teaching strategies in improving spontaneous communication. In addition, Wong et al. (2015) and Odom et al. (2020) affirm that consistent application of evidencebased instructional practices enhances social behaviours and peer interactions. However, the low and non-significant predictive value observed in this study suggests that such instructional strategies may not be consistently or effectively implemented in the study context. It may also indicate the influence of other moderating variables such as resource availability, class size, teacher workload, and support services. Therefore, while instructional skills are theoretically and empirically supported as strong predictors of social skill

development, their impact in this study context appears limited, highlighting the need for improved teacher training, monitoring, and support systems to ensure effective classroom practice.

Conclusion

Based on the findings, the study concluded that, teachers' competence in special education, particularly their knowledge and instructional skills, was found to have low and non-significant predictive influence on the social skill development of pupils with Autism Spectrum Disorder in primary schools in Rivers State. This suggests the need for strengthened professional training and improved practical implementation of evidence-based strategies to enhance social outcomes.

Recommendations

Based on the findings and conclusions of this study, the following were recommended:

1. Teachers in primary schools in Rivers State should actively engage in continuous professional development programmes, workshops, and specialised training focused on Autism Spectrum Disorder to strengthen both their practical knowledge and ability to implement evidence-based strategies that enhance pupils' social skill development.
2. Educational authorities and school administrators should provide targeted support systems, such as mentoring, classroom resources, and monitoring frameworks, to help teachers effectively translate their instructional skills into practice for improving the social outcomes of pupils with Autism Spectrum Disorder.

References

- Attwood, T. (2018). *The complete guide to Asperger's syndrome*. Jessica Kingsley Publishers.
- Clarke, E. B., & Lord, C. (2023). Social competence and long-term outcomes in individuals with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 53(2), 456–470.
- Dow, M., & Wang, T. (2025). Health knowledge about early diagnosis of autism spectrum disorders: A case for soft transdiagnostic approaches. *International Journal of Environmental Research and Public Health*, 22(6), 816. <https://doi.org/10.3390/ijerph22060816>
- European Agency for Special Needs and Inclusive Education. (2022). *Profile for inclusive teacher professional learning: Including all education professionals in teacher professional learning for inclusion*. Author.
- Florian, L., & Pantić, N. (2017). Teacher education for the changing demographics of schooling: Inclusive education for each and every learner. *Teacher Education for Equity and Diversity*, 231–244.
- Grandin, T. (2015). *The autistic brain: Thinking across the spectrum*. Houghton Mifflin Harcourt.
- Gray, C. (2020). *The new social story book*. Future Horizons.
- Gupta, R., & Tiwari, A. (2023). Pedagogical content knowledge in inclusive classrooms: Implications for teacher competence. *International Journal of Inclusive Education*, 27(5), 512–528.
- Hodis, B., Mughal, S., & Saadabadi, A. (2025). *Autism spectrum disorder*. StatPearls Publishing.

- Kamp-Becker, I. (2024). Autism spectrum disorder in ICD-11: A critical reflection of its possible impact on clinical practice and research. *Molecular Psychiatry*, 29, 633–638. <https://doi.org/10.1038/s41380-02302354-y>
- Kamps, D., Thiemann-Bourque, K., Heitzman-Powell, L., Schwartz, I., Rosenberg, N., Mason, R., & Cox, S. (2025). A comprehensive peer network intervention to improve social communication of children with autism spectrum disorders: A randomized trial. *Journal of Autism and Developmental Disorders*, 45(10), 3158–3173.
- Ma, R., et al. (2023). Effectiveness of social skills and theory of mind interventions for children with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 102, 102123.
- Odom, S. L., Collet-Klingenberg, L., Rogers, S. J., & Hatton, D. (2020). Evidence-based practices in interventions for children and youth with autism spectrum disorders. *Preventing School Failure*, 54(4), 275–282.
- Oppenheim, D., Dolev, S., Hamburger, L., Lottan, R., Kunst, S., Friedelman, J., Mottes-Peleg, M., & Yirmiya, N. (2025). The association between classroom quality and the social competence of autistic preschool-age boys. *Journal of Autism and Developmental Disorders*. Advance online publication. <https://doi.org/10.1007/s10803-025-06747-6>
- Petersson-Bloom, L., Leifler, E., & Holmqvist, M. (2023). The use of professional development to enhance education of students with autism: A systematic review. *Education Sciences*, 13(9), 966. <https://doi.org/10.3390/educsci13090966>
- Posar, A., & Visconti, P. (2023). Autism spectrum disorder and the diagnostic and statistical manual of mental disorders—Fifth edition (DSM-5): The experience of 10 years. *Turkish Archives of Pediatrics*, 58(6), 658–659.
- Reichow, B., Volkmar, F. R., & Cicchetti, D. V. (2018). Development of the evaluative method for evaluating and determining evidence-based practices in autism. *Journal of Autism and Developmental Disorders*, 38(7), 1311–1319.

- Sharma, U., & Sokal, L. (2024). Can teachers' self-efficacy help in implementing inclusive education? Lessons from recent research. *Teaching and Teacher Education*, 132, 104292.
<https://doi.org/10.1016/j.tate.2023.104292>
- Silveira-Zaldivara, T., Özerk, G., & Özerk, K. (2021). Developing social skills and social competence in children with autism. *International Electronic Journal of Elementary Education*, 13(3), 341–363.
- Silveira-Zaldivara, T., Özerk, K., & Özerk, M. (2021). Developing social competence in children with autism spectrum disorder: The role of teacher support. *European Journal of Special Needs Education*, 36(3), 345–360.
- Simmons, D., et al. (2024). Social competence and school-based interventions for children with autism spectrum disorder. *Autism Research*, 17(1), 112– 125.
- Wong, C., Odom, S. L., Hume, K., Cox, A. W., Fettig, A., Kucharczyk, S., Brock, M. E., Plavnick, J. B., Fleury, V. P., & Schultz, T. R. (2015). Evidence-based practices for children, youth, and young adults with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 45(7), 1951–1966.
- Yavuz, H. M., Selçuk, B., & Korkmaz, B. (2017). Social competence in children with autism. *International Journal of Developmental Disabilities*, 65(1), 10–19. <https://doi.org/10.1080/20473869.2017.1346224>
- Yu, Y., Ozonoff, S., & Miller, M. (2024). Assessment of autism spectrum disorder. *Assessment*, 31(1), 24–41.
- Zee, M., de Bree, E., Hakvoort, B., & Koomen, H. (2024). Exploring teachers' self-efficacy and willingness to provide accommodations in teaching students with autism: An intervention study. *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2024.104488>
- Zwaigenbaum, L., Bauman, M. L., Stone, W. L., et al. (2025). Autism spectrum disorder: Definition, epidemiology, causes, and clinical evaluation. *Pediatric Clinics of North America*, 62(3), 651–669.