

Teachers' Professional Development for Supporting Students with Autism Spectrum Disorder (ASD) in Inclusive Education in Oman: A Narrative Review and Policy Analysis

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ABSTRACT:

This narrative review and policy analysis examines teacher professional development for supporting students with autism spectrum disorder (ASD) in inclusive education in Oman. Drawing on peer-reviewed scholarship, foundational policy texts, and selected official Ministry of Education sources, the article analyses how autism, inclusive education, and teacher preparedness are framed in the literature; how Oman's school and disability-support systems shape professional learning needs; and how current professional development structures appear to support teachers in practice. The analysis suggests that Oman has developed an important institutional basis for teacher learning, particularly through the Specialized Institute for Professional Training of Teachers and related Ministry of Education structures. At the same time, the literature points to continuing gaps in pre-service preparation, sustained autism-specific training, practice-based coaching, evaluation of training impact, and cross-sector collaboration. The article argues that a stronger national approach to autism-focused teacher development in Oman should be continuous, competency-based, and closely connected to classroom practice, inclusive school reform, and collaboration with families and specialists. Implications are discussed for policy, professional learning design, and future research.

Keywords: autism spectrum disorder, teacher professional development, inclusive education, special education, in-service training.

1. Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental condition characterised by persistent differences in social communication and social interaction, together with restricted, repetitive patterns of behaviour, interests, or activities (American Psychiatric Association, 2013; Lord et al., 2018; World Health

Organization, 2024). Global estimates continue to indicate that autism is a major educational and public health concern, with prevalence shaped by diagnostic practices, service access, and methodological variation across settings (Maenner, 2023; Zeidan et al., 2022). As more children with ASD are identified and enrolled in schools, education systems are under increasing

pressure to ensure that teachers can respond effectively to diverse learning, communication, sensory, and behavioural profiles.

Inclusive education has become a central policy direction internationally, supported by rights-based frameworks that emphasise participation, access, belonging, and quality learning for all students (Ainscow et al., 2019). For students with ASD, inclusion is not simply a matter of physical placement in a mainstream classroom. It requires instructional flexibility, collaborative planning, behaviour support, family engagement, and access to evidence-based practices that enable students to participate meaningfully in academic and social life. Research consistently shows that inclusive schooling can yield academic and social benefits when teachers are adequately prepared and supported; however, many teachers report limited confidence and insufficient training for working with autistic learners in general education settings (Johnson et al., 2021; Roberts & Webster, 2022; Vidal-Estève & Kossyvakis, 2023).

In Oman, provision for students with disabilities has expanded through a mix of specialised services, integration programmes, and more recent inclusive initiatives. For students with ASD, this policy movement has increased the need for teachers who can translate inclusion principles into classroom practice through differentiated instruction, structured support, and collaboration with specialists and families (Alfawair & Al Tobi, 2015; Ministry of Education, 2014).

The purpose of this article is to analyse how teacher professional development in Oman currently supports the inclusion of students with ASD, to identify strengths in the existing system, and to highlight areas requiring further development. Positioned as a narrative review and policy analysis, the article aims to contribute a contextually grounded synthesis that is directly relevant to teacher education, inclusive education policy, and autism-related support in schools.

2. Article approach

This article is written as a narrative review and policy analysis rather than as an empirical study or a systematic review. It synthesises and interprets literature relevant to teacher professional development for supporting students with ASD in inclusive education in Oman. The analysis draws on peer-reviewed scholarship on autism, inclusion, teacher preparedness, and Omani teacher development, alongside selected official documents and Ministry of Education sources used to clarify the national professional-learning context.

A narrative approach was selected because the available material spans policy texts, contextual descriptions, professional development initiatives, and broader autism-inclusion scholarship rather than a single homogeneous body of empirical studies. This approach makes it possible to connect international evidence with the specific structures, opportunities, and constraints that shape teacher learning in Oman. The review is interpretive rather than exhaustive, and its conclusions should therefore be read as policy-oriented synthesis rather than as statistically generalisable findings.

3. Autism, inclusion, and teacher preparedness

Effective inclusion of students with ASD depends heavily on teacher preparedness. Autistic learners may require structured routines, visual supports, differentiated communication, explicit teaching of social participation, sensory accommodations, and proactive behaviour support. Because learner profiles differ widely, teachers need more than general goodwill; they need practical competence that enables them to translate inclusive principles into everyday classroom decisions (Johnson et al., 2021; Roberts & Webster, 2022).

The literature suggests that teacher preparedness for autism inclusion has at least four dimensions. First, teachers need accurate conceptual knowledge of ASD, including variation in presentation and the relationship between communication, behaviour, regulation, and

participation. Second, teachers require pedagogical knowledge about differentiation, classroom adaptation, and evidence-informed strategies. Third, they need relational and collaborative competence to work with families, specialists, and school leaders. Fourth, they need reflective capacity and access to ongoing support so that professional learning is sustained beyond one-off training sessions (Roberts & Webster, 2022; Vidal-Esteve & Kossyvaki, 2023).

This point is especially important because many teachers internationally continue to report that they feel underprepared to educate autistic students in mainstream classrooms. Professional development can improve teacher efficacy, but its impact is strongest when it is continuous, context-sensitive, and linked to classroom practice rather than delivered as isolated awareness sessions (Johnson et al., 2021). Therefore, discussion of teacher preparation in Oman should move beyond the question of whether training exists and consider the quality, continuity, and practical transfer of that training.

4. Inclusive education and schooling in Oman

Oman's school system comprises Basic Education and Post-Basic Education, with public

education provided up to Grade 12 (Al Shabibi & Silvennoinen, 2018). Within the wider disability-support system, education, rehabilitation, and diagnosis have historically involved several state actors, including the Ministry of Education, the Ministry of Social Development, and the Ministry of Health. This multi-agency landscape matters because teacher professional development for ASD cannot be separated from how children are identified, placed, and supported across systems (Alakhzami & Huang, 2023; Ministry of Education, 2014).

Historically, educational provision for students with disabilities in Oman developed through specialised settings and later through integrated arrangements in government schools, with different models of participation across disability categories (Alfawair & Al Tobi, 2015; Ministry of Education, 2014). This history is important because it helps explain why teacher preparation for inclusion may still be uneven: systems that expand inclusion gradually often require teachers to adapt to new roles faster than initial preparation programmes can respond.

Figure 1 summarises selected milestones that are relevant to understanding how inclusion and teacher professional development for ASD have evolved in the Omani context.

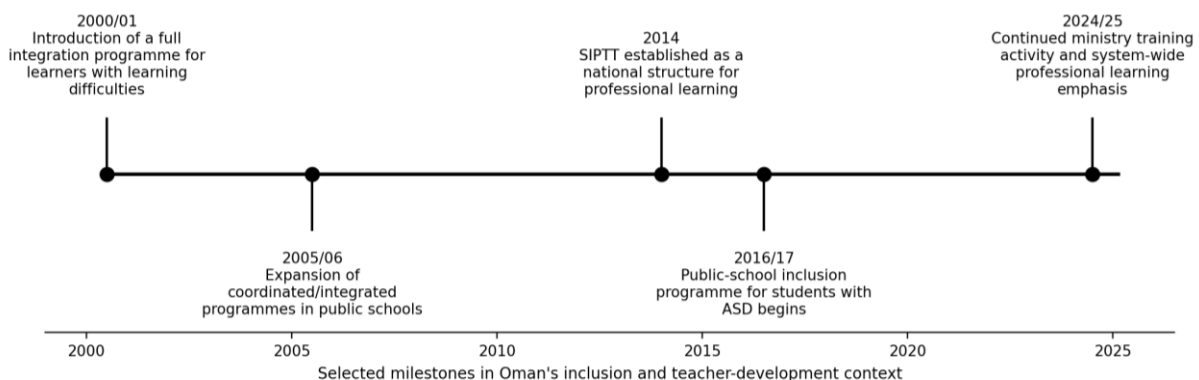


Figure 1. Selected milestones in Oman's inclusion and teacher-development context. Author-developed timeline based on sources cited in the manuscript.

Published overviews indicate that autism-related services in Oman have expanded over time, while access to diagnosis and support remains shaped by institutional pathways, geography, and the availability of specialised services (Alakhzami &

Huang, 2023; Al-Mamari et al., 2019). For schools, this means that teachers may encounter students with ASD across a broad range of needs, making professional learning in autism-specific

pedagogy and inclusive practice especially important.

5. Professional development structures in Oman

Professional development for teachers in Oman has become more structured over the past decade, particularly since the establishment of the Specialized Institute for Professional Training of Teachers (SIPTT) in 2014. Scholarly and official sources describe the institute as a central platform for in-service teacher development, designed to support teachers, school leaders, and supervisors through organised professional-learning pathways (Al Jabri et al., 2018; Ministry of Education, 2024a).

Official Ministry of Education reporting indicates that SIPTT offers programmes for new teachers, subject specialists, school leaders, and supervisory roles, while broader professional development provision is also supported through training centres in the educational governorates (Ministry of Education, 2024a). The Ministry has additionally reported ongoing investment in evaluation capacity, including ROI-based training for institute and governorate specialists, suggesting continued attention to the quality and impact of professional learning (Ministry of Education, 2025). Within special and inclusive education, these structures appear to provide an institutional foundation for teacher support, although the literature suggests that autism-specific preparation still requires further strengthening.

These arrangements represent an important strength. They show institutional recognition that teachers cannot be expected to implement inclusion without support. They also suggest that Omani policy has moved beyond one-off workshops toward more organised models of professional learning, even if the autism-specific depth and continuity of this learning remain uneven.

6. Strengths in the current Omani approach

One clear strength in Oman is the presence of a formal institutional platform for professional

learning. The existence of SIPTT provides a basis for standardising training quality, linking professional learning to national priorities, and expanding opportunities across educational roles. In systems where professional development is fragmented or entirely localised, autism-related training often depends on personal initiative or isolated projects. Oman's institutional infrastructure therefore offers an important starting point for sustained improvement (Al Jabri et al., 2018).

A second strength lies in the policy-level expansion of inclusive provision for students with disabilities in public schools. As inclusive and integrated arrangements become more established, the need for autism-related teacher learning becomes more visible within the mainstream system rather than remaining confined to specialist settings (Alfawair & Al Tobi, 2015; Ministry of Education, 2014).

A third strength is the recognition that special education teachers, mainstream teachers, school leaders, and specialists all have roles to play. The literature and official descriptions of training structures suggest that professional development in Oman is increasingly conceived as a system-level responsibility rather than an individual teacher matter only (Al Jabri et al., 2018; Ministry of Education, 2024a).

7. Continuing gaps and limitations

Despite these strengths, the current professional development landscape in Oman appears to remain uneven in several respects. The first limitation concerns pre-service preparation. Available literature suggests that many teachers enter service without sufficiently deep coursework or practicum experience related to autism, special education, or inclusive pedagogy. When that occurs, in-service workshops are expected to compensate for gaps that should ideally have been addressed earlier in initial teacher education.

The second limitation concerns the depth and duration of training. Short workshops can raise awareness, but they rarely produce durable changes in teaching practice on their own.

Teachers supporting autistic students need repeated opportunities to learn, practise, observe, reflect, and receive feedback. Without follow-up coaching, demonstration lessons, peer collaboration, or classroom-based mentoring, training risks remaining informational rather than transformational (Johnson et al., 2021; Vidal-Esteve & Kossyvaki, 2023).

A third gap concerns evidence-based autism practices. International research highlights the value of structured supports, visual systems, explicit instruction, behaviour-support planning, communication facilitation, and coordinated home-school problem solving. However, the manuscript does not yet demonstrate that such approaches are embedded systematically in teacher development pathways in Oman. This raises an important policy issue: teacher professional development should move beyond general autism awareness toward competence in selecting, adapting, and evaluating practical classroom strategies.

A fourth limitation concerns evaluation. Although the wider Omani professional development literature refers to return-on-investment approaches and other evaluation efforts (Al Jabri et al., 2018), there is still limited published evidence specifically showing how autism-related professional development influences teacher practice, student participation, or inclusive school culture in Oman. Recent Ministry reporting on ROI-related training signals continuing attention to evaluation capacity, but it does not yet provide direct evidence of autism-focused training outcomes in schools (Ministry of Education, 2025).

Finally, greater attention is needed to collaboration with families and specialists. Inclusion for students with ASD often depends on consistent communication across school, home, and support services. Teachers therefore

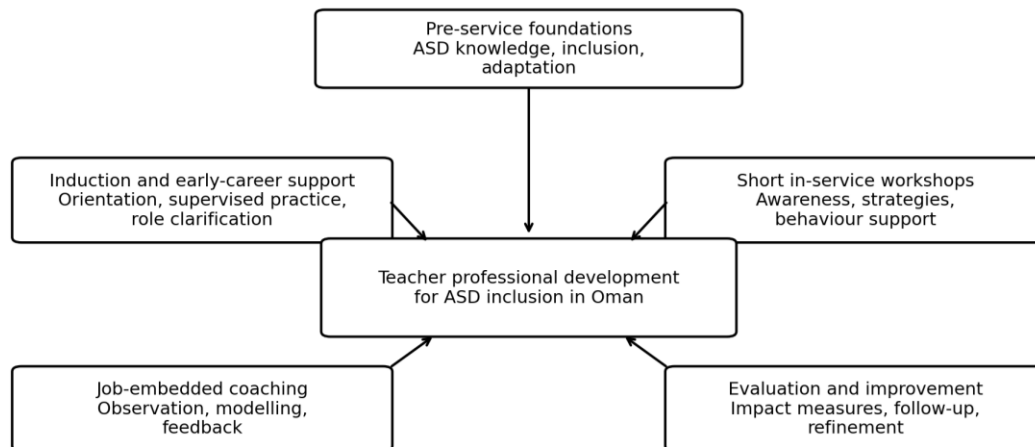
need professional learning not only in pedagogy but also in collaborative planning, culturally responsive communication, and interdisciplinary teamwork. This is particularly important in Oman, where educational decisions for students with disabilities may involve multiple ministries, assessment procedures, and service pathways.

8. Policy and practice implications

The analysis suggests that teacher professional development for autism inclusion in Oman should be conceived as a continuum rather than a set of disconnected activities. A more coherent pathway would begin with stronger pre-service preparation in universities and teacher education programmes, continue through structured induction for new teachers, and extend into school-embedded professional learning throughout teachers' careers. Within such a model, autism-specific content would not be treated as an optional add-on but as an integral part of inclusive education competence.

At the policy level, one priority is the development of a national autism-focused professional learning framework aligned with inclusive education goals. This framework could specify core competencies for teachers, special educators, school leaders, and support personnel. Competencies might include understanding autism characteristics, applying evidence-based classroom supports, differentiating instruction, managing behaviour proactively, collaborating with families, and working effectively with specialists.

Figure 2 presents a concise conceptual model of the professional-development architecture implied by the literature reviewed in this article. It highlights that effective support for students with ASD depends on continuity across pre-service preparation, induction, in-service learning, coaching, and evaluation.



Author-developed conceptual model based on the literature and policy sources cited in the manuscript.

Figure 2. Conceptual architecture for teacher professional development for ASD inclusion in Oman.

Author-developed figure based on the literature and policy sources cited in the manuscript.

At the practice level, professional development should be made more job-embedded. Workshops remain useful, but they should be linked to coaching, demonstration classrooms, peer observation, professional learning communities, and guided reflection on real classroom cases. Teachers are more likely to adopt inclusive strategies when they can see them modelled, adapt them to their own contexts, and receive ongoing support in implementation (Roberts & Webster, 2022).

A further implication concerns monitoring and evaluation. Oman would benefit from a more rigorous approach to judging the quality of autism-related professional development, including attention to reach, relevance, implementation fidelity, teacher uptake, and longer-term outcomes. This would strengthen accountability while also generating evidence that could guide future investment.

9. Directions for future research

Future research in Oman should move beyond descriptive accounts and examine how teacher professional development influences actual classroom practice and student participation. Several lines of inquiry appear especially important. First, empirical studies are needed on teachers' perceptions of preparedness for

educating students with ASD in inclusive classrooms. Second, intervention studies could examine whether school-embedded coaching and collaborative training models produce stronger outcomes than one-off workshops.

Third, research should explore how mainstream teachers, special education teachers, parents, school leaders, and allied specialists perceive their respective roles in supporting students with ASD. Fourth, more evidence is needed on culturally responsive models of inclusion in Oman, particularly how international evidence-based approaches can be adapted without losing sensitivity to local school culture, family expectations, and administrative realities. Finally, future work should evaluate whether teacher development is linked to measurable gains in student access, participation, communication, and social belonging.

10. Conclusion

Teacher professional development is a decisive factor in the success of inclusive education for students with ASD in Oman. The available evidence suggests that the country has built an important institutional foundation for professional learning, particularly through centralised training structures and a growing policy commitment to inclusive provision.

However, the analysis also indicates that stronger autism-specific, practice-based, and continuously evaluated professional development is still needed if inclusion is to be translated into consistent classroom quality and meaningful participation for students.

A stronger national approach would position autism-focused professional learning as an

essential component of inclusive education reform rather than as a supplementary intervention for selected schools. For Oman, the next stage should involve closer alignment between pre-service preparation, in-service development, school-based coaching, evaluation of impact, and collaboration across education, family, and support-service systems.

11. References

- Ainscow, M., Slee, R., & Best, M. (2019). Editorial: The Salamanca Statement: 25 years on. *International Journal of Inclusive Education*, 23(7–8), 671–676. <https://doi.org/10.1080/13603116.2019.1622800>
- Alakhzami, M., & Huang, A. (2023). Individuals with autism spectrum disorders and developmental disorders in Oman: An overview of current status. *Journal of Autism and Developmental Disorders*, 53(2), 825–833. <https://doi.org/10.1007/s10803-019-04360-y>
- Alfawair, A., & Al Tobi, A. (2015). Special needs education in Sultanate of Oman: Past, present and future. *Scholars Journal of Arts, Humanities and Social Sciences*, 3, 415–422.
- Al Jabri, M. J. H., Silvennoinen, H., & Griffiths, D. (2018). Teachers' professional development in Oman: Challenges, efforts and solutions. *International Journal of Learning, Teaching and Educational Research*, 17(5), 82–103. <https://doi.org/10.26803/ijlter.17.5.6>
- Al-Mamari, W., Idris, A. B., Al-Shekaili, M., Al-Harhi, Z., Alnaamani, A. M., Alhinai, F. I., Jalees, S., Al Hatmi, M., El-Naggari, M. A., & Islam, M. M. (2019). Revisiting the prevalence of autism spectrum disorder among Omani children: A multicentre study. *Sultan Qaboos University Medical Journal*, 19(4), e305–e313. <https://doi.org/10.18295/squmj.2019.19.04.005>
- Al Shabibi, A. S., & Silvennoinen, H. (2018). Challenges in education system affecting teacher professional development in Oman. *Athens Journal of Education*, 5(3), 261–282.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).
- Johnson, A., Soares, L., & Gutierrez de Blume, A. P. (2021). Professional development for working with students with autism spectrum disorders and teacher self-efficacy. *Georgia Educational Researcher*, 18(1), Article 1. <https://doi.org/10.20429/ger.2021.180101>
- Lord, C., Elsabbagh, M., Baird, G., & Veenstra-VanderWeele, J. (2018). Autism spectrum disorder. *The Lancet*, 392(10146), 508–520. [https://doi.org/10.1016/S0140-6736\(18\)31129-2](https://doi.org/10.1016/S0140-6736(18)31129-2)
- Lindsay, S., Proulx, M., Scott, H., & Thomson, N. (2014). Exploring teachers' strategies for including children with autism spectrum disorder in mainstream classrooms. *International Journal of Inclusive Education*, 18(2), 101–122. <https://doi.org/10.1080/13603116.2012.758320>
- Maenner, M. J., Shaw, K. A., Baio, J., Washington, A., Patrick, M., DiRienzo, M., Christensen, D. L., Wiggins, L. D., Pettygrove, S., Andrews, J. G., Lopez, M., Hudson, A., Baroud, T., Schwenk, Y., White, T., Rosenberg, C. R., Lee, L.-C., Harrington, R. A., Huston, M., ... Dietz, P. M. (2023). Prevalence and characteristics of autism spectrum disorder among children aged 8 years—Autism and Developmental Disabilities Monitoring Network, 11 sites, United States, 2020. *MMWR Surveillance Summaries*, 72(2), 1–14. <https://doi.org/10.15585/mmwr.ss7202a1>
- Ministry of Education. (2014). *Dalil Al-'Amileen fi Barnamej Damj Talabat Thawi Al-l'aqah fi Madaris Al-Ta'leem Al-'Am/Al-Asasi Al-Mutabiqah li Barnamej Al-Damj* [Guide for workers in the integration programme for students with disabilities in general/basic education schools applying the integration programme]. Oman.
- Ministry of Education. (2024a, February 26). The Sultanate of Oman celebrates Omani Teachers Day. <https://main.moe.gov.om/en/topics/0/show/2326>
- Ministry of Education. (2025, May 5). The Specialized Institute for Professional Training for Teachers implements training program on measurement of return on investment in training (ROI). <https://main.moe.gov.om/en/topics/0/show/2510>

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- National Centre for Statistics and Information. (2024). Annual statistical bulletin. <https://www.ncsi.gov.om/publications>
- Roberts, J., & Webster, A. (2022). Including students with autism in schools: A whole school approach to improve outcomes for students with autism. *International Journal of Inclusive Education*, 26(7), 701–718. <https://doi.org/10.1080/13603116.2020.1712622>
- Szumski, G., Smogorzewska, J., & Grygiel, P. (2022). Academic achievement of students without special educational needs and disabilities in inclusive education: Does the type of inclusion matter? *PLoS ONE*, 17(7), e0270124. <https://doi.org/10.1371/journal.pone.0270124>
- Vidal-Estève, M. I., & Kossyvakis, L. (2023). The pillars of inclusive education for students with ASD: A scoping review based on the case of Spain. *International Journal of Developmental Disabilities*, 69(6), 888–897. <https://doi.org/10.1080/20473869.2023.2173837>
- World Health Organization. (2024). International Classification of Diseases 11th Revision (ICD-11). <https://icd.who.int/browse/2024-01/mms/en>
- Zeidan, J., Fombonne, E., Scora, J., Ibrahim, A., Durkin, M. S., Saxena, S., Yusuf, A., Shih, A., & Elsabbagh, M. (2022). Global prevalence of autism: A systematic review update. *Autism Research*, 15(5), 778–790. <https://doi.org/10.1002/aur.2696>
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