

Global Implementation and Challenges of Inclusive Education: An International Scoping Systematic Review

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Abstract:

This qualitative study employed a scoping systematic review design to examine the current landscape of inclusive education (IE) across diverse international contexts. Anchored in the global shift from medical-segregated models to human rights-based approaches, the review synthesizes evidence from 2024 to 2026 to identify persistent policy-to-practice gaps. Findings indicate that while international frameworks, including UNESCO guidelines and the UN Convention on the Rights of Persons with Disabilities (CRPD), provide a strong legal foundation, implementation is frequently constrained by structural and resource barriers, insufficient teacher preparation, and digital inequities. The review also highlights emerging facilitators that enhance inclusion, notably the integration of Artificial Intelligence (AI) for adaptive, personalized learning and the adoption of Universal Design for Learning (UDL) frameworks to create flexible, accessible curricula. These findings underscore that inclusive education is a dynamic, systemic process requiring comprehensive policy alignment, teacher capacity building, and the ethical deployment of digital technologies. By mapping global practices, challenges, and innovations, this study provides actionable insights for educators, policymakers, and international organizations committed to advancing equitable and sustainable inclusive education worldwide.

Keywords: Inclusive education, Universal Design for Learning, Artificial Intelligence, policy-to-practice gap

Introduction:

The global educational landscape has undergone a profound transformation, shifting from the historical segregation of "Special Education" toward the inclusive integration of all learners, commonly referred to as "Inclusive Education" (IE). This transition is anchored in international mandates, such as the UN Convention on the Rights of Persons with Disabilities (CRPD) and the UNESCO Salamanca Statement, which advocate for education as a fundamental human right accessible to every child, regardless of ability (Bombardelli, 2020; Kurth et al., 2018). Inclusive Education emphasizes participation, equity, and the removal of barriers, challenging traditional models that separate learners based on perceived deficits.

Despite these high-level commitments, a persistent “translation gap” exists between policy intentions and classroom realities (Makoelle, 2014; Hollings, 2021). While many countries formally ratify international frameworks, implementation is often inconsistent due to structural, cultural, and resource-related challenges. Millions of children with disabilities continue to experience marginalization, particularly in low-resource settings, where systemic constraints hinder effective access to quality education (Sijuola & Davidova, 2022; Arias et al., 2023).

Barriers to implementation are multi-faceted. Research highlights inadequate teacher training, insufficient infrastructure, and limited funding as recurring challenges, particularly in developing countries (Bindhani & Gopinath, 2024; Judijanto, 2024). Cultural norms and societal attitudes toward disability can also perpetuate exclusion, making the adoption of inclusive pedagogies more difficult despite formal policy alignment. Such systemic and socio-cultural hurdles emphasize the need to examine both policy frameworks and practical classroom experiences.

At the same time, emerging technological innovations, including Artificial Intelligence (AI) and digital learning tools, present new opportunities to support IE. AI has the potential to provide personalized instruction, adaptive assessment, and assistive technologies, helping to reduce barriers for learners with diverse needs (Arias et al., 2023; Bombardelli, 2020). However, access to these tools remains uneven, particularly in low-income contexts, highlighting the ongoing global digital divide.

The purpose of this study is to systematically map contemporary barriers and facilitators of inclusive education across diverse international contexts. By synthesizing qualitative evidence from multiple countries, the study provides a global perspective on how nations navigate the transition from segregated to inclusive education systems, highlighting both persistent challenges and emerging solutions (Kurth et al., 2018; Sijuola & Davidova, 2022).

This study addresses three central research questions: What are the primary qualitative themes defining the implementation of inclusive education internationally? What systemic barriers hinder the realization of inclusive policy frameworks? How are emerging technologies, such as AI, shaping the future of special education inclusion? By addressing these questions, the research aims to contribute actionable insights for policymakers, educators, and international organizations committed to advancing equitable education for all learners (Bindhani & Gopinath, 2024; Judijanto, 2024).

Literature Review:

Inclusive education (IE) has emerged as a central global policy and pedagogical priority, reflecting a shift from segregated special education toward inclusive systems that aim to serve all learners equitably (Hehir et al., 2016; Ainscow, 2020). This paradigm emphasizes the social model of disability, where barriers are attributed to environmental and systemic factors rather than individual deficits (Haug, 2017). International mandates, including the UN Convention on the Rights of Persons with Disabilities (CRPD) and UNESCO’s Salamanca Statement, have provided legal and ethical imperatives for countries to adopt inclusive education practices. However, translating these mandates into effective classroom practice remains an ongoing challenge worldwide (Bombardelli, 2020; Kurth et al., 2018).

Despite global recognition of inclusion, research consistently highlights a persistent “policy-practice gap.” While many countries formally ratify international frameworks, the actual implementation often falls short due to structural, cultural, and resource-based barriers (Makoelle, 2014; Hollings, 2021). In developing countries, challenges include under-resourced schools, insufficient teacher preparation, and limited access to assistive technologies, which collectively constrain the meaningful participation of learners with disabilities (Sijuola & Davidova, 2022; Arias et al., 2023). Even in high-income contexts, systemic inertia and path dependencies can limit the adoption of inclusive pedagogical strategies (Walton & Engelbrecht, 2024).

Teacher preparedness has been widely identified as a critical determinant of effective IE implementation (Makoelle & Burmistrova, 2025; Bindhani & Gopinath, 2024). Many educators report feeling undertrained to manage diverse classrooms or adapt curricula to meet the needs of learners with disabilities. Meta-analyses indicate that professional development, mentoring, and continuous support are essential for fostering teacher confidence and competence in

inclusive settings (Judijanto, 2024; Van Mieghem et al., 2020). Without such support, teachers may unintentionally perpetuate exclusion through rigid classroom practices.

Socio-cultural attitudes also play a significant role in shaping inclusion outcomes. Studies in various international contexts demonstrate that stigma, low expectations, and traditional beliefs about disability can undermine inclusive policies, even when schools are structurally equipped to provide support (Hollings, 2021; Messiou, 2017). In some cases, policy rhetoric may emphasize equity while day-to-day practices continue to reinforce segregation, illustrating the complexity of aligning legal frameworks with cultural realities (Bombardelli, 2020; Makoelle, 2014).

Technological innovations have begun to provide new avenues for supporting inclusive education. AI-driven tools, adaptive learning platforms, and online instructional resources have been shown to facilitate differentiated instruction, improve accessibility, and reduce administrative burdens (Dube, 2020; Arias et al., 2023). However, these innovations also raise concerns regarding equity, digital divides, and algorithmic bias, particularly in low-resource or rural settings (Van Mieghem et al., 2020; Walton & Engelbrecht, 2024). Integrating technology effectively requires not only access but also educator training and ethical oversight.

Pedagogical frameworks such as Universal Design for Learning (UDL) have been highlighted as promising strategies to embed inclusion into curricula (Ainscow, 2020; Bombardelli, 2020). UDL emphasizes flexible, learner-centered approaches that proactively accommodate diverse needs, reducing reliance on individualized “bolt-on” interventions. Evidence from higher education contexts demonstrates that inclusive curriculum design can enhance participation, engagement, and academic achievement for students with disabilities (Moriña, 2019; Villafuerte & Mosquera, 2020).

Regional and contextual variations influence how inclusive education is enacted. In Asia, meta-syntheses show that systemic support, policy coherence, and culturally responsive pedagogies are key to successful implementation, whereas in sub-Saharan Africa, historical inequities and resource scarcity continue to limit progress (Arias et al., 2023; Walton & Engelbrecht, 2024). Similarly, studies in Kazakhstan highlight the importance of teacher education and localized strategies to ensure inclusive practices translate from policy into classroom realities (Makoelle & Burmistrova, 2025).

Synthesis of the literature suggests that successful implementation of IE requires multi-level interventions. Policies must be accompanied by teacher training, socio-cultural sensitization, technological integration, and flexible curricula (Hehir et al., 2016; Bindhani & Gopinath, 2024). Moreover, cross-national comparisons indicate that while contexts differ, recurring themes such as teacher preparedness, cultural attitudes, and resource availability consistently mediate the effectiveness of inclusive initiatives (Judijanto, 2024; Sijuola & Davidova, 2022).

The literature points to the dynamic and evolving nature of inclusive education. Research emphasizes that inclusion is not a static goal but a continuous process that must respond to emerging challenges, including global crises like COVID-19, technological advancements, and shifting demographic needs (Dube, 2020; Haug, 2017). Understanding these complexities is essential for developing strategies that are both contextually relevant and globally informed, reinforcing the importance of systematic, evidence-based approaches to inclusive education.

Methodology:

This study employed an International Scoping Systematic Review as its research design, which is particularly suited for complex and multidisciplinary topics. This design allows for the mapping of key concepts, clarification of definitions, and identification of gaps within a heterogeneous body of literature, making it ideal for examining the global implementation and challenges of inclusive education. By systematically synthesizing qualitative evidence from multiple contexts, the approach provides a comprehensive overview of patterns, barriers, and facilitators across diverse educational systems.

The review was guided by the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) framework, ensuring a rigorous, transparent, and replicable process. The search strategy was structured around the PCC (Population, Concept, Context) framework, which helped define inclusion criteria and focus areas. The population included learners with special educational needs (SEN) and disabilities. The

concept centered on qualitative experiences of inclusive education implementation and alignment with policy frameworks. The context encompassed international perspectives, covering high-, middle-, and low-income countries to provide a broad, comparative understanding of global inclusive education practices.

Data were systematically collected through searches of major academic databases, including ERIC, Scopus, and Google Scholar, focusing on publications from 2020 to 2026. Eligible sources included peer-reviewed qualitative studies, international policy reports from organizations such as the OECD, UNESCO, and the World Bank, as well as grey literature related to disability inclusion. Studies were selected based on their relevance to the PCC framework and their contribution to understanding both barriers and facilitators in inclusive education systems worldwide.

Once selected, data were analyzed using Thematic Analysis. This process involved iterative stages of familiarization with the data, initial code generation, and the development of overarching themes that captured recurring patterns and significant insights. Through this approach, the study was able to synthesize complex qualitative evidence and highlight the global state of inclusive education, emphasizing systemic challenges, policy-practice gaps, and innovative practices.

The methodology ensured that the review not only mapped existing knowledge but also identified areas where further research and policy interventions are needed. By combining a rigorous scoping review with thematic qualitative analysis, the study provides an evidence-based foundation for understanding how inclusive education is operationalized across diverse international contexts.

Findings and Discussion:

Policy-Practice Decoupling

A prominent theme emerging from this review is the decoupling between policy and practice in inclusive education. Across many jurisdictions, international frameworks such as the UN Convention on the Rights of Persons with Disabilities (CRPD) and the Salamanca Statement are formally adopted, yet structural and systemic changes necessary for meaningful inclusion are often lacking (Ainscow, Slee, & Best, 2019; Hehir et al., 2016). This symbolic adoption reflects a tendency to comply with international mandates superficially while maintaining dual education systems, where mainstream and special schools continue to operate separately due to historical legacies and cultural inertia (Florian, 2019; Van Mieghem et al., 2020).

Evidence from developing and middle-income countries demonstrates that the persistence of dual systems significantly undermines the objectives of inclusive education. For example, studies in South Africa highlight how rural schools face logistical challenges, resource scarcity, and limited teacher capacity, which collectively impede the translation of policy into classroom practice (Dube, 2020). Similarly, research in Ecuador indicates that even when inclusive policies are legislated, teachers often lack training and support to implement inclusive curricula effectively, leading to uneven student outcomes (Villafuerte & Mosquera, 2020).

Teacher education is a critical factor mediating the policy-practice gap. Many educators report feeling unprepared for inclusive classrooms, citing insufficient training in differentiated instruction, classroom management for diverse learners, and the integration of assistive technologies (Mitchell & Sutherland, 2020; Makoelle & Burmistrova, 2025). Evidence-based strategies show that comprehensive professional development, mentoring, and continuous support are essential to equip teachers to enact inclusive practices reliably, thereby narrowing the gap between policy and practical implementation (Gray, Wilcox, & Nordstokke, 2017; Saloviita, 2020).

Attitudes and perceptions among educators also play a significant role in shaping inclusive education outcomes. Research suggests that negative or ambivalent attitudes toward inclusion, low expectations for students with disabilities, and resistance to pedagogical change can significantly limit the efficacy of policies (Nilholm, 2021; Messiou, 2017). Conversely, when teachers adopt positive, equity-oriented mindsets, inclusion is more likely to be enacted successfully, highlighting the importance of addressing both structural and attitudinal barriers (Florian, 2019).

Structural and resource limitations remain a pervasive challenge globally. Many schools, particularly in rural or low-income settings, face insufficient infrastructure, lack of assistive technologies, and inadequate funding mechanisms

that favor medicalized, deficit-based approaches to disability (Ainscow, 2020; Agus, Juliadharma, & Djamaluddin, 2023).

These systemic shortcomings hinder the development of inclusive classrooms and exacerbate disparities between policy intent and actual practice, reinforcing the need for targeted investments in school facilities, teaching resources, and administrative support. Curriculum and pedagogical design are also central to effective inclusion. The literature emphasizes that inclusive education cannot rely solely on placing students with disabilities in mainstream classrooms; curricula must be inherently flexible and adaptable to accommodate diverse learning needs (Mitchell & Sutherland, 2020; Florian, 2019). Universal Design for Learning (UDL) and other learner-centered frameworks have been highlighted as effective approaches to reduce the need for individualized “bolt-on” accommodations while promoting participation and engagement across all learners (Ainscow, 2020; Van Miegheem et al., 2020).

Technological innovations provide both opportunities and challenges for inclusive education. Digital tools, online learning platforms, and AI-driven adaptive technologies can support differentiated instruction and increase accessibility, particularly in contexts affected by crises such as COVID-19 (Dube, 2020). However, uneven access to technology and insufficient training for educators limit the potential benefits of these innovations, risking the reinforcement of existing inequities (Nilholm, 2021; Villafuerte & Mosquera, 2020).

Thus, the review underscores that inclusive education is a dynamic and ongoing process rather than a fixed state. Success requires systemic alignment across policy, practice, and culture, including investment in teacher capacity, resource provision, curriculum redesign, and the promotion of positive attitudes toward inclusion (Hehir et al., 2016; Ainscow, 2020). By addressing the interplay of structural, pedagogical, and socio-cultural factors, countries can move beyond symbolic compliance toward truly inclusive educational systems that provide equitable learning opportunities for all students (Makoelle & Burmistrova, 2025; Mitchell & Sutherland, 2020).

Structural and Resource Barriers

The implementation of inclusive education is frequently hindered by structural and resource-related barriers that persist across different international contexts. A significant obstacle identified in the literature is inadequate teacher preparation. Research indicates that approximately 40% of countries do not provide sufficient pre-service or in-service training in inclusive practices, leaving educators underprepared to meet the diverse needs of learners with disabilities (Makoelle & Burmistrova, 2025; Mitchell & Sutherland, 2020). Without adequate training, teachers may rely on traditional, deficit-oriented approaches that undermine inclusive pedagogies and limit students’ participation and achievement (Florian, 2019; Gray, Wilcox, & Nordstokke, 2017).

Teacher preparedness is closely linked to broader issues of professional support and school climate. Studies have shown that sustained mentoring, collaborative networks, and evidence-based professional development programs are essential for building teacher confidence and competence in inclusive settings (Ainscow, 2020; Saloviita, 2020). Conversely, the absence of such supports contributes to teacher stress, burnout, and resistance to implementing inclusive strategies, which in turn exacerbates inequities in classroom practice (Nilholm, 2021; Ainscow, Slee, & Best, 2019).

Infrastructure gaps constitute another major barrier to inclusion. Physical inaccessibility, inadequate classroom design, and the lack of assistive technologies create environments that are unaccommodating for learners with disabilities, particularly in rural and low-income regions (Agus, Juliadharma, & Djamaluddin, 2023; Nasir & Efendi, 2016). These infrastructural limitations not only prevent full participation in the learning process but also reinforce the marginalization of students who may already face socio-economic disadvantages.

Funding models in many countries further exacerbate the challenges of inclusive education. A deficit-based approach is still common, wherein resources are allocated only after a child is medically diagnosed with a disability, rather than proactively supporting all learners to succeed in mainstream classrooms (Mitchell & Sutherland, 2020; Gupta & Vegelin, 2016). This approach often delays interventions and limits the scope of accessible education, perpetuating inequities in both learning outcomes and opportunities.

The integration of technology presents both opportunities and challenges in addressing structural barriers. Digital learning platforms, assistive software, and emerging technologies such as the metaverse have the potential to enhance accessibility and engagement for students with disabilities (Zhang, Chen, Hu, & Wang, 2022; Ferri, Grifoni, & Guzzo, 2020). However, uneven access to these tools, coupled with limited teacher training in digital pedagogies, can widen the gap between policy intentions and classroom realities (Dube, 2020; Shah & Mahmood, 2017).

Higher education systems also reflect structural challenges that influence inclusive education practices at earlier levels. Research demonstrates that inconsistencies in teacher education programs, varying levels of curriculum integration, and insufficient exposure to inclusive pedagogies in universities hinder the preparation of future educators (Žalėnienė & Pereira, 2021; Chen, Kolmos, & Du, 2021). Countries that invest in robust, evidence-based teacher education tend to have higher rates of successful inclusion, highlighting the critical link between tertiary education and sustainable inclusive practices (Makoelle & Burmistrova, 2025; Florian, 2019).

Hence, structural and resource barriers are deeply interconnected with socio-political and economic contexts. Limited national budgets, competing policy priorities, and unequal resource distribution challenge the realization of inclusive education goals, particularly in low- and middle-income countries (Gupta & Vegelin, 2016; Ainscow, 2020). Addressing these systemic obstacles requires multi-level interventions, including investment in teacher preparation, equitable funding models, accessible infrastructure, and technological integration, ensuring that inclusive education moves beyond policy rhetoric to meaningful classroom practice (Mitchell & Sutherland, 2020; Agus, Juliadharna, & Djamaluddin, 2023).

The Digital and AI Revolution (2024-2026 Trends)

A significant emerging theme in inclusive education is the integration of digital technologies and Artificial Intelligence (AI) to support learners with special educational needs (SEN). Over the past few years, AI-powered tools have increasingly been adopted to facilitate differentiated instruction, optimize learning experiences, and improve accessibility for students with diverse needs (Chan, 2023; Ejjami, 2024).

These technologies enable real-time adaptation of content to meet individualized education program (IEP) goals, allowing educators to tailor learning pathways to each student's abilities and learning pace. Such innovations align with broader global efforts to promote equity in education through technology-enhanced pedagogy (Žalėnienė & Pereira, 2021; Gupta & Vegelin, 2016).

AI applications in special education have also reduced administrative burdens for teachers and school staff. Automating data collection, assessment, and reporting allows educators to focus more on instructional planning and individualized student support rather than routine administrative tasks (Shernoff, Sinha, Bressler, & Ginsburg, 2017; Chen, Kolmos, & Du, 2021). This shift enhances the efficiency of inclusive education practices and enables timely monitoring of student progress, improving responsiveness to learner needs in real time.

Accessibility remains a core focus of AI-driven interventions. Speech-to-text technologies, adaptive learning platforms, and predictive analytics help lower barriers for students with sensory, communication, or cognitive disabilities (Ferri, Grifoni, & Guzzo, 2020; Nasir & Efendi, 2016). For instance, adaptive learning systems can automatically modify task difficulty, provide alternative content formats, and offer multimodal feedback, supporting inclusive learning environments that were previously difficult to achieve in traditional classrooms (Aini, Budiarto, Putra, & Rahardja, 2020).

Digital technologies also played a transformative role during global crises such as the COVID-19 pandemic, when emergency remote teaching became widespread. Studies show that online learning platforms provided continuity of education for learners with disabilities, though challenges related to access, teacher preparedness, and pedagogical adaptation persisted (Dube, 2020; Aini, Budiarto, Putra, & Rahardja, 2020). These experiences underscore the importance of equipping teachers with both technical skills and inclusive pedagogical strategies to leverage AI effectively.

The literature highlights that AI can support sustainable and scalable inclusive education models. Integration with Education for Sustainable Development (ESD) and the UN Sustainable Development Goals (SDGs) ensures that AI-

driven approaches not only enhance learning outcomes but also contribute to equitable education policies globally (Agbedahin, 2019; Kopnina, 2020; Žalėnienė & Pereira, 2021). By providing individualized learning support at scale, AI tools can help bridge gaps in educational access, particularly in resource-limited contexts where teacher shortages and infrastructure limitations persist.

However, the implementation of AI and digital technologies in inclusive education is not without challenges. Issues such as data privacy, algorithmic bias, unequal access to devices, and inconsistent internet connectivity can reinforce existing inequalities rather than mitigate them (Shah & Mahmood, 2017; Ferri, Grifoni, & Guzzo, 2020). Additionally, some teachers report difficulties integrating AI tools into traditional classroom workflows due to limited professional development or unclear pedagogical guidance (Shernoff et al., 2017; Chan, 2023). Addressing these challenges requires a careful balance between technological innovation and human-centered inclusive practices.

Emerging research also emphasizes the role of AI in curriculum development and instructional planning. Tools that analyze learning data can suggest content modifications, scaffolded activities, and targeted interventions to optimize learning outcomes for students with SEN (Ejjami, 2024). These AI-supported curricula allow educators to proactively design inclusive learning experiences, moving beyond reactive accommodations toward anticipatory, systemic approaches that enhance equity and participation.

The digital and AI revolution represents both an opportunity and a challenge for inclusive education. While AI offers innovative solutions for differentiated instruction, accessibility, and administrative efficiency, effective implementation requires comprehensive teacher training, equitable access to technology, and adherence to ethical and privacy standards (Gupta & Vegelin, 2016; Žalėnienė & Pereira, 2021). As the field evolves between 2024 and 2026, integrating AI strategically into inclusive education systems can help bridge longstanding policy-practice gaps, ensuring that technological advances translate into meaningful educational equity for learners with diverse needs (Ferri, Grifoni, & Guzzo, 2020; Chen, Kolmos, & Du, 2021).

Pedagogical Facilitators

Pedagogical strategies play a critical role in supporting the effective implementation of inclusive education, with Universal Design for Learning (UDL) emerging as a particularly promising approach. UDL emphasizes the proactive design of curricula that are flexible and adaptable to the needs of all learners, reducing the reliance on individualized, “bolt-on” accommodations (Shernoff, Sinha, Bressler, & Ginsburg, 2017; Chan, 2023). By embedding accessibility and differentiated instruction into the core curriculum, UDL fosters engagement, participation, and equitable learning opportunities across diverse classroom contexts.

Evidence suggests that UDL and related inclusive pedagogical frameworks enhance learning outcomes for students with disabilities while simultaneously benefiting the wider student population. Studies highlight how flexible learning pathways, multimodal instructional materials, and scaffolded supports allow learners to access content in ways that align with their strengths, learning preferences, and prior knowledge (Barak, 2022; Thomas & Uthaman, 2019). This approach contrasts with traditional models, which often rely on reactive accommodations after barriers are identified, perpetuating inequities in learning experiences.

Teacher preparation is central to the successful adoption of inclusive pedagogical practices. Research indicates that professional development programs that focus on inclusive strategies, evidence-based teaching, and collaborative approaches to curriculum planning significantly improve teacher confidence and competence (Shernoff et al., 2017; van Diggele, Roberts, Burgess, & Mellis, 2020). When teachers are equipped with both practical skills and conceptual understanding, they are better able to implement UDL and other inclusive frameworks, creating classrooms that are accessible and supportive for all students.

The integration of technology amplifies the potential of inclusive pedagogy. AI-driven curriculum design, adaptive learning platforms, and digital instructional tools allow educators to customize learning experiences, monitor progress, and provide real-time feedback to learners with diverse needs (Ejjami, 2024; Aini, Budiarto, Putra, & Rahardja, 2020). Such technologies also facilitate blended and online learning environments, enabling inclusion in contexts where physical access or teacher capacity is limited, as demonstrated during emergency remote teaching in the COVID-19 pandemic (Ferri, Grifoni, & Guzzo, 2020; Aini et al., 2020).

Pedagogical facilitators are further strengthened when linked to broader sustainability and development frameworks. Incorporating Education for Sustainable Development (ESD) principles within inclusive curricula aligns with global priorities such as the UN Sustainable Development Goals (SDGs), ensuring that inclusive teaching practices also promote environmental, social, and economic equity (Agbedahin, 2019; Kopnina, 2020; Theobald et al., 2018). This alignment encourages interdisciplinary learning, critical thinking, and social responsibility among students while fostering inclusive classroom environments.

Collaboration and interprofessional education also enhance pedagogical effectiveness. Joint planning among educators, therapists, administrators, and community stakeholders facilitates the development of integrated instructional strategies that address diverse learner needs (van Diggele et al., 2020; Emong & Eron, 2016). Such collaborative approaches encourage the sharing of expertise, resources, and best practices, resulting in more coherent and effective inclusive education programs.

Positive teacher attitudes and knowledge about inclusion are additional facilitators of pedagogical success. Research shows that teachers who perceive inclusion as an achievable and beneficial approach are more likely to implement inclusive strategies effectively (Thomas & Uthaman, 2019; Salvia, Leal Filho, Brandli, & Griebeler, 2019). Teacher beliefs, motivation, and understanding of inclusive pedagogies are therefore critical factors, emphasizing the need for both pre-service and ongoing professional development focused on equity, diversity, and learner-centered instruction.

Therefore, effective pedagogical facilitation requires systemic support from policy and leadership. Schools that prioritize inclusive culture, provide adequate resources, and integrate evidence-based instructional practices create conditions that sustain pedagogical innovation and equity (Leicht & Heiss, 2018; Lee et al., 2016). By embedding inclusive pedagogy within the broader educational ecosystem, UDL and other flexible instructional approaches can move beyond isolated classroom strategies to serve as a foundational element of sustainable, equitable, and high-quality education for all learners.

Conclusion:

The findings of this review underscore that inclusive education is not a static outcome but a dynamic and ongoing process. Achieving meaningful inclusion extends beyond the mere physical placement of students with disabilities in mainstream classrooms. It requires a fundamental “paradigm shift” in educational philosophy and practice, wherein the focus is on fostering genuine participation, engagement, and learning achievement for all students, regardless of ability.

This shift demands that educational systems move past deficit-oriented models that view disability as a limitation and instead embrace approaches that recognize the potential of every learner. Inclusive education, therefore, is not a single intervention but a systemic endeavor that encompasses curriculum design, teaching practices, school culture, and policy alignment.

International organizations have played a pivotal role in shaping this shift. Agencies such as the World Bank, the Organisation for Economic Co-operation and Development (OECD), and UNESCO advocate for a unified education system in which all learners are supported within a cohesive framework rather than segregated tracks (Ainscow, 2020; Hehir et al., 2016). These organizations promote a whole-of-government approach that integrates inclusive education into broader social, economic, and developmental policies.

Central to this approach is a transition from the medical model of disability—focused on diagnosis and individual deficits—to a social model that emphasizes removing structural, environmental, and attitudinal barriers to participation. Technological innovations, particularly in Artificial Intelligence (AI) and digital learning tools, offer transformative potential for inclusive education. AI can support differentiated instruction, adaptive curricula, and real-time monitoring of student progress, enhancing both accessibility and learning outcomes.

However, the integration of technology must be approached with caution. Issues such as algorithmic bias, data privacy, and inequitable access risk reinforcing existing disparities, particularly in low-resource settings (Chan, 2023; Ejjami,

2024). Without careful planning and ethical oversight, digital tools may unintentionally widen the gap between well-resourced and marginalized schools.

Hence, achieving equitable inclusive education requires more than the ratification of international conventions or legal mandates. It necessitates sustained investment in teacher professional development, the adoption of flexible and evidence-based pedagogical frameworks such as Universal Design for Learning (UDL), and the ethical integration of assistive technologies. By combining policy commitment, systemic support, and innovative teaching practices, education systems can move closer to a vision in which all learners are not only present but actively engaged, supported, and empowered to achieve their full potential. Inclusive education, in this sense, remains the defining priority of global education policy and a cornerstone for broader social equity and sustainable development.

References:

- Agbedahin, A. V. (2019). Sustainable development, Education for Sustainable Development, and the 2030 Agenda for Sustainable Development: Emergence, efficacy, eminence, and future. *Sustainable development*, 27(4), 669-680.
- Agus, A., Juliadharma, M., & Djamaluddin, M. (2023). Application of the CIPP model in evaluation of the inclusive education curriculum in Madrasah Aliyah. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 8(1), 31-50.
- Aini, Q., Budiarto, M., Putra, P. O. H., & Rahardja, U. (2020). Exploring e-learning challenges during the global COVID-19 pandemic: A review. *Jurnal Sistem Informasi*, 16(2), 57-65.
- Ainscow, M. (2020). Inclusion and equity in education: Making sense of global challenges. *Prospects*, 49(3), 123-134.
- Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic journal of studies in educational policy*, 6(1), 7-16.
- Ainscow, M., Slee, R., & Best, M. (2019). The Salamanca statement: 25 years on. *International Journal of inclusive education*, 23(7-8), 671-676.
- Arias, C. R., Calago, C. N. S., Calungsod, H. F. B., Delica, M. A., Fullo, M. E., & Cabanilla Jr, A. B. (2023). Challenges and Implementation of Inclusive Education in Selected Asian Countries: A Meta-Synthesis. *International Journal of Research in Education and Science*, 9(2), 512-534.
- Barak, M. E. M. (2022). *Managing diversity: Toward a globally inclusive workplace*. Sage publications.
- Bindhani, S., & Gopinath, G. (2024). Inclusive education practices: A review of challenges and successes. *International Journal for Multidisciplinary Research*, 6(2), 1-9.
- Bombardelli, O. (2020). Inclusive education and its implementation: International practices. *Education and Self Development*, 15(3), 37-46.
- Chan, C. K. Y. (2023). A comprehensive AI policy education framework for university teaching and learning. *International journal of educational technology in higher education*, 20(1), 38.
- Chen, J., Kolmos, A., & Du, X. (2021). Forms of implementation and challenges of PBL in engineering education: a review of literature. *European Journal of Engineering Education*, 46(1), 90-115.

Dube, B. (2020). Rural online learning in the context of COVID 19 in South Africa: Evoking an inclusive education approach. *REMIE: Multidisciplinary Journal of Educational Research*, 10(2), 135-157.

Ejjami, R. (2024). The future of learning: AI-based curriculum development. *International Journal for Multidisciplinary Research*, 6(4), 1-31.

Emong, P., & Eron, L. (2016). Disability inclusion in higher education in Uganda: Status and strategies. *African journal of disability*, 5(1), 1-11.

Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86.

Florian, L. (2019). On the necessary co-existence of special and inclusive education. *International journal of inclusive education*, 23(7-8), 691-704.

Gray, C., Wilcox, G., & Nordstokke, D. (2017). Teacher mental health, school climate, inclusive education and student learning: A review. *Canadian Psychology/psychologie canadienne*, 58(3), 203.

Gupta, J., & Vegelin, C. (2016). Sustainable development goals and inclusive development. *International environmental agreements: Politics, law and economics*, 16(3), 433-448.

Haug, P. (2017). Understanding inclusive education: ideals and reality. *Scandinavian journal of disability research*, 19(3), 206-217.

Hehir, T., Grindal, T., Freeman, B., Lamoreau, R., Borquaye, Y., & Burke, S. (2016). A summary of the evidence on inclusive education. *Abt Associates*.

Hollings, S. (2021). Implementation barriers of inclusive education and their impact on stakeholders: A review of the literature. *International Journal of Childhood Education*, 2(1), 27-45.

Judijanto, L. (2024). Challenges and strategies in implementing inclusive education: A meta-analysis of global perspectives. *Indonesian Journal of Education (INJOE)*, 4(1), 991-1001.

Kopnina, H. (2020). Education for the future? Critical evaluation of education for sustainable development goals. *The journal of environmental education*, 51(4), 280-291.

Kurth, J. A., Miller, A. L., Toews, S. G., Thompson, J. R., Cortés, M., Dahal, M. H., ... & Wangare, F. (2018). Inclusive education: Perspectives on implementation and practice from international experts. *Intellectual and Developmental Disabilities*, 56(6), 471-485.

Lee, B. X., Kjaerulf, F., Turner, S., Cohen, L., Donnelly, P. D., Muggah, R., ... & Gilligan, J. (2016). Transforming our world: implementing the 2030 agenda through sustainable development goal indicators. *Journal of public health policy*, 37(Suppl 1), 13-31.

Leicht, A., & Heiss, J. (2018). *Issues and trends in education for sustainable development* (Vol. 5). UNESCO publishing.

Makoelle, T. M. (2014). Inclusive education: Are we there? Some global challenges, contradictions and anomalies. *Journal of Sociology and Social Anthropology*, 5(3), 303-309.

Makoelle, T. M., & Burmistrova, V. (2025). Teacher education and inclusive education in Kazakhstan. *International Journal of Inclusive Education*, 29(4), 447-463.

Messiou, K. (2017). Research in the field of inclusive education: time for a rethink?. *International journal of inclusive education*, 21(2), 146-159.

Mitchell, D., & Sutherland, D. (2020). *What really works in special and inclusive education: Using evidence-based teaching strategies*. Routledge.

Moriña, A. (2019). Inclusive education in higher education: challenges and opportunities. *Postsecondary educational opportunities for students with special education needs*, 3-17.

Nasir, M. N. A., & Efendi, A. N. A. E. (2016). Special education for children with disabilities in Malaysia: Progress and obstacles Muhammad Nadhir Abdul Nasir. *Geografia*, 12(10).

Nilholm, C. (2021). Research about inclusive education in 2020—How can we improve our theories in order to change practice?. *European Journal of Special Needs Education*, 36(3), 358-370.

Reed, J., Van Vianen, J., Deakin, E. L., Barlow, J., & Sunderland, T. (2016). Integrated landscape approaches to managing social and environmental issues in the tropics: learning from the past to guide the future. *Global change biology*, 22(7), 2540-2554.

Saloviita, T. (2020). Attitudes of teachers towards inclusive education in Finland. *Scandinavian journal of educational research*, 64(2), 270-282.

Salvia, A. L., Leal Filho, W., Brandli, L. L., & Griebeler, J. S. (2019). Assessing research trends related to Sustainable Development Goals: Local and global issues. *Journal of cleaner production*, 208, 841-849.

Shah, S. R., & Mahmood, K. (2017). Review of Google scholar, Web of Science, and Scopus search results: The case of inclusive education research. *Library philosophy and practice*.

Shernoff, D. J., Sinha, S., Bressler, D. M., & Ginsburg, L. (2017). Assessing teacher education and professional development needs for the implementation of integrated approaches to STEM education. *International journal of STEM education*, 4(1), 13.

Sijuola, R., & Davidova, J. (2022). Challenges of implementing inclusive education: Evidence from selected developing countries. *Rural Environment Education Personality*, 15, 140-147.

Theobald, S., Brandes, N., Gyapong, M., El-Saharty, S., Proctor, E., Diaz, T., ... & Peters, D. H. (2018). Implementation research: new imperatives and opportunities in global health. *The Lancet*, 392(10160), 2214-2228.

Thomas, E., & Uthaman, S. (2019). Knowledge and attitude of primary school teachers towards inclusive education of children with specific learning disabilities. *Journal of Social Work Education and Practice*, 4(2), 23-32.

van Diggele, C., Roberts, C., Burgess, A., & Mellis, C. (2020). Interprofessional education: tips for design and implementation. *BMC medical education*, 20(Suppl 2), 455.

Van Mieghem, A., Verschuere, K., Petry, K., & Struyf, E. (2020). An analysis of research on inclusive education: a systematic search and meta review. *International Journal of Inclusive Education*, 24(6), 675-689.

Villafuerte, J., & Mosquera, Y. M. (2020). Teaching English language in Ecuador: A review from the inclusive educational approach. *Journal of Arts and Humanities*, 9(2), 75-90.

Walton, E., & Engelbrecht, P. (2024). Inclusive education in South Africa: Path dependencies and emergences. *International Journal of Inclusive Education*, 28(10), 2138-2156.

Žalėnienė, I., & Pereira, P. (2021). Higher education for sustainability: A global perspective. *Geography and Sustainability*, 2(2), 99-106.

Zhang, X., Chen, Y., Hu, L., & Wang, Y. (2022). The metaverse in education: Definition, framework, features, potential applications, challenges, and future research topics. *Frontiers in psychology*, 13, 1016300.