

Lived Experiences of General Education Teachers Handling Learners with Special Educational Needs in Inclusive Classrooms: A Basis for an Enhanced Inclusive Instruction Training Program

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Abstract

This study explored the lived experiences of general education teachers handling learners with special educational needs in inclusive classrooms as a basis for developing an Enhanced Inclusive Instruction Training Program. Anchored on the Universal Design for Learning framework, the study examined teachers' instructional practices, classroom challenges, and adaptive responses in selected public and private schools in San Jose del Monte, Bulacan. A qualitative phenomenological research design was employed, using a researcher-developed semi-structured interview guide validated by experts. Twelve general education teachers were purposively selected based on their direct experience in teaching learners with autism spectrum disorder, attention-deficit/hyperactivity disorder, learning disabilities, and/or psychosocial disorders in inclusive classroom settings. Data were gathered through face-to-face or online interviews, supported by field notes, verbatim transcription, member checking, and thematic analysis with the aid of NVivo. Findings revealed that teachers used instructional differentiation, interest-based engagement, and peer-supported learning to address learner variability. However, they also experienced behavioral and participation difficulties, lack of formal training, workload and time constraints, limited institutional support, weak coordination, and assessment challenges. The study concluded that inclusive teaching relied largely on teacher initiative and experiential strategies, highlighting the need for structured, context-responsive professional development. The proposed training program focuses on inclusive education foundations, Universal Design for Learning, differentiated instruction, classroom management, flexible assessment, and collaboration. The study aligns with SDG 4, SDG 10, SDG 3, SDG 16, and SDG 17 by promoting inclusive education, reduced inequalities, well-being, institutional support, and collaborative partnerships. Its sustainability impact lies in strengthening educational, institutional, social, policy, and community support systems for inclusive classroom implementation.

Keywords: Differentiated Instruction, Enhanced Inclusive Instruction, General Education Teachers, Inclusive Classrooms, Inclusive Education, Teacher Resilience

1. Introduction

This study examines the lived experiences of general education teachers handling learners with special educational needs in inclusive classrooms. It is grounded in the premise that inclusive education requires more than physical placement in mainstream classrooms; it demands meaningful participation, accessible instruction, responsive support, and sustained teacher preparedness. Anchored on Universal Design for Learning (UDL), the study explores teachers' instructional practices, classroom challenges, and adaptive responses as bases for developing an Enhanced Inclusive Instruction Training Program. By focusing on public and private school contexts in San Jose del Monte, Bulacan, the study addresses the gap between inclusive education policy and actual classroom implementation, particularly in resource-diverse Philippine settings.

Inclusive education has become a global educational priority because it promotes equitable learning opportunities for all learners, especially those with special educational needs. It reflects a movement away from uniform instructional models toward flexible, learner-centered practices that recognize learner variability as a natural part of education. Genuine inclusion goes beyond the placement of learners with disabilities in general education classrooms; it ensures their meaningful participation in learning activities, peer interaction, and academic growth within the classroom community (UNESCO, 2020). In the Philippine context, inclusive education is supported by national policies and laws that promote equitable access to quality education for learners with disabilities. These include DepEd Order No. 044, s. 2021, Republic Act No. 7277, or the Magna Carta for Disabled Persons, and Republic Act No. 11650, or the Inclusive Education Act. These policy instruments institutionalize inclusive education, strengthen support services, and affirm the right of learners with disabilities to participate meaningfully in the basic education system. However, policy progress has not fully resolved implementation challenges. Schools continue to encounter difficulties in providing adequate instructional support, institutional resources, and responsive learning environments for learners with diverse needs (Florian, 2014). Resource-

limited schools often struggle with shortages of trained teachers, limited assistive technologies, and insufficient instructional materials (UNESCO, 2020). Resource-rich schools may have better facilities, yet they may still fall short when inclusion results only in physical placement rather than meaningful engagement (Ainscow, 2020). Teachers remain central to the success of inclusive education because they translate inclusive principles into classroom practice through differentiated instruction, flexible strategies, and responsive classroom management (Loreman, 2017). In this regard, Universal Design for Learning offers a useful framework for addressing learner variability through multiple means of engagement, representation, and action and expression (CAST, 2018). Nevertheless, how teachers apply these principles in actual classrooms is shaped by their preparation, institutional context, available resources, and emotional capacity to manage diverse learner needs.

The literature consistently presents inclusive education as a rights-based and learner-centered approach that ensures equitable access, participation, and curriculum engagement for learners with diverse needs (Griful-Freixenet et al., 2020; UNESCO, 2020). It also emphasizes that teacher attitudes, preparedness, instructional competence, and professional support strongly influence the quality of inclusive classroom implementation (Dignath et al., 2022). Effective inclusive classrooms are often characterized by differentiated instruction, collaborative learning, and adaptive teaching strategies that respond to varied learner needs (Finkelstein et al., 2021; Griful-Freixenet et al., 2020). At the same time, inclusive education remains unevenly implemented across contexts. Teachers frequently face classroom management concerns, limited resources, inadequate training, and inconsistent institutional support (UNESCO, 2020; Allam & Martin, 2021; Finkelstein et al., 2021). In the Philippines, teachers also report increased workload, limited instructional materials, insufficient preparation, and difficulties accommodating diverse learner needs (Chavarria et al., 2023; De Guzman & Gutierrez, 2021). Teachers without formal preparation in inclusive education tend to experience greater difficulty in instructional adaptation, classroom management, and learner engagement (Chavarria et al., 2023; Dignath et al., 2022). UDL is widely recognized as a framework that supports inclusive education by reducing barriers through flexible instructional design. It encourages teachers to anticipate learner diversity and provide multiple pathways for engagement, content representation, and learner expression (CAST, 2018; Griful-Freixenet et al., 2020; Meyer et al., 2014). Studies indicate that UDL can improve accessibility, participation, and engagement among learners with varied needs (Moscato & Pedone, 2024; Piticari, 2023). However, successful UDL implementation depends on teacher beliefs, self-efficacy, instructional competence, training, and institutional support (Griful-Freixenet et al., 2020; Craig et al., 2022; Lowrey et al., 2017). Instructional practices in inclusive classrooms commonly include differentiated instruction, learner engagement strategies, collaborative learning, peer support, flexible assessment, and modified learning materials. Differentiated instruction involves adjusting content, process, activities, and assessment based on learner readiness, interests, and profiles (Tomlinson, 2017). Teachers may simplify activities, adapt materials, individualize support, and modify assessment requirements to promote curriculum access (Mastropieri & Scruggs, 2018; Griful-Freixenet et al., 2020). Engagement-oriented strategies, such as providing choice, using learner interests, and designing interactive activities, help sustain motivation and participation (Griful-Freixenet et al., 2020; Han & Lei, 2024; Moffat, 2022). Collaborative and peer-mediated approaches also promote academic participation, social interaction, and classroom belongingness (Ainscow, 2020; Finkelstein et al., 2021; Scharenberg et al., 2019). The literature further highlights the emotional dimension of inclusive teaching. Teachers in inclusive classrooms perform emotional labor as they regulate emotions while managing academic, behavioral, social, and emotional learner needs (Dignath et al., 2022). They may experience stress, frustration, uncertainty, and emotional exhaustion, especially when training and support are limited (De Guzman & Gutierrez, 2021). Resilience becomes essential as teachers adapt, collaborate with parents and colleagues, improvise strategies, and sustain their professional commitment despite difficult conditions (Catoto & Mantawil, 2023; Lariba, 2023). However, resilience should not be viewed only as an individual trait because it is also shaped by administrative support, collaborative school culture, professional development, and resource availability (Craig et al., 2022; Loreman, 2017).

Globally, inclusive education is framed as a fundamental human right and a pathway toward equitable quality education. International frameworks emphasize the removal of barriers to learning and participation, with UNESCO promoting inclusive and equitable education systems (UNESCO, 2020). The United Nations Sustainable Development Goal 4 likewise calls for inclusive and equitable quality education and lifelong learning opportunities for all (United Nations, 2015). Nationally, the Philippines has institutionalized inclusive education through laws and policy issuances. Republic Act No. 11650 mandates equitable access to quality education for learners with disabilities in mainstream settings, while Republic Act No. 7277 affirms the rights of persons with disabilities to education, rehabilitation, and full participation in society. DepEd Order No. 044, s. 2021 provides guidelines for educational programs and services for learners with disabilities in public and private schools. These frameworks position teachers, administrators, parents, and support personnel as partners in providing inclusive and responsive educational support. Locally, this study focuses on selected public and private schools in San Jose del Monte, Bulacan. The study includes grade school and high school teachers who handle learners with formally diagnosed and disclosed cases of autism spectrum disorder, attention-deficit/hyperactivity disorder, learning disabilities, psychosocial disorders, and learners tagged under the Special Educational Needs category in the Department of Education Learner Information System. Learners with special educational needs are students who require additional educational support due to developmental, cognitive, behavioral, or learning differences that may affect academic

participation (Department of Education [DepEd], 2022). The inclusion of both public and private schools allows the study to examine inclusive practices across resource-diverse contexts. Private schools may have learners with autism spectrum disorder, attention-deficit/hyperactivity disorder, and other developmental conditions integrated into general education classrooms with varying accommodations. Public schools may implement partial or full inclusion programs where SNED learners participate in regular classes. This local focus provides context-specific insights into how institutional culture, resources, leadership, and teacher preparedness influence inclusive classroom implementation.

This study is anchored on the Universal Design for Learning framework. UDL was developed in the 1990s by David Rose, Anne Meyer, and colleagues at the Center for Applied Special Technology. It was inspired by Universal Design in architecture, which emphasizes environments and products that are accessible to all individuals. Applied to education, UDL anticipates learner diversity and reduces barriers by embedding flexibility into curriculum design, instructional strategies, and assessment methods. The framework is grounded in cognitive neuroscience and learning sciences that recognize student variability in instructional design (Rusconi, 2023). UDL is guided by three major principles: multiple means of representation, multiple means of action and expression, and multiple means of engagement. Multiple means of representation involve presenting information in varied formats, such as visual aids, multimedia, hands-on activities, and technology-based resources. Multiple means of action and expression allow learners to demonstrate understanding through written responses, oral presentations, collaborative tasks, or creative projects. Multiple means of engagement sustain motivation by incorporating learner choice, real-life relevance, collaboration, and culturally responsive materials.

The study's conceptual framework links UDL principles with teachers' lived experiences in inclusive classrooms. Teachers' experiences in applying inclusive instruction reveal both best practices and challenges. These insights then inform the development of an Enhanced Inclusive Instruction Training Program designed to strengthen teachers' capacity to implement inclusive strategies. The framework views inclusive teaching as a cyclical process involving reflection, strategy application, identification of barriers, and professional development. Key concepts also support the study's foundation. Attention-Deficit/Hyperactivity Disorder is a neurodevelopmental condition involving persistent patterns of inattention, hyperactivity, and impulsivity that may affect classroom focus and participation according to the American Psychiatric Association [APA] (Cortes, 2022). Autism Spectrum Disorder is a developmental condition involving differences in social communication, behavior, and sensory processing that may influence classroom interaction and learning, as per the American Psychiatric Association (APA) (Cortes, 2022). An inclusive classroom is a learning environment where learners with and without special educational needs learn together (UNESCO, 2020). Inclusive education is an approach in which learners with special educational needs participate in general education classrooms with appropriate support and accommodations (UNESCO, 2020). Universal Design for Learning is a framework for designing instruction that provides multiple means of engagement, representation, and action or expression to accommodate diverse learning needs (CAST, 2018).

Although inclusive education and UDL are well-established in the literature, there remains limited empirical understanding of how general education teachers translate these frameworks into actual classroom practice, particularly in diverse and resource-constrained settings. Many studies focus on policy implementation, access, learner outcomes, teacher perceptions, or general challenges, but fewer examine how teachers make real-time instructional decisions, combine strategies, and sustain inclusive practices under contextual constraints. The literature also shows that challenges in inclusive education are often discussed separately, even though teachers experience them as interconnected realities. Insufficient training, limited resources, workload, classroom management demands, institutional gaps, and emotional strain collectively influence teachers' instructional choices and professional well-being (Allam & Martin, 2021; Chavarria et al., 2023; Garcia & Dizon, 2020). Local studies further indicate that Filipino teachers frequently rely on improvisation, collaboration, and self-directed adaptation to sustain inclusive instruction (Catoto & Mantawil, 2023; De Guzman & Gutierrez, 2021). Another gap concerns the relationship between emotional labor, resilience, and instructional decision-making. While emotional challenges and coping strategies are documented, fewer studies examine how teachers' emotional experiences shape inclusive pedagogy and classroom practice. Furthermore, limited research systematically uses teachers' lived experiences as a basis for developing structured, context-responsive professional development programs. This study addresses these gaps by exploring the lived experiences of general education teachers handling learners with special educational needs in inclusive classrooms. It specifically examines teachers' best instructional delivery practices, the challenges they encounter, and how their experiences can inform an Enhanced Inclusive Instruction Training Program. The target sample of 10–12 participants is consistent with qualitative research guidance suggesting that phenomenological studies may reach saturation within 6–12 interviews (Creswell & Poth, 2018). Through this focus, the study seeks to bridge inclusive education policy, UDL-based instructional theory, and classroom realities in the Philippine setting.

This study aligns most directly with SDG 4 – Quality Education because it focuses on inclusive and equitable learning opportunities for learners with special educational needs. By examining how teachers support accessibility, participation, differentiated instruction, and learner engagement, the study contributes to the goal of improving education systems that serve diverse learners (United Nations, 2015). The study also supports SDG 10 – Reduced Inequalities, although not listed explicitly in the sample SDGs, because inclusive education aims to reduce barriers experienced by learners with disabilities

and other special educational needs. Its focus on meaningful participation, reasonable accommodation, and inclusive classroom practices reflects the broader equity orientation of inclusive education (UNESCO, 2020). The study connects with SDG 3 – Good Health and Well-Being through its attention to learners’ socio-emotional participation and teachers’ emotional labor and resilience. Inclusive classrooms affect not only academic access but also belongingness, emotional support, and teacher well-being. Addressing teacher stress, emotional exhaustion, and support needs can contribute to healthier and more sustainable educational environments (Allam & Martin, 2021; Dignath et al., 2022). The study further relates to SDG 16 – Peace, Justice, and Strong Institutions because inclusive education depends on laws, policies, institutional accountability, and school-level systems that uphold the rights of learners with disabilities. Republic Act No. 11650, Republic Act No. 7277, and DepEd Order No. 044, s. 2021 provide the legal and institutional basis for strengthening inclusive education in the Philippines. Finally, the study supports SDG 17 – Partnerships for the Goals by emphasizing collaboration among teachers, administrators, parents, support personnel, policymakers, and inclusive education advocates. Literature shows that effective inclusive education requires collaborative systems rather than isolated teacher effort (Craig et al., 2022; Loreman, 2017).

The study contributes to educational sustainability by supporting the development of inclusive teaching practices that can be sustained across diverse classroom contexts. By grounding the proposed Enhanced Inclusive Instruction Training Program in teachers’ lived experiences, the study promotes professional development that is practical, context-responsive, and aligned with actual classroom realities. It also contributes to institutional sustainability by identifying how schools can strengthen support systems, mentoring structures, instructional resources, and inclusive policies. School administrators may use the findings to improve professional development initiatives, allocate resources more effectively, and foster a school culture that values inclusion and diversity. The study supports socio-economic sustainability by promoting equitable access to education for learners with special educational needs. Inclusive education can improve participation, belongingness, and long-term opportunities for learners who might otherwise experience marginalization. In this way, the study contributes to reducing educational exclusion and strengthening learners’ capacity for future social and economic participation. The study also advances public health and well-being sustainability by recognizing the emotional demands placed on teachers in inclusive settings. Teacher resilience, emotional support, and manageable instructional expectations are necessary for sustaining effective inclusive classrooms. Addressing these concerns may reduce burnout and promote healthier school environments. In terms of policy and governance sustainability, the study provides classroom-based evidence that can inform more responsive inclusive education policies and training initiatives. By connecting national mandates with teachers’ lived experiences, the study helps clarify what support teachers need to translate inclusive education policy into effective classroom practice. Finally, the study contributes to community and cultural sustainability by reinforcing the Philippine inclusive education advocacy “Lahat Kasali. Kasali Lahat.” This principle emphasizes that inclusion is not only about access but also about meaningful participation, shared responsibility, and recognition of learner diversity within the classroom community.

The study is geographically limited to selected schools in San Jose del Monte, Bulacan. It focuses on public and private schools recognized for their commitment to inclusive education. Participants are general education teachers who directly handle learners with special educational needs in inclusive classrooms and who have relevant experience teaching learners with ASD, ADHD, learning disabilities, and/or psychosocial disorders. The study does not directly assess student performance or school infrastructure. Instead, it examines teachers’ experiences in implementing inclusive practices, managing classrooms, adapting instruction, and responding to learner needs. Parental involvement and institutional support are considered only when they influence teachers’ strategies and perceptions. This scope allows the study to generate context-specific insights that may inform inclusive instruction training programs grounded in Philippine classroom realities.

2. Material and methods

2.1 Research Design

This study employed a qualitative phenomenological research design to examine the lived experiences of general education teachers handling learners with special educational needs in inclusive classrooms. The phenomenological approach was appropriate because the study aimed to understand not only teachers’ instructional practices and classroom challenges but also the meanings they attached to their experiences in inclusive instruction. The phenomenon examined was the experience of teaching learners with special educational needs in inclusive classrooms. Compared with descriptive qualitative approaches that mainly report observable practices, phenomenology allowed deeper exploration of teachers’ perceptions, interpretations, and professional realities. To analyze these experiences systematically, the study used thematic analysis procedures following Creswell and Poth (2018), allowing recurring themes to be identified while remaining grounded in participants’ perspectives.

2.2 Locale of the Study

The study was conducted in selected public and private schools in the City of San Jose del Monte, Bulacan that implement inclusive education practices. These schools were selected because they provided varied instructional contexts, institutional structures, and levels of resource availability that could influence teachers' experiences in inclusive classrooms. The inclusion of both public and private schools enabled the study to examine how differences in school context shaped inclusive teaching practices.

2.3 Respondents of the Study

The respondents were general education teachers who were currently handling or had recently handled learners with special educational needs in inclusive classroom settings. They were selected because of their direct involvement in teaching learners with autism spectrum disorder, attention-deficit/hyperactivity disorder, learning disabilities, and/or psychosocial disorders. Their experiences provided relevant insights into inclusive instruction, classroom management, instructional adaptation, and the realities of supporting learners with diverse needs.

2.4 Sample and Sampling Procedure

The study used purposive sampling to select participants with direct and relevant experience related to the phenomenon under investigation. Twelve teachers from public and private schools participated in the study. The sample size was consistent with phenomenological research, which prioritizes depth of insight rather than numerical representation. Participants were included if they were currently teaching or had recently taught in an inclusive classroom, handled at least one learner with special educational needs, had one to three years of experience teaching learners with autism spectrum disorder, attention-deficit/hyperactivity disorder, learning disabilities, and/or psychosocial disorders, and were willing to participate voluntarily and share their teaching experiences.

2.5 Research Instrument

The study used a researcher-developed semi-structured interview guide to gather qualitative data. The instrument was designed to elicit in-depth responses about the lived experiences of general education teachers handling learners with special educational needs in inclusive classrooms. It underwent content validation by qualified experts in inclusive education and educational research to ensure the clarity, relevance, and alignment of the questions with the study objectives. Revisions were made based on validators' suggestions before data collection. The interview guide gathered information on participants' teaching background, grade level handled, and formal or informal training related to inclusive education. It also included fifteen open-ended questions aligned with the research questions. These questions explored teachers' instructional best practices, including how they presented lesson content, facilitated engagement, and provided varied ways for learners to demonstrate understanding. The guide also examined challenges related to lesson delivery, classroom management, assessment, and collaboration with stakeholders. The questions were organized around representation, engagement, and action and expression based on Universal Design for Learning principles. The semi-structured format allowed the researcher to ask follow-up questions when clarification or elaboration was necessary.

2.6 Data Gathering Procedure

Before data collection, permission was secured from the administrators of the selected schools. Participants were informed that participation was voluntary and that they could withdraw at any time without penalty. They received an information sheet explaining the purpose of the study, expected interview duration, confidentiality measures, and their rights as participants. They were also allowed to ask questions and clarify concerns before giving informed consent. Interview schedules were arranged at times convenient for the participants. Depending on availability, interviews were conducted either face-to-face or through online platforms. Semi-structured interviews were used to allow an in-depth exploration of participants' experiences, and each interview lasted approximately 30 to 45 minutes. Field notes were taken to document contextual observations and details not fully captured in the audio recordings. With participants' consent, interviews were audio-recorded and later transcribed verbatim to ensure accurate representation of responses. Data collection was conducted from June to September 2025. After transcription, participants were invited to review their interview transcripts to confirm accuracy and provide clarifications when necessary. This member checking process was used to enhance data credibility (Creswell & Poth, 2018). Audio recordings, transcripts, and field notes were stored in password-protected files accessible only to the researcher, and participants' identities were kept confidential throughout the study.

2.7 Data Analysis Techniques

Data were analyzed using thematic analysis within a phenomenological framework. The analysis began with repeated reading of interview transcripts to gain a comprehensive understanding of participants' narratives. Significant statements related to teachers' experiences in inclusive instruction were identified and assigned descriptive codes. These codes were then grouped into broader categories corresponding to the study's major areas, including instructional best practices, classroom challenges, and inclusive teaching practices. NVivo qualitative data analysis software was used to assist in organizing, coding, and managing the data. However, interpretation and synthesis of themes remained the responsibility of the researcher. Final themes were interpreted in relation to the research questions and supported by verbatim excerpts from

the interview transcripts to preserve the authenticity of participants' voices. Trustworthiness was ensured through credibility, dependability, confirmability, and transferability. Credibility was supported through prolonged engagement with the data, use of verbatim quotations, and member checking. Dependability was addressed through systematic documentation of data collection and analysis procedures. Confirmability was supported through reflexive journaling to reduce researcher bias. Transferability was addressed by providing detailed descriptions of the research context, participants, and procedures so that readers could assess the applicability of the findings to similar educational settings. The themes generated from the analysis of instructional best practices and challenges served as the basis for developing the Enhanced Inclusive Instruction Training Program.

2.8 Ethical Considerations

Ethical principles were observed throughout the research process. Participation was voluntary, and participants were informed that they could withdraw at any time without consequences. Informed consent was obtained before data collection after the purpose, procedures, and participant rights were explained. To protect identities, pseudonyms were used in reporting the findings. All audio recordings, transcripts, and related data were treated with strict confidentiality and stored securely in password-protected files accessible only to the researcher. No identifying information was included in the transcripts or final report to ensure anonymity.

3. Results and Discussion

3.1 Instructional Practices in Inclusive Classrooms

3.1.1 Instructional Differentiation

The findings showed that teachers commonly used instructional differentiation to support learners with special educational needs. They modified worksheets, simplified tasks, adjusted pacing, provided individualized instruction, and gave one-on-one assistance when possible. These practices were used to help learners participate in lessons and meet expected competencies despite differences in ability, attention, and readiness. However, some teachers reported that even simplified activities were not always completed by learners, especially when class size and time limitations prevented sustained individualized support. These findings indicate that teachers recognized learner variability as a practical classroom reality requiring flexible instruction rather than uniform teaching. Griful-Freixenet et al. (2020) emphasized that flexible instructional approaches help improve accessibility and participation for learners with diverse educational needs. Chavarria et al. (2023) likewise noted that teachers' readiness for inclusive education is closely connected to their capacity to adapt instruction to varying learner profiles. Rusconi and Squillaci (2023) argued that teachers require sustained professional preparation to apply differentiated and inclusive strategies more consistently across classroom contexts. These practices also reflect Universal Design for Learning because they provide flexible ways for learners to access information and demonstrate understanding (CAST, 2018; Meyer et al., 2014).

3.1.2 Interest-Based Engagement

The findings revealed that teachers used learners' personal interests to encourage participation and sustain attention. Teachers observed learners' preferences and incorporated familiar topics, preferred activities, reinforcement, and alternative tasks to motivate participation. For example, one teacher used a learner's interest in planets to encourage task completion, while others asked learners about their preferred activities to help them engage in class. These strategies were generally informal and based on teacher observation rather than formal intervention plans. These results suggest that engagement in inclusive classrooms is shaped by learners' motivation, familiarity, and emotional connection to classroom activities. Interest-based strategies helped make learning more accessible by connecting tasks to what learners already valued or enjoyed. Such practices align with the engagement dimension of Universal Design for Learning, which emphasizes meaningful and relevant learning experiences that reduce barriers to participation (CAST, 2018; Meyer et al., 2014). Han and Lei (2024) similarly found that learners were more likely to participate actively when instructional approaches acknowledge their interests, preferences, and motivational needs. Griful-Freixenet et al. (2020) further noted that personalized learning experiences could strengthen classroom participation among learners with diverse educational needs. However, because these strategies depended largely on teacher initiative, the findings also support Ainscow (2020), who argued that inclusive practices became more sustainable when supported by institutional structures rather than individual teacher effort alone.

3.1.3 Peer-Supported Learning

The findings showed that teachers used peer support to assist learners with special educational needs during classroom activities. Teachers grouped learners with supportive classmates, used buddy systems, and encouraged peer guidance to help learners cooperate, complete tasks, and participate socially. Peer support was especially useful when teachers could not provide constant one-on-one assistance because of large class sizes and competing classroom responsibilities. These findings indicate that peer-supported learning served both academic and social purposes in inclusive classrooms. It helped learners remain involved in tasks while also promoting belongingness and interaction with classmates. Previous literature

similarly emphasized the benefits of peer collaboration in inclusive classrooms (Finkelstein et al., 2021). Scharenberg et al. (2019) likewise found that classroom peer relationships influence both academic participation and social belonging among learners with special educational needs. These practices also reflect inclusive education principles by supporting participation through social interaction and shared learning experiences (CAST, 2018; Meyer et al., 2014). However, the findings also showed that peer support was mostly informal and dependent on teacher judgment, suggesting the need for more structured collaborative systems.

3.1.4 Synthesis of Instructional Practices

The findings showed that instructional differentiation, interest-based engagement, and peer-supported learning were interconnected practices used by teachers to respond to learner variability. Teachers identified barriers such as difficulty sustaining attention, low task completion, and social withdrawal, then responded through flexible and context-based strategies. Differentiation helped adjust instruction to learner readiness, interest-based engagement supported motivation, and peer-supported learning extended assistance beyond teacher-led instruction. These findings suggest that teachers' best practices were adaptive and responsive but often reactive rather than systematically planned. Because many participants had limited formal training, inclusive practices depended heavily on observation, intuition, and trial-and-error decision-making. The results show that teacher commitment was evident, but the sustainability and consistency of inclusive instruction require stronger professional preparation, institutional support, and shared inclusive standards.

3.2 Challenges Encountered in Inclusive Classrooms

3.2.1 Behavioral and Participation Difficulties

The findings showed that teachers encountered challenges related to learners' limited participation, attention difficulties, passive behavior, fear, low confidence, and anxiety. Teachers described learners who remained silent, stared without responding, avoided activities, hesitated to enter class, or refused to participate because they feared being called on. These behaviors were not always disruptive; many appeared as withdrawal, hesitation, or nonparticipation. These results indicate that participation difficulties were not purely behavioral but were also connected to emotional and psychological factors. Learners could withdraw because of fear of failure, embarrassment, or low confidence. From a Universal Design for Learning perspective, these challenges reflect barriers to engagement because learners who feel unsafe or anxious may be unable to participate meaningfully even when instruction is available. This finding was consistent with Malki and Einat (2017), who reported that teachers often encounter difficulties in engaging learners whose participation is influenced by both emotional and cognitive factors. The findings suggest the need for teacher training that addresses emotional safety, confidence-building, and inclusive classroom participation.

3.2.2 Lack of Formal Training

The findings revealed that teachers lacked formal preparation in handling learners with special educational needs. Participants reported having no formal training, limited special education background, and uncertainty about how to simplify lessons or adapt strategies. In the absence of structured preparation, teachers relied on self-learning, personal initiative, and improvised classroom responses. These findings show a gap between inclusive education expectations and teachers' actual readiness. Although teachers were willing to support learners, their practices were often shaped by intuition rather than formal pedagogical guidance. UNESCO (2020) emphasized that inclusive education initiatives are difficult to sustain when teachers lack specialized training and ongoing professional support. Dignath et al. (2022) found that teachers' beliefs, confidence, and classroom practices are strongly influenced by the quality of their professional preparation for inclusive education. Craig et al. (2022) further argued that sustained professional development is essential in helping teachers apply inclusive frameworks such as Universal Design for Learning in more intentional and consistent ways.

3.2.3 Additional Teacher Workload and Time Constraints

The findings showed that workload and time limitations were major barriers to inclusive practice. Teachers reported difficulty providing one-on-one support in classes with many learners, especially when instructional periods were limited. They recognized that learners with special educational needs often required additional attention, but large class sizes, limited subject time, and multiple teaching responsibilities made individualized support difficult to sustain. These results suggest that inclusive teaching was experienced as both professionally and emotionally demanding. The difficulty was not teacher unwillingness but the structural challenge of implementing inclusive practices within crowded classrooms and compressed schedules. Allam and Martin (2021) observed that teachers in inclusive settings frequently struggle with time management and instructional demands due to large class sizes and diverse learner needs. Catoto and Mantawil (2023) noted that teachers handling learners with special educational needs often experience increased emotional and professional strain as they attempt to balance individualized attention with overall classroom responsibilities. The findings therefore show that inclusive education cannot depend solely on teacher effort; it also requires institutional adjustments and support.

3.2.4 Limited Institutional Support and Coordination

The findings revealed gaps in institutional support, communication, and coordination. Teachers reported weak endorsement procedures, limited information about learners' needs, insufficient classroom resources, and uneven support between

special education settings and regular classrooms. Some teachers entered inclusive classrooms without enough background information about learners' conditions, previous interventions, or needed accommodations. These findings indicate that teachers were not only managing learner diversity but also compensating for weaknesses in the broader support system. Fragmented coordination affected instructional planning, continuity of support, and consistency of accommodations. Ainscow (2020) argued that inclusion becomes difficult to sustain when schools lack collaborative structures that connect teachers, specialists, and administrators. In the Philippine context, Garcia and Dizon (2020) also noted that insufficient institutional support and limited access to resources remain persistent barriers to inclusive classroom implementation, particularly in regular public-school settings. The results show that inclusive education requires shared responsibility, clear communication, and accessible support systems.

3.2.5 Assessment Difficulties

The findings showed that assessment was one of the most difficult aspects of inclusive classroom practice. Teachers were uncertain about how to grade learners with special educational needs using the same standards applied to the rest of the class. They reported difficulty obtaining recordable outputs from learners who refused to write, read, or complete conventional tasks. This created uncertainty about fairness, grading, and documentation of learner progress. These results suggest a mismatch between traditional assessment systems and the actual ways some learners demonstrate learning. Teachers recognized the need for alternative assessment but lacked structured tools and guidance. Moffat (2022) noted that conventional assessment approaches frequently fail to capture the abilities of learners with diverse educational needs, particularly when evaluation depends heavily on reading, writing, and uniform performance measures. King-Sears and Johnson (2020) emphasized that flexible forms of assessment allow learners to demonstrate understanding through varied modes of expression, which may provide a more accurate representation of learning in inclusive environments. The findings indicate that inclusive assessment must recognize learner variability and provide fair ways to document progress.

3.2.6 Synthesis of Challenges

The findings showed that teachers' challenges were interconnected rather than isolated. Lack of formal training contributed to uncertainty in differentiation and assessment. Large class sizes and limited time made individualized support difficult. Weak coordination and insufficient resources increased reliance on teacher initiative. Standardized grading expectations created additional tension between inclusive goals and conventional academic requirements. These findings indicate that inclusive classroom implementation is shaped by broader structural conditions, not only by individual teacher capability. Teachers attempted to support learners through adaptive strategies, but their efforts were constrained by limited preparation, workload demands, institutional gaps, and assessment expectations. Without stronger systemic support, inclusive practices may continue to depend on individual teacher adaptability rather than consistent educational structures.

3.3 Teachers' Lived Experiences as Basis for an Enhanced Inclusive Instruction Training Program

3.3.1 From Experience-Based Practices to Structured Pedagogy

The findings showed that teachers were able to adapt instruction but often did so intuitively rather than through structured frameworks. Teachers modified tasks, simplified activities, and provided individualized assistance, yet some expressed uncertainty about how to simplify lessons effectively. These experiences pointed to the need for a training component focused on differentiated instruction that would help teachers plan and apply inclusive strategies more intentionally. This result suggests that teachers already demonstrate the foundations of inclusive practice but require clearer pedagogical guidance to make these practices systematic and consistent. The need for structured inclusive pedagogy is supported by Craig et al. (2022), who noted that teachers require sustained professional development to effectively implement inclusive instructional frameworks such as Universal Design for Learning.

3.3.2 Addressing Emotional and Participation Barriers

The findings revealed that learners' participation was often affected by fear, anxiety, low self-confidence, and hesitation to engage in classroom tasks. Teachers responded to these situations based mainly on personal judgment and experience. These findings informed the need for a training component on inclusive classroom management that would help teachers address behavioral and emotional participation barriers. These findings indicate that inclusive classroom management must address not only behavior but also emotional safety and learner confidence. Teachers need practical strategies to create supportive environments that reduce anxiety and encourage participation. Loreman (2017) emphasized that inclusive classroom environments are strengthened when teachers are prepared to address not only academic needs but also learners' emotional and social participation.

3.3.3 Bridging the Training Gap

The findings showed that teachers lacked formal training in special and inclusive education. Participants expressed that they were expected to support learners with special educational needs despite limited preparation. This informed the need for a foundational training component on inclusive education and Universal Design for Learning. This finding suggests that teacher preparedness is central to effective inclusion. Without foundational knowledge, teachers may continue to rely on improvisation rather than systematic inclusive strategies. Crispel and Kasperski (2019) similarly argued that teacher

preparedness and continuous professional learning are essential factors in the successful implementation of inclusive education.

3.3.4 Managing Structural Constraints

The findings showed that teachers faced structural constraints such as large class sizes, limited instructional time, and heavy workload. These conditions made it difficult to sustain one-on-one support and consistent differentiated instruction. The proposed training therefore included practical and time-conscious strategies that teachers could apply within existing classroom realities. These results indicate that professional development must be realistic and responsive to teachers' actual working conditions. Inclusive strategies are more likely to be sustained when they are feasible within regular class schedules and workload demands. Lowrey et al. (2017) noted that practical and sustainable inclusive strategies are more likely to be implemented when professional development is responsive to actual classroom conditions and instructional demands.

3.3.5 Redesigning Assessment Practices

The findings revealed that teachers struggled to assess learners with special educational needs using conventional grading systems. Teachers had difficulty documenting performance when learners did not complete written or standard outputs. These findings informed the need for a training component on flexible assessment and alternative learning outputs. These results indicate that inclusive assessment should provide learners with varied ways to demonstrate understanding. King-Sears and Johnson (2020) emphasized that inclusive assessment practices should provide learners with multiple ways of demonstrating understanding rather than relying solely on traditional written measures. Moffat (2022) argued that flexible assessment approaches are essential in inclusive classrooms because conventional grading systems often fail to capture the progress of learners with diverse educational needs.

3.3.6 Strengthening Collaboration Systems

The findings showed that teachers experienced limited coordination, weak endorsement procedures, and insufficient communication among those involved in supporting learners with special educational needs. Teachers were often left to manage inclusive classroom concerns independently. These findings informed the need for a training component on collaboration and communication among teachers, parents, and support personnel. These findings suggest that inclusive education requires coordinated support rather than isolated teacher effort. Strengthening communication systems can help ensure that teachers receive relevant learner information, appropriate guidance, and consistent support. Collaboration is therefore necessary for improving continuity of support and making inclusive practices more sustainable across classroom contexts.

3.3.7 Proposed Enhanced Inclusive Instruction Training Program

The proposed Enhanced Inclusive Instruction Training Program was developed from the major themes identified in teachers' lived experiences. It consists of five training modules focused on foundations of inclusive education and Universal Design for Learning, differentiated instruction, inclusive classroom management, flexible assessment, and collaboration with parents and support personnel. Each module was designed to respond to specific needs identified in the findings, including limited training, difficulty differentiating instruction, classroom management concerns, assessment challenges, and weak collaboration systems. The program was intended to strengthen teacher competence, confidence, classroom management, inclusive assessment practices, and school-home collaboration. The program integrates Universal Design for Learning with the actual experiences of teachers in inclusive classrooms. Its value lies in translating classroom-based challenges into practical training content rather than relying only on theoretical assumptions. Consistent with Craig et al. (2022), effective inclusive education training programs are strengthened when they are grounded in actual classroom experiences and supported by practical instructional applications. Similarly, Crispel and Kasperski (2019) emphasized that sustained professional development plays an important role in improving teachers' preparedness and confidence in implementing inclusive practices.

4. Conclusion & Recommendations

The study concluded that general education teachers handling learners with special educational needs in inclusive classrooms relied largely on experiential knowledge, personal initiative, and adaptive strategies rather than formal preparation. Their practices included differentiation, interest-based engagement, and peer-supported learning, which showed responsiveness to learner diversity and alignment with Universal Design for Learning (UDL). However, the findings also revealed a gap between inclusive education policy and classroom implementation, as teachers continued to experience behavioral management difficulties, limited professional training, increased workload, weak parent collaboration, and emotional strain. These realities indicate that inclusive teaching is both instructional and emotionally demanding and that structured, context-responsive professional development is necessary to strengthen inclusive education practices. The proposed Enhanced Inclusive Instruction Training Program provides a practical framework for translating

teachers' lived experiences into targeted support that can improve inclusive classroom implementation.

Schools should implement structured professional development programs grounded in inclusive education and Universal Design for Learning (UDL), with emphasis on differentiated instruction, inclusive classroom management, flexible assessment, and collaboration with parents and school support systems. School administrators should strengthen coordination among general education teachers, guidance personnel, support staff, and parents to provide consistent assistance for learners with special educational needs. Educational institutions should integrate inclusive education training into teacher development initiatives so teachers are equipped with structured and evidence-informed instructional strategies rather than relying only on experience-based practices. The proposed Enhanced Inclusive Instruction Training Program may also be piloted and evaluated to determine its effectiveness in improving teacher competencies, classroom management, instructional practices, and learner outcomes in inclusive settings. Future studies may examine the program's impact, use multiple data sources such as classroom observations, document analysis, and quantitative measures, include broader school contexts and participant groups, and explore the perspectives of learners, parents, school administrators, and special education specialists.

The study was limited to the lived experiences of twelve general education teachers from selected public and private schools in San Jose del Monte, Bulacan; therefore, the findings may not fully represent inclusive education practices in other school settings or regions. The data were based on semi-structured interviews and participants' self-reported experiences, without additional validation from classroom observations or document analysis. The study also focused only on general education teachers, so the perspectives of learners, parents, administrators, and support personnel were not included. Despite these limitations, the study provided contextually grounded insights into inclusive classroom practices and offered a basis for developing responsive and practice-oriented interventions in inclusive education.

Compliance with ethical standards

The study complied with institutional ethical standards in the conduct of qualitative research involving teacher-participants. Permission and ethical clearance were secured from the appropriate academic and school authorities before data collection. Participation was voluntary, and informed consent was obtained after participants were informed of the study's purpose, procedures, confidentiality measures, and their right to withdraw at any time without penalty. Participants' identities and responses were kept confidential through the use of pseudonyms, secure data storage, and restricted access to interview records and transcripts. The researcher acknowledges all institutional, academic, and participant contributions to the study, declares no conflict of interest, and assumes responsibility for the originality, integrity, authorship, and copyright ownership of the research output in accordance with institutional requirements.

REFERENCES

- Aftab, M. J., Amjad, F., & Chaudhry, H. (2024). Inclusive education: Strategies for successful inclusion of students with disabilities in mainstream classrooms. *Academy of Education and Social Sciences Review*, 4(3), 439–453. <https://doi.org/10.48112/aessr.v4i3.824>
- Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, 6(1), 7–16. <https://doi.org/10.1080/20020317.2020.1729587>
- Al-Azawei, A., Serenelli, F., & Lundqvist, K. (2016). Universal design for learning: A content analysis of peer-reviewed journal papers from 2012 to 2015. *Journal of the Scholarship of Teaching and Learning*, 16(3), 39–56. <https://doi.org/10.14434/josotl.v16i3.19295>
- Almeqdad, Q. I., Alodat, A. M., Alquraan, M. F., Mohaidat, M. A., & Al-Makhzoomy, A. K. (2023). The effectiveness of universal design for learning: A systematic review of the literature and meta-analysis. *Cogent Education*, 10(1), Article 2218191. <https://doi.org/10.1080/2331186X.2023.2218191>
- Allam, F. C., & Martin, M. M. (2021). Issues and challenges in special education: A qualitative analysis from teacher's perspective. *Southeast Asia Early Childhood Journal*, 10(1), 37–49. <https://doi.org/10.37134/saecj.vol10.1.4.2021>
- CAST. (2018). *Universal design for learning guidelines version 2.2*. <https://udlguidelines.cast.org>
- Catoto, J. S., & Mantawil, B. A. (2023). For the love of teaching: The chronicles of teachers handling students with special educational needs. *Journal of Curriculum and Teaching*, 12(1), 63. <https://doi.org/10.5430/jct.v12n1p63>
- Chavarria, E., Lizarondo, L., & Nguyen, T. (2023). Teacher readiness for inclusive classrooms. *International Journal of Inclusive Education*, 27(4), 441–458.
- Cortés, A. S. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.; DSM-5-TR), by American Psychiatric Association [Review of the book *Diagnostic and statistical manual of mental disorders*]. *Psicooncología*, 19(2), 339–340. <https://doi.org/10.5209/psic.84045>

- Craig, S. L., Smith, S. J., & Frey, B. B. (2022). Professional development with universal design for learning: supporting teachers as learners to increase the implementation of UDL. *Professional Development in Education*, 48(1), 22–37. <https://doi.org/10.1080/19415257.2019.1685563>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Crispel, O., & Kasperski, R. (2019). *The impact of teacher training in special education on the implementation of inclusion in mainstream classrooms. International Journal of Inclusive Education*, 25(7), 767–785. <https://doi.org/10.1080/13603116.2019.1600590>
- De Guzman, A., & Gutierrez, M. (2021). Teachers' experiences of inclusive practices in Philippine classrooms. *Philippine Journal of Educational Research*, 4(1), 15–29.
- De Jesus, C. (2018). Inclusive education practices in public schools: A Philippine perspective. *Asia Pacific Journal of Education*, 38(2), 213–226.
- Department of Education. (2021). DepEd Order No. 044, s. 2021: Policy guidelines on the provision of educational programs and services for learners with disabilities in the K to 12 basic education program. https://www.deped.gov.ph/wp-content/uploads/2021/11/DO_s2021_044.pdf
- Department of Education. (2022). Learner Information System. <https://lis.deped.gov.ph>
- Dignath, C., Rimm-Kaufman, S. E., van Ewijk, R., & Kunter, M. (2022). Teachers' beliefs about inclusive education and insights on what contributes to those beliefs: A meta-analytical study. *Educational Psychology Review*, 34, 2609–2660. <https://doi.org/10.1007/s10648-022-09695-0>
- Finke, E. H., McNaughton, D. B., & Drager, K. D. R. (2009). "All children can and should have the opportunity to learn": General education teachers' perspectives on including children with autism spectrum disorder who require AAC. *Augmentative and Alternative Communication*, 25(2), 110–122. <https://doi.org/10.1080/07434610902886206>
- Finkelstein, S., Sharma, U., & Furlonger, B. (2021). The inclusive practices of classroom teachers: A scoping review and thematic analysis. *International Journal of Inclusive Education*, 25(6), 735–762. <https://doi.org/10.1080/13603116.2019.1572232>
- Florian, L. (2014). What counts as evidence of inclusive education? *European Journal of Special Needs Education*, 29(3), 286–294. <https://doi.org/10.1080/08856257.2014.933551>
- Garcia, J. D., & Dizon, R. (2020). Challenges in implementing inclusive education in the Philippines. *Asia Pacific Journal of Education*, 40(2), 123–135.
- Giorgi, A. (2018). *Reflections on certain qualitative and phenomenological psychological methods*. University Professor Press.
- Griful-Freixenet, J., Struyven, K., Vantieghem, W., & Gheysens, E. (2020). Exploring the interrelationship between universal design for learning and differentiated instruction: A systematic review. *Educational Research Review*, 29, Article 100306. <https://doi.org/10.1016/j.edurev.2019.100306>
- Han, C., & Lei, J. (2024). Teachers' and students' beliefs towards universal design for learning framework: A scoping review. *SAGE Open*, 14(3). <https://doi.org/10.1177/21582440241272032>
- Hollingshead, A., Lowrey, K. A., & Howery, K. (2022). Universal design for learning: When policy changes before evidence. *Educational Policy*, 36(5), 1135–1161. <https://doi.org/10.1177/0895904820951120>
- King-Sears, M. E., & Johnson, T. M. (2020). Universal design for learning chemistry instruction for students with and without learning disabilities. *Remedial and Special Education*, 41(4), 207–218. <https://doi.org/10.1177/0741932519862608>
- Lariba, F. J. V. (2023). Unsung heroes: A phenomenological study on experiences and struggles of special education language teachers. *Asian Journal of Education and Social Studies*, 49(1), 79–93. <https://doi.org/10.9734/ajess/2023/v49i11102>
- Lohmann, M. J., Hovey, K. A., & Gauvreau, A. N. (2023). Universal design for learning in inclusive preschool science classrooms. *Journal of Science Education for Students with Disabilities*, 26(1), 1–12. <https://doi.org/10.14448/jsesd.15.0005>
- Loreman, T. (2017). Pedagogy for inclusive education. *Oxford Research Encyclopedia of Education*. <https://doi.org/10.1093/acrefore/9780190264093.013.148>
- Lowrey, K. A., Hollingshead, A., Howery, K., & Bishop, J. B. (2017). More than one way: Stories of UDL and inclusive classrooms. *Research and Practice for Persons with Severe Disabilities*, 42(4), 225–242. <https://doi.org/10.1177/1540796917711668>
- Malki, S., & Einat, T. (2018). To include or not to include—This is the question: Attitudes of inclusive teachers toward the inclusion of pupils with intellectual disabilities in elementary schools. *Education, Citizenship and Social Justice*, 13(1), 65–80. <https://doi.org/10.1177/1746197917705138>
- Mastropieri, M. A., & Scruggs, T. E. (2018). *The inclusive classroom: Strategies for effective differentiated instruction* (6th ed.). Pearson.
- Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal design for learning: Theory and practice*. CAST Professional Publishing.

- Moffat, T. K. (2022). The beauty of universal design for learning (UDL) and why everyone in early childhood education and intervention should be using it. *Kairaranga*, 23(1), 66–73.
- Montgomery, D., & Snow, K. (2022). The integration of technology with UDL and RTI in inclusive classrooms. *Open/Technology in Education, Society, and Scholarship Association Conference Proceedings*, 2(1), 1–5. <https://doi.org/10.18357/otessac.2022.2.1.70>
- Moscato, M., & Pedone, F. (2024). Enhancing inclusive teaching: A teacher professional development research grounded in UDL principles. *Pedagogical Perspective*, 3(3), 110–125. <https://doi.org/10.29329/pedper.2024.37>
- Muega, M. A. G. (2016). Inclusive education in the Philippines: Through the eyes of teachers, administrators, and parents of children with special needs. *Social Science Diliman*, 12(1), 5–28.
- Piticari, P. (2023). Effects of the universal design for learning (UDL) principles on the motivation of children with SEN integrated in mainstream schools. *Review of Psychopedagogy*, 12(1), 154–168. <https://doi.org/10.56663/rop.v12i1.66>
- Republic Act No. 11650. (2022). *An act instituting a policy of inclusion and services for learners with disabilities in support of inclusive education, establishing inclusive learning resource centers of learners with disabilities in all school districts, municipalities and cities, providing for standards, appropriating funds therefor, and for other purposes*. https://lawphil.net/statutes/repacts/ra2022/ra_11650_2022.html
- Republic Act No. 7277. (1992). *Magna Carta for Disabled Persons*. <https://ncda.gov.ph/disability-laws/republic-acts/republic-act-7277/>
- Rusconi, L., & Squillaci, M. (2023). Effects of a universal design for learning (UDL) training course on the development of teachers' competences: A systematic review. *Education Sciences*, 13(5), Article 466. <https://doi.org/10.3390/educsci13050466>
- Scharenberg, K., Rollett, W., & Bos, W. (2019). Do differences in classroom composition provide unequal opportunities for academic learning and social participation of SEN students in inclusive classes in primary school? *School Effectiveness and School Improvement*, 30(3), 309–327. <https://doi.org/10.1080/09243453.2019.1590423>
- Schreffler, J., Vasquez, E., Chini, J., & James, W. (2019). Universal design for learning in postsecondary STEM education for students with disabilities: A systematic literature review. *International Journal of STEM Education*, 6, Article 8. <https://doi.org/10.1186/s40594-019-0161-8>
- Smith, D., & Lowrey, K. (2016). Barriers to implementing universal design for learning: Voices from the field. *Journal of Special Education Technology*, 31(3), 142–150.
- Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms* (3rd ed.). ASCD.
- UNESCO. (2020). *Global education monitoring report 2020: Inclusion and education: All means all*. <https://unesdoc.unesco.org/ark:/48223/pf0000373718>
- United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/2030agenda>