

Research Paper

Implementation of Inclusive Education in a Selected School in Malé, Maldives: Teachers' Experiences

Mariyam Shahuneeza Naseer
The Maldives National University, Maldives

Hawwa Hameed
Zikura International College, Maldives

© The Author(s) 2024. This article is published with open access by Taylor's Press.

Abstract: The basis of inclusive education is not only related to equal human rights, but also as a means to improve and achieve quality education for all. In this respect, teachers play an important role in the successful implementation of inclusive education. However, some research has shown that teachers have inadequate knowledge, skills, and training to implement inclusive education. This study aims to gain a deeper understanding of teachers' experiences in the implementation of inclusive education at a school in Malé, Maldives, including challenges faced. The study was guided by both the principles of constructivist theory and ecological theory to unveil these challenges. To attain the objectives of the study, related literature on international policies and concepts of inclusive education was reviewed in detail. Adopting a qualitative approach, data was also collected through interviews and observations with nine teachers who were selected purposefully. The data gathered from the field was analysed and described in a narrative form. Findings support the importance of teacher training, appropriate teacher-student ratio, proper resources, and an effective monitoring system for the successful implementation of inclusive education.

Keywords: Inclusive education, teacher training, challenges, case study, Maldives

Suggested citation: Naseer, M. S., & Hameed, H. (2024). Implementation of inclusive education in a selected school in Malé, Maldives: Teachers' experiences. *Asia-Pacific Journal of Futures in Education and Society*, 3(3), 19–41. <https://doi.org/10.58946/apjfes-3.3.P2>

*Correspondence: Mariyam Shahuneeza Naseer, The Maldives National University, Maldives.
Email: shahuneeza@teachers.org

Introduction

Inclusive education, a concept centred around welcoming all children without discrimination into regular or general schools, has evolved into a global phenomenon applied across diverse formal education systems everywhere. The policy formation and subsequent implementation of inclusive education in many nations necessitate specific changes to account for cultural and historical constructions of disability (United Nations Children’s Fund [UNICEF], 2019). The right to education, enshrined in international human rights treaties, stands as one of the most fundamental rights, empowering individuals economically, socially, and culturally, including rights such as the right to work as well as the right to food and water, along with civil and political rights. In essence, education not only enhances academic prowess but also bolsters self-esteem and facilitates social mobility, rendering it an essential need for every human being.

Before 1985, education for students with special educational needs (SEN) was a novel concept in the Maldives, with differently abled pupils often denied access to education (Human Rights Commission of the Maldives, 2010). The inception of a special class for pupils with hearing impairments in one of the capital’s primary schools marked the initial steps towards providing special education for students with SEN. Over time, amendments to the Individuals with Disabilities Education Act (IDEA) in 2004 catalysed significant shifts in mindset, aligning six principles with the No Child Left Behind policy. These amendments encompassed changes in assessment methods for students with disabilities, increased parental involvement in eligibility and placement decisions, and incorporated transition planning. Similarly, amendments aimed to provide diverse procedures for identifying children with learning disabilities, fostering the implementation of research-based interventions to enhance academic and behavioural outcomes.

In Maldives, transformative changes ensued with the enactment of IDEA, the United Nations Convention on the Rights of Persons with Disabilities, the Disability Act (2010), and the Inclusive Education Policy (Human Rights Commission of the Maldives, 2015). These legislative and policy frameworks underscore the imperative of providing education to all without discrimination, ensuring equal opportunities and rights for individuals with and without disabilities. Schools serve as pivotal environments where children learn to relate to and interact with one another, emphasising the significance of establishing an inclusive education system at all levels, as mandated by Article 24, which also underscores the importance of lifelong learning for social integration and future employment.

While schools in the Maldives are progressively embracing inclusivity through tangible changes, challenges persist, hindering effective inclusion of children with special needs. These challenges encompass inaccessible environments, inadequate accommodations, negative attitudes, discriminatory admission procedures, and a

dearth of disability policies. The Inclusive Education Policy of the Maldives (Ministry of Education, 2020) asserts every child's right to education, emphasising appropriate accommodations and modifications tailored to individual needs within the education system. Additionally, the Disability Act (2010) mandates the provision of the least restrictive learning environment for students with disabilities, necessitating education delivery by trained teachers and technical personnel.

The Salamanca Statement, a seminal international document in special education (Budlender, as cited in Le Roux, 2015), advocates for the integration of children with special educational needs into regular schools. Governments are urged to enact policy, legal, and budgetary reforms to accommodate diverse student needs effectively. Despite the growing momentum towards inclusive education, formidable challenges persist, including teachers' insufficient skills and competencies as well as their preparedness to address classroom diversity. Furthermore, high student-to-teacher ratios pose barriers to effective inclusion. In this respect, teachers play a pivotal role in the success of inclusive education programs, necessitating efforts to empower them with essential skills to cater to diverse learner needs.

Save the Children conceptualises inclusive education as a practice of embracing all students without prejudice (Bešić, 2020). It entails not only integrating students into mainstream schools, but also ensuring access to pedagogical methodologies that are tailored to meet their individual needs. This encompasses broader educational objectives, curriculum design, and provisions for accommodating diversity. The quality of education for all students is gauged by how schools respond to the needs of students with disabilities (The United Nations Educational, Scientific and Cultural Organization [UNESCO], 2017). Similarly, Weber and Ruch (2012) contended that a truly effective school benefits all students, emphasising inclusivity. Thus, mandated by the Disability Act (2010), the adaptation of syllabi to optimise the potential of students with disabilities is imperative.

Despite concerted efforts, the school selected for this study confronts challenges in implementing inclusive pedagogy. Teachers lack proficiency and awareness in addressing various disabilities and employing effective instructional strategies. Insufficient teacher training undermines the efficacy of inclusive education initiatives (Angrist & Lavy, 2001; Lombardi et al., 1994). Many students with special needs in mainstream classrooms are marginalised due to teachers' inadequacies in skills and attitudes (Ministry of Education, 2020). Notably, educators encounter difficulties in evaluating students with writing disabilities (Florian, 2008; Kenya Institute of Special Education [KISE], 2000). Thus, effective pedagogical methodologies are paramount for successful inclusive education (Florian, 2008; KISE, 2000). In this respect, this research endeavours to delve into educators' experiences in implementing inclusive education practices.

The primary purpose of this study is to gain a deeper understanding of teachers' experiences towards the implementation of inclusive education in the selected school.

Specifically, the research aims to answer the following questions:

1. How do teachers implement inclusive education in their classrooms with regard to their preparedness for content, classroom practices, and pedagogy?
2. What are the major problems teachers face in the implementation of inclusive education?
3. What strategies do teachers use to overcome these issues in an inclusive classroom?

The significance of research in the domain of inclusive education is paramount, carrying profound implications for both theory and practice. Florian (2008) emphasised that inclusive education represents a pivotal endeavour within contemporary educational frameworks, striving to ensure equitable access to learning opportunities for all students, irrespective of their diverse backgrounds or abilities. Through rigorous academic inquiry, researchers illuminate the intricate dynamics and challenges inherent in the implementation of inclusive practices within educational settings. Such research endeavours hold multifaceted significance. Firstly, they offer invaluable insights into the strategies and interventions necessary to address the multifaceted challenges encountered in inclusive schools. By elucidating effective approaches to navigate these obstacles, research empowers educators and policymakers to cultivate inclusive learning environments conducive to the holistic development of every student.

Kozleski and Yu (2016) emphasised that research in this domain serves as a catalyst for policy development and reform initiatives. Findings from empirical studies provide evidence-based recommendations for the formulation of inclusive education policies at local, national, and international levels. This, in turn, facilitates the enactment of legislative measures and the allocation of resources to support the realisation of inclusive education goals. Moreover, research plays a pivotal role in enhancing professional development opportunities for educators. By identifying best practices and innovative pedagogical approaches, research equips teachers with the requisite knowledge and skills to effectively meet the diverse needs of their students and foster inclusive practices in the classroom. Ultimately, the significance of research in inclusive education extends beyond academia, influencing practice, policy, and professional development initiatives to foster inclusive learning environments that uphold the fundamental principles of equity, diversity, and social justice.

Literature Review

Global Dialogue on Inclusion

Inclusion, rooted in the universal right to education established by the Universal Declaration of Human Rights in 1948, involves welcoming all students into

regular classrooms, promoting their participation, and is underpinned by principles of social justice and equality. Effective inclusion, as noted by Woodcock and colleagues (2022), necessitates intentional planning and proper teaching strategies to ensure the success of each student.

The UN Convention on the Rights of Persons with Disabilities (UNCRPD) (2010) emphasises inclusive education at all levels, providing equal opportunities and developing individuals' potential, including talents and abilities. It mandates reasonable accommodations and individualised support within the general education system. UNESCO underscores the importance of universal access to meaningful learning for all (UNESCO International Bureau of Education, 2008).

The Salamanca Statement (Ainscow et al., 2019) asserts every child's right to education and acknowledges their uniqueness. It advocates for inclusive educational systems accommodating diverse needs and fostering inclusive societies. In the same way, Karten (2011) advocated for inclusive education, stressing placement in mainstream settings to enhance students' skills, while Heward (as cited in Wong-Ratcliff & Ho, 2011) emphasised the quality of teaching over physical location.

In summary, inclusion in education is essential for upholding human rights, fostering diversity, and creating inclusive societies. It requires deliberate planning, accommodations, and quality teaching to ensure the success of all students, as highlighted by various scholars and international agreements.

Inclusive Education Initiatives in the Maldives: Progress, Challenges, and Pathways Forward

Rowley's case in 1980 presented an alternative to special education, thereby expanding the concept of Inclusive Education to encompass disabled pupils, with the objective of facilitating their maximal development through appropriate instructional methodologies and support services within mainstream educational settings. Notably, access to education for children with disabilities in the Maldives commenced in 1985 when Jamaluddin School in Male' began admitting hearing-impaired students. Subsequent progress was observed in enhancing inclusivity within Maldivian schools, characterised by the implementation of practical accommodations and adjustments.

The amendments to the Individuals with Disabilities Education Act (IDEA) in 2004 catalysed significant shifts in attitudes and practices concerning the assessment, parental involvement in decision-making, and transition planning for students with disabilities. In response to IDEA, the Maldivian government mandated the provision of the least restrictive environment for children with disabilities, coupled with the imperative of education delivery by suitably trained technical staff and educators. By 2010, nationwide establishment of Special Education Units as resource centres

aimed to bolster support for schools across the atolls. However, a study by the Human Rights Commission of the Maldives in 2010 revealed persistent challenges. Even schools equipped with Special Educational Needs (SEN) units encountered physical accessibility issues and attitudinal barriers. Notably, the dearth of emphasis on teacher training in special education resulted in a shortage of SEN educators.

In 2015, the introduction of an outcomes-based syllabus alongside Inclusive Education Guidelines aimed to adapt the curriculum to cater to the diverse needs of children with impairments. These guidelines, in alignment with the Convention on the Rights of Persons with Disabilities (CRPD), underscore the necessity of modifying pedagogical approaches, assessments, environments, and educational resources.

To address these challenges, SEN teacher positions were mandated in all schools by 2016, alongside the establishment of SEN Ambassadors in 2017. The Inclusive Education Policy of 2013 underscores the imperative of appointing instructors with specialised qualifications in special education and emphasises the ongoing necessity of professional development initiatives. Efforts have been directed towards early identification of SEN through referral processes and assessments, aimed at facilitating timely interventions. Individualised Education Plans (IEPs) have been devised to cater to the unique needs of students, ensuring their equitable participation within an inclusive educational milieu. Despite these endeavours, societal norms continue to present formidable barriers to inclusivity, underscoring the exigency for further localised interventions to combat discrimination and ensure equitable opportunities for children with special needs (Education Act, 2020; Human Rights Commission of the Maldives, 2010; Human Rights Commission of the Maldives, 2015; UNICEF, 2019).

Challenges of Inclusive Education

Attitudinal Barriers of Regular Teachers

The foremost challenge in inclusive education is the negative attitude prevailing among regular teachers. Many teachers exhibit reluctance and unpreparedness to integrate children with special educational needs into their classrooms. Despite the complexities associated with educating such students, maintaining a positive attitude can significantly alleviate these challenges. Research indicates pervasive negative attitudes among teachers regarding the inclusion of students with special needs in mainstream classrooms (Dupoux et al., 2005; Loreman et al., 2007). While various studies yield differing results, prevailing sentiments often advocate for separate schooling due to perceived skill deficiencies. The social behaviourism theory by George Herbert Mead underscores the significance of social experiences in shaping

personality development, suggesting that inclusive settings benefit students both academically and socially. Consequently, teacher attitudes and beliefs significantly influence acceptance of inclusion (Dua & Dua, 2017; Monje, 2017; Shade & Stewart, 2001).

Poor Teacher Training

Inadequate teacher training emerges as a critical impediment to inclusive education. Insufficient training negatively impacts teachers' ability to cater to diverse learner needs, hindering the success of inclusive practices. Teachers lacking requisite knowledge, attitudes, and skills represent a substantial barrier (Forlin, 2001). Despite legislative mandates such as the Disability Act of 2010, which necessitates curriculum modifications to accommodate disabled students, educators often exhibit reluctance to make necessary adjustments due to insufficient information and resistance to diversity. Studies reveal a persistent lack of positive shifts in teachers' perspectives on inclusive education, underscoring the need for targeted training interventions (Batoool et al., 2023; Campbell et al., 2003).

The Physical Environment of Learning for Students with Special Needs

The physical environment of classrooms significantly influences active learning and inclusive practices. Well-equipped, maintained, and furnished classrooms foster active learning experiences, contributing to inclusive educational settings (Billingsley et al., 2021; Zinahwa, 2020). School climate, encompassing social and physical aspects, plays a pivotal role in nurturing inclusivity and safety (Johnson, 2022; Thomas et al., 2023). Successful classroom management hinges on suitable accommodations, instructional flexibility, and conducive physical and social-emotional environments (Kozleski & Waitoller, 2010; Kozleski et al., 2013; Matsana et al., 2022).

Poor Implementation of Inclusive Education Policy

Inadequate policy implementation remains a significant hurdle in achieving inclusive education, particularly in developing countries. Challenges include teachers' limited capacity to educate students with disabilities, resource shortages, and deficiencies in identification and diagnosis systems (UNICEF, 2019). Ambiguities in educational policies further exacerbate the situation, with discrepancies between segregated schooling and inclusive education advocacy (Disability Act, 2010; Inclusive Education Policy, 2013). Despite policy mandates, preschool education lacks specific provisions for students with special needs, indicating gaps in implementation (Bernstein et al., 2004; McLeskey et al., 2014; Tsokova & Tarr, 2012).

Student-Teacher Ratio

The student-teacher ratio, often associated with class size, significantly influences learning outcomes. Studies, such as the STAR project in Tennessee, highlight the benefits of smaller class sizes in facilitating individualised attention and improving academic performance (Konstantopoulos, 2008).

Pedagogical Considerations and Methodological Approaches in Special Education

In general, teaching methods encompass various approaches employed by educators to effectively convey ideas and skills within specific subject areas. This entails the strategic organisation and utilisation of teaching approaches, subject matter, instructional tools, and educational resources to achieve predefined educational objectives. Teaching methods involve delineating teaching goals, selecting appropriate subject matter and instructional strategies, evaluating the effectiveness of learning activities, and monitoring student progress. A profound comprehension of students' needs and capabilities, coupled with pedagogical competencies such as differentiated instruction, Universal Design for Learning (UDL), Response to Intervention (RTI), and instructional accommodations, constitutes essential knowledge and skills for educators specialising in Special Educational Needs (Nguyet & Ha, 2010). Proficiency in devising and implementing individualised education programs, along with the capacity to collaborate with diverse stakeholders, is imperative for teachers in this domain (Sucuolu et al., 2013). Moreover, inadequacy in abilities, knowledge, and experience related to accommodating diverse learners in mainstream classrooms can significantly impact educators' conduct (Naicker, 2008).

Methodology**Research Design**

The qualitative approach was employed in this study to access into the personal world of respondents, facilitating a deeper understanding of their experiences and sentiments. Qualitative research, as indicated by Creswell and Poth (2016), is necessary when addressing research subjects with unknown variables that require discovery. Similarly, it has been argued by Mik-Meyer (2020) that qualitative methods provide insights into real-life individuals and events, enhancing the comprehension of behaviour within its context. Given the nature of the study and data collection techniques, such as personal interviewing and observation, this approach was deemed suitable (Rahman & Lee, 2022). With the goal of understanding the problems of teaching in an inclusive classroom, this approach allowed for the exploration of the strategies and techniques employed when instructing individuals with exceptional needs. Furthermore, observation assisted in learning about the obstacles encountered in implementing inclusive education.

Population and Sampling

Nine teachers from the selected school comprised the population who met the inclusion criteria, requiring a minimum of five years of work experience in either mainstream or inclusive education settings. The total population sampling was employed, and all nine teachers were approached, who then consented to participate in the study.

Data Collection and Data Analysis

The study utilised personal interviews and observations as its primary data collection methods. Two research instruments were employed: an interview guide tailored for teachers and a classroom observation form. One-on-one interviews were conducted with selected teachers from each key stage. Such interviews, facilitated by a researcher and a participant, allow for in-depth exploration of a limited number of individuals, providing nuanced insights into various experiences. These interviews typically lasted between 5 to 7 minutes. Interview conversations were recorded to ensure accurate documentation and analysis of responses. The use of a recorder was considered essential to enable the researcher's full concentration on participants' statements without the distraction of notetaking. The participants were encouraged to offer candid reflections on the implementation of inclusive education practices.

Qualitative studies involve gathering extensive information about the topic under study and deducing patterns and trends from the data (Creswell, 2014; Hennink et al., 2020). This involves editing, coding, classifying, and entering them for interpretation. The researcher transcribed all the data collected from the field of observation and interviews. The transcripts, notes, and papers were examined and re-read, and eye-catching words or phrases organised into meaningful categories and grouped them into related codes, which Saldana (2009) declared as the initial step in the coding process. Similarly, Neuman (2006) described the technique as "organising raw data into conceptual categories in order to construct themes that will be utilised to analyse the data."

Instruments: Validity and Reliability

Data was collected using interviews and observations to provide comprehensive insights into teachers' experiences with inclusive education implementation. The study employed a semi-structured questionnaire adapted from the British Columbia Teachers Federation (BCTF) Work life of Teachers Survey Series 2: Special Education (Naylor, 2001). Open-ended questions were utilised to minimise interviewee bias, drawing on Gall et al.'s (2007) categorisation of interviews into casual conversation, general interview guide, and standardised open-ended formats. Kallio and colleagues (2016) highlighted the efficacy of interviews in understanding perspectives, with

questions designed to be inquisitive, exploratory, and analytical, focusing on teachers' experiences in implementing inclusive education at the school selected for this study. Permission was obtained from teachers for notetaking and voice recording during interviews, aligning with Kvale's (1996, cited in Block, 2023) notion of qualitative research aiming to grasp subjective perspectives and experienced realities.

Observation served as a secondary data collection method, crucial for understanding teachers' experiences with inclusive education implementation. Direct observation allowed for real-time examination of teacher-student interactions and instructional strategies, aligning with Maxwell's (2009) recognition of observation as a powerful means of understanding behaviour and context. The study focused on observing instructional tactics employed by teachers, particularly regarding the integration of students with special educational needs.

Qualitative research prioritises the attainment of credibility, transferability, dependability, and conformability, collectively referred to as trustworthiness by Lincoln and Guba (1985). This study bolstered its credibility by furnishing meticulous data summaries and adhering faithfully to the narratives of individual interviewees. Consequently, the study effectively captured the precise sentiments, attitudes, and concerns expressed by participants.

The study obtained ethical approval from Zikura International College and permission from the Ministry of Education and the selected school to conduct research. Detailed study information was provided to participants, who consented voluntarily by signing consent forms. Prior to interviews, participants were briefed about the study, and consent for voice recording was obtained. Measures were taken to protect participants' identities during data collection to prevent any potential harm. Socioeconomic status and ethnicity were not utilised for identification purposes due to their lack of relevance to the research objectives. Teachers' identities were anonymised. All collected data were securely stored. The anonymity of respondents was ensured through the utilisation of alphabetical identifiers, specifically denoted by letters A, B, C, D, E, F, G, H, and I.

Research Findings

Demographics of Participants

A total of nine teachers participated in this study, with their profiles presented in Table 1. The gender composition of the respondents was exclusively female, which is a notable observation considering that 98% of the school's teaching staff are female. All respondents had at least 10 years of experience. Concerning qualifications, seven respondents held a degree, while two possessed a master's degree.

Table 1. Profile of participants

Demographic Variables		Frequency
Sex	Female	9
	Male	0
Key Stage	KS1 – Grades 1, 2, & 3	3
	KS2 – Grades 4, 5, & 6	3
	KS3 – Grades 7 & 8	3
Teaching Experience	10–15 years	6
	More than 15 years	3
Highest Educational Qualification	Bachelor's degree	7
	Master's degree	2

Figure 1 summarises the themes developed from the thematic analysis in terms of teachers' knowledge of inclusive education, challenges faced and strategies to address those challenges.

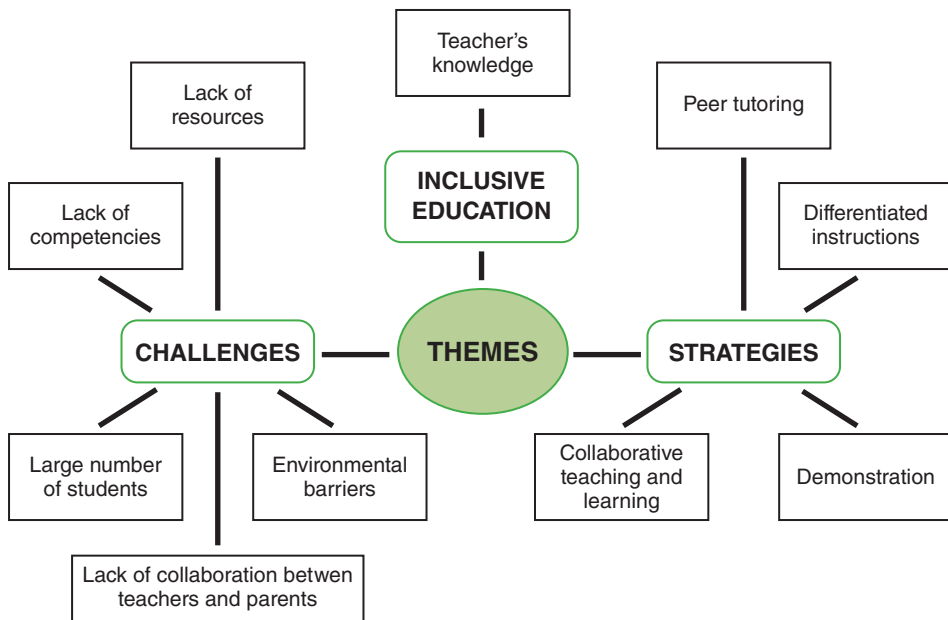


Figure 1. Themes developed from the thematic analysis of the qualitative data

Preparedness for Content, Classroom Practices, and Pedagogy

Teachers were asked about their understanding and implementation of inclusive education, yielding a range of responses showcasing varying levels of comprehension and application.

Teacher B highlighted, *“It’s about including all students in general education system without discrimination... I divide my class according to their academic level to attend to their needs.”*

Teacher A emphasised, *“Inclusive education is providing education to all children with special needs and non-disabled children in the same class without discrimination,”* adding, *“implementing inclusion for all by letting students engage in activities like field trips.”*

Teachers C, D, E, F, G, and I concurred, stating, *“Inclusive education is when children with special needs are taught alongside other children in a regular classroom with special support.”*

Teacher H elaborated, *“We involve all students with different abilities and learning needs... ensuring equal opportunities for all students to fully participate in lessons and extra activities.”*

The responses from these teachers shed light on their understanding and implementation of inclusive education within the classroom. While there were varying levels of comprehension and application demonstrated, there was a consensus among the teachers regarding the essence of inclusive education. It was evident that inclusive education entails providing equal opportunities for all students, including those with special needs, to participate fully in the general education system without discrimination. Teachers acknowledged the importance of accommodating diverse learning needs and ensuring that all students are included in classroom activities and extra-curricular pursuits. These insights underscore the significance of promoting inclusivity and upholding children’s rights to equitable education. Moving forward, it is imperative for educators to continue fostering inclusive practices that prioritise diversity, equity, and access for all learners.

Challenges Teachers Face in Implementing Inclusive Education

Lack of Resources

Inclusive education demands resources tailored to diverse learning needs, encompassing various modes of representation and expression. However, insufficient materials hinder effective teaching and learning. Teachers expressed frustration over the lack of resources, citing outdated libraries and personal financial strains. Teacher A emphasised the need for more resources tailored to students with Special Educational Needs (SEN), while Teacher C lamented the financial burden placed

on educators. The scarcity of teaching materials inhibits educators from fulfilling learning objectives, highlighting a significant obstacle in implementing inclusive education.

Lack of Competencies

Teacher competency emerged as a crucial factor impeding inclusive education. Educators acknowledged their inadequacy in addressing the needs of students with special needs due to limited training. Participants underscored the deficiencies in specialised education modules during their training, emphasising the necessity for enhanced qualifications. This lack of expertise poses a formidable challenge to inclusive education implementation, as stated by Teacher I, “*We have few teaching materials to cater for inclusive classrooms.*”

Large Number of Students

Balancing the student-teacher ratio is imperative for effective inclusive education. This is because overcrowded classrooms hinder individualised attention and support for students with diverse needs. Teachers expressed concerns over managing large student cohorts, impacting their ability to implement inclusive practices. Teacher A highlighted the detrimental effect of overcrowding on inclusion efforts, advocating for smaller class sizes. The overwhelming student-teacher ratio emerges as a prevalent challenge, hindering the provision of differentiated learning experiences.

Lack of Collaboration Between Teachers and Parents

Effective collaboration between teachers and parents is essential for the success of inclusive education. However, the lack of communication and engagement between these stakeholders impedes progress. Teachers lamented the absence of parental involvement and awareness regarding special education needs. Teacher D highlighted parents' limited understanding of special needs, complicating efforts to support students at home. The absence of shared information exacerbates challenges in catering to students' individual requirements, emphasising the need for improved collaboration.

Environmental Barriers

Environmental factors pose additional hurdles to inclusive education implementation. Teachers encountered challenges such as inadequate ventilation and inaccessible facilities, exacerbating students' behavioural issues. Concerns about classroom conditions and physical accessibility underscore the importance of inclusive infrastructure. Teacher B and Teacher I highlighted how environmental factors

impact students' behaviour, emphasising the need for inclusive classroom design. Overall, environmental barriers further complicate efforts to create an inclusive learning environment.

Strategies Employed by Teachers to Address Challenges in Inclusive Classrooms

Teachers in inclusive classrooms utilised various strategies to effectively meet the diverse needs of students, both inside and outside the classroom. The inquiry focused on identifying these strategies and understanding how they mitigate challenges. All respondents indicated employing different methods to foster student engagement and learning opportunities. Notable strategies include demonstration, differentiated instruction, peer tutoring, and collaborative teaching.

Demonstration

Demonstration serves as a fundamental teaching technique in inclusive settings, allowing learners to observe and imitate actions to acquire new skills. Teachers unanimously endorsed this method for its efficacy in skill development and confidence-building among students. Notably, teachers emphasised the importance of personalised demonstrations tailored to individual student needs. Classroom observations revealed its effectiveness in guiding students through tasks and facilitating independent completion.

Differentiated Instruction

Differentiated instruction, characterised by tailoring teaching to accommodate varying student abilities within a single classroom, emerged as a prevalent strategy among teachers. This approach involves adapting lesson content, activities, and assessments to match students' readiness levels, interests, and learning styles. Notably, teachers like A and E effectively implemented this method by structuring activities according to different ability levels, fostering an inclusive learning environment.

Peer Tutoring

Peer tutoring, wherein students serve as tutors for their peers, emerged as a widely endorsed teaching approach. Teachers highlighted its benefits in promoting social interaction and academic support within the classroom. Noteworthy examples included assigning capable students to assist those with special needs, fostering mutual learning experiences. Effective implementation necessitates teacher oversight to ensure the efficacy and positive impact of peer interactions.

Collaborative Teaching

Collaborative teaching involves teachers working together to design and deliver lessons, providing students with enhanced opportunities for engagement and support. This approach encourages student participation and facilitates peer learning. Notably, teachers emphasized collaborative planning and instruction as essential components of this strategy. Observations highlighted the effectiveness of co-teaching in providing comprehensive support to students with diverse needs, as teachers collaborated to deliver instruction and support across different ability levels.

In summary, teachers employed a range of strategies, including demonstration, differentiated instruction, peer tutoring, and collaborative teaching, to address challenges and create inclusive learning environments. Effective implementation of these strategies requires careful planning, adaptation to student needs, and collaboration among educators to ensure student success and engagement.

Discussion

This study delved into the adequacy of teachers' knowledge and training concerning inclusive education. Findings indicate that while teachers generally comprehend the concept of inclusive education, their understanding falls short in encompassing its full scope, particularly regarding the needs of gifted and talented students. The Inclusive Education Policy (2013) underscores the imperative of providing equal opportunities for special needs students in both academic and extracurricular realms, a notion often overlooked by the interviewed teachers. Cole (2017) reiterated the foundational principle of inclusive education — ensuring equitable access and opportunities for all learners, irrespective of ability. However, despite possessing many years of teaching experience, a significant portion of teachers surveyed lacked formal training in inclusive education, relying instead on sporadic workshops and seminars for guidance.

This deficiency in training has implications for the quality of education provided, as emphasised by Cole (2017), who argued that theoretical knowledge is essential for addressing the diverse needs of students effectively. Thus, while experience may offer insights, formal education equips teachers with the analytical tools necessary to navigate the complexities of inclusive education. This study underscores the necessity of comprehensive training programs to enhance teachers' preparedness for inclusive classrooms, aligning with Karten's (2011) assertion that inclusion, when executed correctly, necessitates a robust framework focused on student development.

The implementation of inclusive education is also hindered by a scarcity of teaching materials, with a significant portion of educators resorting to self-financed resources (Athmani, 2019; Oakes & Saunders, 2002). This scarcity not only affects the quality of education but also places an undue financial burden on teachers.

Government funding inadequacies are cited as the primary reason for the lack of essential resources, reflecting a broader systemic issue within educational policy and budget allocation.

Despite their tenure in inclusive classrooms, teachers often lack the requisite skills to effectively cater to students with special needs, resulting in heightened stress levels and suboptimal learning outcomes (Bernstein et al., 2004). In this respect, comprehensive training programs tailored to address the diverse needs of students with disabilities are imperative. Such programs should encompass pedagogical strategies, behavioural management techniques, and methods for fostering an inclusive learning environment.

The disproportionate student-teacher ratio poses another significant obstacle to effective inclusive education delivery (Van Reusen et al., 2001; Westwood, 2004). Overcrowded classrooms diminish educators' capacity to provide individualised attention and support, particularly for students with special needs. Addressing this challenge requires strategic resource allocation and restructuring of class sizes to ensure equitable access to education for all students.

While recognising the merits of inclusive education, teachers express apprehensions regarding increased workload and the ability to meet the diverse needs of students (Savolainen et al., 2012). The successful integration of inclusive practices necessitates a paradigm shift in pedagogical approaches and administrative support. Ensuring adequate resources, professional development opportunities, and workload management strategies are essential steps toward fostering teacher acceptance and efficacy in inclusive settings.

Next, the study also found that collaborative efforts between teachers and parents are impeded by disparities in progress rates and parental reluctance to seek support (Hjärthag et al., 2011; Lee, 2010). Effective communication channels and mutual engagement are vital for developing individualised education plans, addressing parental concerns, and promoting student well-being. Establishing community partnerships and providing accessible resources can facilitate meaningful collaboration and enhance the overall efficacy of inclusive education initiatives.

Lastly, inadequate infrastructure and environmental deficiencies present formidable barriers to inclusive education implementation (Zinahwa, 2020). Classrooms lacking proper ventilation and accommodation facilities exacerbate challenges for students with disabilities, compromising their academic progress and well-being. Addressing these environmental barriers requires concerted efforts from policymakers, educators, and relevant stakeholders to ensure inclusive learning environments that promote accessibility, safety, and inclusivity for all students.

Past studies showed that teachers used various strategies to overcome the issues. Inclusive classrooms benefit from employing diverse teaching methods to support students' physical, cognitive, emotional, and social development (Pelech

& Pieper, 2010). These strategies encompass visual, auditory, kinaesthetic, and tactile approaches to cater to different learning styles and abilities. The integration of technology has become pervasive in education, encompassing all aspects from teaching and assessment to discussions and lesson planning (Jain et al., 2023). Incorporating technology, group activities, and hands-on experiences further enriches the learning environment, fostering engagement and comprehension across a spectrum of students.

Learning is an active process where students construct knowledge through personal experiences and environmental exploration, emphasising engagement and self-monitoring (Pelech & Pieper, 2010). Constructivism encourages learners to build upon existing knowledge, promoting critical thinking, problem-solving, and the application of concepts in real-world contexts. By fostering inquiry and discovery, educators empower students to take ownership of their learning journey, enhancing motivation and understanding.

Differentiating instruction helps engage students at various levels, making learning more enjoyable and effective (Roberts & Inman, 2023). This approach tailors for content, process, and product to accommodate diverse student needs, interests, and abilities. Through flexible grouping, scaffolding, and personalised learning pathways, educators create inclusive classrooms where every student can thrive and succeed.

Despite adopting differentiated instruction, many teachers struggle to effectively tailor teaching to individual student needs, which can impact educational outcomes (Tomlinson & Kalbfleisch, 1998). Addressing individual needs requires ongoing assessment, reflection, and adjustment to ensure that instruction is responsive and inclusive. By recognising and accommodating diverse learning profiles, educators can create equitable learning opportunities for all students.

Next, peer tutoring fosters social skills development, particularly beneficial for students with special needs, enhancing their comfort and social interaction (Westwood, 2004). Peer tutoring promotes collaboration, communication, and empathy among students, creating a supportive learning community where peer mentors offer guidance and encouragement. Through shared experiences and mutual support, students develop confidence, self-esteem, and a sense of belonging.

Undoubtedly, teachers are pivotal in shaping students' futures and supporting diverse learning needs, with collaborative teaching approaches showing promise in providing additional support (McLeskey et al., 2011). Beyond imparting knowledge, educators serve as mentors, advocates, and facilitators of learning, nurturing students' intellectual, social, and emotional growth. Thus, collaborative teaching models, such as co-teaching and team teaching, leverage the expertise of multiple educators to meet the complex needs of diverse learners.

Despite its benefits, collaborative teaching is often limited in frequency, yet proves beneficial, especially when co-teachers bring specialised expertise (McLeskey et al., 2011). Collaborative teaching promotes inclusive practices, shared responsibility, and differentiated instruction, enhancing learning outcomes for students with and without disabilities. However, challenges such as scheduling constraints, limited resources, and varying pedagogical approaches may hinder widespread adoption of co-teaching models.

Teachers can facilitate learning by delegating responsibility to students, fostering an environment where learning is enjoyable and collaborative (Pelech & Pieper, 2010). By empowering students to take ownership of their learning, educators cultivate independence, initiative, and metacognitive skills. Acting as facilitators, teachers guide inquiry, promote critical thinking, and encourage peer-to-peer interaction, creating dynamic learning experiences that promote deeper understanding and engagement.

Conclusion and Recommendations for Future Study

In conclusion, this study illuminates a complex landscape surrounding inclusive education, revealing both significant strides and critical challenges within its implementation. While teachers generally possess a foundational understanding of inclusive principles, particularly in recognising the importance of equitable access and opportunities for all students, there exists a noticeable gap in comprehending the full spectrum of inclusive education, particularly concerning the nuanced needs of gifted and talented learners. This gap underscores the necessity for ongoing professional development initiatives tailored to equip educators with the requisite skills and knowledge to effectively navigate the diverse needs of their students.

Moreover, the study highlights the pervasive issue of resource scarcity, exacerbated by inadequate funding and a lack of essential teaching materials. This scarcity not only compromises the quality of education but also places undue financial burdens on teachers themselves. Addressing this challenge demands a concerted effort from policymakers to prioritise education funding and allocate resources equitably to ensure that all classrooms are adequately equipped to support inclusive practices. Beyond resource constraints, the study also underscores the need for a paradigm shift in pedagogical approaches and administrative support to foster teacher acceptance and efficacy in inclusive settings. By providing educators with the necessary support structures, including workload management strategies and professional development opportunities, we can empower them to embrace inclusive practices with confidence and enthusiasm.

The study sheds light on the multifaceted barriers to inclusive education, ranging from environmental deficiencies to disparities in progress rates and parental

reluctance to seek support. Overcoming these barriers requires a collaborative effort involving educators, policymakers, parents, and the broader community. By fostering effective communication channels, establishing community partnerships, and advocating for policy changes, we can create inclusive learning environments that promote accessibility, safety, and inclusivity for all students.

In essence, the findings of this study underscore the urgent need for comprehensive reforms to enhance special education and inclusive practices within the education system. By implementing the recommended actions, including expanding training opportunities for teachers, augmenting resources and facilities, and fostering collaboration between educators, we can pave the way for a more inclusive and equitable educational landscape. Ultimately, the true measure of our commitment to inclusive education lies in our collective resolve to ensure that every student, regardless of their abilities or backgrounds, can reach their full potential in a supportive and inclusive learning environment.

Based on the findings, the recommendations include several key actions to improve special education and inclusive practices within the education system. Firstly, the Ministry of Education should consider expanding the availability of special education courses, workshops, and conferences for instructors, ensuring accessibility throughout the school year to enhance teachers' skills in catering to students with special needs. Secondly, early intervention is deemed crucial, necessitating the provision of nationally recognised training programs for all staff to cultivate positive relationships between teachers and students with disabilities. Additionally, it is suggested that the government allocate additional education funds to augment classroom resources and facilities, promoting better access and accommodation for diverse learners.

Furthermore, there is an imperative to modify school infrastructure to improve accessibility for physically challenged students, aligning with legal requirements and fostering inclusivity. Moreover, training seminars on relevant legislative acts and policies should be instituted for all education providers to ensure better understanding and implementation of inclusive education principles. Collaboration between mainstream and special education teachers should be facilitated through initiatives like the Inclusion Development Program to devise effective teaching strategies. Lastly, an effective monitoring system should be established in collaboration with school boards to assess the progress and efficacy of inclusive education measures, focusing on educational quality and outcomes alongside access.

Open Access: This article is distributed under the terms of the Creative Commons Attribution License (CC-BY 4.0) which permits any use, distribution and reproduction in any medium, provided the original author(s) and the source are credited.

References

- Ainscow, M., Slee, R., & Best, M. (2019). The Salamanca statement: 25 years on. *International Journal of Inclusive Education*, 23(7–8), 671–676. <https://doi.org/10.1080/13603116.2019.1622800>
- Angrist, J. D., & Lavy, V. (2001). Does teacher training affect pupil learning? Evidence from comparisons in Jerusalem public schools. *Journal of Labor Economics*, 19(2), 343–369. <https://doi.org/10.1086/319564>
- Athmani, K. K. (2019). *Education stakeholders' attitudes on the implementation of inclusive education in Tanzania: Case study of Tanga City Council* [Unpublished doctoral dissertation]. The Open University of Tanzania, Tanzania.
- Batool, S. B., Parveen, Z., & Gul, N. (2023). Effect of inclusive education course on beliefs, attitudes and concerns of pre-service teachers towards inclusion. *Journal of Policy Research*, 9(1), 363–370. <https://doi.org/10.5281/zenodo.7983241>
- Bernstein, D. M., Atance, C., Loftus, G. R., & Meltzoff, A. (2004). We saw it all along: Visual hindsight bias in children and adults. *Psychological Science*, 15(4), 264–267.
- Bešić, E. (2020). Intersectionality: A pathway towards inclusive education? *Prospects*, 49(3), 111–122. <https://doi.org/10.1007/s11125-020-09461-6>
- Billingsley, B., DeMatthews, D., Raab, R. R., & James, L. (2021). Principal actions in effective inclusive schools: a review of elementary case studies. In J. McLeskey, F. Spooner, B. Algozzine, N. L. Waldron (Eds), *Handbook of effective inclusive elementary schools* (2nd Ed) (pp. 16–42). Routledge.
- Block, D. (2023). *Interviews in applied linguistics: Autobiographical reflections on research processes*. Taylor & Francis.
- Campbell, J., Gilmore, L., & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual and Developmental Disability*, 28(4), 369–379.
- Cole, M. (2017). *Critical race theory and education: A Marxist response*. Springer.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed-methods approaches*. Sage Publications.
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
- Dua, V., & Dua, D. (2017). Inclusive education: Challenges and barriers. *Indian Journal of Research*, 6(1), 856–858.
- Dupoux, E., Wolman, C., & Estrada, E. (2005). Teachers' attitudes toward integration of students with disabilities in Haiti and the United States. *International Journal of Disability, Development and Education*, 52(1), 43–58. <https://doi.org/10.1080/10349120500071894>
- Education Act (Act Number: 24/2020).
- Florian, L. (2008). Towards an inclusive pedagogy. In P. Hick, R. Kershner, & P. Farrell (Eds), *Psychology for inclusive education* (pp. 50–63). Routledge.
- Forlin, C. (2001). Inclusion: Identifying potential stressors for regular class teachers. *Educational Research*, 43(3), 235–245. <https://doi.org/10.1080/00131880110081017>

- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th Ed). Pearson Education, Inc.
- Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods*. Sage.
- Hjärthag, F., Helldin, L., Olsson, A. K., & Norlander, T. (2012). Family burden and functional assessment in the Swedish CLIPS-study: Do staff and relatives agree on individuals with psychotic disorders' functional status?. *Social Psychiatry and Psychiatric Epidemiology*, 47, 581–587.
- Human Rights Commission of the Maldives. (2010). *Activities Addressing Rights of Persons with Disabilities: A Baseline Assessment*. HRCM.
- Human Rights Commission of the Maldives. (2015). *Submission from the Human Rights Commission of the Maldives for the combined fourth and fifth periodic report for the Republic of Maldives under the United Nations Convention on Rights of the Child (CRC)*. HRCM.
- Jain, J., Luanan, J., & Panayachi, S. (2023). Challenges and issues of flipping humanities lessons: Investigating teachers' experiences in a Malaysian international school. *Asia-Pacific Journal of Futures in Education and Society*, 2(1), 23–41. <https://doi.org/10.58946/apjfes-2.1.P2>
- Johnson, J. A. (2022). *The role of the principal in promoting positive teacher-student relationships as a component of a positive school climate* [Unpublished doctoral dissertation]. The George Washington University, Washington DC.
- Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72(12), 2954–2965.
- Karten, T. J. (2011). *The best of Corwin: Inclusive practices*. Corwin Press.
- Kenya Institute of Special Education (2023). National conference on inclusive education: Strategies For enhancing access, equity, quality and opportunities for all. *International Academic Journal of Social Sciences and Education (IAJSSE)*, 2(S14), 19–53.
- Konstantopoulos, S. (2008). Do small classes reduce the achievement gap between low and high achievers? Evidence from Project STAR. *The Elementary School Journal*, 108(4), 275–291. <https://doi.org/10.1086/528972>
- Kozleski, E. B., Gonzalez, T., Atkinson, L., Mruczek, C., & Lacy, L. (2013). Teacher education in practice: Reconciling practices and theories in the United States context. *European Journal of Special Needs Education*, 28(2), 156–172. <https://doi.org/10.1080/08856257.2013.778114>
- Kozleski, E. B., & Waitoller, F. R. (2010). Teacher learning for inclusive education: Understanding teaching as a cultural and political practice. *International Journal of Inclusive Education*, 14(7), 655–666. <https://doi.org/10.1080/13603111003778379>
- Kozleski, E. B., & Yu, I. (2016). *Inclusive education*. Oxford University Press.
- Le Roux, E. (2015). *A social history of the university presses in apartheid South Africa: Between complicity and resistance* (Vol. 43). Brill.
- Lee, V. J. (2010). *Lost in suburbia? Conversations with teachers of color about their experiences in suburban schools* [Unpublished thesis]. University of Pennsylvania.

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newberry Park.
- Lombardi, T. P., Nuzzo, D. L., Kennedy, K. D., & Foshay, J. (1994). Perceptions of parents, teachers, and students regarding an integrated education inclusion program. *The High School Journal*, 77(4), 315–321.
- Loerman, T., Earle, C., Sharma, U., & Forlin, C. (2007). The development of an instrument for measuring pre-service teachers' sentiments, attitudes, and concerns about inclusive education. *International Journal of Special Education*, 22(1), 150–159.
- Matsana, D., Negassa, D., Seyoum, Y., & Tekle, A. (2022). Effects of demographic characteristics on facilitators' attitude and engagement in advocacy towards inclusion of adults with disabilities in the literacy training program in Gedeo Zone, Ethiopia. *Journal of Education, Society & Multiculturalism*, 3(1), 34–49. <https://doi.org/10.2478/jesm-2022-0003>
- Maxwell, J. A. (2009). Designing a qualitative study. In *The SAGE handbook of applied social research methods* (2 ed) (pp. 214–253). SAGE Publications. <https://doi.org/10.4135/9781483348858>
- McLeskey, J., Landers, E., Hoppey, D., & Williamson, P. (2011). Learning disabilities and the LRE mandate: An examination of national and state trends. *Learning Disabilities Research & Practice*, 26(2), 60–66.
- McLeskey, J., Waldron, N. L., Spooner, F., & Algozzine, B. (2014). What are effective inclusive schools and why are they important? In J. McLeskey, F. Spooner, B. Algozzine, & N. L. Waldron (Eds), *Handbook of effective inclusive schools* (pp. 3–16). Routledge.
- Mik-Meyer, N. (2020). Multimethod qualitative research. *Qualitative Research*, 5, 357–374.
- Ministry of Education. (2020, November 25). *Inclusive Education Policy of Maldives*.
- Monje, L. D. (2017). *General education teachers' attitudes about inclusion* [Unpublished doctoral dissertation]. Western Michigan University. MI.
- Naicker, J. (2008). *Educators' preparedness for inclusive education* [Unpublished doctoral dissertation]. University of Zululand, South Africa.
- Naylor, C. (2001). *What do British Columbia teachers consider to be the most significant aspects of workload and stress in their work? Analysis of qualitative data from the BCTF Worklife of Teachers Survey Series, 1: Workload and stress*. BCTF Research Report. British Columbia Teachers' Federation.
- Nguyet, D. T., & Ha, L. T. (2010). *How-to guide: Preparing teachers for inclusive education*. Catholic Relief Services.
- Oakes, J., & Saunders, M. (2002). *Access to textbooks, instructional materials, equipment, and technology: Inadequacy and inequality in California's public schools*. UCLA's Institute for Democracy, Education, and Access.
- Pelech, J., & Pieper, G. (2010). *The comprehensive handbook of constructivist teaching: From theory to practice*. Limited Publishers.
- Rahman, S. & Lee, Y. L. (2022). Students' challenges and teaching strategies for virtual science learning in primary years during the COVID-19 pandemic. *Asia-Pacific Journal of Futures in Education and Society*, 1(2), 49–67.

- Roberts, J. L., & Inman, T. F. (2023). *Strategies for differentiating instruction: Best practices for the classroom*. Routledge.
- Savolainen, H., Engelbrecht, P., Nel, M., & Malinen, O. P. (2012). Understanding teachers' attitudes and self-efficacy in inclusive education: Implications for pre-service and in-service teacher education. *European Journal of Special Needs Education, 27*(1), 51–68.
- Shade, R. A., & Stewart, R. (2001). General education and special education pre-service teachers' attitudes toward inclusion. *Preventing School Failure: Alternative Education for Children and Youth, 46*(1), 37–41.
- Sucuoğlu, B., Bakkaloğlu, H., Karasu, F. I., Demir, Ş., & Akalın, S. (2013). Inclusive preschool teachers: Their attitudes and knowledge about inclusion. *International Journal of Early Childhood Special Education, 5*(2), 107–128.
- The Disability Act (Law Number 8/2010).
- The United Nations Educational, Scientific and Cultural Organization (UNESCO). (2017). *A guide for ensuring inclusion and equity in education*. Paris.
- Thomas, K. J., Cunha, J. M. D., & Santo, J. B. (2023). Just environments foster character: A longitudinal assessment of school climate. *Journal of Moral Education, 52*(4), 417–434. <https://doi.org/10.1080/03057240.2022.2081138>
- Tomlinson, C. A., & Kalbfleisch, M. L. (1998). Teach me, teach my brain: A call for differentiated classrooms. *Educational Leadership, 56*(3), 52–55.
- Tsokova, D., & Tarr, J. (2012). *Diverse perspectives on inclusive school communities*. Routledge.
- UNESCO International Bureau of Education. (2008). *Inclusive education: The way of the future. Preparatory report for the 48th session of the International Conference on Education*. UNESCO
- United Nations Children's Fund (UNICEF). (2019). *Inclusive education*. <https://www.unicef.org/education/inclusive-education>
- Van Reusen, A. K., Shoho, A. R., & Barker, K. S. (2001). High school teacher attitudes toward inclusion. *The High School Journal, 84*, 7–15.
- Westwood, P. (2004). *Learning and learning difficulties: A handbook for teachers*. Australian Council for Ed Research.
- Wong-Ratcliff, M., & Ho, K. K. (2011). Can integrated education meet the needs of students with SEN? *New Horizons in Education, 59*(2), 101–115.
- Woodcock, S., Sharma, U., Subban, P., & Hitches, E. (2022). Teacher self-efficacy and inclusive education practices: Rethinking teachers' engagement with inclusive practices. *Teaching and teacher Education, 117*. <https://doi.org/10.1016/j.tate.2022.103802>
- Zinahwa, M. (2020). *Socio-cultural factors leading to the marginalisation of children living with disabilities in accessing education in Zimbabwe: The case study of Mutare District* [Unpublished doctoral dissertation]. The Open University of Tanzania, Tanzania.