

Examining Elements of Designing and Managing of Creating Inclusive Learning Environment: Systematic Literature Review

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HOW TO CITE:

Debasu, H., & Yitayew, A. (2023). Examining Elements of Designing and Managing of Creating Inclusive Learning Environment: Systematic Literature Review. *International Journal of Special Education*, 39(1), 33-43.

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DOI:

<https://doi.org/10.52291/ijse.2024.39.4>

ABSTRACT:

This article focuses on the basic elements of designing managing creating an inclusive learning environment that makes it more convenient to facilitate and avoid any hindrance to the school environment and pull back to challenge different developmental aspects (factors). For inclusion to be successful educators and other professionals need to work towards an educational climate that creates a welcoming set of practices which include the adoption of collaboration, cooperation, and partnership, inside and outside classroom accessibility; flexible curriculum and pedagogy center; age-appropriated and accessible toilet, ramps, signages, canteen, and stairs, pathways and corridors. Inclusive learning environments are crucial in ensuring that all students, regardless of their abilities or backgrounds, have equal opportunities to learn and succeed. It also emphasizes the significance of involving students, teachers, and other stakeholders in the process to ensure the environment accommodates the needs of everyone involved.

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Keywords: Design and Managing of Inclusive Learning Environment, Inclusive Education, Inclusive Learning Environment

INTRODUCTION

This discussion deals with creating an inclusive learning environment that provides access to the major and vital components of criteria to create a welcoming and accepting school environment that needs to promote inclusion. Designing and managing an inclusive learning environment is crucial in fostering equitable and accessible education for all individuals. Inclusive education refers to the approach of providing equal opportunities for all students, including those with disabilities or learning difficulties, to learn and participate in a regular school environment alongside their non-disabled peers. The goal is to create an inclusive and supportive learning environment that meets the diverse learning needs of all students. This approach fosters social integration, respect for diversity, and the development of empathy among students. It has been found to enhance academic outcomes, promote social relationships and emotional well-being, and prepare students for future success. Inclusive education also has positive effects on society, promoting a more inclusive society and reducing stigma and discrimination towards disabled individuals. By embracing inclusive education, societies can foster a more inclusive and equitable future for all individuals.

Inclusive Education (IE) articulates that all learners are capable of learning and participating in educational and social experiences in a safe and scaffolding environment (Ackah-Jnr 2016).

Inclusive education

According to Armstrong (2017), inclusive education is a hotly debated and political concept with no universally accepted definition. Even the internationally recognized Convention on the Rights of Persons with Disabilities (United Nations, 2016) definition is riddled with arbitrary language (Graham, 2020). Inclusive education can be seen as a place where the needs of the students are satisfied in a specialized facility or as the placement of kids with special educational needs in a unit adjacent to the school (Haug, 2017).

Inclusive education “is a process of addressing the diverse needs of all learners by reducing exclusion within and from education” (UNESCO, 2009). The emphasis is on ensuring that all students, regardless of their abilities or backgrounds, can access education, participate actively, and achieve meaningful learning outcomes. Inclusive education aims to foster a sense of belonging and social integration, promoting positive attitudes towards diversity and reducing discrimination and stigmatization. It

creates opportunities for meaningful friendships, positive peer interactions, and mutual support among students from diverse backgrounds (Majoko, 2018).

Inclusive education is not limited to the classroom; it encompasses the involvement of families, communities, and stakeholders in decision-making processes, partnerships, and resource-sharing. Collaboration between parents, educators, and support professionals is crucial in creating inclusive learning environments (Ainscow, 2005).

The supporting conventions and declarations include the Salamanca Statement (1994), the Dakar Framework for Action (UNESCO, 2000), and the UN Convention on the Rights of Persons with Disabilities (United Nations, 2006). Therefore, IE practice has become a wind of change and positive pressure exerting influence and driving education systems in the global North and South or both developed and developing countries.

The purpose of writing about examining elements of designing and managing a creating inclusive learning environment is to explore and discuss the various factors and strategies involved in creating an environment that caters to the needs of all students, regardless of their diverse backgrounds, abilities, and learning styles.

Furthermore, it is used to provide guidance and insights into how educators can design and manage their classrooms and instructional practices to ensure that every student feels included, valued, and motivated to learn. This includes understanding the principles of inclusive education, recognizing and addressing barriers to learning, promoting a positive and supportive classroom culture, differentiating instruction, utilizing appropriate teaching strategies and resources, and involving students in the learning process. By examining the elements of designing and managing an inclusive learning environment, teachers can enhance student engagement and participation, promote student success and achievement, and ultimately create a learning environment that celebrates diversity and ensures equal opportunities for all learners.

The reason that I initiate to select this title is, initially we can say all public schools in developing countries, especially Ethiopia, are old and didn't fulfill the criteria to become inclusive education in school. even though they don't have an idea to create an inclusive learning environment due to different factors like lack of awareness, the people follow the traditional model of disability, lack of curriculum and instruction strategies to teach students with disability and non-disability to cooperate in a school, lack of skilled human power in the field of

special needs and inclusive education, even special needs educators have no well-organized knowledge, absence of materials, the government has no willing to create an inclusive learning environment that convenience for all, lack of training concerning inclusive education, negative attitude toward persons with special needs, etc. Due to those factors, students with special needs couldn't learn together with students without special needs in the school. To fill this knowledge gap, I need to review various literatures and take this title to examine the various components involved in designing and managing an inclusive learning environment. It could be selected to address the problem of exclusion or limited access to education for diverse student populations and to provide educators and stakeholders with insights and strategies to overcome barriers and promote inclusive practices in education.

INCLUSIVE LEARNING ENVIRONMENT

An inclusive learning environment is one where teachers have developed a repertoire of teaching, assessment, and evaluation strategies to meet learners' diverse range of learning needs and strengths while considering the physical layout of the environment.

The Centre for Educational Research and Innovation Studies of Inclusive Learning Environments (OECD, 2013) defines Inclusive Learning Environments as innovative approaches to teaching and learning that involve change across four key elements: teachers, students, content, and resources. The move to large teaching and learning spaces, with multi-teacher, multi-class teaching, has the potential to impact Inclusive Education practices (OECD, 2015), by considering the effect of school design and pedagogy on learning for all students, particularly those with disabilities.

Along with building design, Inclusive Learning Environments differ from traditional schools as they afford opportunities for teachers and school leaders to imagine new pedagogical possibilities. Likewise, students have the opportunity to engage in an environment that promotes autonomous and independent learning (Blackmore et al., 2011). Despite this, recent research showed educators with experience with Inclusive Learning Environments expressed caution about the influence of these environments on students with disabilities (Everatt et al., 2019). The findings indicated that teachers perceived students with disabilities as potentially being more distracted in open-plan classrooms with large numbers of students.

It involves designing curriculum and instruction that caters to diverse learner needs and learning styles. It focuses on providing multiple means of representation, expression, and engagement. (CAST, 2018). Encouraging and facilitating collaborative activities among learners from various backgrounds helps build a sense of community and respect for each other's perspectives. Cooperative learning strategies, such as group projects and discussions, can enhance inclusivity (Johnson & Johnson, 2014). Acknowledging and valuing students' cultural backgrounds and experiences can promote a positive classroom climate. Teachers should incorporate culturally relevant materials, examples, and teaching strategies tailored to the student's cultural backgrounds (Ladson-Billings, 1995).

Creating a positive classroom climate is essential for an inclusive learning environment. Respect, empathy, and kindness are nurtured among students and teachers, fostering a sense of belonging and safety. This climate encourages open communication, collaboration, and mutual support, enabling students to engage and participate fully in their learning (Hamre & Pianta, 2001).

Inclusive learning environments are essential for fostering diversity, equity, and inclusion in educational settings. As stated by UNESCO, inclusive education is a fundamental right that promotes social cohesion and equitable societies (UNESCO, 2019). Research has consistently shown that inclusive learning environments result in improved academic performance for students. A meta-analysis conducted by Kavale and Forness (1999) found that inclusive educational placements were associated with better outcomes for students with disabilities. A diverse and inclusive learning environment allows for a wide range of perspectives and experiences to be shared, enriching the learning process for all students. As noted by Gurin, Dey, Hurtado, and Gurin (2002), this diversity of perspectives promotes critical thinking, creativity, and problem-solving skills among students. Inclusive learning environments create opportunities for students to interact with and learn from individuals with diverse backgrounds and abilities. This interaction helps cultivate empathy, understanding, and tolerance towards others. A study by Rutland, Cameron, Milne, and McGeorge (2005) found that positive intergroup contact in educational settings fostered positive attitudes toward different social groups.

Creating an inclusive learning environment is essential to ensure that all students, regardless of their backgrounds or abilities, have equal opportunities to thrive and succeed in education.

Recognizing and accommodating diverse learning styles and abilities is crucial for inclusivity. Offering a variety of instructional strategies, such as visual aids, hands-on activities, and group work, allows students to engage with the material in ways that suit their individual needs (National Center for Learning Disabilities, 2014). Promoting collaborative learning and open discussion fosters an inclusive environment where students have the opportunity to share their ideas and listen to others. Encourage active participation and provide a safe space for students to express their thoughts and opinions (Halawah, 2016). By implementing these strategies, educators can create an inclusive learning environment that values diversity, promotes equity, and supports the success of every student.

Teachers play a crucial role in creating an inclusive learning environment. They can adopt teaching strategies that accommodate diverse learning styles and adapt the curriculum to suit the needs of all students. For instance, using differentiated instruction techniques, such as providing alternative assignments or allowing students to work in groups, can promote inclusivity (The Understood Team, 2021). School administrators are responsible for establishing inclusive policies and allocating resources necessary for creating an inclusive learning environment. They should ensure that there are support systems in place, such as counseling services or special education programs, to address the diverse needs of students (UNESCO, 2005). Engaging parents and caregivers is essential for creating an inclusive learning environment. Educators can involve them in decision-making processes, seek their input, and provide them with resources to support their child's learning journey (National Center for Learning Disabilities 2021).

An inclusive learning environment promotes equal opportunities for all learners. It aims to provide an atmosphere where individuals from diverse backgrounds, abilities, and needs can thrive and participate fully in the learning process. Creating an inclusive learning environment helps foster a sense of belonging and acceptance among learners. It ensures that individuals feel valued and that their contributions are appreciated. This fosters a positive learning environment where everyone feels comfortable expressing themselves and participating fully. According to Ainscow, "An inclusive learning environment encourages peer support, positive relationships, and respect for diversity, resulting in enhanced educational experiences for all learners" (Ainscow, 2015, p. 8).

As argued by Hammond, "Creating an inclusive learning environment enables educators to adapt their teaching strategies to address the diverse learning styles and needs of all students" (Hammond, 2014).

Kane, Lloyd & Paterson explain this by stating, "Creating an inclusive learning environment improves academic performance by addressing barriers, providing support, and accommodating diverse learning needs" (Kane et al., 2014, p. 12). Inclusive learning environments are vital in healthcare settings to ensure equal access to care and effective communication with patients.

All schools, from primary to higher education, must strive to create inclusive learning environments. Research by Hodkinson and Vickerman (2009) emphasizes that inclusion should be a key consideration in educational policies and practices, to address the diverse needs of students within the school setting. Inclusive learning environments are especially crucial in special education settings to promote the integration of students with disabilities. Research by Florian and Black-Hawkins (2011) emphasizes that inclusive practices and strategies in special education can support the learning and development of all students, irrespective of their abilities.

Inclusive learning environments are important in vocational training centers to ensure that individuals with disabilities or different learning needs have equal opportunities to acquire skills and participate in the workforce. The International Federation of Library Associations and Institutions (2015) emphasizes the role of libraries in creating inclusive learning spaces that cater to the needs of all individuals, promoting lifelong learning.

Therefore, the current review of this study was guided by the following research question: What are the main Elements of the design and management of an inclusive learning environment?

So, various scholars describe a different thing that creates an inclusive learning environment which facilitates a welcome and acceptable diversity situation regarding the school situation.

Elements of design and management of an inclusive learning environment

Designing and managing an inclusive learning environment is essential for creating an atmosphere that welcomes and supports the diversity of learners. An inclusive learning environment aims to provide equal opportunities for all students to participate, engage, and succeed in their educational journey. The major elements are the following,

Element one: - Ramps

A ramp is a sloping or inclined surface connecting two different levels. For example, a wheelchair ramp is used to make buildings accessible for individuals with disabilities. A ramp in an inclusive learning environment refers

to an architectural feature that enables individuals with mobility disabilities to access different areas of a building.

According to the Americans with Disabilities Act (ADA), which prohibits discrimination against individuals with disabilities, ramps must be installed in public places, including educational institutions, to ensure accessibility for all individuals (Americans with Disabilities Act, 1990). Ramps provide a safe and convenient alternative to stairs, allowing individuals using mobility aids, such as wheelchairs or walkers, to navigate in a building without obstacles.

The presence of ramps in a learning environment promotes inclusivity by removing physical barriers and providing equal opportunities for participation and engagement in various learning activities. It allows students with physical disabilities to move freely throughout the building, access classrooms, laboratories, libraries, and other facilities, and interact with their peers and instructors without limitations.

Ramps in inclusive learning environments play a crucial role in ensuring accessibility for all students, including those with disabilities. They provide a way for individuals using mobility aids such as wheelchairs or walkers to easily maneuver throughout the space and participate fully in the learning activities. According to the Americans with Disabilities Act (ADA), ramps are an essential component of the accessible design requirements for accommodating individuals with disabilities in educational institutions. Additionally, ramps have been found to benefit not only students with mobility disabilities but also individuals with temporary injuries, parents with strollers, and individuals with heavy backpacks or other items that may impede their movement.

This involves creating a safe space where students feel comfortable expressing their opinions, sharing their experiences, and participating in discussions.

Element two: - Signages

Signage refers to any visual graphics or display that provides information or directs people within a particular space or environment. It includes various types of signs, such as posters, billboards, banners, street signs, and digital displays, which are used for communication purposes in public places, businesses, or other settings.

Oc et al. (2019) investigated the role of signage in shaping people's perception of buildings and found that proper signage significantly enhanced participants' evaluation of a building's attractiveness, navigability, and perceived quality. The researchers concluded that signage played an important role in influencing people's judg-

ments and could contribute to positive experiences within a built environment.

Creating an inclusive learning environment involves using signage that is accessible and inclusive for all students. Signage plays an important role in making sure that information and resources are easily understood by everyone in the learning community.

Signage should use language that is easily understandable by all individuals, including those with learning disabilities or English language learners. Avoid using jargon, complex terminology, or vague descriptions. Instead, use simple and straightforward language to convey the intended message (Bailey et al., 2019). Signage should have sufficient contrast and be large enough to easily read. Consider using high-contrast color combinations, such as black text on a white background, to enhance visibility. Additionally, use fonts that are legible and easy to read, such as sans-serif fonts like Arial or Calibri (Centre for Excellence in Universal Design, 2018). Incorporating symbols and visuals into signage can aid comprehension for individuals with cognitive or language difficulties. Use universally recognized symbols or create custom visuals that provide clear information without relying solely on text. For example, using a picture of a person with a wheelchair to indicate accessible pathways or facilities (Burgstahler, 2015).

Element three: - Canteen

A canteen refers to a designated area within a school or institution where meals are served. It is a common space for students and staff to gather and have meals during the designated meal breaks.

In the context of inclusive education, a canteen refers to a cafeteria or dining area within a school or educational institution that is accessible and inclusive for students with diverse abilities and needs. Inclusive canteens ensure that students with disabilities or special needs have equal access to the facilities and resources. This may include providing appropriate seating arrangements, wheelchair access, sensory-friendly spaces, or offering support and assistance for students who require it. Canteens in educational settings serve as a space where students can come together and interact with each other. It promotes socialization and helps in building strong bonds among students from diverse backgrounds.

Schools with diverse student populations often have a variety of cuisines available in their canteens, reflecting the various cultural backgrounds of their students. This allows students to experience different foods and cultures, fostering a sense of inclusiveness and respect for diversi-

ty. This notion is supported by Jayawardena and Rennie (2013), who highlight the importance of recognizing and appreciating cultural diversity in inclusive education.

Canteens can be designed and equipped to be accessible for students with disabilities, ensuring their participation in mealtime activities. The layout and infrastructure of the canteen, such as wide aisles, accessible counters, and appropriate seating arrangements, can contribute to accessibility and inclusion for all students. This is emphasized by the Center for Inclusive Design and Environmental Access (2009), which highlights the importance of considering accessibility in various spaces, including canteens, for inclusive education.

According to UNICEF (2016), guide provides comprehensive information on creating inclusive learning environments, including strategies for promoting diversity, inclusion, and equity. It can serve as a valuable resource for canteen staff looking to make their space more inclusive.

According to UNESCO (2017), guidelines for inclusion provide insights into creating inclusive learning environments, emphasizing the importance of removing barriers to education and creating an environment that respects and values diversity. These guidelines can be useful for canteen staff in creating an inclusive space where all students feel welcome and valued. Minimize loud noises, provide adjustable lighting, and create quiet spaces for students who may be sensitive to sensory stimuli (National Autism Center, 2015). Create opportunities for social skills training in the cafeteria, such as collaborative seating arrangements, group activities, and guided conversations, to foster inclusion and social interaction among students (Smith, 2018a).

Element four: - Inside and Outside Classrooms

Regularly assess the effectiveness of your inclusive practices and seek feedback from learners. Adjust your teaching strategies and materials based on the needs and preferences of your students. These strategies for designing and managing an inclusive learning environment are supported by research studies and educational frameworks. For instance, the Universal Design for Learning (UDL) framework, developed by the Center for Applied Special Technology (CAST), emphasizes the importance of providing multiple means of engagement, representation, and action to meet the diverse needs of learners (CAST, 2021). Additionally, research from scholars like Dr. Elizabeth B. Kozleski (2003) highlights the importance of a community of learners where diverse students feel valued and connected.

According to Castillo-Merino, González-Gómez, and Rebollo-Catalán (2016), technology can effectively support inclusive learning by enabling personalized and self-paced learning experiences for all students. According to Ainscow (2005), involving the wider community fosters a sense of belonging and promotes inclusive practices that meet the diverse needs of learners.

Moreover, providing inclusive extracurricular activities can greatly contribute to an inclusive learning environment. These activities can cater to diverse interests and abilities, ensuring that all students have opportunities for social interaction and skill development. According to Florian and Black-Hawkins (2011), extracurricular activities promote inclusive education by fostering friendships, building self-esteem, and developing a sense of belonging among students.

Element five: -Age Appropriated and Accessible Toilet

When designing and managing an inclusive learning environment, it is crucial to consider age-appropriate and accessible facilities, including toilets. United Nations Convention on the Rights of Persons with Disabilities (CRPD) (2006), emphasizes the rights of persons with disabilities to full and equal participation in society. It promotes accessibility and reasonable accommodations for individuals with disabilities, which should be considered when designing and managing inclusive learning environments. Department of Education (2016), *Designing Spaces for Learning: Designing schools with students in mind*: This resource provides guidance and case studies on designing inclusive school environments, including toilets. It covers the importance of universal design, accessibility considerations, and examples of successful inclusive designs.

Element Six: - Flexible Curriculum and Pedagogy Center

According to Angela Page, Jo Anderson & Jennifer Charteris (2021) flexibility, along with an understanding of how disability may impact an individual student's capacity to learn, can facilitate a responsive level of support for students in Inclusive Learning Environments that can change with their changing needs. Differentiating instruction involves tailoring the content, learning activities, and assessments to meet the unique needs of each learner (Tomlinson et al., 2003). This approach ensures that students are challenged at their level and promotes active engagement in the learning process.

Integrating technology tools and resources into the curriculum enhances accessibility, engagement, and

learning outcomes for all students (Darling-Hammond et al., 2008). Technology provides various supports, such as text-to-speech software, interactive learning platforms, and multimedia resources, which can accommodate different learning needs and preferences.

Element seven: - Collaboration, Cooperation and Partnership among stakeholders

Collaboration among stakeholders is crucial for designing and managing an inclusive learning environment. Collaboration allows for the integration and coordination of efforts, resources, and expertise, resulting in a more effective and inclusive learning environment for all. Including students as stakeholders in the design and management of an inclusive learning environment is crucial. Their perspectives and voices should be heard to ensure that the environment meets their needs, promotes participation, and supports their overall well-being (Human Rights Education Associates, n.d.).

According to McLeskey and Waldron (2011), teacher collaboration and teamwork are vital for developing successful inclusive practices. Administrators provide leadership and support for creating inclusive learning environments. They need to ensure that policies and practices prioritize inclusivity and equity. Tindal et al. emphasize that administrators must establish a collaborative and supportive culture to promote inclusive practices. According to Benner and Mistry (2007), involving parents in collaborative decision-making processes positively impacts the success of inclusion initiatives. A report by the National Council on Disability (2011) emphasizes the importance of community collaboration in fostering inclusive education.

Collaborating with advocacy organizations such as the National Center for Learning Disabilities can provide valuable insights and resources to ensure that the inclusive learning environment meets the needs of students with disabilities (National Center for Learning Disabilities, n.d.).

The partnership between educators and school administrators is essential for creating an inclusive learning environment. Teachers can provide valuable input based on their experience in the classroom, while administrators can support necessary adaptations and allocate resources effectively (EdWeek Research Center, 2021).

Collaborating with local community organizations can provide additional support and resources to enhance the inclusivity of the learning environment. These organizations may offer mentoring programs, extracurricular activities, or workshops for students with diverse back-

grounds and needs (United Nations Educational, Scientific and Cultural Organization, 2014).

Students are active participants in creating an inclusive learning environment. They should be encouraged to express their needs and preferences, contribute to decision-making processes, and promote acceptance of diversity within the learning community (Cologon et al., 2016). Parents and caregivers are essential partners in designing and managing an inclusive learning environment. Their involvement ensures that the individual needs of students are properly addressed, and they can provide valuable insights into their child's strengths, challenges, and preferences (Department of Education and Training Victoria, 2016).

Element Eight: - Stairs, Pathways and Corridors

An appropriate physical environment enhances access, learning, and participation of all children in inclusive schools. It also fosters functional use of the physical spaces and eliminates (un)intentional hazards and barriers, especially for children with disabilities. Such an environment is universally usable and safe and may require the installation of special equipment, appropriate ventilation and lighting systems, and modification of existing school structures and facilities that include the provision of ramps, wider doorways, and elevators, among others.

Stairs in an inclusive learning environment play a crucial role in ensuring accessibility for all individuals. The presence of ramps alongside stairs can provide an alternative for students with mobility impairments. This allows them to navigate between different levels of a building without restrictions. According to the National Center for Universal Design in Education (2014), incorporating ramps alongside stairs can ensure that individuals with mobility challenges have equal opportunities to learn and access educational facilities.

Pathways in an inclusive learning environment need to be well-designed, wide, and free from obstacles to facilitate ease of movement for all students. These accessible pathways allow students with physical disabilities, such as those using wheelchairs or walkers, to navigate the environment without any hindrances. The Disability Discrimination Act (2005) emphasizes the importance of clear and unobstructed pathways, stating that they are essential to ensuring equal access and inclusion in educational settings.

Corridors in an inclusive learning environment should be adequately lit and well-maintained to promote a safe and comfortable atmosphere for all students. Lighting plays a vital role in supporting individuals with visu-

al impairments to navigate the corridors independently. Furthermore, it is important to ensure that corridors are wide enough to accommodate the passage of wheelchairs and other mobility aids. The Government of Western Australia (2019) specifies that schools should have corridors that comply with the Building Code of Australia, ensuring they are accessible and inclusive for all students.

In an educational learning environment, it is obvious that the environment should welcome and accept regardless of diversity. For instance, "The Role of Technology in Creating Inclusive Learning Environments" conducted by Smith (2018b) showed that there is a lack of specific focus on how technology can be effectively utilized to create inclusive learning environments that cater to diverse student populations.

Hence, the reviewed sources indicated that technology, strategies, and techniques of educators, effective training models and approaches, effective collaboration strategies, the benefits of teamwork, and the challenges educators face and parental involvement are among the main themes for creating an inclusive environment.

CONCLUSION

The creation of an inclusive learning environment is that it requires a comprehensive and proactive approach. It is not enough to simply provide accommodations for students with disabilities or diverse backgrounds. Instead, inclusive learning environments should be designed from the start to meet the needs of all students. This includes considering accessibility, diversity, and equity in all aspects of teaching and learning.

To create an inclusive learning environment, educators must actively involve all students, regardless of their abilities or backgrounds, in the learning process. This can be achieved by incorporating diverse teaching strategies, incorporating different learning styles, and providing opportunities for collaboration and engagement. Additionally, educators should create a safe and supportive classroom climate that promotes respect, understanding, and acceptance of all students. The management of an inclu-

sive learning environment requires ongoing assessment and adjustment. Educators should regularly evaluate the effectiveness of their teaching strategies and accommodations, and make necessary changes to ensure all students are fully included and engaged. They should seek feedback from students and adapt instructional materials and methods accordingly. So, it involves creating teaching strategies and accommodations that meet the needs of all students, fostering a safe and supportive classroom climate, and regularly assessing and adjusting instructional practices to ensure inclusivity for all learners.

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to all those who have contributed to the completion of this systematic literature review titled "Examining Elements of Designing and Managing Creating Inclusive Learning Environment."

First and foremost, I would like to thank Dr. Alaskandra and Dr. Matgorzata were reviewed for this study. Their valuable contributions to the field of inclusive education have laid the foundation for this comprehensive analysis. I would also like to extend my appreciation to my colleague Alex Alemu who provided guidance, support, and insightful discussions throughout the process. Their expertise and feedback have greatly enhanced the quality and rigor of this review.

Furthermore, I would like to acknowledge the institution/organization that I am affiliated with for providing a conducive environment and resources necessary for conducting this review. Their support has been instrumental in ensuring the successful completion of this project.

DECLARATION OF INTEREST STATEMENT

No potential conflict of interest was reported by the authors

ACKNOWLEDGMENTS

None

FUNDING

None

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