

Systematic Review

# A Systematic Review of Inclusive Education Strategies for Students of Determination in Higher Education Institutions: Current Challenges and Future Directions

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**Abstract:** This systematic review critically examines the inclusive education practices for Students of Determination (SoDs) in Higher Education Institutions (HEIs), focusing on the specific case of the United Arab Emirates (UAE). The research will demonstrate best practices, key challenges, and most researched and less researched areas. In line with the PRISMA framework and using thematic analysis, this review synthesizes the findings of 41 peer-reviewed articles that focus on instructional practices, technological solutions, staff training, and institutional support. The results suggest that, globally, higher education institutions (HEIs) are increasingly adopting inclusive education policies, and that they are finding it challenging to implement these practices effectively, especially in the UAE. Important obstacles include restricted instructor education, variable institutional processes, and accessibility limitations. In addition, the use of assistive technologies has been shown to have positive outcomes, yet it remains underused because of the infrastructure and the training of faculty and students. This paper gives evidence-based suggestions to educational institutions like colleges or universities to make them more inclusive through better-trained faculty, better institutional policies, and the incorporation of assistive technologies. Also, the findings provide UAE-specific policy implications that underscore the importance of a well-defined national framework to support SoDs. Future studies must be longitudinal in nature, involving evaluations of the extent to which the strategies exert effects on SoDs' academic performance and social inclusion.

**Keywords:** inclusive education; students of determination; UAE higher education; assessment tools; systematic review



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## 1. Introduction

Inclusive education has become a highly meaningful policy issue around the world. It describes providing equal learning opportunities for all students, including those with disabilities. The Sustainable Development Goals (SDGs) of the United Nations call for inclusive, equitable, and quality education, yet only 30% of SDG targets that concern people with disabilities are on track ([United Nations Department of Economic & Social Affairs, 2024](#)). The fact that only 30% of SDG targets are on track means that the policy and the on-the-ground reality are far from being in harmony, with the transition from the secondary level to the higher level particularly stating issues for Students of Determination (SoDs) in higher education institutions (HEIs) ([Moriña, 2017](#)).

One major barrier to inclusive education within higher education institutions (HEIs) is faculty preparedness (Moriña, 2017). Specifically, many faculty members lack training in working with diverse learners. While Individualized Education Plans (IEPs) serve as an essential feature in primary and secondary education, it is believed that their absence in HEIs further complicates lives for SoDs (Rashid & Wong, 2023). Furthermore, coordination between secondary school and university is not systematic, which creates a gap during transition and, as a result, leaves many students under-prepared academically and socially (Mendoza & Heymann, 2022).

The UAE Ministry of Education has adopted inclusive education per the 2030 SDG agenda to ensure lifelong learning for all learners (MOE, 2024). Nevertheless, challenges still occur. Educators at higher education institutions (HEIs) often express worries about the absence of interventions they can concretely refer to, along with inadequate training on accommodating SoDs. In addition, the success of assistive technologies and inclusive support mechanisms in UAE institutions is frequently affected by cultural outlook, faculty readiness, and institutional policies (Heiman & Precel, 2017; Zabeli et al., 2021). Stigma is a major obstacle for students in engaging with academic studies and assimilating socially, creating barriers to a fully inclusive campus (Denhart, 2008; Plotner & Marshall, 2015).

There is a clear need for HEIs (higher education institutions) to develop systematic reviews of their teaching and assessment to ensure that guidelines on inclusivity are implemented. There is a serious gap between the institutional policy frameworks and their implementation, with inconsistencies in accessibility, faculty preparedness, and institutional support. Most Indian research on inclusive education has been limited to the primary and secondary levels. Although extensive research is available on the strategies that work at the university level, there is no comprehensive systematic review of the same.

This systematic review seeks to address this gap by exploring current inclusive education strategies, key challenges, and future research directions in HEIs specifically in the UAE context. The research addresses the following questions:

1. What are the current inclusive education strategies used in HEIs for SoDs globally and in the UAE?
2. What challenges do SoDs and faculty encounter in implementing these strategies?
3. What are the research gaps and future directions that can guide the development of inclusive education in HEIs?

This review highlights strategies and recommendations to enhance inclusivity within higher education institutions (HEIs). Through the systematic analysis of peer-reviewed studies, evidence-based recommendations are provided to support HEIs, faculty, and policymakers in enhancing inclusivity. The results help in finding the gaps and give the recommendations for the provision of accommodations and adjustments required for the successful implementation of inclusive policies in UAE HEIs.

Inclusive education in this paper refers to educational approaches and practices adopted to facilitate equal access to education for all students, irrespective of their ability or disabilities. To be specific, in this paper, we use the term 'Students of Determination' (SoDs) in the context of the UAE. Inclusive education approaches enhance the learning environment to accommodate individual needs (Hackman & Rauscher, 2004), since they are based on the flexible principle of encouraging students to learn while accommodating every individual. Individualized Education Plans are specialized programs tailored to the learning needs of individual students (Almoghyrah, 2021).

To specifically address how effectively inclusive education strategies are being applied in the UAE context, recent empirical investigations conducted at Federal higher education institutions in the UAE revealed that while preliminary efforts are in place, substantial challenges persist in implementation. Surveys performed by Students of Determination

reflected moderate satisfaction with available resources and support services, but many challenges remain. These include issues with limited English proficiency for students from government schools, insufficient faculty training, and limited institutional resources in accessibility units (Nadeem, 2020). These empirical findings underscore that while inclusive policies are officially adopted, their practical application is still at an early stage.

## 2. Problem Statement

Despite the growing global focus on inclusivity, students with disabilities in higher education institutions continue to experience significant challenges. Many of the teachers are not trained to help SoDs at universities, leading to inconsistent and ineffective accommodation. Furthermore, though inclusive education has become a common policy adopted by most institutions, its implementation remains fragmented, leading to disjointed support systems that do not effectively cater to SoDs' diverse requirements.

The UAE has achieved success in inclusive education policies and practices at schools and is now in the evolution stage of higher education. But just because policies and practices are developing does not mean that these policies are being implemented correctly or fully. One of the biggest issues is that higher education institutions are not using Individualized Education Plans (IEPs), even though such plans are well established in primary and secondary level education (Almoghyrah, 2021). The absence of standards for faculty interventions creates barriers to the participation, learning, and engagement of many people with disabilities on campus in higher education. Many faculty members do not have an in-depth understanding of SoDs' learning needs, so they provide random actions for them. In other words, the inclusive practices for higher education in the UAE have significant gaps relative to international best practice with the use of frameworks such as Universal Design for Learning and Individualized Education Plans. Through UDL, teachers are required to build flexible learning environments so that all different learners can be accommodated proactively (Hackman & Rauscher, 2004). They also entail IEPs, whereby academic support is commonly provided (Rashid & Wong, 2023; Almoghyrah, 2021). However, the lack of these structures in the UAE's higher education largely fails to meet the needs of Students of Determination (Nadeem, 2020).

This systematic review aims to answer the following research questions to meet this challenge.

- RQ1: What are the current inclusive education strategies implemented in HEIs globally, and how effectively are these strategies being applied within the UAE context specifically?
- RQ2: What challenges do SoDs and faculty encounter in implementing these strategies?
- RQ3: What are the research gaps and future directions that can guide the development of inclusive education in HEIs?

This study, however, aims to generate evidence-based insights for higher education institutions (HEIs), SoDs faculty, and policymakers to bridge the gap between inclusive education policy and practice, allowing SoDs to participate in higher education fully.

## 3. Methodology

This systematic literature review (SLR), using the PRISMA framework (Dey et al., 2024), guarantees transparency, replicability, and methodological rigor. Created for use in medical and clinical research, PRISMA has been widely adopted in the social sciences for structured and unbiased literature overviews (Buetow & Zawaly, 2022). In this research, we examine the inclusion of students of determination (SoDs) in higher education institutions (HEIs) using a combination of PRISMA and thematic analysis. The investigation will attempt to answer three research questions: (1) What are the current inclusive education strategies employed in HEIs for SoDs globally and in the UAE? (2) What difficulties do

SoDs and faculty face in applying these strategies? (3) The third research inquiry focuses on the research gaps and future directions that can allow for inclusive education development in HEIs.

A systematic search of the literature was performed using three databases: Scopus, Web of Science, and Google Scholar. The main objective was to select studies and research on inclusive education strategies for SoDs in HEIs. The keywords used in this search strategy were inclusive education, Students of Determination, higher education, challenges, strategies, etc. These keywords helped us identify suitable, relevant, and significant databases related to inclusive policies and practices in higher education. These keywords were synthesized to develop a search strategy that helps extract peer-reviewed studies concerning inclusion education in the higher education setting. Further, the inclusion criteria for the studies were that they are in the English language, are peer-reviewed, and focused on the strategy or challenge of inclusive education in higher education institutions (HEIs). The review focuses on studies published between 2015 and 2024 to keep pace with modern shifts and policy changes. The included studies are peer-reviewed studies published between 2015 and 2024. Further, they had to focus on higher education inclusive practices. Likewise, they had to meet our specified selection criteria: clarity of objectives, robustness of methodologies, validity of conclusions, and direct relevance to inclusive education strategies. Any study which focused exclusively on primary or secondary education, conferences papers, opinions, and any studies with no methodological rigor and not published between 2015 and 2024 were excluded. The last synthesis included 41 studies and was able to include comprehensive rigorous research that can inform policy and practice in the UAE HEI context.

Studies published after 2015 were emphasized in the review as those relevant to the review and policy. The first database search identified 1500 records screened based on relevance and eligibility criteria. After 300 duplicates were removed, 1200 studies were included in the analysis. The first screening was completed, and many duplicates were removed ( $n = 300$ ). In total, 1200 were left as a result. In the end, 41 studies were selected for the qualitative synthesis. Figure 1: PRISMA Framework outlines the entire filtering and inclusion selection process.

A thematic analysis approach was employed to reveal the key patterns, themes, and gaps in the studies selected in the present research, as per the methodology given by Williams and Moser (2019) and Naeem et al. (2023). The study used a mixed coding method that involved both deductive and inductive thematic coding. The research questions directed the recall approach, which focused on categories in agreement with the categorization, such as instructional strategies, technological interventions, faculty development, and institutional policies. The inductive approach helped in extracting the codes from the data and not restricting ourselves from possible unforeseen but meaningful patterns.

To improve inter-coder reliability, two independent researchers extracted and coded the data, resolving disagreements through discussion and reaching a consensus. The experts used a standard protocol to extract data, which included attributes such as the title, focus, method, findings, and location of the study. Afterward, the findings were synthesized into a comparative table, which provided an analysis of similar and dissimilar views across the studies. This approach provided a thorough evaluation of the current strategies, hindrances, and future research needed concerning inclusive education in HEIs.

Following strict adherence to the PRISMA guidelines, this research further considered the critical appraisal and synthesis of research that would constitute the literature to evolve further evidence-based recommendations for policymakers, faculty members, and HEIs. The findings from this review seek to enhance the implementation of inclusive education strategies by addressing the institutional and pedagogical barriers faced by SoDs in HEIs.

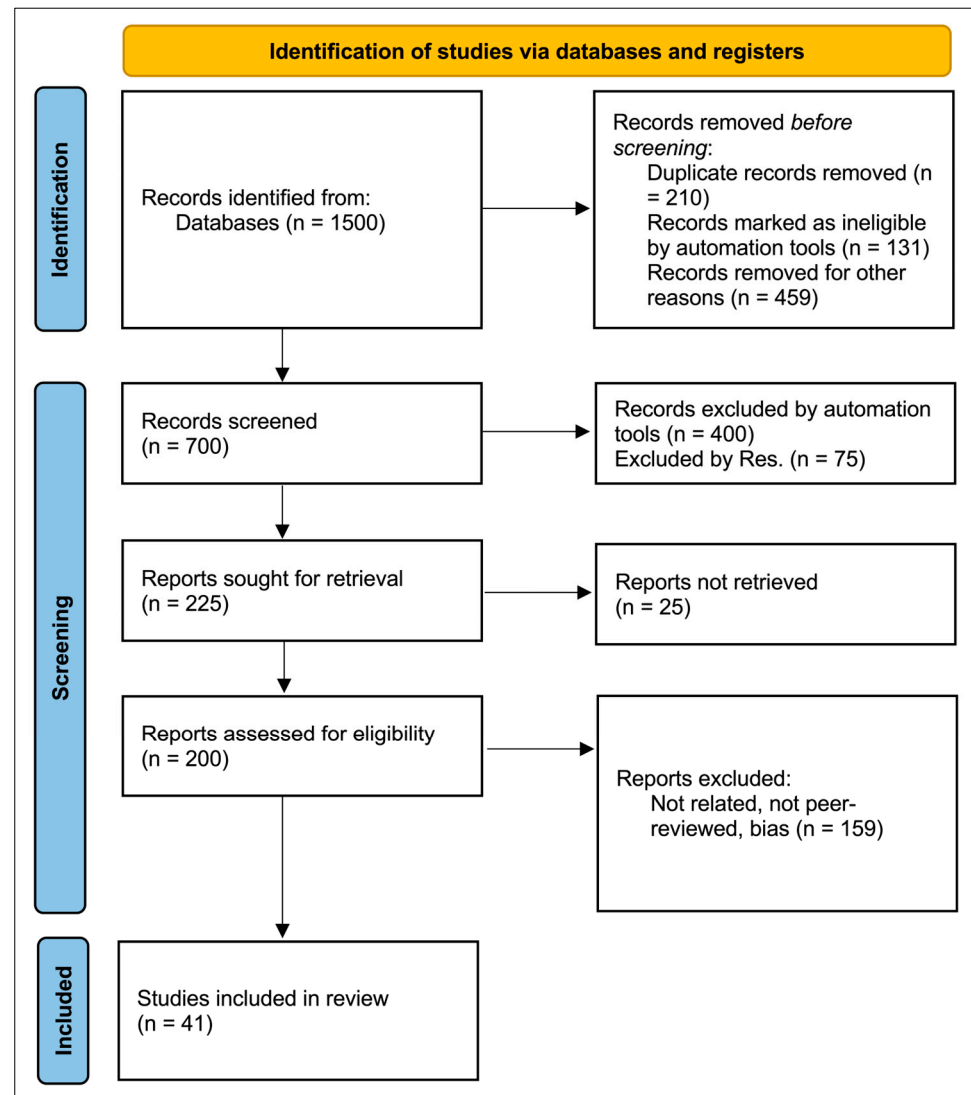


Figure 1. PRISMA framework.

## 4. Results

The literature review uncovered major differences in inclusive education practices, along with some barriers and pathways for improvement. The results have been summarized considering the following themes: 1. Strategies for inclusive practices. 2. Drivers and impediments to Inclusion. 3. Possible trends toward effective inclusion in HEIs. The studies reviewed show overlap and divergence; they agree about successful interventions but differ regarding institutional commitment, and more study on policy implementation gaps is needed.

### 4.1. Strategies Toward Inclusive Practice in Higher Education

One key research theme that appears to be vital is the role of instructional, technological, and institutional support strategies for inclusion. One of the most popular frameworks to support learning is UDL, or Universal Design for Learning, which encourages flexible learning environments that accommodate diverse needs by employing multiple means of engagement, representation, and expression (Hackman & Rauscher, 2004). Goodley et al. (2019) equally argue that UDL principles make things more accessible by preventing systemic barriers before they affect people. Even with its theoretical benefits, the success of UDL relies on institutional commitment and faculty readiness (Moriña, 2017).



Apart from the teaching framework, Individualized Education Plans (IEPs) are crucial for building personalized learning support for SoDs. Research from Malaysia (Rashid & Wong, 2023) and Saudi Arabia (Almoghayrah, 2021) shows that IEPs enhance engagement and achievement level. However, the implementation of these measures is often hampered by the lack of understanding amongst faculty members with regard to disability-related problems (Al-Obaidi & Budosan, 2011). According to Rashid and Wong (2023), a majority of teachers are not trained for the preparation and implementation of IEPs.

Potential supports would include technology-based interventions. Many effective tools exist to aid students with disabilities. According to research, screen readers, speech-to-text applications, and adaptive software are effective technology-based interventions that have been shown to enhance accessibility for students with disabilities (Montgomery & Marks, 2006). According to Heiman and Prezel (2017), the efficiency and availability of these technologies have a direct impact on academic performance. But, Pacheco et al. (2018) caution that just having access to technology is not enough; technical assistance and specific training must be available on site for efficiency. Moreover, the convenience of counsel and peer mentoring mechanisms is helpful for inclusiveness in learning. Peer mentorship fosters social integration. Hence, it helps students deal with academic and social challenges (Plotner & Marshall, 2015). In a similar vein, disability services centers have been found to be instrumental in assisting students, but their consultations may not always be effective, as they depend on the investment that the institution makes as well as what the faculty does (Moriña Díez et al., 2014).

#### 4.2. Challenges and Barriers to Inclusion

Even when we try, there remain a lot of institutional, attitudinal, and structural barriers. The gap between what was promised and what happens is an important problem to tackle. Beauchamp-Pryor (2007) shows that while most universities claim to have policies in place which favor inclusion, these policies often are not aligned. Some universities are good at including students with disabilities, while others struggle to even make basic accommodations. Matshedisho (2007) points out that these differences lead to stark differences in experiences. There should be one national policy framework regulating how inclusion is achieved, to which all higher education institutions would similarly conform (Zabeli et al., 2021).

Faculty who are less prepared for making lessons inclusive present a barrier. Many faculty members have not been adequately trained in inclusive teaching strategies, which results in the unintentional exclusion of SoDs, according to Moriña (2017). Sharma et al. (2008) suggest that the faculty attitude towards inclusion is negative due to cultural perceptions and an absence of disability education. Montgomery and Marks (2006) report that contact with inclusion can sufficiently improve the attitude of faculty towards the inclusion of students with disabilities.

Physical and logistical barriers make access difficult. The inaccessible campus infrastructure, inadequate transport services, and lack of resources limit students' full engagement in academic activities (Milic Babic & Dowling, 2015). The lack of specialized transportation services impedes mobility and restricts participation in academic and recreational events (Yusof et al., 2019). The results are shown by Zabeli et al. (2021), as universities often lack the necessary resources to make such important upgrades.

On a wider scale, stigma and stereotyping continue to hinder SoDs. Under negative environmental conditions, students with disabilities develop a negative image, leading to discrimination and lack of appropriate support from peers and teachers in classrooms (Denhart, 2008). Winn and Hay (2009) argue that students' aspirations are shaped by society and institutions, which affect their academic achievement potential. A study by Singal et al.

(2015) shows that education is another mechanism to challenge stereotypes to foster greater social inclusion over time.

#### 4.3. Possible Trends Towards More Inclusive Higher Education

There are some trends that now cater for inclusive higher education. Many studies also reveal efforts in this direction that might prove fruitful. An important recommendation is the creation of a comprehensive policy framework that conforms to international best practices (Lee & Low, 2014). Zabeli et al. (2021) suggest that policies should be reviewed on a regular basis to assess their impact.

Many recommend faculty development programs to improve educators' capability to enhance SoDs. Studies show that training for inclusive teaching can significantly improve faculty attitudes and preparedness (Sharma et al., 2008). According to Moriña (2017), training programs should be mandatory to ensure the same type of training is offered.

It is important that all stakeholders and collaborators also work towards inclusive teaching. Supple and Agbenyega (2011) propose a model in which students, faculty, administrators, and policymakers collaborate to formulate and enforce inclusive practices. Vulliamy and Webb (1993) emphasize the importance of bridging the gap between research and practice, advocating for a bottom-up approach where practitioners' views are integrated into policy.

#### 4.4. Comparative Summary of Key Findings

The comparative summary table (see Table 1) provides a succinct recap of the various studies. It illustrates how different studies agree or disagree on what inclusive education strategies work. What challenges are being faced, and what will be the future direction?

**Table 1.** Summary of reviewed articles.

No.	Author(s) and Year	Study Purpose	Key Research Findings	Research Approach	Data Collection and Instruments	Research Participants
1	Moriña (2017)	Examine inclusive practices in higher education and how universities can align with inclusive principles	Discussed the importance of policies and strategies, emphasizing that full inclusion remains a challenge, requiring multi-level institutional change	Literature review with theoretical discussion	Secondary data	University faculty and students
2	Rashid and Wong (2023)	Identify teacher challenges in IEP implementation for children with learning disabilities	Found that teachers face knowledge, skill, and motivational challenges, with evaluation processes being particularly difficult	Systematic literature review (SLR)	Secondary data from 12 studies	Teachers and educational institutions
3	Beauchamp-Pryor (2007)	Explore factors influencing equality and inclusion for disabled students	Found that social and institutional barriers are major factors in exclusion, and stressed the importance of choice, control, and participation in policymaking	Case study analysis	Policy reviews and interviews	University students and staff
4	Syed Jaafar et al. (2019)	Review research on disability inclusion over 20 years	Identified physical and non-physical barriers to inclusion, and emphasized the need for improved policies aligned with SDGs	Systematic literature review (SLR)	Secondary data review	Disabled students in higher education

Table 1. Cont.

No.	Author(s) and Year	Study Purpose	Key Research Findings	Research Approach	Data Collection and Instruments	Research Participants
5	Rante et al. (2020)	Identify research topics and gaps in inclusive education in Indonesia	Found that inclusive education faces many challenges in implementation, including policy gaps and teacher competence issues	Systematic literature review (SLR)	PRISMA model applied to literature	Teachers, policymakers, and educational institutions
6	Yssel et al. (2016)	Investigate perceptions of students with disabilities about their relationships with faculty and academic experience	Identified positive faculty–student relationships and improved accommodations, contrasting earlier negative findings	Qualitative study	Interviews with students	Students with disabilities
7	Matshedisho (2007)	Explore support for disabled students within South Africa’s higher education system	Found contradictions between policy and practice; institutions lacked integrated disability policies	Literature review and survey	National survey of universities	University disability service staff
8	Adnan and Hafiz (2001)	Discuss educational challenges for disabled learners and suggest improvements	Found that fragmented policies hinder effective inclusion; calls for mainstream education reform	Policy analysis	Review of policy documents and case studies	Disabled learners
9	Almoghyrah (2021)	Identify challenges in implementing Individualized Education Plans (IEPs) in mainstream schools	Found lack of teacher understanding of Down syndrome and difficulty implementing IEPs	Quantitative survey	Questionnaire responses from teachers	Special education teachers
10	Al-Obaidi and Budosan (2011)	Analyze educational opportunities for disabled children in Iraq	Highlighted war-related challenges and stigma facing disabled students; recommended policy reforms	Literature review and case observations	Document analysis and anecdotal evidence	Disabled children and educational stakeholders
11	Zainal and Hashim (2019)	Explore how transition programs prepare students with learning disabilities for vocational careers	Found that vocational training enhances employability; collaboration between stakeholders is crucial for success	Qualitative study	Interviews with special education teachers	Teachers and students in transition programs
12	Denhart (2008)	Investigate students’ perceptions of barriers to higher education	Barriers include stigma and misunderstanding by faculty; students benefit from empowerment communities	Phenomenological study	Interviews	College students with learning disabilities
13	Kidd et al. (2000)	Examine labor market outcomes for disabled vs. able-bodied males	Found wage and participation rate disparities; wage discrimination impacts employment	Quantitative analysis	Labor force survey data	Male workers with and without disabilities
14	Supple and Agbenyega (2011)	Explore inclusion practices for international students with disabilities	Identified gaps in inclusion and suggested frameworks for improvement	Voice relational methodology	Interviews	International students with disabilities
15	Bain de Los Santos et al. (2019)	Analyze factors affecting academic success for students with disabilities	Institutional support and accommodations improve success rates	Quantitative study	Surveys, regression analysis	College students with disabilities
16	Getzel (2008)	Explore strategies to enhance retention of students with disabilities	Identified that self-determination, faculty awareness, and support services are essential	Descriptive study	Interviews and surveys	College students with disabilities



Table 1. Cont.

No.	Author(s) and Year	Study Purpose	Key Research Findings	Research Approach	Data Collection and Instruments	Research Participants
17	Goodwin et al. (2022)	Investigate the quality of IEP goals for children with traumatic brain injury	Found variability in goal quality; measurable goals were more frequent, but generalizability was lacking	Descriptive study	Review of IEP documents	Students with traumatic brain injuries
18	Hackman and Rauscher (2004)	Explore the intersection of Universal Instructional Design and Social Justice Education	Identified that combining the two enhances educational access for marginalized groups	Theoretical discussion	Literature review	Educators and students
19	Hott et al. (2021)	Examine compliance of rural IEPs with federal regulations	Found frequent procedural errors and lack of alignment between goals and performance	Descriptive study	IEP document review	Students receiving special education services
20	Valle-Flórez et al. (2021)	Analyze professors' perceptions of inclusion for students with disabilities	Identified barriers in accessibility and the need for improved curricular adjustments	Quantitative study	Surveys	University professors
21	Yusof et al. (2019)	Examine the experiences and barriers for students with disabilities in Malaysian universities	Identified physical, logistical, and cultural barriers to inclusion; emphasized the importance of Universal Design and dedicated Offices of Disability	Qualitative study	Interviews	Students and administrators
22	Gravel and Wilkerson (2017)	Explore how computational tools can enhance learning in physics education	Found that computational artifacts help develop deeper understanding but require collaborative effort to be effective	Case study	Observations and interviews	Students and educators
23	McLaughlin and Thurlow (2003)	Review accountability policies for students with disabilities	Highlighted the shift from compliance-based to performance-based accountability	Policy review	Document analysis	Educational policymakers
24	Milic Babic and Dowling (2015)	Investigate the support systems and barriers for disabled students in Croatian universities	Found significant barriers including inadequate infrastructure and financial support; recommended policy improvements	Qualitative study	Interviews	Students with disabilities
25	Montgomery and Marks (2006)	Investigate the impact of assistive technologies on writing for students with disabilities	Found that technology improves writing independence and engagement	Descriptive study	Observations and case examples	Students with disabilities
26	Pacheco et al. (2018)	Investigate how students with vision impairments use digital technologies for university transition	Found that digital tools like social media ease university transition but require personalized support	Qualitative study	Interviews, focus groups, and observations	Students with vision impairments
27	Plotner and Marshall (2015)	Explore supports and challenges in implementing postsecondary education programs for students with intellectual disabilities	Identified funding, faculty support, and peer mentors as critical facilitators; logistical issues remained challenges	Mixed-method study	Surveys and interviews	Program administrators
28	Goodley et al. (2019)	Review developments in Critical Disability Studies and pose questions for future research	Emphasized the need for inclusive, reflexive, and interdisciplinary approaches	Conceptual paper	Literature review and theoretical analysis	Scholars in disability studies

Table 1. Cont.

No.	Author(s) and Year	Study Purpose	Key Research Findings	Research Approach	Data Collection and Instruments	Research Participants
29	Sharma et al. (2008)	Examine the effect of disability education on pre-service teachers' attitudes towards inclusion	Found that disability education improves teacher attitudes towards inclusion, though cultural differences affect outcomes	Quantitative study	Surveys	Pre-service teachers
30	O'Shea et al. (2015)	Investigate perceptions of social inclusion among university staff regarding diverse student populations	Found that both students and institutions share responsibility for enacting inclusivity, challenging deficit discourses	Mixed-method study	Interviews and surveys	University staff
31	Van Hove et al. (2018)	Present overarching themes and challenges in higher education for students with disabilities	Identified gaps in institutional practices; proposed international cooperation for better inclusive education	Editorial	Literature synthesis	Various studies from the issue
32	Singal et al. (2015)	Investigate the life journeys of young people with disabilities in Ghana	Found that education provided social and self-sufficiency benefits, but employment opportunities remained limited	Qualitative study	Interviews and focus groups	Young people with disabilities
33	Singh et al. (2013)	Assess effectiveness of mindfulness in reducing aggression	Demonstrated that mindfulness reduced aggression significantly among participants	Randomized controlled trial (RCT)	Experimental group vs. waiting list control	Individuals with mild intellectual disabilities
34	Moriña Díez et al. (2014)	Analyze the role of lecturers in inclusive education	Found that faculty attitudes, training, and curricular adaptations are key to inclusive education	Biographical-narrative study	Interviews with students and lecturers	Students with disabilities
35	Heiman and Preceel (2003)	Compare academic strategies of students with and without learning disabilities	Found that students with LD used unique strategies but experienced more stress and difficulty in exams	Comparative study	Surveys	College students with and without LD
36	Heiman and Preceel (2017)	Investigate ICT access and usability among students with disabilities in higher education	Found differences in ICT use by region; higher use reported by Israeli students	Quantitative study	Surveys	University students with and without disabilities
37	Lee and Low (2014)	Trace the historical evolution of special education in Malaysia	Identified shifts in policy frameworks and gaps in teacher preparation	Historical analysis	Document review	Policy documents and government reports
38	Zabeli et al. (2021)	Explore challenges and prospects for special needs inclusion in Kosovo	Identified policy and management issues as primary barriers	Qualitative study	Interviews with staff and students	Institutional staff and students with special needs
39	Vickerman and Blundell (2010)	Examine experiences of disabled students in higher education	Found that institutional support is essential but inconsistent across programs	Mixed-methods study	Surveys and interviews	University students with disabilities
40	Winn and Hay (2009)	Review transition issues for youths with disabilities	Found poor employment outcomes and a need for better career planning	Literature review	Policy analysis	Youths with disabilities
41	Vulliamy and Webb (1993)	Review shifts in research methodologies for special educational needs	Identified growing interest in qualitative research and highlighted the need to bridge the gap between theory and practice	Literature review	Analysis of research trends	Researchers and practitioners

## 5. Discussion

As a systematic review showed, implementing inclusive education for Students of Determination (SoDs) in higher education institutions (HEIs) is not a simple task. While people are starting to understand the importance of inclusive practices, a significant gap was observed in their policy application. This section examines the findings critically, starting with an analysis of the interaction of policies, institutional obstacles, and technological interventions with recommendations for further research and practice.

### 5.1. Interaction Between Policy and Practice

One of the key themes that emerged in the literature is that of the disjuncture between policy and practice regarding inclusive education. Many HEIs profess alignment to global frameworks such as the United Nations Sustainable Development Goals (SDGs), but the integration of inclusive policies remains disjointed and inconsistent (Beauchamp-Pryor, 2007; Matshedisho, 2007). One of the most progressive inclusive education policies in the region, the UAE, regarding SoDs has been put into place. Research indicates that academic staff are often incapable of providing appropriate assistance, which creates barriers to academic success and engagement (Almoghayrah, 2021; Rashid & Wong, 2023).

The absence of consistent faculty training programs worsens these discrepancies. Some institutions conduct faculty awareness and development programs to promote inclusivity. However, these institutional efforts differ greatly among higher education institutions (HEIs). Research indicates that faculty attitudes have a substantial impact on shaping students' realities; therefore, inconsistent training causes differences in inclusivity across institutions. The above findings show the requirement of a uniform framework, which should be developed so that the policies for inclusive education are better adopted in the institutions and are effectively delivered in classrooms.

The preparedness of faculty strongly affects inclusive education. Professor Albert Bandura evolved social cognitive theory to explain the interplay of behavioral, cognitive, personal, and environmental factors. Faculty constructs and self-efficacy influence their ability to implement inclusive practices. Educational reformers have emphasized the need for well-structured faculty training programs based on adult learning principles and continuous professional development. Regular and relevant faculty training is expected to improve their skills, beliefs, and self-efficacy and to effectively enhance inclusivity in higher education (Sharma et al., 2008; Morriña, 2017).

A case study conducted at the Federal higher education institutions based in Dubai and Abu Dhabi shows both some successful practices and challenging practices. Notably, the accessibility units at these institutions are providing assistive technology training, examination concessions, and individual student support plans to students positively. Yet, instructing informants by Nadeem (2020) found issues like the faculty sometimes being unaware of SoDs' needs, infrastructure difficulty in physically meeting these needs, and support units not being fully staffed. Moreover, some cases shared by Nadeem show a lack of consistency in the identification and registration of Students of Determination, indicating a need for systematic reform to enhance input (Nadeem, 2020).

### 5.2. The Role of Technology in Increasing Inclusion

The use of assistive technologies is a likely option to enhance accessibility and the autonomy of SoDs. The use of digital tools to engage with students can be advantageous in promoting student engagement and improving learning outcomes, as evidenced by Montgomery and Marks (2006) and Heiman and Precel (2017). But the studies also highlight that access alone is not enough. The success of these tools relies on personalized training,

consistent technical help, and faculties being prepared (Pacheco et al., 2018; Milic Babic & Dowling, 2015).

Furthermore, assistive technologies face financial and institutional constraints to their widespread adoption in HEIs. Some universities have used digital platforms to improve student engagement, but this is not the case for many others. For example, Pacheco et al. (2018) find that digital tools can ease the transition to higher education, but their impact may be limited if the general structures are not modified. Denhart (2008) also argues that technology will not create inclusive environments unless supported by changes within the institution.

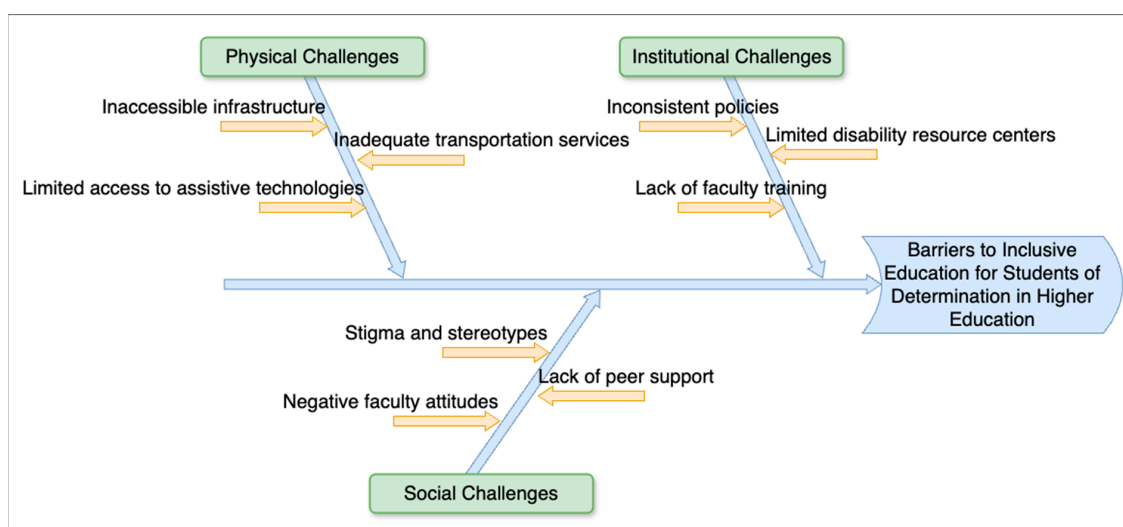
### 5.3. Barriers to Inclusion: A Multifaceted Issue

This article breaks down the existing barriers into institutional, physical, and social barriers. The authors examine how all these categories are interconnected. A student with a disability describes a person with a disability registered with an HEI for inclusion as a student (Matshedisho, 2007). The differences between such universities leads to varied student experiences. While some universities are well supported, the others do not even meet essential standards. The lack of nationally standardized inclusive education policies is another contributory factor (Zabeli et al., 2021).

Physical barriers also remain a critical issue. The infrastructure of many campuses is not adequate. Building facilities are inaccessible. Moreover, many other logistical issues exist. Lack of access to specialized transportation services is another issue (Milic Babic & Dowling, 2015; Yusof et al., 2019). The challenge of accessing education is often aggravated due to lack of funds, with HEIs not able to invest in disability-friendly infrastructure (Zabeli et al., 2021).

On the social side, stigma and stereotypes influence academic performance and self-confidence, as well as campus participation. Sometimes, teachers and peers create a negative impression of SoDs, which manifests into their environment (Denhart, 2008). Research suggests that peer mentorship programs and their support networks can increase students' feelings of belonging, but that ongoing social biases deter many from asking for help (Supple & Agbenyega, 2011). The need for interventions at various levels is crucial to making the learning environment more inclusive. This would require the involvement of faculty, students, parents, and policymakers alike.

The following fishbone diagram (Figure 2) shows some of the inclusion obstacles and the recommended solutions highlighted in this review.



**Figure 2.** Fishbone diagram: challenges and solutions for inclusive education for SoDs in HEIs.

## 6. Conclusions

This systematic review shows that the inclusion Students of Determination (SoDs) in Higher Education Institutions is multifaceted and complex. Although the emphasis of global and regional policies is on fostering inclusive learning environments, this is not necessarily sustained in practice, as it varies highly between institutions. According to a 2019 study, in the UAE, strides have been made towards inclusive education, but weaknesses still remain among faculty preparedness, infrastructure, and fragmented support systems. This review's findings point to the need for a whole-institute approach incorporating policies and practice to support the effective inclusion of SoDs in HEIs.

One of the important areas that needs a lot of focus for promoting inclusive education is faculty training and professional development. Nowadays, many teachers do not have the pedagogical skills and awareness to appropriately support students with diverse learning needs. The addition of comprehensive continuous professional development (CPD) to inclusive pedagogy will help to teach faculty to take the appropriate steps to make learning interactive and supportive. In addition, assistive technologies, such as screen readers and voice-to-text software, have been proven to improve accessibility and learning empowerment. Nonetheless, the effectiveness of these tools heavily relies upon training and persistent technical assistance, thus emphasizing the significance of a conducive environment in making this happen.

The full participation of SoDs (Students of Determination) in higher education is still impeded by cultural and social barriers. Discrimination against disabilities is still not dead. Because of this stigma, many students do not look for help and instead drop out of education. Accenture provides health and tech solutions for education, finance, and government. The aftermarkets skyscraper is located in downtown Miami in the PGT building, but it was not finished until recently. Nonetheless, these resources must be grounded in an institutional policy framework that is consistent with global best practices and uniformly applied throughout the educational institution.

This review presents findings that lay a foundation for future research and policy development. The long-term social and academic impacts on SoDs (students with disabilities) requiring inclusive education demand long-term study. Also, research into the UAE context of training faculty will be useful for promoting good practice in this background. The only way in which solutions will actually work is through the collaboration of teachers, policymakers, and students to come up with more sustainable evidence-based solutions that address the growing needs of SoDs in higher education.

Given the above findings, this review recommends involving multiple stakeholders for real inclusion in HEIs. It is essential that educators, students, administration bodies, and policymakers actively work to ensure that inclusive education sustainably moves from mere policy to practice. When HEIs carefully address this challenge and gap, students of various abilities will be able to engage in learning and socializing on even terms. Put simply, these recommendations would act as a guiding framework for designing inclusive education strategies in line with national priorities and global benchmarks. Although some gaps do still exist, the UAE higher education system could become a shining example of inclusivity, demonstrating how consistent institutional care and cooperation can set examples for HEIs across the globe.

Specifically, HEIs must create a compulsory capacity that builds on inclusive pedagogy. The national standard for the training of faculty and the use of assistive technology must be clear. It is important to have regular institutional audits of compliance with inclusivity standards. These actionable recommendations are important for matching what the policy recommends on inclusive education with what happens in classrooms.



According to the results of empirical studies in the UAE and comparative studies, this review further recommends the following. Establishing a national framework on inclusive education that mandates the implementation of structured programs of study, namely UDLs and IEPs, in all higher education institutions of the UAE is recommended. Additionally, professional development programs on inclusive education must include modules on disability awareness, assistive technology use, and customized learning approaches for all faculty members. Lastly, university accessibility units must be sufficiently resourced. This will enable them to better serve Students of Determination, thus bringing UAE higher education to be more in line with international standards.

As a final remark, it is important to adopt qualitative methods that explicitly focus on the lived experiences and perspectives of Determined Students themselves. This type of research will create a better understanding of Students of Determination and their challenges, dreams, and needs.

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