

Insights from Scientometrics and Text Analysis on the Management of Inclusive Education in Higher Education

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ABSTRACT

This study employs scientometric and text-analytic approaches to map the management of inclusive education, encompassing a review of scientific publications from 1997 to 2024. The data show significant publication growth, with an annual growth rate of 19.02%, and 736 documents published by 1,934 authors across 736 sources. The analysis results showed an average citation per document of 7,876, reflecting the field's high impact. The annual scientific production chart shows a stable initial phase through 2010, followed by a significant increase after 2016, peaking in 2023. An analysis based on Bradford's law revealed that most articles originated from a small number of core journals. In contrast, network analysis identified relationships between key topics such as "inclusive education," "students," and "technology." The text analysis yielded 14 themes related to inclusive education in higher education, including accessibility challenges for students with disabilities, curriculum development, and the importance of support and training. The findings underscore the need for a multidimensional approach to implementing inclusive education, emphasising the importance of collaboration among educational institutions and stakeholders to ensure equitable access for students.

Keywords: Inclusive education, scientometrics, publication analysis, accessibility, and collaboration.

INTRODUCTION

Inclusive education refers to an educational approach that aims to ensure that all students, regardless of physical, mental, social, or cultural differences, can learn together in the same educational environment (Thomas & Whitburn, 2019). Simply put, inclusive education is based on the conscious, voluntary recognition of diversity. It aims to remove barriers students may face due to special needs or differences in background, including disability, gender, religion, and socioeconomic status. At the very least, the concept of inclusive education is a clear spring and hope for expanding educational space, open to all groups regardless of background, ethnicity, religion, or other ideologies. This concept is important and serves as a magnet, attracting the attention of scholars studying inclusive education and developing new theories. The proposed concept, which addresses the essence of education, underscores the urgency of implementing inclusive education.

There are at least some fundamental reasons why the concept of inclusive education is important and continues to be discussed and researched by social scholars. First, inclusive education is a human rights principle. It builds on the foundations and arguments put forward by the United Nations through the Convention on the Rights of Persons with Disabilities, which emphasises that all individuals, including persons with disabilities, have access to quality education in an inclusive environment, without discrimination (Nations, 2006). *Second*, there is recognition and efforts to ensure that all children, regardless of their background, abilities, or special needs, have equal access to education. This is, of course, crucial to reducing injustice and educational disparities (Ebersold, 2015). *Third*, empirically convincing studies show that students who study in an inclusive environment are more likely to experience improved academic outcomes, social skills, and better emotional development (Florian, 2008). This is understandable, as conceptually inclusive education enriches the learning

experience for both students with special needs and their peers without special needs.

Fourth, there is a social acceptance and appreciation for diversity in the implementation of inclusive education. In this context, inclusive education enables students to appreciate religious diversity and foster an understanding of individual differences (Booth & Ainscow, 2002). This concept can reduce stigma and discrimination and build a more inclusive and tolerant community. *Fifth*, inclusive education is believed to foster an inclusive school environment. In this case, students are prepared to build relationships and participate in a highly diverse society. This type of environment is essential for students with disabilities, enabling them to be active in society and become more independent in completing their education (Hehir & Katzman, 2012). Ultimately, implementing inclusive education is crucial because students with special needs often feel more accepted and valued in such environments, thereby enhancing their emotional well-being. This kind of environment is indeed very supportive in building their confidence and self-esteem (Ainscow et al., 2013). The concept of inclusive education, with all its urgent arguments, is understandable if it is believed to realise social justice, improve students' quality of life, and create a more just and tolerant social order. Of course, these principles and idealisations ultimately encourage various scholars to elaborate on inclusive education. They are comprehensive, incorporating various perspectives to explain and develop this topic.

There are many studies on inclusive education that undergraduates have conducted. This study can be classified into several topic groups. The first study examines inclusive education as a concept for educators. In this context, teachers are understood as subjects through which inclusive education is understood and applied in the learning process. In this topic, a study by Altes et al. (2024) found that higher education educators tend to have a positive attitude toward inclusive education. However, there is uncertainty about educators' understanding of inclusive education and how it is developed and implemented in higher education. (Korthals Altes et al., 2024). The study by Díez et al. (2015) found that, in general, educators, particularly lecturers, provide support to students with disabilities. This is identified through specific methods used by educators, selected based on the needs of students with disabilities. Not only that, but educators also strive to enhance their ability to accommodate people with disabilities. Of course, this condition confirms that educators are direct agents who directly support the concept of inclusive education (Moriña Díez et al., 2015).

The second is a study closely related to students with disabilities as an educational object. Included in this study is a study by Morina (2015), which successfully identified that students with disabilities often face various obstacles at universities in several forms, stemming from institutional policies, infrastructure limitations, non-inclusive teaching methods by lecturers, and difficulties interacting with peers (Moriña, 2015). In another study, Morina et al. (2014) found that, in addition to barriers, students with disabilities can be provided with support by offering access to complete courses (Moriña et al., 2014). The third study is closely related to the institution where students with disabilities get an education. One important study on this issue was conducted by Morgado et al. (2016), who successfully identified the supports and obstacles that students with disabilities can experience. These barriers originate from institutional factors, including architectural and structural limitations, which hinder their access to classrooms, infrastructure, and other campus facilities. Another barrier is in the form of institutional barriers, which include policies and practices that may not support the needs of students with disabilities (Morgado et al., 2016).

On the other hand, the literature on inclusive education in higher education shows significant progress, but important gaps remain that previous research has not addressed. Global scientometric studies have mapped the thematic trends and relationships of inclusive education. However, the focus is primarily on publication mapping rather than on how inclusion is implemented at the managerial level in higher education. In this context, for example, research on inclusive education innovation in Indonesia shows that although inclusion policies are in place, implementation is still constrained by limited infrastructure and human resource competencies, indicating the absence of an institutional management model that effectively bridges policies and practices (Isma & Yusuf, 2025). Meanwhile, blended learning has been shown to increase access to learning for students with special needs. However, existing systematic studies still focus on analysing approaches and the use of technology without explaining how institutions manage, facilitate, and evaluate these approaches systematically at the university level (Carrillo-sierra et al., 2025; Zavaraki & Schneider, 2019). On the other hand, studies on inclusive teacher education in the Global South highlight that educator training policies and practices still largely adopt the Global North research pattern, resulting in approaches that are not yet entirely relevant to the local context and characteristics of higher education institutions in developing

countries (Herrera-Seda & Walton, 2025). Thus, previous research has not revealed how inclusive education in higher education can be managed as an integrated system that contextualises policies, educator competency development, and technology support. This research gap needs to be addressed to sustain the application of inclusion in higher education.

Although various studies on inclusive education have been conducted at the higher education level, few studies have attempted to map two main issues: “publication trends related to inclusive education in higher education” and “classification of issues found related to inclusive education in higher education.” In response to this limitation, this study aims to systematically review existing studies using two approaches: “Scientometrics” and “text analysis.” Thus, the study is expected to map the development of issues related to inclusive education in higher education. For this reason, the study is written in several parts. The first part elaborates on the research background and purpose. The second part presents a conceptual study of inclusive education, and the third outlines the approach used in this study. The fourth and fifth parts present the findings and analysis, while the final part draws conclusions that elaborate on the main contributions and offer suggestions for future research.

LITERATURE REVIEW

Definition and concept of inclusive education

Inclusive Education is an educational approach that seeks to accommodate all learners within mainstream educational settings, regardless of their physical, intellectual, social, or linguistic differences. The goal is to provide equitable access to quality education by removing barriers that prevent students with diverse backgrounds or abilities from fully participating in and benefiting from the learning process. According to Ainscow (2005), inclusive education involves restructuring schools, classrooms, and learning practices to cater to the varied needs of all students, promoting a sense of belonging and enabling them to reach their full potential (Ainscow, 2005). This includes adapting curricula, teaching methods, and assessment systems, while fostering a supportive environment that values diversity and actively works to reduce discrimination and exclusion.

Inclusive education requires a deep understanding of students’ cultural diversity and the ethical use of technology. In the context of diversity, culturally responsive teaching practices are necessary because

education must “use the cultural knowledge, prior experiences, frames of reference, and performative styles of ethnically diverse students to make learning more relevant and effective for them” (Lakhwani, 2023). This approach also emphasises the importance of a strong relationship between schools and families, as parents view education as a “partnership between two homes—school and home” that requires mutual understanding of the values, needs, and challenges their children face. Meanwhile, the development of artificial intelligence presents new opportunities for inclusive education. However, its use must take into account that issues such as “ethics, bias, and diversity” greatly determine whether AI can truly expand access or widen inequality (Knox et al., 2022). Thus, current inclusion practices require synergy between a strong understanding of culture and the responsible use of technology to ensure that every learner has a fair and meaningful learning experience.

As a concept, inclusive education is grounded in the principles of equity, social justice, and human rights. It challenges traditional views that categorise and separate students based on their abilities or disabilities. Instead, it advocates for an education system that is flexible and responsive to individual learning needs. Slee (2011) emphasises that inclusive education is not merely about integrating students with special needs but is about transforming educational systems to be more accessible and supportive to all learners, regardless of their background (Slee, 2011). A set of key elements includes: (1) Universal Access: Ensuring that every student, including those from marginalised or minority groups, has access to learning opportunities. (2) Curriculum Flexibility: Modifying teaching practices, resources, and materials to suit the needs of all learners. (3) Participation and Belonging: Promoting an inclusive school culture where all students feel valued and included. (3) Collaboration: Engaging educators, parents, and communities in creating an inclusive learning environment. (4) Scholars like Florian and Black-Hawkins (2011) highlight the importance of teacher education and professional development in fostering inclusive practices (Florian & Black-Hawkins, 2011). Inclusive education also requires robust policy frameworks and effective resource allocation to ensure that schools can effectively address the diverse learning needs of their students.

Several explorations of the challenge of inclusive education have been conducted. A significant number of scholars stated that there are various challenges, including attitudinal barriers, which reflect the misconceptions and prejudices against students with disabilities (Ainscow,

2005). These attitudes often lead to resistance to inclusive practices, particularly among educators who may lack confidence in teaching diverse learners (Avramidis & Norwich, 2002). Another major obstacle discussed is systemic and policy barriers, where inconsistent or unclear policies on inclusive education lead to disparities in implementation across schools and regions (Mittler, 2000a). This is compounded by inadequate teacher training, as many teachers are unprepared to support students with special needs in mainstream classrooms effectively (Loreman et al., 2011).

Furthermore, the authors address the lack of resources and infrastructure, noting that many schools, especially in low-income areas, lack the necessary tools, such as assistive technologies and physical accommodations, to support students with disabilities (Pijl & J.W.Meijer, 1997). Additionally, social and cultural barriers are highlighted, with the article stressing that societal views on disability often contribute to the exclusion of students with diverse needs (Florian & Spratt, 2013). Overall, the article provides valuable insights into the barriers to inclusive education, emphasising the need for teacher training reforms, stronger legal frameworks, and better resource allocation to overcome these challenges. It requires a multifaceted approach to create truly inclusive learning environments.

A set of factors determines the implementation of inclusion in educational institutions. There are three main categories of factors: teacher, school, and external factors. In the context of teacher factors, teachers' attitudes and beliefs toward inclusion are crucial to its success. Inclusion is likely to fail if teachers are unwilling or unprepared to educate students with special needs. Teachers also require adequate resources, such as time, materials, and professional development, to effectively support all students in a regular classroom. In addition, within School Factors, the organisation of schools, including the availability of support services such as special education teachers or teaching assistants, affects inclusion. Effective collaboration within the school and with external support systems is vital. Decentralising decision-making gives schools the flexibility to address specific needs, and cooperation between schools is also highlighted as important. Finally, external factors include legislation, regulations, and public opinion. Laws and policies must support inclusive education, ensuring adequate funding and resources for schools (Mittler, 2000b; Pijl et al., 1997). Public opinion and societal values about inclusion also influence its implementation.

Universal learning design (ULD)

As an approach, *Universal Design for Learning (UDL)* is a pedagogical framework that aims to create an inclusive learning environment by accommodating the diversity of learners from the planning stage onward. More concretely, UDL is an instructional framework that seeks to accommodate learners' variability through proactive, flexible learning planning. In its development, UDL was elaborated and refined by CAST (Centre for Applied Special Technology) and is rooted in the concept of universal design in architecture, which seeks to make public spaces accessible to everyone, not just a select few. This development is not without controversy; several principles underpin the effort to develop this concept (Rao & Meo, 2016). *First*, what is learned is often presented through *multiple modes of representation, with educators providing various ways to present information so that students can access the material in ways that suit their needs*—visual, audio, and tactile. This is done because it is closely related to the *brain's recognition networks*. *Second*, how to demonstrate what is learned using multiple means of action and expression, with educators providing choices for how students express their learning, such as writing, oral presentations, pictures, or movement. This process is related to strategic *networks*. *Third*, why learning or *multiple means of engagement*, where education provides a way to motivate and maintain learning interests, such as providing autonomy, contextual relevance, and emotional support, and this is closely related to affective *networks* (Politi et al., 2023). The next question is, how is this UDL concept applied in the classroom?

In general, the implementation of UDL in the classroom includes the process: (1) a standards-based learning design, which is “parsed” to match core skills with the flexibility of methods, assessments, and materials. (Rao & Meo, 2016). (2) Use interactive media, video, and adaptive technologies to support cognitive engagement and access (Salama Muhammad et al., 2024). (3) adjustment of assessments to be inclusive of various forms of representation and expression of learning; and (4) focus on proactive interventions and early identification of learning needs. The complexity of this UDL concept must certainly be tested—is UDL effective when applied to learning? This question can be explained in three essential points: *First*, UDL can increase student participation by 20% and the quality of student work by up to 15% (Salama Muhammad et al., 2024). *Second*, the most concrete evidence of UDL's effectiveness is seen in specific contexts, such as teacher training, science lessons, and professional development programs

(Almeqdad et al., 2023). *Lastly, the positive impact of UDL extends not only to students with special needs but also to the entire class population* (Rao & Meo, 2016). Universal Design for Learning (UDL) has become a prominent pedagogical approach to creating a learning system that is inclusive and responsive to learners' diversity. As a framework grounded in the principles of universal design and educational neuroscience, UDL holds three central tenets: multiple means of engagement, representation, and action and expression. However, recent empirical studies show that although UDL has theoretical appeal, its application in practice often falls short of idealism and practical reality.

Coffman and Draper (2022) highlight that, in higher education, understanding of UDL remains limited and is often conflated with other approaches, such as differentiated learning. They note that “there is limited understanding of what constitutes UDL practices in higher education,” which means that UDL implementation is often symbolic and partial (Coffman & Draper, 2022). The absence of explicit theoretical consensus among educators regarding the benchmark for successful UDL application exacerbates this. In Eyland and Leung's (2025) study, the integration of UDL into microeconomics teaching suggests that the principles of flexible delivery and assessment can support contextual learning. However, they also acknowledged that the use of UDL in such contexts still “lacked specific alignment with CAST checkpoints.” Hence, its implementation remained in the interpretive rather than the operational realm (Eyland & Leung, 2025). In the realm of professional education, Dickinson and Gronseth (2020) show how UDL was used to support learning flexibility for surgical residents during the COVID-19 pandemic. They concluded that while UDL strategies helped overcome logistical and technological barriers, “the lack of hands-on practice remained a pedagogical limitation” in the field of hands-on practice-based expertise (Dickinson & Gronseth, 2020). Meanwhile, Gilmore et al. (2022) emphasised that UDL provides opportunities for nursing students from nontraditional backgrounds to be actively involved in learning. However, the study also notes that “without formal measurement tools, the effectiveness of UDL strategies remains anecdotal” (Gilmore et al., 2022), underscoring the limited empirical basis for evaluating UDL's success. Carrington et al. (2020) found that special education teachers often apply the UDL principle intuitively, without explicitly being aware of the framework's existence. This results in UDL being “implicitly practised but rarely explicitly planned,” reflecting the conceptual challenges of systematically socialising the UDL framework

(Carrington et al., 2020). This epistemological problem is reinforced by Almeqdad et al.'s (2023) meta-analysis, which indicates that most UDL studies do not use rigorous experimental methods. They concluded that “effect sizes were often inflated due to methodological limitations,” meaning the effectiveness of UDL has not been convincingly demonstrated in generalizations (Almeqdad et al., 2023). Overall, UDL still faces fundamental challenges in terms of application consistency, the strength of empirical evidence, and systemic support. Without adequate training, valid evaluation tools, and integration of education policies, UDL risks becoming mere normative discourse that fails to transform learning practices as a whole.

RESEARCH METHOD

This study employs a comprehensive methodological approach to analyse inclusive education management using two main techniques: scientometrics and text analysis. This method was chosen to provide an in-depth understanding of the development and direction of theories and issues related to inclusive education in higher education. In this section, we provide a detailed explanation of the steps taken in this study, including data selection, analysis techniques, and interpretation of results.

Data and its procedures

The data used in this study comprised 736 scientific articles published in international journals relevant to inclusive education (Figure A1). The article selection process utilises widely recognised academic databases, including Scopus, Web of Science, and Google Scholar. The inclusion criteria used include: (1) Articles that focus on the theme of inclusive education in higher education; (2) Only articles that provide Full Text are selected, and used as data for analysis. After the selection process, the articles are categorised based on several variables, including the year of publication, the author's country of origin, and the journal type. This aims to provide a clearer picture of research and collaboration trends in the field of inclusive education (Aria & Cuccurullo, 2017; Gordon, 2000).

Scientometrics Approach

This approach is used to analyse quantitative data from selected articles (Aria & Cuccurullo, 2017; Wang et al., 2024). This technique includes several steps: (1) Research Trend Analysis is carried out by

counting the number of publications each year and mapping the development of inclusive education research over time. This data is then visualised in the form of graphs to facilitate the identification of patterns and spikes in interest in research; (2) Collaboration Network, where this stage analyses the collaboration network, we use network analysis software such as RStudio with the “biblioshiny” package. The author and their affiliations are extracted from the analysed articles and then processed to identify collaborations between authors and institutions. This collaborative network provides insights into how researchers interact and work together in advancing inclusive education research; (3) Topic Distribution is carried out by grouping articles based on the theme or keywords that appear most often. We employ word-frequency analysis to identify key keywords and themes that recur in the literature on inclusive education. The results of this analysis will clarify the primary focus of existing research and identify underexplored areas.

Text Analysis

In addition to the Scientometrics approach, text analysis is used to gain deeper insights into key topics in the inclusive education literature. The analysis follows four main steps: (1) Text Collection. Of the 749 identified articles, 56 were purposively selected for in-depth text analysis. While this sample is relatively small, the selection was guided by multiple criteria to ensure relevance and depth. These include the article’s theoretical contribution, the richness of its content, the diversity of geographic and contextual perspectives, and its direct engagement with key challenges in inclusive education. This purposive sampling aims to capture a comprehensive cross-section of influential and contextually significant literature. (2) Text Processing, using tools such as Python 3.0, involves importing the text into analysis software (Sholihin, 2023), followed by preprocessing techniques such as stop-word removal, stemming, and lemmatisation to prepare the data. (3) Thematic Analysis is conducted using an inductive approach to allow themes to emerge organically from the data. Each article is reviewed to identify recurring patterns, key challenges, and proposed solutions within the field. (4) Inter-Theme Relationship Analysis explores how the identified themes interconnect. This stage helps reveal underlying structures and relationships among challenges and strategies in managing inclusive education, offering a more nuanced understanding of the field.

Interpretation of Results

The results of both approaches (Scientometrics and text analysis) are integrated to provide a comprehensive picture of inclusive education in higher education. By combining these two approaches, the study not only describes the development of research quantitatively but also provides a deeper understanding of the qualitative aspects of the existing literature (Bornmann, 2020; Markham et al., 2015). The results of this integration are then interpreted in consideration of local contexts, including national policies on inclusive education, educational culture, and implementation challenges in the field. On the other hand, the global context is also not neglected, given the importance of aligning inclusive education management strategies with international standards and best practices.

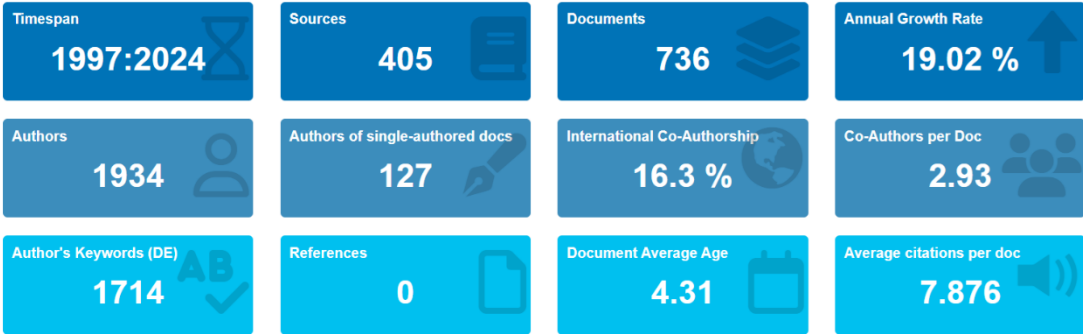
RESULTS

Mapping inclusive education management based on Scientometrics

Figure 1 illustrates scientometric statistics for a collection of scientific documents or literature in a field, spanning 1997 to 2024. Here's an explanation of each section: (1) Timespan (Time Range): 1997-2024 — The research or publications analyzed in this dataset are from that time period, (2) Sources: 405 — There are 405 sources used in the dataset, which can be journals, books, conferences, or other scientific publications, (3) Documents: 736 — The total documents analyzed in this dataset are 736, (4) Annual Growth Rate: 19.02% — The average annual growth rate of publications in this field is 19.02%, indicating a significant increase over time, (5) Authors: 1934 — The total number of authors contributing to publications in this dataset is 1,934, (6) Authors of single-authored docs: 127 — Of the total number of authors, 127 of them wrote documents individually without co-authors, (7) International Co-Authorship: 16.3% — About 16.3% of the documents involve international collaboration, indicating how often authors from different countries work together, (8) Co-Authors per Doc: 2.93 — There are almost three authors (2.93) per published document on average, (9) Author's Keywords: 1714 — There are 1,714 keywords used by authors to describe a topic their research, (10) References: 0 — Indicates that no references are recorded in this analysis, or this may be an error or data limitation, (11) Document Average Age: 4.31 — The average age of the analyzed documents is 4.31 years, indicating that many documents are relatively recent, (12) Average Citations per Doc: 7,876 — Each document, on average, gets about 7,876 citations, indicating

a relatively high level of research impact. Thus, the data in Figure 1 provide a comprehensive picture of trends in scientific publications on inclusive education, including annual growth, international collaboration, and citation rates, which can help understand the dynamics of inclusive education management in the context of scientific research.

Figure 1: Main information of the included articles



Source: Author is based on the biblioshiny package of RStudio

Figure A2 shows the Annual Scientific Production graph, which illustrates the number of articles published yearly from 1997 to 2024. The horizontal axis represents the year, while the vertical axis indicates the number of articles published (a maximum of 120 articles per year). Here is the interpretation of this graph: First, the period from 1997 to about 2010 shows relatively stable scientific production, with an annual publication range of 0 to 30 articles. This period reflects an initial phase with slight improvement or significant activity. Second, after 2011, there was a moderate increase in the number of articles published, followed by fluctuations through 2016. Third, from 2016 to 2020, a more pronounced upward trend emerged, indicating significant growth in scientific production. The number of annual articles has risen dramatically, accelerating research activities. Fourth, the highest peak occurred in 2023, when the number of articles exceeded 100 per year; it decreased slightly in 2024. This pattern may reflect increased interest and investment in research in the analysed field, with a steady growth trend over the past decade. This data aligns with the 19.02% annual growth rate shown in the previous figure, confirming a significant increase in scientific productivity.

Figure A3 shows a graph visualising *Core Sources* according to *Bradford's Law*. Several articles are plotted on the vertical (y) axis and the horizontal (x) axis, with rank logarithms of various sources. The graph has an area shaded or given a grey background that shows the "Core Sources". This indicates that most articles come from a small number of journals in this category, in line with Bradford's law, which states that a small percentage of sources account for

the majority of articles in a particular field (Vickery, 1948). This graph illustrates the journals that dominate the number of articles, including “International Journal of...,” “Revista Brasileira de Edu...,” and others. After this core source, the number of articles from other journals decreased drastically, and a horizontal line indicated sources with fewer contributions. This figure illustrates an uneven distribution of articles in scientific publications, with some journals publishing significantly more articles than others.

Figure A4 illustrates the visualisation of network analysis for various topics related to inclusive education and its associated themes. Some keywords or main topics are depicted as nodes (circles), and the connections between topics are represented by connecting lines. A few things can be inferred from this image: First, the central node and its size; the node with the largest size indicates the topic discussed most often or with the most connections. For example, the largest nodes are “inclusive education” and “human,” indicating that both topics frequently appear in research or literature. Additionally, the nodes “students,” “article,” and “university” are also relatively large, indicating a strong connection to inclusive education. *Second*, the node’s colour: in this case, the red node is connected to a theme focusing more on educational technology, accessibility, and design. For example, “computer-aided instruction,” “accessibility,” and “e-learning.” The blue nodes focus on university education, the humanities, and scientific research. For example, “human experiment,” “university,” “female,” and “sustainability.” *Third*, relationships between nodes: the line connecting two nodes indicates the relationship or linkage between them. For example, “inclusive education” is closely tied to “students,” “teaching,” and “higher education,” indicating that it is highly relevant to students and teaching in higher education. Connections between topics reveal how they interact across publications. *Finally*, the thematic mapping reveals two main groups in this visualisation: one characterised by the predominance of red, related to technology-based education and design, and the other by the dominance of blue, focusing more on universities, human experiments, and gender. Overall, this image illustrates the relationship between the main topics in inclusive education and other themes in higher education research and literature.

In addition, the thematic map (Figure A5) displays themes in two dimensions: density on the vertical axis and centrality on the horizontal axis. This map analyses the categories and status of various themes in a research field. This map is divided into four quadrants: (1) *motor themes* (upper right quadrant), where the themes are marked with a high level of development and relevance. These themes are important and growing rapidly. In this image, themes such as “human,” “article,” and “teaching” are in this quadrant, indicating that they are key topics that are highly relevant and are developing in research. (2) *Basic Themes* (bottom right quadrant), where the themes here are of high relevance, but have a low level of development. They form the basic foundation of the field of research, but are

not significantly developed. In this case, no specific theme is visible in this quadrant in the image. (3) *Niche themes* (top left quadrant)—these themes have a high level of development, but low relevance, meaning they are highly specialised themes. This quadrant is blank in the image, indicating that there are no relevant themes in the niche category for this study. (4) *Emerging or declining themes* (bottom left quadrant), the themes here have low relevance and development. They can be considered a newly emerging theme or may decline in importance. Themes such as “inclusive education,” “students,” and “higher education” are represented in this quadrant. This indicates that these themes have low relevance in the analysed literature or are in the early stages of development. Presumably, it can be concluded that the themes of “human,” “article,” and “teaching” are the most important main themes in this context. “Inclusive education” and “students” are themes that are still growing or are starting to decline in related research.

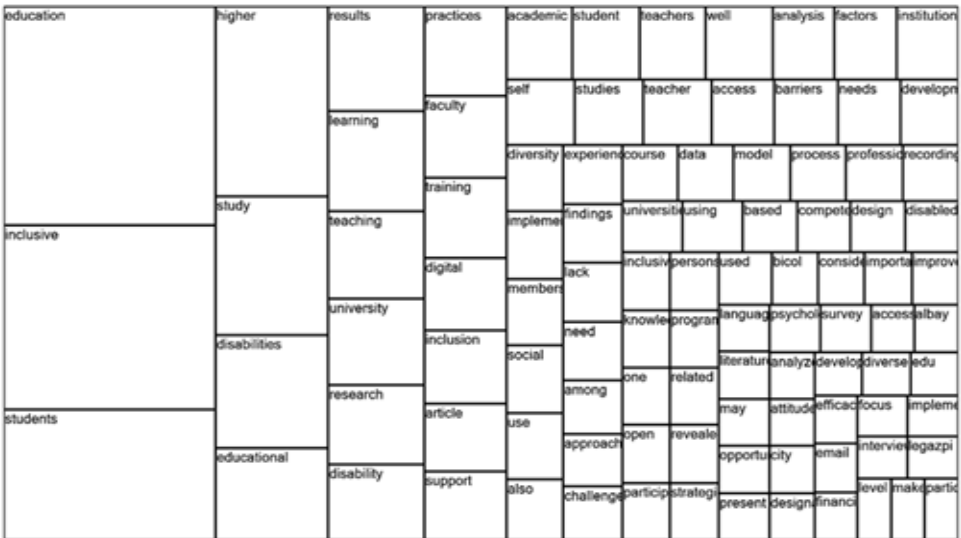
Text analytics on inclusive education in higher education

The text analysis approach, applied to this study, resulted in 14 classifications of topics related to inclusive education in higher education (Figure A6), which includes: (1) studies that offer a critical view of the inherent requirements of inclusive education, particularly in higher education (Corcoran et al., 2024; Serrano Fernández & Viguera Monje, 2024), (2) studies that identify the development of local curricula and infrastructure that are believed to support students with low socio-economic status (Madar & Danoch, 2024; Quintero et al., 2024), (3) studies that have found and convincingly concluded that training is an important program in universities to increase understanding of the concept of inclusive education, both at the educator and student levels (Alhammadi, 2024; Alves et al., 2024; Boardman et al., 2024; Lopatina, 2022; Moríña, 2024; Sánchez-Díaz et al., 2024), (4) studies that have successfully identified various barriers for students with disabilities to access education in higher education (Al-Hendawi & Alodat, 2023; Dyliaeva et al., 2024; Kokhan et al., 2023; Lid et al., 2024; Mashwama & Omodan, 2024; Ristad et al., 2024; Van Staden-Payne & Nel, 2023; Wareing & Ferguson, 2024; Xu, 2024), (5) studies that found that there are factors other than formal ones in educational institutions, which determine the successful implementation of the concept of inclusive education (Gandarillas et al., 2024), (6) studies that have succeeded in identifying that efforts are needed to develop the subject matter and scope of the concept of inclusive education in higher education (Gandarillas et al., 2024), (7) a study that focuses on and successfully identifies that, through the use of technology, students with disabilities will participate more in the teaching and learning process (Afanasyeva et al., 2024; Fernández-Cerero et al., 2023; Horlin et al., 2024; Ramirez-Montoya et al., 2024; Soriano et al., 2024), (8) studies that have successfully identified various opportunities created after the COVID-19 pandemic (Azorín & Martínez, 2023), (9) studies oriented to the

also prominent, reflecting the importance of deep understanding and knowledge in developing an inclusive learning environment. In addition, words such as “support,” “needs,” and “adjustments” highlight that inclusive education cannot be realised without exceptional support provided to students with disabilities. This support can take the form of additional services, adjustments to teaching methods, or physical infrastructure tailored to students’ needs.

In this narrative, it is also evident that the focus is on the results to be achieved, as reflected in the word “results.” Students are expected not only to gain access to higher education but also to succeed in it. “Barriers” and “challenges” underscore that barriers persist across technology, infrastructure, and institutional policies that have not fully supported inclusion. Additionally, the words “digital” and “technology” underscore the pivotal role of technology in promoting inclusive education, particularly in addressing challenges in the digital era. The use of technology in the classroom and distance learning is a solution for many students, including those with physical disabilities. In educational institutions, the words “institutions” and “universities” emphasise that inclusive education is highly relevant and urgent to implement at the university level. Institutions must commit to creating an accessible environment for all students through inclusive programs, training, and curriculum design. Overall, the narrative from this word cloud suggests that inclusive education necessitates a deep understanding, adequate support, the adoption of technology, and a commitment from various parties to overcome existing challenges. The ultimate goal is to ensure all students, including those with disabilities, can succeed and participate fully in higher education.

Figure 3: Tree Map related to the study of Inclusive Education in Higher Education



This tree map (Figure 3) illustrates various aspects of inclusive education in higher education. The main topics that emerged in this visualisation were “education,” “inclusive,” “students,” and “disabilities,” emphasising that the core of the discussion was inclusive education focused on students, especially those with disabilities. There is an excellent spotlight on teaching and learning practices. Words such as “practices,” “teaching,” “learning,” and “faculty” indicate that, in inclusive education, how teaching is conducted and how teachers (lecturers or faculty) engage with students are key elements. Here, the emphasis is on how customised teaching methods can support students with diverse needs and on the role of faculty in this process. Additionally, social experience and support are crucial factors. Words such as “experience,” “diversity,” “social,” and “support” emphasise that inclusive education is not only about the curriculum, but also about a supportive social environment. Building inclusive and supportive spaces creates a positive learning experience for students from diverse backgrounds.

However, this tree map also highlights various obstacles and challenges. Words such as “barriers,” “access,” and “needs” reflect the difficulty of creating equitable access and meeting the needs of students with disabilities. This suggests that infrastructure and policy limitations still need to be addressed, despite the intention to include. Digital technology also emerged as an important part of this discussion. With words like “digital” and “technology,” it appears that technology plays an important role in creating a more inclusive education. Using digital tools enables institutions to offer more flexible, accessible learning options for all students. On the other hand, research and its results are important in developing inclusive education. Words like “research,” “results,” and “findings” suggest that considerable research is being conducted in this area to determine the most effective ways to implement inclusion in higher education settings. Institutions such as universities are also highlighted as key in implementing inclusive education. Universities play a crucial role in adapting teaching policies and practices to ensure inclusivity in all academic activities. Finally, the need for change and implementation challenges are also highlighted in this visualisation. Although there is a clear need for inclusive education, its implementation across institutions still faces several obstacles, including structural issues, technological readiness, and teacher and student acceptance. Overall, this tree map provides a comprehensive overview of inclusive education in higher education, highlighting the importance of inclusive teaching, a supportive social environment, the use

of technology, and the challenges and obstacles that remain to be addressed to realise a more inclusive education system.

DISCUSSION AND CONCLUSIONS

The study, “Mapping Inclusive Education Management Based on Scientometrics,” provides comprehensive insights into developments, trends, and scientific contributions in inclusive education, particularly at the higher education level. Through the Scientometrics approach, this research successfully maps how the concept of inclusive education has evolved, the main topics that dominate academic discourse, and how international collaboration and the use of technology play an important role in supporting a more inclusive education (Booth & Ainscow, 2002; Corcoran et al., 2015). The growth of publications in inclusive education, averaging 19.02% per year, indicates rising interest in this topic, particularly since 2016, as reflected in the 2023 peak. The increase may be influenced by increasing global attention to the rights of students with disabilities, as well as the push from international policies such as the United Nations Convention on the Rights of Persons with Disabilities (CRPD), which calls for full inclusion in education (Al-Hendawi & Alodat, 2023; Nations, 2020). In addition, awareness of the need for inclusive education is growing as higher education institutions become increasingly committed to supporting equal access for all students, especially following the COVID-19 pandemic, which has drastically transformed the education system into a more technology-based one.

However, despite the significant increase in publications, the distribution of research and thematic focus indicates inequalities that need to be criticised. Some countries, institutions, or journals account for most of this research, while contributions from less developed regions may still be limited. This indicates a gap in resources to support research in this area, particularly in developing countries, which often face greater barriers to the optimal adoption of inclusive education. Therefore, a more comprehensive strategy is needed to encourage more equitable global collaboration, particularly involving developing countries, so that inclusive education can be implemented worldwide. From network analysis and visualisation of core sources according to Bradford’s Law, it is clear that the dominant topics in inclusive education include “inclusive education,” “students,” “human,” and “teaching.” This indicates that human and pedagogical aspects are becoming the primary focus in the literature on inclusive

education (Moriña et al., 2024). On the other hand, several themes focus on technology, accessibility, and technology-based learning, such as “computer-aided instruction” and “e-learning.” This shows a new trend: technology is becoming an integral part of implementing inclusive education in higher education, largely due to the pandemic’s changes.

However, while technology offers solutions to expand access to education for people with disabilities, several challenges remain. Previous research has highlighted that while technology can help, its successful implementation depends on institutions’ readiness to provide supporting infrastructure, including adequate teacher training. Additionally, concerns exist that unequal access to technology could exacerbate existing inequalities, particularly in regions or countries that are still lagging in adopting educational technology. The level of international collaboration in inclusive education research, currently at 16.3%, shows potential yet to be fully realised. Although inclusive education is a global issue, cross-border collaboration remains limited, hindering the dissemination of best practices and innovations in its implementation (Bhawana et al., 2024). Research involving international collaboration tends to be more impactful because it brings together broader perspectives, especially when addressing global challenges such as accessibility and educational equity.

In terms of the number of authors, the average is around 3 per document (2.93), indicating that inclusive education is indeed learned through team collaboration at both the national and international levels. However, further analysis reveals that many studies are still conducted by a single author, suggesting that some may still rely on individual approaches. There is a need for increased collaboration within the academic community, through cross-disciplinary and cross-country cooperation, to strengthen research and the comprehensive implementation of inclusive education. One important finding of this study is the level of attention given to students with disabilities. This topic dominates the literature on inclusive education in higher education, focusing on creating a supportive environment for them. Research shows that despite the progress, there are still many obstacles faced by students with disabilities, both in terms of infrastructure, psychological support, and pedagogical adjustments. This obstacle is further exacerbated by a lack of training for educators in understanding the specific needs of students with disabilities, as well as a lack of policies that support comprehensive inclusion in educational institutions. The research also highlights the need for systematic efforts to raise awareness among managers and educators about the value of inclusion. This includes

providing financial aid, psychological support, and tailored infrastructure for students with disabilities. This aligns with the existing literature, which suggests that the success of inclusive education depends on institutions' commitment to accommodating students' needs through policies, resources, and teaching practices.

Overall, the study successfully mapped the dynamics of inclusive education research, showing a significant increase in publications and interest in the topic. However, some critical issues still need to be addressed. Inequality in the distribution of research and limited international collaboration suggest that inclusive education remains a vastly inequitable global concern. In addition, challenges in technology use and the need for greater support for students with disabilities remain key issues that must be addressed. Therefore, to ensure inclusive education can be implemented effectively worldwide, greater effort is needed to strengthen cross-country collaboration, improve infrastructure, and train educators. A more holistic and sustainable approach is urgently needed to address these challenges, so that every student, regardless of physical or mental ability, can access an equitable and inclusive education.

To sum up, this study offers a comprehensive overview of the development of literature on inclusive education management at the higher education level. Based on scientometrics analysis, there has been a significant increase in research publications on this topic, especially since 2016. This demonstrates the growing global recognition of the significance of inclusive education, particularly for students with disabilities. In addition, the study identifies key emerging themes, such as “inclusive education,” “students,” and “teaching,” which are evolving as technology is integrated to support inclusion. However, the uneven distribution of research and low international collaboration, especially in developing countries, indicate gaps in the dissemination of knowledge and practices related to inclusive education.

Going forward, further research is needed to encourage cross-border collaboration, broaden horizons, and develop contextually relevant innovative solutions. Technology development in inclusive education is also promising, with a focus on infrastructure and educator training to support students with disabilities. Furthermore, a more in-depth study of the readiness of educational institutions, particularly in developing countries, is urgently needed to understand current challenges and to propose an adaptive, inclusive pedagogical model. This research is expected to be the first step for the government and educational institutions in creating equal, high-quality educational access for all students, regardless of physical or geographic limitations.

IMPLICATIONS

The results of this study confirm that the increase in publications on inclusive education management in higher education, particularly since 2016, reflects growing global attention to the educational needs of students with disabilities. These findings imply the need for stronger, more equitable research, especially in developing countries where scientific contributions remain low. Researchers and higher education institutions need to capitalise on this positive trend by developing contextually relevant studies, expanding the focus on institutional readiness, and leveraging technology as a key enabler of inclusion. Technology integration—whether through digital learning infrastructure, adaptive devices, and lecturer training—has a strategic role in improving accessibility and quality of learning for all students. By strengthening these aspects, inclusive education in higher education can become a system more responsive to students’ needs, especially those with physical and sensory barriers.

In addition, the low level of international collaboration indicates an urgent need to encourage cross-border cooperation in inclusive education research. This kind of collaboration has the potential to lead to more comprehensive innovations in pedagogical approaches, enrich the theoretical framework, and improve the quality of implementation in the field. Further research should address institutional readiness, implementation challenges, and resource gaps to develop an inclusive education model adaptable to local social, economic, and cultural conditions. The implications of this research also provide an important basis for the government and higher education institutions to formulate strategic policies that ensure equal and high-quality access to education for all students. With firm policies, technology, and support for collaboration, universities can move toward an inclusive education system that is more equitable, effective, and sustainable.

REFERENCES

- Afanasyeva, Y., Bratkova, M., Galoyan, D., Rzanova, S., & Bombieri, L. (2024). The impact of interactive touchscreen images on the well-being of schoolchildren in the context of inclusive education. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-12608-z>
- Ainscow, M. (2005). Developing inclusive education systems: What are the levers for change? *Journal of Educational Change*, 6(2), 109–124. <https://doi.org/10.1007/s10833-005-1298-4>
- Ainscow, M., Dyson, A., & Weiner, S. (2013). From exclusion to inclusion: A review of international literature on ways of responding to students with special education needs in schools. *International Journal of Inclusive Education*, 17(4), 471–487.
- Al-Hendawi, M., & Alodat, A. M. (2023). Inclusive education of refugee

- students with disabilities in higher education: a comparative case study. *Humanities and Social Sciences Communications*, 10(1), 942.
<https://doi.org/10.1057/s41599-023-02410-6>
- Al-Korbi, H., Al-Hamdani, M. A., Ghareeb, A., Al-Asmakh, M., & Abdallah, A. M. (2024). Facilitating inclusive education: Assessing faculty awareness and attitudes towards students with special educational needs at Qatar university. *Heliyon*, 10(10). <https://doi.org/10.1016/j.heliyon.2024.e31076>
- Alhammadi, M. M. (2024). Assessing the efficiency of the teacher education program at Emirati University for preparing pre-service teachers for inclusive education. *Cogent Education*, 11(1).
<https://doi.org/10.1080/2331186X.2024.2369966>
- Almeqdad, Q. I., Alodat, A. M., Alquraan, M. F., Mohaidat, M. A., & Al-Makhzoomy, A. K. (2023). The effectiveness of universal design for learning: A systematic review of the literature and meta-analysis. In *Cogent Education* (Vol. 10, Issue 1). Taylor and Francis Ltd.
<https://doi.org/10.1080/2331186X.2023.2218191>
- Alves, I., Christodoulidis, A., Carpenter, J., & Hogg, V. M. (2024). Practitioner Enquiry as Lifelong Teacher Education for Inclusion. *Education Sciences*, 14(3), 268. <https://doi.org/10.3390/educsci14030268>
- Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975.
<https://doi.org/10.1016/j.joi.2017.08.007>
- Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of the literature. *European Journal of Special Needs Education*, 17(2), 129–147.
<https://doi.org/10.1080/08856250210129056>
- Azorín, C., & Martínez, C. (2023). Inclusive education in times of pandemic. *Revista Complutense de Educacion*, 34(1), 57–67.
<https://doi.org/10.5209/rced.76761>
- Begidova, T. P., Begidov, M. V., Mukina, E. Y., & Loseva, A. S. (2024). Inclusive education in a sports-oriented higher education institution. In A. E.E., K. R.K., & K. V.N. (Eds.), *BIO Web of Conferences* (Vol. 120). EDP Sciences. <https://doi.org/10.1051/bioconf/202412001006>
- Boardman, A. G., Schwarz, V. S., & Sollenberger, L. (2024). Integrating disability into equity-focused general education teacher preparation. *Frontiers in Education*, 9. <https://doi.org/10.3389/feduc.2024.1372380>
- Booth, T., & Ainscow, M. (2002). *Index for inclusion: Developing learning and participation in schools* (Issue 161). the Centre for studies on Inclusive Education (CSIE).
- Bornmann, L. (2020). How can citation impact in bibliometrics be normalized? *Quantitative Science Studies*, 1(4), 1553–1569.
https://doi.org/10.1162/qss_a_00089

- Carrillo-sierra, S. M., Manrique-julio, J. E., Cerón-bedoya, J. D., Vásquez-henao, L. C., Fornaris-parejo, Z. E., Gómez-charris, Y., & Rivera-porras, D. (2025). *Inclusive Education in Higher Education : A Comparative Analysis of Faculty Attitudes , Knowledge , and Practices in Colombian Universities*. 1–19.
- Carrington, S., Saggars, B., Webster, A., Harper-Hill, K., & Nickerson, J. (2020). What Universal Design for Learning principles... *International Journal of Educational Research*, 102. <https://doi.org/10.1016/j.ijer.2020.101583>
- Coffman, S., & Draper, C. (2022). Universal design for learning in higher education: A concept analysis. *Teaching and Learning in Nursing*, 17(1), 36–41. <https://doi.org/10.1016/j.teln.2021.07.009>
- Corcoran, T., Whitburn, B., & McCandless, T. (2024). Making Inherent Requirements Coherent: Anticipating a Means to Inclusive Education. *Scandinavian Journal of Disability Research*, 26(1), 272 – 285. <https://doi.org/10.16993/sjdr.1141>
- Corcoran, T., White, J., & Whitburn, B. (2015). Disability studies: Educating for inclusion. In *Disability Studies: Educating for Inclusion*. Sense Publishers. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84943163741&partnerID=40&md5=165033d0a76ae362590b0ecdf4c62358>
- Cotán, A., Carballo, R., & Spinola-Elias, Y. (2024). Giving a voice to the best faculty members: benefits of digital resources for the inclusion of all students in Arts and Humanities. *International Journal of Inclusive Education*, 28(7), 1240 – 1257. <https://doi.org/10.1080/13603116.2021.1991492>
- Dickinson, K. J., & Gronseth, S. L. (2020). Application of Universal Design for Learning (UDL) Principles to Surgical Education During the COVID-19 Pandemic. *Journal of Surgical Education*, 77(5), 1008–1012. <https://doi.org/10.1016/j.jsurg.2020.06.005>
- Dylyeva, K., Rothman, S. B., & Ghotbi, N. (2024). Challenges to Inclusive Education for Students With Disabilities in Japanese Institutions of Higher Education. *Higher Learning Research Communications*, 14(1), 1 – 18. <https://doi.org/10.18870/hlrc.v14i1.1453>
- Ebersold, S. (2015). Accessibility, inclusive education policies and right to education: Conceptual and methodological thoughts; [Accessibilité, politiques inclusives et droit à l'éducation: considérations conceptuelles et méthodologiques]. *Alter*, 9(1), 22 – 33. <https://doi.org/10.1016/j.alter.2014.06.001>
- Eyland, T., & Leung, A. (2025). A purpose-driven approach to apply the universal design for learning: A focus on the “why.” *International Review of Economics Education*, 49. <https://doi.org/10.1016/j.iree.2025.100319>
- Fernández-Cerero, J., Montenegro-Rueda, M., & Fernández-Batanero, J. M. (2023). Impact of University Teachers' Technological Training on

- Educational Inclusion and Quality of Life of Students with Disabilities: A Systematic Review. *International Journal of Environmental Research and Public Health*, 20(3). <https://doi.org/10.3390/ijerph20032576>
- Florian, L. (2008). Special or inclusive education: future trends. *British Journal of Special Education*, 35(4), 202–208. <https://doi.org/10.1111/j.1467-8578.2008.00402.x>
- Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational Research Journal*, 37(5), 813–828. <https://doi.org/10.1080/01411926.2010.501096>
- Florian, L., & Spratt, J. (2013). Enacting inclusion: a framework for interrogating inclusive practice. *European Journal of Special Needs Education*, 2(28), 119–135.
- Gandarillas, M. A., Elvira-Zorzo, M. N., & Rodríguez-Vera, M. (2024). The impact of parenting practices and family economic circumstances on psychological well-being and learning patterns among higher education students. *Psicologia: Reflexao e Critica*, 37(1). <https://doi.org/10.1186/s41155-024-00291-5>
- Gilmore, J. P., Halligan, P., & Browne, F. (2022). Pedagogy as social justice—Universal Design of Learning in nurse education. In *Nurse Education Today* (Vol. 118). Churchill Livingstone. <https://doi.org/10.1016/j.nedt.2022.105498>
- Gordon, D. (2000). *An Introduction to Economic Reasoning*. Ludwig von Mises Institute.
- Hehir, T., & Katzman, L. I. (2012). *Effective inclusive schools: Designing successful schoolwide programs* (Issue 112). Jossey-Bass.
- Herrera-Seda, C., & Walton, E. (2025). Teacher education for inclusive education: a scoping review of Global South scholarship. *Journal of Education for Teaching*, 51(4), 651–665. <https://doi.org/10.1080/02607476.2025.2520792>
- Horlin, C., Hronska, B., & Nordmann, E. (2024). I can be a “normal” student: the role of lecture capture in supporting the participation of disabled and neurodivergent students in higher education. *Higher Education*. <https://doi.org/10.1007/s10734-024-01201-5>
- Isma, N., & Yusuf, M. (2025). *The Influence of the Implementation of Extracurricular Activities of the Islamic Propagation Agency on the Practice of Religious Worship at Mutia Rahma Bulu Cina Middle School, Hamparan Perak District*. 5(1), 211–215. <https://doi.org/10.30596/jcositte.v1i1.xxxx>
- Knox, J., Gallagher, M., & Wang, Y. (2022). Artificial Intelligence and Inclusive Education: Speculative Futures and Emerging Practices. *Journal of Interdisciplinary Studies in Education*, 11(2), 206.
- Kokhan, S., Vlasava, S., Eshiev, A., Kozhombardieva, K., & Zhakypova, N.

- (2023). Inclusive higher education as a factor of socio-psychological adaptation of special students. In T. I. & D. T. (Eds.), *E3S Web of Conferences* (Vol. 402). EDP Sciences.
<https://doi.org/10.1051/e3sconf/202340208011>
- Korthals Altes, T., Willemse, M., Goei, S. L., & Ehren, M. (2024). Higher education teachers' understandings of and challenges for inclusion and inclusive learning environments: A systematic literature review. *Educational Research Review*, 43(March), 100605.
<https://doi.org/10.1016/j.edurev.2024.100605>
- Lakhwani, M. (2023). Culturally Responsive Pedagogy: Exploring Parent Perspectives on American Education. *Journal of Interdisciplinary Studies in Education*, 12(2), 178–188.
- Lid, I. M., Chalachanová, A., van den Breemer, R., & Raustøl, A. (2024). Recognizing students with intellectual disabilities in higher education. *Nordic Journal of Studies in Educational Policy*.
<https://doi.org/10.1080/20020317.2024.2382366>
- Lo, N. H. N., Spandagou, I., & Evans, D. (2024). University pathway teachers' salient beliefs of inclusive education: an elicitation study of the Theory of Planned Behaviour. *Higher Education Research and Development*, 43(6), 1325 – 1340. <https://doi.org/10.1080/07294360.2024.2332247>
- Lomibao, H. P., Gealone, P. J. N., Barajas, J. R., Hinlo, R. A., Nebres, B. B. B., & Tonga, D. (2024). An In-Depth Financial Analysis of Cost-Intensive Programs at Bicol University: Pathways to Inclusive Education. *2024 Systems and Information Engineering Design Symposium, SIEDS 2024*, 13 – 17. <https://doi.org/10.1109/SIEDS61124.2024.10534717>
- Lopatina, M. (2022). Inclusion In Music Education: Theoretical Review Of the Question Of Training Young Professionals. *Youth Voice Journal*, 4(Special Issue), 43–54. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131256123&partnerID=40&md5=185170f1e2fdc83e8e1ffb794f33dbb3>
- Loreman, T., Duppeler, J., & Harvey, D. (2011). *Inclusive Education: A Practical Guide to Supporting Diversity in the Classroom*. Routledge.
- Madar, N. K., & Danoch, A. (2024). Inclusive education in Israel: a study of policy impact on access to education. *International Journal of Inclusive Education*, 28(1), 78–89. <https://doi.org/10.1080/13603116.2021.1916109>
- Markham, S. K., Kowolenko, M., & Michaelis, T. L. (2015). Unstructured text analytics to support new product development decisions. *Research Technology Management*, 58(2), 30–38.
<https://doi.org/10.5437/08956308X5802291>
- Mashwama, X. N., & Omodan, B. I. (2024). Breaking Barriers: A Systematic Review of Inclusive Practices in Higher Education for Engineering Students with Disabilities. *International Journal of Learning, Teaching and Educational Research*, 23(7), 228 – 249.

<https://doi.org/10.26803/ijlter.23.7.12>

- Mittler, P. (2000a). *Working Toward Inclusive Education: Social Contexts*. David Fulton Publishers. [https://doi.org/10.1352/0047-6765\(2001\)039<0415:br>2.0.co;2](https://doi.org/10.1352/0047-6765(2001)039<0415:br>2.0.co;2)
- Mittler, P. (2000b). *Working Toward Inclusive Education: Social Contexts*. David Fulton Publishers. [https://doi.org/10.1352/0047-6765\(2001\)039<0415:br>2.0.co;2](https://doi.org/10.1352/0047-6765(2001)039<0415:br>2.0.co;2)
- Morgado, B., Cortés-Vega, M. D., López-Gavira, R., Álvarez, E., & Moriña, A. (2016). Inclusive Education in Higher Education? *Journal of Research in Special Educational Needs*, 16, 639–642. <https://doi.org/10.1111/1471-3802.12323>
- Moriña, A. (2015). Inclusive university settings? An analysis from the perspective of students with disabilities. *Cultura y Educación*, 27(3), 669–694. <https://doi.org/10.1080/11356405.2015.1072361>
- Moriña, A. (2024). When what is unseen does not exist: disclosure, barriers and supports for students with invisible disabilities in higher education. *Disability and Society*, 39(4), 914 – 932. <https://doi.org/10.1080/09687599.2022.2113038>
- Moriña, A., Cortés, M. D., & Melero, N. (2014). Inclusive curricula in Spanish higher education. *Disability and Society*, 29(1), 44–57. <https://doi.org/10.1080/09687599.2013.769862>
- Nations, U. (2006). *Convention on the Rights of Persons with Disabilities*.
- Nations, U. (2020). Inequality in a Rapidly Changing World. In *the World Social Report 2020*.
- Pijl, S. J., & J.W.Meijer, C. (1997). Factors in inclusion: a framework. In S. J. Pijl, C. J.W.Meijer, & S. Hegarty (Eds.), *Inclusive education: A global Agenda* (pp. 1–195). Routledge. <https://doi.org/10.6033/tokkyou.41.613>
- Pijl, S. J., Meijer, C. J. W., & Hegarty, S. (1997). Factors in inclusion: a framework. In *Inclusive education: A global Agenda* (pp. 1–195). Routledge. <https://doi.org/10.6033/tokkyou.41.613>
- Politi, M. C., Houston, A. J., Forcino, R. C., Jansen, J., & Elwyn, G. (2023). Discussing Cost and Value in Patient Decision Aids and Shared Decision Making: A Call to Action. *MDM Policy and Practice*, 8(1). <https://doi.org/10.1177/23814683221148651>
- Quintero, R., Pertuz, L., Mosalvo, J., Amador, E., Portnoy, I., Acuña-Rodríguez, M., & Córdova, A. (2024). Analysis of Self-efficacy and Attitude-mediated Inclusivity in Higher Education: A Case Study on the Colombian North Coast. *Procedia Computer Science*, 231(2023), 539–544. <https://doi.org/10.1016/j.procs.2023.12.247>
- Ramírez-Montoya, M. S., Weber, J. C., Cox, G., & Tenorio-Sepúlveda, G. C. (2024). Inclusive Digital Education on Open Platforms: A Case Study of the Complexity of the Future of Education. *Computers in the Schools*, 0(0),

- 1–18. <https://doi.org/10.1080/07380569.2024.2322164>
- Rao, K., & Meo, G. (2016). Using Universal Design for Learning to Design Standards-Based Lessons. *SAGE Open*, 6(4).
<https://doi.org/10.1177/2158244016680688>
- Redshaw, S., & Deehan, J. (2024). Diversities in higher education: academics' inclusive views and reported practices in a regional Australian university. *Teaching in Higher Education*, 1–18.
<https://doi.org/10.1080/13562517.2024.2306261>
- Ristad, T., Østvik, J., Horghagen, S., Kvam, L., & Witsø, A. E. (2024). A multi-stakeholder perspective on inclusion in higher education: Ruling on fragile ground. *International Journal of Educational Research Open*, 6(August 2023). <https://doi.org/10.1016/j.ijedro.2023.100311>
- Salama Muhammad, I. M., Paredes Montero, J. M., Medina Revelo, M. T., Cerón Silva, S. A., & Soria Pacheco, P. C. (2024). Implementing universal learning design (UDL) in classrooms. *LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades*, 5(5).
<https://doi.org/10.56712/latam.v5i5.2757>
- Sánchez-Díaz, M.-N., Morgado, B., & Cabeza-Ruiz, R. (2024). 'How can I do it?' Inclusive faculty members make recommendations for carrying out inclusive teaching practices. *Active Learning in Higher Education*.
<https://doi.org/10.1177/14697874241230456>
- Sánchez Díaz, M. N., & Morgado, B. (2024). 'With arms wide open'. Inclusive pedagogy in higher education in Spain. *Disability and Society*, 39(7), 1800–1820. <https://doi.org/10.1080/09687599.2022.2162858>
- Serrano Fernández, L., & Viguera Monje, M. (2024). A Systematic review of the presence and participation of students with intellectual disabilities in Spanish universities. *Journal of Intellectual Disabilities*.
<https://doi.org/10.1177/17446295241246035>
- Sholihin, M. (2023). Islamic rationality of Muslim consumers. *Journal of Islamic Accounting and Business Research*. <https://doi.org/10.1108/JIABR-10-2022-0291>
- Slee, R. (2011). *The Irregular School Exclusion, schooling and inclusive education: Foundations and Futures of Education*. Routledge.
- Soriano, A. J. Z. G. de, Montoro, M. A., & Colón, A. M. O. (2024). Digital Teaching Competence and Educational Inclusion in Higher Education. A Systematic Review. *Electronic Journal of E-Learning*, 22(1), 31–45.
<https://doi.org/10.34190/ejel.22.1.3139>
- Thomas, M. K. E., & Whitburn, B. J. (2019). Time for inclusion? *British Journal of Sociology of Education*, 40(2), 159 – 173.
<https://doi.org/10.1080/01425692.2018.1512848>
- Van Staden-Payne, I., & Nel, M. (2023). Exploring factors that full-service school teachers believe disable their self-efficacy to teach in an inclusive

- education system. *Frontiers in Education*, 7(January), 1–10.
<https://doi.org/10.3389/feduc.2022.1009423>
- Wang, J., Li, M., Skitmore, M., & Chen, J. (2024). Predicting Construction Company Insolvency Failure. *Sustainability*, 16(6).
<https://doi.org/10.3390/su16062290>
- Wareing, M., & Ferguson, G. (2024). Learning environments. *Practice Supervision and Assessment in Nursing, Health and Social Care*, 27–39.
<https://doi.org/10.4324/9781003358602-3>
- Xu, X. (2024). Zero-knowledge proofs in education: a pathway to disability inclusion and equitable learning opportunities. *Smart Learning Environments*, 11(1). <https://doi.org/10.1186/s40561-024-00294-w>
- Zavaraki, E. Z., & Schneider, D. (2019). Blended learning Approach for Students with Special Educational Needs: a Systematic Review. *Journal of Education & Social Policy*, 6(1), 155–164.
<https://doi.org/10.30845/jesp.v6n1p19>

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Appendix

Figure A1: Filtering articles based on the PRISMA framework.

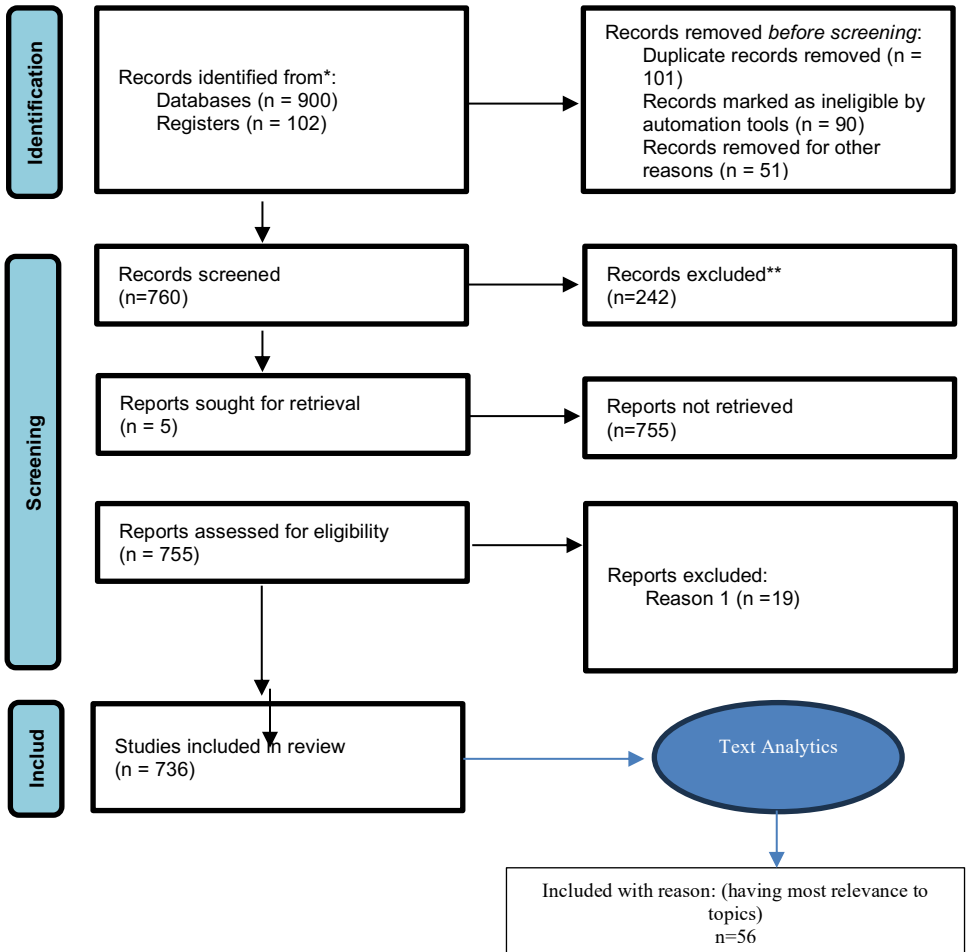


Figure A2: Scientific Production

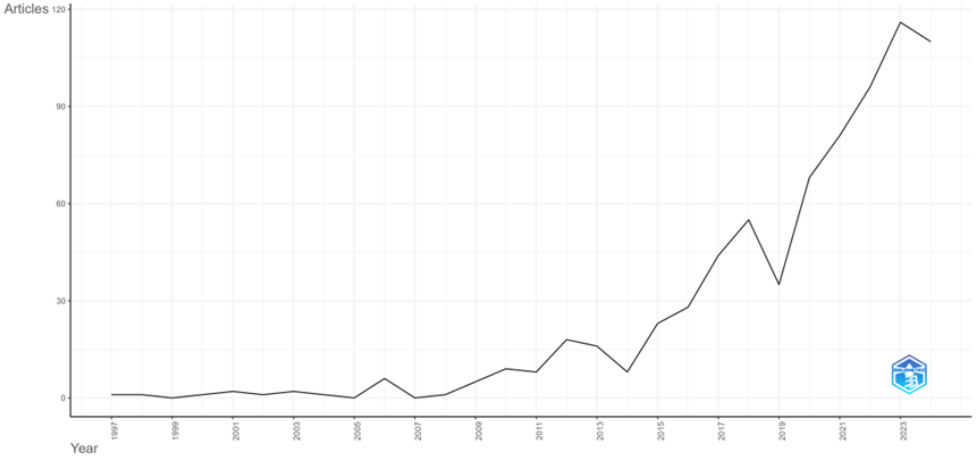


Figure A3: Bradford's Law

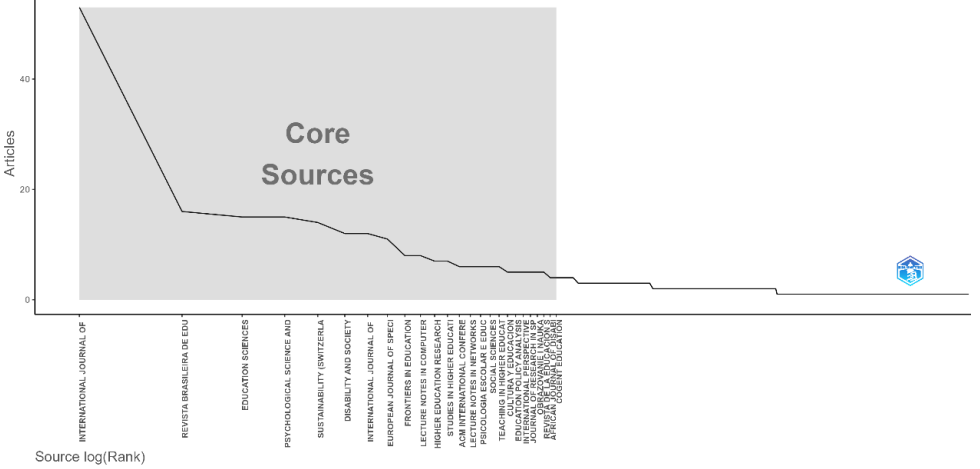


Figure A6: Classification of topics based on analytical texts



