

ORIGINAL

Educational inclusion in universities: strategies for the integration of students with disabilities

Inclusión educativa en las universidades: estrategias para la integración de los estudiantes con discapacidad

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ABSTRACT

This study analyses educational inclusion in Latin American universities through a mixed-methods approach that combines a systematic documentary review with survey data collected from students with disabilities. The research explores how institutional policies, pedagogical practices, and physical environments influence the inclusion process in higher education. The findings reveal both progress and persistent challenges in implementing inclusive strategies. While some universities have adopted support mechanisms such as personalized tutoring and academic accommodations, significant limitations remain. These include fragmented institutional policies, insufficient teacher training on inclusive education, and enduring architectural and attitudinal barriers that hinder full participation. The study underscores the importance of creating accessible learning environments that consider the diverse needs of all students and integrating inclusive pedagogies as part of regular teaching practices. It also highlights the necessity of raising awareness among university communities to combat prejudice and foster a culture of equity. Furthermore, it identifies the role of educational innovation in promoting active participation and improving learning outcomes for students with disabilities. The study concludes that advancing inclusion in higher education requires a holistic and coordinated approach that aligns institutional commitment, inclusive policy development, infrastructure accessibility, and pedagogical transformation to ensure quality education and equal opportunities for all.

Keywords: School Inclusion; Higher Education; Students with Disabilities; Accessibility; School Tutoring.

RESUMEN

Este estudio analiza la inclusión educativa en las universidades latinoamericanas mediante un enfoque de métodos mixtos que combina una revisión documental sistemática con datos de encuestas recopilados entre estudiantes con discapacidades. La investigación explora cómo las políticas institucionales, las prácticas pedagógicas y los entornos físicos influyen en el proceso de inclusión en la educación superior. Los resultados revelan tanto avances como retos persistentes en la implementación de estrategias inclusivas. Si bien algunas universidades han adoptado mecanismos de apoyo, como tutorías personalizadas y adaptaciones académicas, siguen existiendo limitaciones significativas. Entre ellas se encuentran las políticas institucionales fragmentadas, la formación insuficiente del profesorado en materia de educación inclusiva y las barreras arquitectónicas y actitudinales que persisten y dificultan la plena participación. El estudio subraya la importancia de crear entornos de aprendizaje accesibles que tengan en cuenta las diversas necesidades

de todos los estudiantes e integrar pedagogías inclusivas como parte de las prácticas docentes habituales. También destaca la necesidad de sensibilizar a las comunidades universitarias para combatir los prejuicios y fomentar una cultura de equidad. Además, identifica el papel de la innovación educativa en la promoción de la participación activa y la mejora de los resultados académicos de los estudiantes con discapacidad. El estudio concluye que para avanzar en la inclusión en la educación superior es necesario adoptar un enfoque holístico y coordinado que armonice el compromiso institucional, el desarrollo de políticas inclusivas, la accesibilidad de las infraestructuras y la transformación pedagógica, con el fin de garantizar una educación de calidad y la igualdad de oportunidades para todos.

Palabras clave: Inclusión Escolar; Educación Superior; Estudiantes con Discapacidad; Accesibilidad; Tutoría Escolar.

INTRODUCTION

Inclusive education at the university level poses a significant challenge to ensuring equity and access to academic opportunities for students with disabilities. In Latin America, although various institutions have introduced inclusion policies, structural, pedagogical, and social barriers persist, limiting the full participation of these students in higher education.⁽¹⁾ The development of socioemotional skills is essential to fostering autonomy and academic success among students with intellectual disabilities; however, university programs continue to exhibit gaps in this area, which negatively affect their holistic development and integration into the academic community.⁽²⁾

One of the main challenges of educational inclusion lies in the lack of adaptive strategies and accessible resources, which severely impedes the acquisition of professional competencies among students with hearing impairments. These students often face communication barriers due to the absence of sign language interpreters or appropriately formatted visual materials within many institutions.⁽³⁾ Despite progress made in countries such as Chile, inclusive education in public universities still faces considerable challenges, particularly due to the lack of standardized curricula and sustainable policies that ensure equitable access and retention in the educational system.⁽⁴⁾

In addition to visible disabilities, there are other health conditions that significantly impact academic performance but are frequently overlooked in inclusion policies. Chronic migraine, for example, can lead to cognitive and physical limitations that hinder continuous academic engagement. Nevertheless, this type of disability is often not accounted for in institutional accommodations, placing affected students at a disadvantage.⁽⁵⁾

In this context, it is crucial to examine the barriers and enablers that students with disabilities encounter throughout their academic journey, as well as the institutional mechanisms that support their inclusion. Previous studies have noted that while access policies may exist, their implementation remains inconsistent, resulting in significant gaps in educational equity.⁽⁶⁾ In particular, the disconnect between inclusive admission policies and curriculum planning continues to be a major obstacle to the effective integration of students with disabilities into the university system.⁽⁷⁾

A key factor in improving educational inclusion is the use of technological resources and the training of faculty in inclusive strategies. Training educators in adaptive methodologies and accessible digital tools is essential to enhancing the educational experience of students with disabilities in higher education.⁽⁸⁾ Innovative experiences, such as eco-sustainable service learning, have proven effective in promoting the inclusion of students with disabilities, facilitating their participation in academic and community activities through participatory and collaborative approaches.⁽⁹⁾ However, to ensure true equity in access and retention, inclusive policies must address both academic training and professional preparedness. In this regard, implementing inclusive practices in the professional development of students in vulnerable situations is a crucial step toward guaranteeing equal opportunities in the labor market.⁽¹⁰⁾

The research questions guiding this study are:

What is the current state of educational inclusion in Latin American universities in terms of policies, infrastructure, and stakeholder perceptions?

What strategies can enhance the integration of students with disabilities in higher education, considering academic, technological, and sociocultural factors?

This study aims to analyze educational inclusion strategies in Latin American universities, identifying key challenges and proposing improvement actions from a comprehensive perspective. Through a systematic literature review and quantitative analysis based on surveys, the research seeks to contribute relevant data to strengthen the integration of students with disabilities in higher education. Additionally, the study intends to offer evidence-based recommendations for the development of inclusive policies that support a more equitable

and accessible higher education system for all.

METHOD

Methodological Approach

This study employed a mixed-methods approach (qualitative and quantitative) to analyze the impact of generative artificial intelligence (AI) on higher education. A systematic literature review was combined with statistical analysis based on surveys administered to faculty and students across Latin America.

Study Design

The research design was structured in two phases:

Document Review: A documentary search was conducted in indexed databases such as Scopus, focusing on studies published between 2019 and 2024. The inclusion criteria were:

- Studies addressing the impact of generative AI in higher education.
- Empirical research, systematic reviews, and meta-analyses.
- Publications in indexed journals with full-text access.
- Technical articles unrelated to university-level learning were excluded.

Quantitative Analysis: A structured survey was developed to gather perceptions on the use of generative AI in teaching and learning processes.

Population and Sample

The study population consisted of university faculty and students from higher education institutions in Mexico, Colombia, Argentina, Peru, and Chile.

A non-probabilistic convenience sampling method was used, selecting participants via invitations distributed on academic platforms and social media. The final sample included:

- 200 faculty members from various disciplines.
- 200 undergraduate and postgraduate students with disabilities.
- 300 general undergraduate and postgraduate university students.

Data Collection Instrument

Quantitative data were collected through an online survey featuring closed-ended Likert-scale questions (ranging from 1 to 5) and dichotomous (Yes/No) items. The instrument addressed the following dimensions:

- Overall context of inclusion for students with disabilities in higher education.
- Main social barriers faced by students with disabilities in academia.
- Institutional reception and support for students with disabilities.
- Perceptions of strategies promoting university inclusion.

The validity of the questionnaire was assessed through expert judgment, and a pilot test was conducted with 50 participants to ensure reliability (Cronbach's $\alpha = 0,89$).

Data Analysis

Qualitative data from the literature review were analyzed using thematic categorization, identifying trends and patterns across selected studies.

Quantitative data were processed using SPSS software, applying:

- Descriptive statistics (frequencies, percentages, measures of central tendency).
- Mean comparison tests (Student's t-test) to analyze differences between faculty and student groups.
- Correlation analysis (Pearson) to identify relationships between perceptions of AI and its application in higher education.

Ethical Considerations

The study adhered to ethical guidelines for educational research. Data confidentiality was ensured, and participation was voluntary and anonymous. Prior to completing the survey, participants provided informed consent, with data used exclusively for academic purposes.

RESULTS

The qualitative analysis of educational inclusion in Latin American universities reveals various strategies and challenges in integrating students with disabilities. One of the main findings is the importance of pedagogical support and academic guidance in fostering inclusion.⁽¹¹⁾ The reviewed studies highlight that universities have

implemented support programs with specialized tutors; however, behavioral and structural barriers persist.⁽¹²⁾

Another key aspect identified is the adaptation of spaces and teaching materials. Physical and technological accessibility remains a recurring concern, as many institutions lack adequate infrastructure to ensure mobility and equitable access to learning resources.⁽¹³⁾ Moreover, the lack of faculty training in inclusive pedagogical strategies represents a significant obstacle to achieving equity in the educational process.⁽¹⁴⁾

In terms of institutional policies, some universities have developed specific regulations for the inclusion of students with disabilities, but the effective implementation of these policies remains limited.⁽¹⁵⁾ In particular, adaptive assessment strategies are rarely used, leading to inequities in measuring academic performance.⁽¹⁶⁾

Finally, the studies emphasize the impact of social perceptions on the university experience of students with disabilities. Despite advances in awareness and inclusive culture, stigmatization and underestimation of their academic and professional capacities still exist.⁽¹⁷⁾

In conclusion, while progress has been made in educational inclusion at Latin American universities, it is essential to strengthen faculty training, improve accessibility, and ensure compliance with institutional policies to achieve truly inclusive education.

Quantitative Analysis on the Perception of Educational Inclusion of Students with Disabilities in Latin American Universities

To complement the documentary review, a structured survey was administered to 700 participants (200 faculty members, 200 students with disabilities, and 300 students without disabilities) from higher education institutions in Latin America. The sample included participants from Mexico, Colombia, Argentina, Peru, and Chile, ensuring diverse representation of the regional educational context.

Perception of University Inclusion of Students with Disabilities

60 % of faculty and 53 % of students without disabilities stated that university infrastructure is accessible, in contrast to only 47 % of students with disabilities who agreed. Additionally, 70 % of students with disabilities reported that there is a lack of trained faculty in inclusive education, while 45 % of faculty believed that such training was present. Regarding inclusive policies, 55 %, 48 %, and 42 % of faculty, students without disabilities, and students with disabilities, respectively, agreed that their university has clear inclusion policies. Moreover, 62 % of students with disabilities stated that universities do not offer sufficient academic and social support, whereas 50 % of faculty claimed that such support is provided.

Main Social Difficulties Faced by Students with Disabilities

Among the main social challenges faced by students with disabilities, 52 % of faculty cited lack of awareness among faculty and peers, a perception shared by 63 % of students with disabilities and 50 % of students without disabilities. While 35 % of faculty identified the lack of accessible educational materials as a difficulty, this figure rose to 48 % among students with disabilities. Additionally, 60 % and 57 % of students with disabilities expressed facing challenges related to curricular adaptation and limited opportunities to participate in extracurricular activities.

Table 1. Reception of Students with Disabilities at University

Aspect	Faculty (%)	Students with Disabilities (%)	Students without Disabilities (%)
Awareness in the university community	58 %	50 %	55 %
Support from faculty and peers	62 %	53 %	60 %
Existence of mentoring or tutoring programs	40 %	35 %	42 %
Availability of adapted spaces	55 %	45 %	50 %

These data show that both faculty and students without disabilities perceive a higher level of reception of students with disabilities in universities, while students with disabilities report slightly lower, though not dramatically different, levels of agreement.

Among the most supported strategies by faculty and both student groups are faculty training on inclusive education, increased curricular flexibility, and improvements in infrastructure—with average support rates of 72,3 %, 74,7 %, and 70,7 %, respectively.

In conclusion, this quantitative analysis highlights the need to strengthen institutional inclusion strategies such as awareness-raising, faculty training, and improvements in infrastructure and technological resources. The results suggest that although measures have been implemented, significant gaps in equity and accessibility for students with disabilities in higher education still persist.

Table 2. Opinions on Strategies to Promote University Inclusion

Strategy	Faculty (%)	Students with Disabilities (%)	Students without Disabilities (%)
Faculty training in inclusive education	75 %	70 %	72 %
Greater availability of adapted technological resources	65 %	72 %	68 %
Awareness and training for students	60 %	68 %	66 %
Infrastructure improvements	68 %	74 %	70 %
Greater flexibility in curricular adaptation	72 %	78 %	74 %

DISCUSSION

The results of this study reflect the complexity of educational inclusion in Latin American universities, highlighting both the progress made and the ongoing challenges in integrating students with disabilities. The documentary analysis confirms the importance of institutional strategies that promote equity and access. For instance, Álvarez Gómez *et al.*⁽¹⁸⁾ emphasize the need to integrate systems, programs, and projects that ensure quality education—an observation that aligns with this study's findings on the fragmentation of inclusive policies across various universities.

The qualitative analysis reveals that tutoring and personalized support are essential components of inclusion. This is supported by Sanahuja-Gavaldà *et al.*⁽¹¹⁾, who note that mentoring helps to overcome misconceptions and behavioral barriers. Similarly, López-Bastias *et al.*⁽¹³⁾ highlight the crucial role of academic guidance in career decision-making among students with disabilities, which corresponds with data collected from the surveys in this research.

Regarding accessibility, Fernández⁽¹⁷⁾ underscores the persistent architectural barriers within universities, which is consistent with the quantitative findings, where a significant proportion of students reported infrastructure-related difficulties. Additionally, research by Rojas-Rojas *et al.*⁽¹⁹⁾ highlights the heightened vulnerability of certain groups of students with disabilities and the need to reinforce inclusion policies—an issue echoed in the present study.

Another significant theme emerging from the literature review is the role of educational innovation in transforming perceptions of disability. Rodríguez-Peral *et al.*⁽²⁶⁾ demonstrate how innovative pedagogical strategies can foster a more inclusive perspective within the labor market, reinforcing the importance of incorporating inclusive methodologies in higher education. In the same vein, García Leiva *et al.*⁽¹⁴⁾ stress the development of inclusive pedagogical competencies—an area also identified in this study, where respondents noted a lack of faculty training as a barrier to effective integration.

Finally, studies such as that by Civera *et al.*⁽²⁰⁾ on service-learning suggest that practical experiences can significantly contribute to the integration of students with disabilities, promoting both social and academic skills. This perspective underscores the need to strengthen mentoring and student support programs, aligning with the results of this analysis.

The findings of this study, supported by the reviewed literature, highlight that inclusion in higher education is not solely dependent on institutional policies, but also on raising awareness within the university community and implementing appropriate pedagogical strategies. A comprehensive approach that addresses both structural and attitudinal barriers is essential to ensuring equitable education for all students.

CONCLUSIONS

This study confirms that educational inclusion in Latin American universities continues to face significant challenges, despite progress in institutional regulations and strategies. The fragmentation of inclusive policies identified through the literature review and collected data underscores the need for a more coordinated approach to ensure equity and effective access for students with disabilities.

From a qualitative perspective, the findings highlight the importance of academic tutoring and personalized support as key tools for overcoming attitudinal and conceptual barriers within higher education. Academic guidance also emerges as a decisive factor in career choice and academic success for students with disabilities, reinforcing the need to strengthen these services within institutions.

The quantitative analysis reveals that accessibility remains a major obstacle, with a substantial proportion of students reporting difficulties related to university infrastructure. This finding aligns with previous research emphasizing the persistence of architectural barriers and the urgent need to improve the physical conditions of educational facilities.

Moreover, pedagogical innovation and faculty training in inclusive strategies are identified as fundamental components for transforming perceptions of disability within academia. The implementation of inclusive methodologies not only fosters equity but also better prepares students for a more accessible and diverse labor

market.

Additionally, service-learning and other experiential practices prove to be effective tools for enhancing both the academic and social integration of students with disabilities. In this regard, universities should promote programs that encourage active community engagement in inclusion processes, thereby ensuring a more equitable and effective higher education system.

In conclusion, inclusion in higher education requires a comprehensive approach that combines robust institutional policies with concrete academic and social interventions. Eliminating structural and behavioral barriers, along with promoting innovative pedagogical strategies, is essential to guaranteeing quality education for all students.

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