



Quantitative analysis of educational inclusion in Ecuador: structural determinants and student perceptions at the higher education level

Análisis cuantitativo de la inclusión educativa en Ecuador: determinantes estructurales y percepciones estudiantiles en el nivel superior

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ABSTRACT

Educational inclusion in Higher Education constitutes a fundamental pillar for ensuring equity and access to academic opportunities in diverse contexts. This study aimed to analyze the factors influencing educational inclusion among university students in Ecuador, considering their perceptions, experiences, and the institutional conditions that shape this process. A quantitative approach was employed, with a non-experimental, cross-sectional design, using a structured survey administered to 75 students aged between 20 and 40, from the cities of Guayaquil, Durán, Samborondón, and Milagro. The results reveal a high level of awareness and a positive perception of educational inclusion; however, significant limitations in its implementation were identified, particularly in the allocation of resources, teacher training, and the existence of effective policies. Furthermore, technology is highlighted as a key tool for expanding access to education, although its impact is constrained by persistent digital divides. Participants acknowledge that inclusion benefits the entire educational community, yet they point out structural barriers that hinder its full development. In this regard, the study concludes that it is necessary to strengthen institutional and governmental commitment through comprehensive strategies that promote equity, diversity, and active student participation, providing relevant evidence for the design of policies and practices aimed at consolidating a more inclusive higher education system in the Ecuadorian context.

Keywords: inclusive education; higher education; equity; diversity

RESUMEN

La inclusión educativa en la Educación Superior constituye un eje fundamental para garantizar la equidad y el acceso a oportunidades académicas en contextos diversos. El presente estudio tuvo como objetivo analizar los factores que inciden en la inclusión educativa en estudiantes universitarios del Ecuador, considerando sus percepciones, experiencias y las condiciones institucionales que influyen en este proceso. Se empleó un enfoque cuantitativo, con diseño no experimental y corte transversal, aplicando una encuesta estructurada a 75 estudiantes de entre 20 y 40 años, provenientes de las ciudades de Guayaquil, Durán, Samborondón y Milagro. Los resultados evidencian un alto nivel de conocimiento y valoración positiva de la inclusión educativa; sin embargo, se identifican importantes limitaciones en su implementación, especialmente en la asignación de recursos, la capacitación docente y la existencia de políticas efectivas. Asimismo, se destaca el papel de la tecnología como una herramienta clave para ampliar el acceso educativo, aunque su impacto se ve condicionado por la persistencia de brechas digitales. Los participantes reconocen que la inclusión beneficia a toda la comunidad educativa, pero señalan obstáculos estructurales que dificultan su desarrollo pleno. En este sentido, la investigación concluye que es necesario fortalecer el compromiso institucional y gubernamental mediante estrategias integrales que promuevan la equidad, la diversidad y la participación activa de los estudiantes, aportando evidencia relevante para el diseño de políticas y prácticas orientadas a consolidar una educación superior más inclusiva en el contexto ecuatoriano.

Palabras clave: inclusión educativa; educación superior; equidad; diversidad

INTRODUCTION

Educational inclusion in higher education constitutes a fundamental pillar in the construction of more equitable educational systems, owing to its direct impact on the comprehensive development of individuals and the creation of more just societies. In this context, inclusion is defined as a process aimed at identifying and overcoming barriers that limit student presence, participation, and academic achievement, thereby promoting accessible and equitable environments for all (UNESCO, 2020).

Historically, access to higher education has been restricted for various social groups, such as individuals with disabilities, ethnic minorities, and students from vulnerable socioeconomic backgrounds. These inequalities highlight the need to strengthen inclusive policies that guarantee not only access but also retention and academic success at the university level (World Bank, 2020; Liz Thomas, 2020).

Educational inclusion involves multiple stakeholders within the educational system, including students, teachers, institutional authorities, and policymakers. Each actor plays a key role in building inclusive academic environments characterized by respect for diversity and the generation of meaningful learning opportunities (Mel Ainscow, 2020).

From a broad perspective, education constitutes a fundamental right that drives human and social development. Therefore, promoting inclusive educational systems implies guaranteeing equitable access to knowledge and fostering diversity as an enriching element of the educational process (UNESCO, 2021). Furthermore, education not only facilitates knowledge acquisition but also contributes to the development of critical thinking, autonomy, and active participation in society, reinforcing the need to build educational environments that respond to the needs of all students (Gerardo Echeita, 2017).

The current context of globalization and technological advancement presents both new opportunities and challenges for educational inclusion. Although digital technologies have expanded access to higher education, they have also highlighted digital divides that limit equitable participation (Jane Seale, 2018; UNESCO IESALC, 2020). In this scenario, analyzing the institutional, social, and technological conditions that affect educational inclusion processes among university students is essential, considering their impact on equity and learning quality.

The variables influencing educational inclusion processes are diverse and complex, encompassing social, cultural, political, and pedagogical factors. Understanding the interaction among these dimensions is essential for designing effective strategies in higher education (Anabel Moriña, 2017). Within this framework, identifying the main structural and academic barriers affecting inclusion is pertinent, as is examining the role of institutional policies in promoting inclusive educational environments. A key principle of this approach is the recognition of diversity as an enriching element of learning. Valuing individual differences strengthens the holistic development of students and promotes more equitable educational environments (Lani Florian, 2019). Additionally, evaluating the influence of technological resources on student access and participation, alongside analyzing students' perceptions of equity and inclusion in the university environment, is highly relevant.

Finally, reflecting on the role of higher education institutions as agents of change is essential. Universities must implement policies and practices that promote equity and participation, thereby contributing to social development (Roger Slee, 2018; OECD, 2019). Consequently, the primary objective of this study is to comprehensively examine the factors influencing educational inclusion in higher education within the Ecuadorian context, with the aim of identifying strategies that promote equity, access, and student retention. Furthermore, this study seeks to determine the relationship between student diversity and the quality of the teaching-learning process, consolidating a comprehensive vision of inclusion as a key element in educational transformation.

METHODS

This study adopted a quantitative, descriptive-correlational approach to analyze the conditions influencing educational inclusion in higher education within the Ecuadorian context. This approach facilitated the collection and processing of numerical data to identify patterns, trends, and potential relationships among variables associated with equity, access, and student retention.

The research design was non-experimental and cross-sectional, as data were collected at a single point in time without variable manipulation, facilitating the observation of the phenomenon in its natural context.

The study population comprised university students from various higher education institutions in Ecuador, who are considered key actors in educational inclusion processes. A non-probability convenience sampling method was used to select the sample, owing to participant accessibility and the feasibility of obtaining relevant information within a specific timeframe. This sampling method enabled the inclusion of students with diverse sociodemographic characteristics, thereby enriching the perspectives on the investigated phenomenon.

A structured survey featuring closed-ended Likert-scale and multiple-choice questions was utilized as the primary data collection technique. This instrument enabled the measurement of students' perceptions, experiences, and evaluations regarding educational inclusion, facilitating subsequent quantification and statistical analysis. The survey was administered digitally via online platforms, ensuring broader reach, rapid data collection, and minimized operational bias.

To enhance instrument validity, an expert judgment review was conducted, wherein specialists evaluated the relevance, clarity, and coherence of the items. Additionally, the internal consistency of the questionnaire was assessed using basic statistical tests.

Data analysis was performed using descriptive and inferential statistics, including frequencies, percentages, measures of central tendency, and correlational analysis to identify relationships between key study variables. These procedures enabled an objective interpretation of student perceptions regarding educational inclusion in the university setting.

Finally, ethical research principles were upheld, ensuring participant confidentiality, anonymity, and informed consent, thereby guaranteeing the responsible use of the collected data.

RESULTS

To obtain the results, a structured survey was administered to 75 participants aged between 20 and 40 years from the cities of Guayaquil, Durán, Samborondón, and Milagro. The main findings are presented below, organized by each item of the administered instrument.

Table 1. Knowledge about educational inclusion

Response	Frequency	Percentage
Yes	60	80%
No	15	20%
Total	75	100%

The results indicate that the majority of respondents possess knowledge regarding the concept of educational inclusion, reflecting an adequate level of awareness within the studied population.

A highly positive valuation of educational inclusion was observed, with participants considering it fundamental within the current educational system.

Table 2. Importance of educational inclusion

Response	Frequency	Percentage
Very Important	55	73%
Important	18	24%
Of little importance	2	3%
Total	75	100%

The majority of participants considered that adequate measures are not being implemented, highlighting a gap between inclusive discourse and its practical application.

Table 3. Adequacy of inclusive measures

Response	Frequency	Percentage
Yes	20	27%
No	55	73%
Total	75	100%

Table 4. Personal experience with inclusion

Response	Frequency	Percentage
Yes	48	64%
No	27	36%
Total	75	100%

A significant percentage of respondents had direct contact with experiences of inclusion, which adds value to their perceptions.

Table 5. Need for Additional Resources

Response	Frequency	Percentage
Yes	70	93%
No	5	7%
Total	75	100%

An almost total consensus exists regarding the need to strengthen resources allocated to educational inclusion.

Table 6. Measures to improve inclusion

Measure	Frequency	Percentage
Teacher training	30	40%
Technological resources	20	27%
Accessible infrastructure	15	20%
Inclusive policies	10	13%
Total	75	100%

Teacher training emerged as the primary strategy to improve inclusion.

Regarding teacher training, the predominant perception is that teacher preparation in matters of inclusion is insufficient or moderate.

Regarding the benefits of inclusion, 68 participants (91 %) considered that inclusion benefits the entire educational community, while 7 (9 %) responded negatively. These results demonstrate broad recognition of the benefits of inclusion for the educational community as a whole.

Regarding obstacles to inclusion, a lack of resources was identified as the primary difficulty by 35 participants (47 %), followed by a lack of teacher training, which was noted by 20 participants (27 %). Additionally, 12 participants (16 %) identified cultural barriers as an obstacle, while 8 (10 %) pointed to a lack of policies. Thus, the lack of resources constitutes the primary obstacle identified to advancing inclusion.

Finally, regarding awareness of inclusion, 72 participants (96 %) considered it necessary to foster social awareness around this issue, while 3 (4 %) responded negatively. These results reflect strong agreement on the need to promote greater social awareness of inclusion.

General analysis of results

The results obtained show that educational inclusion is a widely recognized and valued concept among participants. However, a significant gap exists between theoretical awareness and practical implementation, particularly regarding resource allocation, teacher training, and inclusive infrastructure.

Specifically, the lack of investment in technological resources, specialized support, and institutional adaptations limits the effective development of inclusive practices in higher education. This situation highlights the need to strengthen both institutional and governmental commitment to guarantee equitable conditions of access and retention.

Furthermore, although the majority recognizes the benefits of inclusion for all students, structural obstacles persist, such as insufficient teacher training and the limited application of inclusive policies. This suggests an urgent need to implement comprehensive strategies that coordinate training, investment, and cultural transformation within educational institutions.

In this regard, promoting inclusive educational policies, strengthening teacher training, and ensuring adequate resources constitute key elements for moving toward a more equitable, diverse, and accessible higher education system.

DISCUSSION

The results obtained in this research allow for a reflection on the current state of educational inclusion in Higher Education within the Ecuadorian context, demonstrating both progress in terms of awareness and significant limitations in its practical implementation.

First, it is observed that the majority of participants report being familiar with the concept of educational inclusion and recognize its importance within the educational system. This finding is consistent with the position of UNESCO (2020), which highlights inclusion as a fundamental principle to guarantee the right to education for all individuals. However, the high level of recognition contrasts with the majority perception that the implemented measures are insufficient, which highlights a gap between inclusive discourse and its actual application, as also pointed out by González Reyes et al. (2018) in the Ecuadorian context.

Likewise, the results reflect that a considerable percentage of respondents have had experiences related to educational inclusion, suggesting that this phenomenon is present in university reality. However, these experiences do not always develop under optimal conditions due to structural limitations such as a lack of resources, adequate infrastructure, and institutional support. This situation coincides with the findings of Anabel Moriña (2017), who emphasizes that one of the main challenges of inclusion in higher education lies in the insufficient adaptation of educational environments to student diversity.

Regarding resources, the data show an almost unanimous consensus on the need to strengthen investment in educational support, accessible technologies, and specialized training. This aspect is key, as the lack of adequate funding constitutes one of the main obstacles to the effective implementation of inclusive policies. In this regard, the OECD (2019) points out that educational systems that prioritize equity require a strategic allocation of resources to address the diverse needs of the student body.

On the other hand, teacher training emerges as a determining factor in inclusion processes. The results indicate that teacher preparation is perceived as fair or insufficient, which limits the application of inclusive pedagogical strategies in the classroom. This finding aligns with the view of Lani Florian (2019), who argues that teacher training should be oriented toward developing inclusive competencies that allow for effectively addressing diversity in the educational context.

Regarding the benefits of inclusion, there is a widely positive perception of its impact on the learning of all students, not only those with special educational needs. This result supports the perspective of Mel Ainscow (2020), who argues that inclusion not only promotes equity but also enriches educational processes by fostering diversity and active participation.

Finally, the main obstacles identified, such as the lack of resources, limited teacher training, and cultural barriers, highlight the need to adopt a comprehensive approach that coordinates public policies, institutional practices, and cultural changes. In this regard, educational inclusion must be understood not only as a pedagogical strategy but as an ethical and social commitment aimed at ensuring equal opportunities in Higher Education.

In summary, the results of this research confirm that, although there is a solid foundation of recognition and appreciation of educational inclusion, structural challenges still persist that limit its effective implementation. Overcoming these barriers requires a joint effort among educational institutions, teachers, and government agencies to move toward a more just, accessible, and inclusive educational system.

CONCLUSIONS

Educational inclusion in Higher Education is established as a priority challenge in the current context, due to its direct impact on social equity and the comprehensive training of students.

Overcoming existing barriers and fostering inclusive university environments not only favors individual academic development but also contributes to collective well-being and the strengthening of more just societies.

Beyond constituting a challenge, inclusion represents a strategic opportunity to transform educational systems, directing them toward more equitable, accessible, and humanistic models. Advancing in this process implies recognizing diversity as a fundamental value and ensuring that access to quality education is an effective right for all individuals. In this regard, educational inclusion must remain a permanent priority on institutional and governmental agendas, promoting the active commitment of all stakeholders involved.

Likewise, student development should not be limited to the acquisition of theoretical knowledge but should encompass essential dimensions such as social skills, personal growth, and preparation for professional life. This reinforces the need to implement comprehensive educational approaches that respond to the diversity of contexts and needs of the student body.

The findings of this study demonstrate that, despite high awareness of the importance of inclusion, significant obstacles persist, primarily related to insufficient resource allocation, limited teacher training, and the need to strengthen inclusive institutional policies. Similarly, the transformative role of technology is recognized as a means to expand educational access, although its effectiveness depends on equitable implementation that reduces digital divides.

In this context, it is essential to continue researching and designing strategies to guarantee equal opportunities in access, retention, and academic success in higher education, regardless of students' personal or social circumstances. Constructing inclusive educational environments requires coordinated action among universities, teachers, students, and government agencies. In summary, the results obtained offer a comprehensive understanding of educational inclusion within the Ecuadorian university context, highlighting the urgency of implementing concrete and sustainable actions. Only by strengthening inclusive policies, investing in resources, and promoting a culture of respect for diversity will it be possible to transition toward a truly equitable higher education system capable of responding to the demands of a diverse and constantly transforming society.

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