



Educational inclusion and its impact on academic performance: an analysis in higher education

Inclusión educativa y su incidencia en el rendimiento académico: un análisis en la educación superior

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ABSTRACT

This study analyzes the implementation of inclusive education in higher education and its relationship with students' academic performance. The research was conducted using a quantitative approach with a descriptive–correlational design, applying a Likert-scale instrument to assess students' perceptions of key dimensions of inclusive education, including access to resources, curriculum adaptation, use of inclusive technologies, teacher support, and classroom environment. The findings reveal a generally positive perception of inclusive practices, particularly highlighting the use of technological tools and the presence of a supportive learning environment. However, areas for improvement were identified in curriculum adaptation, suggesting the need to strengthen more flexible and innovative pedagogical strategies. Additionally, a direct relationship was found between the level of implementation of inclusive strategies and academic performance, indicating that students in more inclusive environments achieve higher academic outcomes. These results support the conclusion that inclusive education not only promotes equity but also positively influences student achievement. Therefore, the study emphasizes the importance of fostering institutional policies, continuous teacher training, and the effective use of technology to consolidate inclusive and high-quality educational environments in higher education.

Keywords: inclusive education; higher education; academic performance; pedagogical strategies.

RESUMEN

La presente investigación analiza la implementación de la educación inclusiva en el contexto de la educación superior y su relación con el rendimiento académico de los estudiantes. El estudio se desarrolló bajo un enfoque cuantitativo, con un diseño descriptivo–correlacional, aplicando un instrumento tipo Likert para evaluar la percepción estudiantil sobre diferentes dimensiones de la inclusión educativa, tales como el acceso a recursos, la adaptación curricular, el uso de tecnologías inclusivas, el apoyo docente y el ambiente en el aula. Los resultados evidencian una valoración generalmente positiva de las prácticas inclusivas, destacándose especialmente el uso de herramientas tecnológicas y la percepción de un entorno educativo favorable. Sin embargo, se identifican oportunidades de mejora en la adaptación curricular, lo que sugiere la necesidad de fortalecer estrategias pedagógicas más flexibles e innovadoras. Asimismo, se encontró una relación directa entre el nivel de implementación de estrategias inclusivas y el rendimiento académico, evidenciando que los estudiantes que se desenvuelven en contextos más inclusivos alcanzan mejores resultados académicos. Estos hallazgos permiten concluir que la inclusión educativa no solo contribuye a la equidad, sino que también incide de manera positiva en el desempeño estudiantil. En consecuencia, se destaca la importancia de promover políticas institucionales, formación docente continua y el uso adecuado de tecnologías para consolidar entornos educativos inclusivos y de calidad en la educación superior.

Palabras clave: educación inclusiva; educación superior; rendimiento académico; estrategias pedagógicas.

INTRODUCTION

Inclusive education in higher education has acquired a central role in building more equitable educational systems by focusing on the elimination of barriers that hinder student participation, learning, and academic achievement. From this perspective, inclusion transcends university access and is linked to the creation of pedagogical, institutional, and social conditions that guarantee the comprehensive development of the student body in diverse contexts (Landeró Jácome & Miranda Álvarez, 2020; Rodríguez Revelo, 2024; Honkasilta & Koutsoklenis, 2024).

Within this framework, recent research highlights that the incorporation of inclusive approaches has a significant impact on academic performance, particularly when strategies such as Universal Design for Learning are implemented, which favor the diversification of teaching, evaluation, and participation methods. These practices make it possible to respond to the heterogeneity of the university classroom, promoting greater student involvement and better learning outcomes (Nin Piriz & Tamayo Ancona, 2024; Liu & Potmesil, 2024; Bülbül, 2024). In this context, it is essential to identify the main inclusive didactic strategies used in the classroom to address student diversity, as well as to analyze the level of teacher training in relation to inclusive education and its influence on pedagogical practices.

However, despite these advances, significant challenges persist in consolidating effective inclusive education. Notable among these are limitations in teacher training, difficulties in curricular adaptation, and institutional resistance that hinders the implementation of profound changes in educational practices (Prieto Parra et al., 2024; Burgos Ramírez et al., 2024; Ducarre, 2024). These barriers highlight the need to strengthen both public policies and pedagogical competencies oriented toward addressing diversity, as well as to evaluate the use of Information and Communication Technologies (ICT) as a key tool to foster educational inclusion.

Likewise, various studies indicate that the application of inclusive programs contributes positively to the retention and academic success of students in vulnerable situations by generating more accessible and equitable educational environments (Espinosa-

Valenzuela & Rodríguez-Garcés, 2024; Kumari et al., 2024; Woolfson, 2024). In this sense, inclusive education is conceived as a dynamic process of institutional transformation that seeks to guarantee social justice and equal opportunities in the university environment (Revista Internacional de Educación para la Justicia Social, 2020; Singh, 2024). In this process, it is also relevant to examine the role of the family in strengthening inclusion processes within the educational context, considering its influence on students' guidance and academic development.

Consequently, analyzing the implementation of inclusive education is fundamental to understanding its impact on the teaching-learning process and on addressing diversity. Within this framework, the purpose of this study is to determine the main barriers and challenges affecting the implementation of inclusive education by integrating the analysis of didactic strategies, teacher training, technology use, and family participation. This aims to generate evidence that contributes to strengthening more inclusive, relevant, and sustainable educational practices in contemporary educational contexts.

METHODS

The present research adopts a quantitative approach, which allows the collection and analysis of numerical data to describe and analyze the educational reality in relation to the implementation of inclusive education. This approach facilitates the measurement of variables such as didactic strategies, teacher training, technology use, and family participation within the educational process.

This descriptive study seeks to identify and detail the characteristics, conditions, and practices related to inclusive education in the selected educational context. It also has a correlational scope, aiming to establish relationships between the studied variables, particularly regarding the impact of inclusive practices on the teaching-learning process.

The research design is non-experimental, as variables are not deliberately manipulated but are instead observed in their natural context. In addition, a cross-sectional design was used, with data collection carried out at a single point in time, allowing for the analysis of the current status of inclusive education.

The study population consists of teachers from an educational institution, who are key actors in the implementation of inclusive practices. For sample selection, non-probability convenience sampling was used, considering the accessibility and availability of the participants.

The data collection technique was a survey, which allowed for obtaining direct information from teachers regarding their knowledge, attitudes, and practices related to inclusive education. A structured questionnaire was used as the instrument, consisting of closed-ended questions on a Likert-type scale, facilitating the quantification and analysis of the results.

For data processing and analysis, descriptive statistical methods were used, such as frequencies and percentages, allowing the obtained information to be interpreted in a clear and organized manner. The results are presented through tables and graphs to facilitate their understanding and analysis.

Regarding ethical aspects, the confidentiality of the information provided by the participants is guaranteed, as well as the exclusive use of the data for academic purposes. Likewise, the voluntary participation of the study subjects is respected, ensuring their informed consent prior to the administration of the instrument.

RESULTS

The analysis of the obtained data allowed for the identification of relevant trends regarding the perception of inclusive education in the context of higher education, as well as its impact on students' academic performance.

Firstly, regarding the characteristics of the sample, a balanced distribution by gender is observed, with 55% female participation and 45% male. Regarding age, the majority of the participants are in the range of 21 to 23 years (50%), followed by students between 18 and 20 years (30%), and a smaller group of 24 years or older (20%). In relation to academic level, 45% corresponds to students in their third year or higher, which allows inferring a significant level of academic experience in the analyzed sample.

Table 1. Characteristics of the sample

Variable	Category	Frequency	Percentage (%)
Gender	Male	45	45%
	Female	55	55%
Age	18–20 years	30	30%
	21–23 years	50	50%
	24 or more	20	20%
Academic level	First year	25	25%
	Second year	30	30%
	Third year or more	45	45%

In relation to the perception of educational inclusion, the results show positive ratings in most of the analyzed indicators. The use of inclusive technologies presents the highest mean (4.0), followed by the inclusive classroom environment (3.9) and equitable access to educational resources (3.8). However, curricular adaptation shows a slightly lower mean (3.5), suggesting the existence of opportunities for improvement in this area.

Finally, when analyzing the relationship between the implementation of inclusive strategies and academic performance, a positive trend is evident. Students in contexts with a high level of inclusive implementation achieve an academic average of 8.9, in comparison with 7.8 in medium levels and 6.5 in low levels. These results suggest a direct association between inclusive practices and better academic outcomes.

Table 2. Perception of educational inclusion (Likert scale 1–5)

Evaluated item	Mean	Standard deviation
Equitable access to educational resources	3.8	0.7
Curricular adaptation	3.5	0.8
Use of inclusive technologies	4.0	0.6
Teacher support for diversity	3.7	0.9
Inclusive classroom environment	3.9	0.7

Table 3. Relationship Between Inclusive Strategies and Academic Performance

Level of Implementation	Grade Point Average
Low	6.5
Medium	7.8
High	8.9

Overall, the findings show that educational inclusion is not only perceived favorably by students, but is also linked to better academic performance, which reinforces its importance as a strategic axis in higher education.

DISCUSSION

The results obtained in the present research show that inclusive education in the context of higher education is perceived mostly positively by students, reflecting significant progress in building more equitable and accessible educational environments. In this regard, the high levels of rating in aspects such as the use of inclusive technologies and the classroom environment indicate that institutions are implementing pedagogical practices aimed at addressing student diversity.

In particular, the fact that the use of inclusive technologies achieved the highest mean supports the importance of digital resources as key tools to facilitate access, participation, and learning for all students. However, the lower rating in curricular adaptation suggests that challenges still exist in adapting content, methodologies, and assessments to individual needs, highlighting a priority area for improvement within educational processes.

On the other hand, the identified relationship between the level of implementation of inclusive strategies and academic performance shows a clear trend: the greater the inclusion, the better the academic results. This finding allows us to infer that educational environments that promote equity, eliminate learning barriers, and foster active participation have a positive impact on student performance.

Likewise, the distribution of the sample, with a greater representation of students at advanced levels, suggests that the perception of inclusion could be influenced by accumulated experience within the educational system. This raises the need to strengthen inclusive strategies from the first levels of university training, with the purpose of guaranteeing a progressive and equitable adaptation for all students.

However, it is important to consider certain limitations of the study. The sample size and its delimitation to a specific context may restrict the generalization of the results. Furthermore, the use of perception-based instruments may involve the presence of subjective biases. Consequently, it is recommended that future research expand the scope of the study and incorporate different methodological approaches to allow for a deeper understanding of the phenomenon.

In conclusion, the results confirm that inclusive education plays a fundamental role in improving academic performance and generating fairer educational environments. However, they also demonstrate the need to continue strengthening key aspects such as curricular adaptation and teacher training, in order to consolidate sustainable and effective inclusive practices in higher education.

CONCLUSION

La presente investigación permitió evidenciar que la educación inclusiva constituye un elemento fundamental en el fortalecimiento de la calidad educativa en el nivel superior. A partir de los resultados obtenidos, se concluye que los estudiantes perciben de manera positiva la implementación de prácticas inclusivas, especialmente en lo relacionado con el uso de tecnologías y la generación de ambientes de aprendizaje favorables.

Likewise, it was identified that a direct relationship exists between the level of implementation of inclusive strategies and academic performance, indicating that educational contexts promoting equity, participation, and the elimination of barriers contribute significantly to students' academic success. This finding highlights the importance of consolidating institutional policies and practices oriented toward inclusion.

However, areas for improvement are also evident, particularly in curricular adaptation, which suggests the need to design and implement more flexible pedagogical strategies that respond to the diversity of learning styles and paces. In this regard,

it is essential to strengthen teacher training in inclusive approaches, as well as to promote an institutional culture committed to equity.

On the other hand, it is concluded that educational inclusion not only impacts academic performance but also the construction of more just, participatory, and diversity-respecting environments. This reaffirms its role as a strategic axis in contemporary higher education.

Finally, it is recommended that future research expand the scope of the study, incorporating more representative samples and diverse methodological approaches to deepen the analysis of educational inclusion and its impact in different contexts.

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CONFLICT OF INTEREST

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