

Inclusive Academic Persistence in Higher Education: A Longitudinal Cohort Study with Students with Disabilities

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ABSTRACT:

The inclusion of students with disabilities in higher education remains one of the major challenges faced by contemporary universities. Although access policies have expanded significantly over recent decades, important questions remain regarding student persistence and academic success. The aim of this study was to analyze academic trajectories, persistence, and academic performance among students with disabilities through a longitudinal cohort design in an Ecuadorian higher education institution. A quantitative, retrospective, longitudinal, and observational study was conducted using institutional records from the academic periods April–August 2024 and April–August 2025. The initial cohort consisted of 558 students with disabilities, with an academic persistence rate of 56.63%. Descriptive analyses, Chi-square tests, Spearman correlation, and analysis of variance were performed. Results indicated that gender, disability type, and disability percentage were not significantly associated with academic persistence. Likewise, the relationship between disability percentage and academic performance was weak and non-significant. However, significant differences in academic performance were observed across disability types. Findings suggest that university persistence is more strongly associated with academic, institutional, and socioecological factors than with disability-related characteristics. As a theoretical contribution, the Ecological Model of Inclusive Academic Persistence (MEPAI) is proposed to explain persistence through a multidimensional framework. The study concludes that universities should strengthen accessibility measures, educational guidance services,

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academic tutoring, and comprehensive support systems to foster successful academic trajectories.

Keywords: disability; higher education; academic persistence; inclusive education; academic trajectories; educational guidance; university accessibility.

1. INTRODUCTION

Higher education has experienced significant advances in inclusion in recent decades, driven by international regulatory frameworks that recognize the right of persons with disabilities to access, participate in, and complete university studies on equal terms (United Nations [UN], 2006; UNESCO, 2020). However, access is only the first step towards effective inclusion. Permanence, academic performance and successful completion of studies continue to represent significant challenges for higher education institutions in different national and international contexts.

The specialized literature shows a sustained growth of students with disabilities in universities, accompanied by a greater concern to understand the factors that influence their academic trajectories (Moriña, 2024). However, much of the research has focused on the analysis of access barriers, perceptions of inclusion, or student experiences, while longitudinal studies aimed at examining academic persistence and educational continuity remain limited, especially in Latin America. This situation makes it difficult to understand the processes that favour or hinder the university permanence of students with disabilities over time.

Traditionally, disability was interpreted from approaches focused on individual deficits, attributing academic difficulties to specific functional conditions of students (Oliver, 1990). However, contemporary perspectives have questioned this view by highlighting the influence of contextual, institutional, and social factors on educational participation (Shakespeare, 2018). From the social model of disability, limitations are not explained exclusively by individual characteristics, but by the interaction between people and the barriers present in educational environments. This conceptual transformation

has promoted new ways of understanding university inclusion and has placed institutions as fundamental actors in the construction of successful academic trajectories.

In the field of higher education, several authors have pointed out that student permanence depends on complex processes of academic and social integration. Tinto (1993, 2017) argues that students stay when they manage to establish meaningful ties with the institution and develop a sense of belonging that strengthens their academic commitment. In a complementary way, Astin (1999) states that student involvement is one of the main predictors of university success. These perspectives suggest that academic persistence should be understood as a multidimensional phenomenon that transcends the individual characteristics of students.

Recent research has also highlighted the relevance of variables such as academic self-efficacy, resilience, institutional support, accessibility, and social support networks in the construction of sustainable university trajectories (Bandura, 1997; Römhild & Holleder, 2024). However, knowledge gaps persist regarding the interaction of these factors in students with disabilities and the way in which they influence educational continuity in Latin American contexts.

In response to this need, the present research aimed to analyze the academic trajectories, persistence, and performance of students with disabilities through a longitudinal cohort study in an Ecuadorian higher education institution. Likewise, the Ecological Model of Inclusive Academic Persistence (MEPAI) is proposed, a theoretical approach aimed at understanding university permanence from the interaction between personal, academic, institutional and socio-ecological dimensions. The results are expected to contribute to the strengthening of

inclusive evidence-based university policies and expand scientific knowledge on disability and higher education in Latin America.

2. MARCO TEORICO.

2.1. Disability from a contemporary perspective: from the medical model to the social model.

The understanding of disability has undergone a profound transformation over the last few decades. Traditionally, the medical model interpreted disability as an individual condition associated with physical, sensory, intellectual, or psychological deficits that had to be corrected or compensated through specialized treatments (Oliver, 1990). From this perspective, educational difficulties were mainly attributed to people's functional limitations. However, from the international movements for the rights of persons with disabilities emerged the social model of disability, which questioned explanations focused exclusively on the individual. This approach argues that the limitations experienced by people are largely caused by the social, cultural, and institutional barriers present in the environments where they participate (Shakespeare, 2018). The Convention on the Rights of Persons with Disabilities (UN, 2006) consolidated this vision by recognizing that disability results from the interaction between people and the barriers that hinder their full participation in society.

In the field of education, this conceptual transformation has generated important implications. Disability is no longer interpreted only as an individual characteristic, but as a condition that requires the adaptation of educational contexts to guarantee equal opportunities. This vision has served as the basis for the development of inclusive education policies at all levels of education, including higher education.

2.2 Inclusive higher education: access, participation and academic success

Inclusive higher education is based on the principle that all people have the right to access, participate and graduate on equal terms.

However, university inclusion goes beyond access and requires guaranteeing meaningful educational experiences that favor the learning, permanence and integral development of students. Ainscow (2020) defines inclusion as a continuous process aimed at eliminating barriers to learning and participation. From this perspective, universities must transform their cultures, policies, and practices to respond to student diversity. Slee (2021) argues that inclusion cannot be limited to specific programs for vulnerable groups, but must constitute an organizing principle of the entire institution. In the same vein, Florian (2023) argues that inclusive practices must be designed from the outset to respond to diversity, avoiding compensatory or segregating approaches.

Recent literature shows that inclusive universities have higher levels of participation, satisfaction, and academic success among students with disabilities (Moriña, 2024). However, challenges related to physical accessibility, curricular adaptation, evaluation, social participation and psychological well-being persist. Römhild and Holleder (2024) showed that students who access support services, curricular adaptations, and institutional resources are more likely to succeed academically and retention. Similarly, Brewer (2025) found that the quality of university experiences depends to a large extent on the institutional capacity to provide timely and relevant supports. These findings suggest that effective inclusion does not depend only on the individual characteristics of students, but on the institutional capacity to generate favorable conditions for their academic development.

2.3 Academic persistence and university trajectories

Academic persistence is one of the most studied constructs in higher education research. It refers to the ability of students to remain active within the educational system until they complete their studies. The most influential theory in this area corresponds to the proposal of Tinto (1993, 2017), who states that student permanence depends on the processes of academic and social integration developed within the university.

According to this model, students who manage to establish significant links with the institution are more likely to continue their studies.

In addition, Astin (1999) developed the theory of student engagement, which holds that academic success depends on the quantity and quality of physical and psychological energy that students invest in their university experience. Bean and Metzner (1985) expanded these perspectives by pointing out that non-traditional students face specific challenges related to family, work, and economic factors that can significantly influence their permanence.

In the case of students with disabilities, academic persistence acquires particular characteristics due to the interaction between personal, institutional, and contextual factors. Recent research suggests that variables such as institutional support, accessibility, psychological well-being, and sense of belonging have a significant influence on university trajectories (Lindstrom, 2026; Sharabi et al., 2025).

2.4 Self-efficacy, resilience and self-regulated learning

Educational psychology has identified several personal factors associated with academic success. Among them, academic self-efficacy is one of the most relevant constructs. Bandura (1997) defines self-efficacy as the belief that people have regarding their ability to organize and execute actions necessary to achieve certain objectives. Students with high levels of self-efficacy tend to show greater motivation, persistence and academic performance. Sharabi et al. (2025) found that academic self-efficacy and self-regulated learning significantly mediate the relationship between disability and academic success. Similarly, Ben-Naim et al. (2017) and Matteucci and Soncini (2021) identified that confidence in one's own abilities is a protective factor against university dropout.

Resilience has also been shown to be a relevant predictor of academic retention. Resilient students develop strategies to cope with adverse situations, adapt to complex contexts, and maintain long-term educational goals.

This evidence suggests that successful university trajectories depend not only on institutional factors, but also on psychological resources that favor adaptation and learning.

2.5 Educational guidance, institutional support and permanence

Educational guidance is a fundamental strategy to promote inclusion and student permanence. Traditionally associated with academic and vocational counseling, it is currently recognized as a comprehensive process aimed at accompanying educational trajectories. Scientific evidence shows that tutoring, mentoring, and guidance programs contribute significantly to college adaptation and student well-being. In students with disabilities, these services acquire special relevance by facilitating the articulation of institutional support and the early identification of risk factors. Munjanja et al. (2025) point out that institutional support is one of the main protective factors against university dropout. Likewise, Parsons et al. (2023) highlight that academic and social support networks favor the development of sustainable educational trajectories.

From this perspective, educational guidance must be conceived as a strategic component of university inclusion policies. The theoretical review carried out allows us to identify that the academic persistence of students with disabilities is a complex and multidimensional phenomenon. Contemporary approaches agree that university trajectories do not depend exclusively on the condition of disability, but on the interaction between personal, academic, institutional and socio-ecological factors

3. METHOD

3.1 Research design and participants

The present research was developed from a quantitative approach, using a longitudinal, retrospective and observational cohort design. The quantitative approach makes it possible to analyse educational phenomena through the systematic measurement of variables and the application of statistical procedures aimed at identifying patterns, associations and trends

within a given population (Creswell & Creswell, 2023; Hernández-Sampieri & Mendoza, 2020). The longitudinal design was selected because it allows examining the evolution of students over time, identifying changes, continuities and academic trajectories. According to Menard (2002), longitudinal studies offer significant advantages over cross-sectional designs because they make it possible to understand dynamic processes and establish temporal relationships between variables. In higher education, this type of design has been widely recommended for the study of student persistence, retention, and graduation (Tinto, 2017; Kuh et al., 2024).

Likewise, the study corresponds to a retrospective cohort, since it uses previously existing institutional records to reconstruct the academic trajectories of students. Cohort studies are one of the most robust methodologies for analysing longitudinal educational processes, allowing the identification of factors associated with academic permanence and dropout (Singer & Willett, 2003; Fitzmaurice et al., 2011).

From an epistemological perspective, the research is framed in a postpositivist vision of educational research, which recognizes the existence of observable regularities through empirical and statistical procedures, although it admits that educational phenomena are complex and influenced by multiple contextual factors (Creswell & Creswell, 2023).

3.2 Participants

The population was made up of students with disabilities enrolled in an Ecuadorian higher education institution during the academic periods April-August 2024 and April-August 2025. The initial cohort included 558 students with disabilities registered in the period April-August 2024. Subsequently, 496 students enrolled during the period April-August 2025 were identified. Through the use of the institutional identifier, it

was possible to carry out longitudinal follow-up of the participants and determine academic persistence between both periods.

Cohort monitoring using unique identifiers is a widely used strategy in longitudinal research in higher education due to its ability to track educational trajectories and analyze student retention processes (Tinto, 2017; Kuh et al., 2024).

3.3 Study variables

The selection of variables was based on the international literature on academic persistence and inclusive higher education. The independent variables are composed of: (a) Sex; (b) Type of disability; (c) Percentage of disability.

These variables have been widely used in studies on educational inclusion and university trajectories of students with disabilities (Moriña, 2024; Römhild & Holleder, 2024; Esparza, 2026).

On the other hand, the dependent variables are constituted by: academic persistence and academic performance; academic persistence, which was defined as the continuity of the student between two consecutive academic periods. This definition is based on the theory of academic and social integration proposed by Tinto (1993, 2017), who considers student permanence as one of the main indicators of institutional success. Academic performance was operationalized through the final grade obtained by the students during the period analyzed. The educational literature recognizes performance as one of the most widely used indicators to assess academic achievement and university adaptation (York et al., 2015).

3.4 Procedure

The information was obtained from anonymized institutional records.

Figure 1: Methodological procedure for the construction of the longitudinal base

Source: Authors' elaboration based on results.

The use of longitudinal institutional databases allows to increase the ecological validity of educational studies by analyzing real academic behaviors in natural contexts (Singer & Willett, 2003).

3.5 Methodological rigor

The methodological soundness of the study is based on three main elements.

- First, the use of a longitudinal cohort made it possible to analyze real academic trajectories and overcome the limitations of cross-sectional designs.
- Second, the use of institutional records reduced possible biases associated with self-report measures.
- Third, the combination of descriptive, correlational, comparative, and predictive

analyses allowed obtaining a comprehensive understanding of the phenomenon studied.

According to Creswell and Creswell (2023), the triangulation of statistical procedures strengthens the internal validity and explanatory capacity of quantitative research in education.

4.RESULTS AND DISCUSSION

4.1 Cohort characterization

The longitudinal cohort was initially made up of 558 students with disabilities enrolled during the period April-August 2024. In the period April-August 2025, 496 students were identified, of which 316 remained active in both academic periods.

Table 1 Overall Cohort Characterization

Indicator	Value
Students 2024	558
Students 2025	496
Persistent	316
Persistent Nodes	242
Persistence rate (%)	56,63

Source: Authors' elaboration based on results.

The persistence observed is consistent with recent studies on inclusive higher education that report continuity rates between 45% and 65% in students with disabilities (Moriña, 2024; Esparza, 2026). From the theory of academic and social integration, Tinto (2017) argues that university permanence depends on the ability of students to develop significant ties with the institution. In this sense, the results suggest that a significant proportion of students managed to establish mechanisms of academic and social adaptation favorable to educational continuity.

Likewise, Astin (1999) argues that participation in university activities is one of the main predictors of permanence. Therefore, the persistence rate found could reflect adequate levels of student involvement within the institutional context analyzed.

4.2 Academic performance

The average academic performance reached a mean of 8.43 points (SD = 1.89).

Table 2 Descriptive statistics

Statistician	Value
Media	8,43
OF	1,89
Medium	8,95

Source: Authors' elaboration based on results.

The results show a satisfactory academic performance, exceeding the minimum levels of institutional approval. This finding coincides with recent research that questions the traditional association between disability and poor academic performance. Römhild and Hollederer (2024) found that students with disabilities can achieve performance levels similar to their peers when they have adequate institutional supports.

In a complementary way, Sharabi et al. (2025) demonstrated that variables such as academic self-efficacy and self-regulated learning have a greater influence than the condition of disability on university performance.

4.3 Sex and academic persistence

The Chi-square test showed no significant association between sex and academic persistence ($\chi^2 = 1.53$; $p = .216$).

Table 3 Sex and academic persistence

Statistician	Value
χ^2	1,53
Good luck	1
p	.216

Source: Authors' elaboration based on results.

The absence of significant differences suggests that men and women are equally likely to continue their university studies. This result coincides with Kuh et al. (2024), who point out that gender differences tend to decrease when institutions implement inclusive policies and effective student support systems.

4.4 Type of disability and academic persistence

The Chi-square test also showed no significant association between type of disability and

academic persistence ($\chi^2 = 1.95$; $p = .856$).

This result is one of the most relevant findings of the study. From the social model of disability (Oliver, 1990; Shakespeare, 2018), the absence of differences between groups suggests that university permanence does not depend exclusively on individual functional characteristics. The results support the proposals of Ainscow (2020), Slee (2021), and Florian (2023), who argue that institutional barriers have a greater influence than disability status on

educational participation.

4.5 Percentage of disability and academic performance

Spearman's correlation showed an extremely weak and non-significant negative association ($\rho = -0.021$; $p = .293$).

Table 4 Spearman Correlation

Variables	Rho	p
% disability – Final grade	-0,021	.293

Source: Authors' elaboration based on results.

The severity of disability was not significantly related to academic performance. These findings coincide with Bandura (1997), who states that self-efficacy and competence beliefs have a greater influence on academic performance than objective individual characteristics.

Likewise, Sharabi et al. (2025) found that

academic self-efficacy mediates the relationship between disability and university performance.

4.6 Performance differences by type of disability

The ANOVA showed significant differences between groups ($F = 5.143$; $p < .001$).

Table 5 ANOVA of academic performance

Statistician	Value
F	5,143
p	<.001

Source: Authors' elaboration based on results.

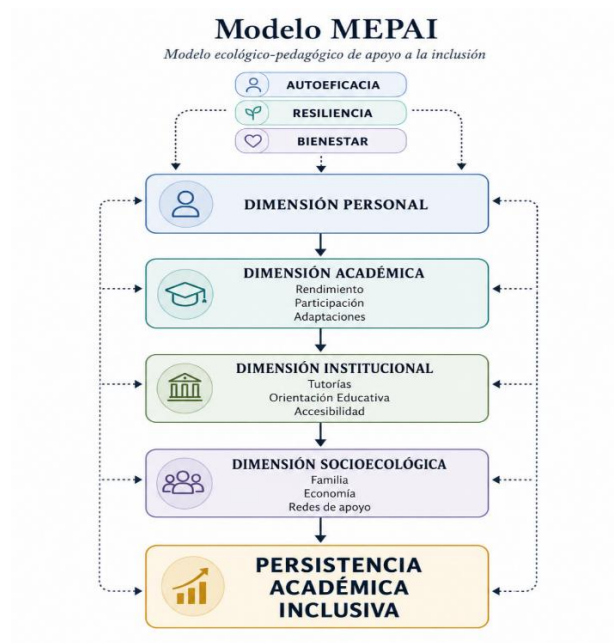
Students with language disabilities had the lowest levels of academic performance. This result can be explained by the communicative and linguistic demands inherent in the university context.

Research carried out by Brewer (2025) and Moraña (2024) shows that barriers associated with

communication, reading comprehension, and written production continue to represent significant challenges for certain groups of students with disabilities.

4.6 Ecological-pedagogical model to support inclusion

Figure 2: MEPAI model



Source: Authors' elaboration based on results.

The Ecological Model of Inclusive Academic Persistence (MEPAI) arises as a theoretical proposal derived from the results obtained in this research and the integration of various conceptual approaches on student permanence, educational inclusion and disability. The model states that the academic persistence of students with disabilities does not depend exclusively on individual functional characteristics, but on the dynamic interaction between personal, academic, institutional, and socio-ecological factors.

The results obtained support this perspective, the absence of significant associations between academic persistence and variables such as sex, type of disability and percentage of disability suggests that university continuity cannot be explained solely from individual attributes. This finding coincides with the social model of disability proposed by Oliver (1990) and later expanded by Shakespeare (2018), who argue that educational limitations emerge mainly from the interaction between people and the barriers present in the contexts where they participate.

a. Personal dimension

The first dimension of the model corresponds to personal factors, represented by academic self-efficacy, resilience and psychological well-being. From sociocognitive theory, Bandura (1997) states that beliefs of personal efficacy directly influence motivation, perseverance, and academic performance. Recent studies by Sharabi et al. (2025) show that academic self-efficacy and self-regulated learning significantly mediate the relationship between disability and university success.

Likewise, Lindstrom (2026) found that students with disabilities who develop successful university trajectories have high levels of resilience, adaptability, and a sense of institutional belonging. Consequently, the personal dimension acts as a protective factor against academic difficulties and contributes to strengthening educational continuity.

b. Academic dimension

The second dimension of the model incorporates variables related to academic performance,

student participation, and curricular adaptations. This dimension is based on the contributions of Tinto (1993, 2017), who argues that academic integration is one of the main determinants of university permanence.

The results obtained show an average performance of 8.43 points and a persistence rate of 56.63%, which suggests that a significant proportion of the students managed to develop adequate academic adaptation processes. In addition, Astin (1999) states that student involvement is one of the main predictors of university success. From this perspective, active participation in learning experiences favors the construction of sustainable educational trajectories.

c. Institutional dimension

The institutional dimension represents one of the central components of the model. It includes accessibility, tutoring, educational guidance, psychopedagogical support and inclusive policies. International evidence shows that institutions play a decisive role in the university permanence of students with disabilities. Römheld and Holleder (2024) demonstrated that curricular adaptations, support services, and institutional accessibility significantly increase the chances of academic success. Similarly, Moraña (2024) argues that university inclusion depends on the institutional capacity to guarantee access, participation, and academic success.

The results of the present study support this interpretation. The fact that disability has not significantly explained academic persistence suggests that other institutional factors may be playing a more relevant role in educational continuity.

d. Socio-ecological dimension

The fourth dimension incorporates factors external to the university context, such as family support, economic situation and support networks. This component is supported by the ecological model of Bronfenbrenner (2005), which states that human development occurs through the interaction between multiple environmental systems. Likewise, Sen (1999) and

Nussbaum (2011) highlight the importance of the capacities and opportunities available for people to fully develop their life projects.

In the university setting, recent research shows that family support and social networks are protective factors against academic dropout (Parsons et al., 2023; McKenzie & Southey, 2024). Consequently, academic persistence does not depend only on what happens within the university, but also on the social and family conditions that surround the student.

The main contribution of the MEPAI is to propose a systemic understanding of academic persistence. Unlike models focused exclusively on individual variables, the MEPAI states that university continuity emerges from the interaction between personal, academic, institutional, and socio-ecological factors. This perspective coincides with the contemporary proposals for inclusive education developed by Ainscow (2020), Slee (2021), and Florian (2023), who argue that inclusion requires transforming educational contexts to respond to student diversity.

From this point of view, disability is not a determining factor in academic success or failure. On the contrary, successful university trajectories depend on the capacity of institutions to generate conditions that favor the participation, learning, well-being, and integral development of students.

The MEPAI is an emerging theoretical proposal susceptible to empirical validation through structural equation models (SEM) or Partial Least Squares Structural Equation Modeling (PLS-SEM). Future research could assess the strength of the relationships between the proposed dimensions and determine their predictive capacity on academic persistence. In this way, the model not only allows interpreting the results obtained in this research, but also offers a future research agenda for the study of disability and higher education from an inclusive and ecological perspective.

5.CONCLUSIONS

The objective of this research was to analyze the academic trajectories, persistence and

performance of students with disabilities through a longitudinal cohort study in higher education. The results obtained allow us to formulate several relevant conclusions for the understanding of the processes of university inclusion and student permanence.

First, the findings show that more than half of the students with disabilities remained linked to the institution during the follow-up period, reaching an academic persistence rate of 56.63%. This result demonstrates that students with disabilities have real capacities to develop sustainable university trajectories when they have favorable educational conditions and opportunities for academic participation.

Second, the research found that variables traditionally associated with disability, such as sex, type of disability, and percentage of disability, did not present significant associations with academic persistence. This finding constitutes one of the main contributions of the study, as it questions approaches focused exclusively on disability as an explanation for university dropout.

The results support the postulates of the social model of disability and contemporary perspectives of inclusive education, which maintain that educational difficulties do not depend only on individual functional characteristics, but on the interaction between people and the institutional contexts in which they develop their academic experiences. Consequently, disability should not be interpreted as a direct predictor of permanence or abandonment, but as a condition whose influence is mediated by academic, institutional, and socio-ecological factors.

Third, although significant differences were identified in academic performance according to the type of disability, these differences did not translate into greater probabilities of dropping out of university. This result suggests that academic performance is only one of the multiple factors involved in educational trajectories. Student permanence seems to depend on broader processes related to academic integration, university participation, accessibility, institutional

support and psychological well-being.

A fourth conclusion is related to the absence of a significant correlation between the percentage of disability and academic performance. This finding indicates that the severity of the disability does not necessarily determine university academic performance. From an educational perspective, this result reinforces the importance of strengthening protective factors such as academic self-efficacy, resilience, motivation, and self-regulated learning, which have been shown to have a greater explanatory capacity for academic success.

At the theoretical level, the study proposes the Ecological Model of Inclusive Academic Persistence (MEPAI) as a conceptual contribution aimed at understanding the university trajectories of students with disabilities from a multidimensional perspective. The model integrates four fundamental dimensions: personal, academic, institutional and socio-ecological. Its main contribution is to shift the focus from disability to the factors that facilitate or hinder academic permanence.

The evidence obtained supports the idea that university persistence emerges from the dynamic interaction between these dimensions. Consequently, higher education institutions should adopt comprehensive approaches to inclusion that simultaneously strengthen student well-being, accessibility, educational guidance, academic tutoring, and social support networks.

From the methodological point of view, the research provides longitudinal evidence that is rare in the Latin American context. The use of an educational cohort made it possible to analyze real academic trajectories and overcome the limitations of the predominant cross-sectional studies in the regional literature. Likewise, the use of institutional records strengthened the ecological validity of the study by being based on academic behaviors observed in real contexts of higher education.

As an applied contribution, the Inclusive Academic Risk Index (IRAI) is proposed, conceived as a potential tool for the early identification of students with greater academic

vulnerability. This index could contribute to the development of institutional early warning systems aimed at strengthening student retention through preventive and timely interventions.

The practical implications of the findings are especially relevant for educational guidance and university management. The results suggest that institutional policies should prioritize the strengthening of tutoring programs, psychopedagogical guidance, universal accessibility, student well-being, and longitudinal accompaniment. These strategies have significant potential to promote academic retention and reduce the risks of dropout.

However, the study has some limitations that should be considered when interpreting the results. First, longitudinal follow-up was developed only between two academic periods, which limits the analysis of long-term educational trajectories. Second, specific psychological, family or institutional variables that could explain the processes of permanence in greater depth were not incorporated. Finally, advanced models of academic survival, such as Kaplan-Meier or Cox regression, which would allow more accurate estimation of dropout risks over time, were not applied.

Based on these limitations, future research should extend follow-up periods, incorporate variables related to psychological well-being, self-efficacy, resilience, family support, and institutional belonging. Likewise, it is advisable to empirically validate the Ecological Model of Inclusive Academic Persistence (MEPAI) through structural equation models (SEM) or PLS-SEM, as well as to develop academic survival studies that allow for a deeper understanding of the factors associated with dropout and university graduation.

In summary, the main conclusion of this research is that the academic persistence of students with disabilities seems to be more associated with factors of institutional integration, academic support, educational accessibility, and support networks than with the condition of disability itself. This finding invites us to rethink university inclusion strategies and guides the development

of policies focused on the construction of more accessible, participatory, and equitable educational environments.

BIBLIOGRAPHY

- Agresti, A. (2019). *An introduction to categorical data analysis* (3rd ed.). Wiley.
- Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, 6(1), 7–16. <https://doi.org/10.1080/20020317.2020.1729587>
- Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518–529.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research*, 55(4), 485–540. <https://doi.org/10.3102/00346543055004485>
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Sage.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage.
- Dong, S., & Lucas, M. S. (2016). An analysis of disability, academic performance, and accommodation use in higher education. *Journal of Postsecondary Education and Disability*, 29(2), 121–136.
- Field, A. (2024). *Discovering statistics using IBM SPSS statistics* (6th ed.). Sage.
- Fitzmaurice, G. M., Laird, N. M., & Ware, J. H. (2011). *Applied longitudinal analysis* (2nd ed.). Wiley.
- Florian, L. (2023). Inclusive pedagogy and the challenge of diversity in higher education. *International Journal of Inclusive Education*.
- Hernández-Sampieri, R., & Mendoza, C. (2020). *Research methodology: The quantitative, qualitative and mixed routes*. McGraw-Hill.
- Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd ed.). Wiley.
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2024). What matters to student success: A review of the literature. National Postsecondary Education Cooperative.
- Lindstrom, J. (2024). Student success and persistence among learners with disabilities in higher education. *Journal of Postsecondary Education and Disability*.
- Matteucci, M. C., & Soncini, A. (2021). Self-efficacy and academic success among university students. *Social Psychology of Education*, 24(4), 987–1008. <https://doi.org/10.1007/s11218-021-09634-3>
- Menard, S. (2002). *Longitudinal research* (2nd ed.). Sage.
- Moriña, A. (2024). Inclusive higher education and students with disabilities: Challenges and opportunities. *International Journal of Inclusive Education*.
- Munjanja, C., et al. (2024). Student support services and academic persistence in higher education. *Higher Education Research & Development*.
- Nussbaum, M. C. (2011). *Creating capabilities: The human development approach*. Harvard University Press.
- Oliver, M. (1990). *The politics of disablement*. Macmillan.
- UN. (2006). *Convention on the Rights of Persons with Disabilities*. United Nations.
- Parsons, S., et al. (2023). Social support and student persistence in higher education. *Studies in Higher Education*.
- Römhild, A., & Holleder, A. (2024). Disability-related services and academic success in higher education. *International Journal of Inclusive Education*.
- Schreuer, N., & Sachs, D. (2014). Efficacy of accommodations for students with disabilities in higher education. *Disability and Rehabilitation*, 36(24), 2085–2092. <https://doi.org/10.3109/09638288.2014.892640>

- Sen, A. (1999). *Development as freedom*. Oxford University Press.
- Shakespeare, T. (2018). *Disability: The basics* (2nd ed.). Routledge.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford University Press.
- Slee, R. (2021). *Inclusive education isn't dead, it just smells funny*. Routledge.
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). University of Chicago Press.
- Tinto, V. (2017). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice*, 19(3), 254–269. <https://doi.org/10.1177/1521025115621917>
- UNESCO. (2020). *Global education monitoring report: Inclusion and education – All means all*. UNESCO Publishing.
- York, T. T., Gibson, C., & Rankin, S. (2015). Defining and measuring academic success. *Practical Assessment, Research & Evaluation*, 20(5), 1–20. <https://doi.org/10.7275/hz5x-tx03>
- Zimmerman, B. J. (2008). Investigating self-regulation and motivation. *American Educational Research Journal*, 45(1), 166–183. <https://doi.org/10.3102/0002831207312909>