OPEN SCIENCE REVIEW21
ISSN 3086-4089
v.1, n.1 (2026)

NEURODIVERGENCE AND RETENTION IN HIGHER EDUCATION: COMPLEXITY, PUBLIC POLICY, AND EPISTEMOLOGICAL REORGANIZATION IN LIGHT OF EDGAR MORIN

NEURODIVERGÊNCIA E PERMANÊNCIA NO ENSINO SUPERIOR: COMPLEXIDADE, POLÍTICA PÚBLICA E REORGANIZAÇÃO EPISTEMOLÓGICA À LUZ DE EDGAR MORIN

NEURODIVERGENCIA Y PERMANENCIA EN LA EDUCACIÓN SUPERIOR: COMPLEJIDAD, POLÍTICA PÚBLICA Y REORGANIZACIÓN EPISTEMOLÓGICA A LA LUZ DE EDGAR MORIN

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e115
https://doi.org/10.66649/5v03mq77

PUBLISHED: 03/2026

ABSTRACT

The increasing presence of neurodivergent students in higher education reveals structural limitations in contemporary university models, which remain grounded in fragmented rationality and standardized assessment practices. This article provides an epistemological and normative analysis of student retention through the lens of Edgar Morin's Complex Thinking, articulated with Decrees No. 12,686/2025 and 12,773/2025, which establish and update Brazil's National Policy for Inclusive Special Education. It argues that neurodivergence inclusion cannot be reduced to isolated accommodations but requires a systemic reorganization of institutional culture, curriculum, assessment, and academic governance. Through a theoretical-analytical approach and critical dialogue with Boaventura de Sousa Santos, Michel Foucault, and Latin American epistemologies, the paper contends that retention is a relational phenomenon shaped by epistemological, political, and normative dimensions. Complexity emerges as a paradigmatic foundation capable of overcoming cognitive monoculture and fostering epistemic justice in contemporary higher education.

RESUMO

A ampliação da presença de estudantes neurodivergentes no ensino superior evidencia limites estruturais do modelo universitário contemporâneo, ainda fortemente ancorado em racionalidade fragmentária e padronizações avaliativas homogêneas. Este artigo propõe uma análise epistemológica e normativa da permanência estudantil sob a perspectiva do Pensamento Complexo de Edgar Morin, articulando-o aos Decretos nº 12.686/2025 e nº 12.773/2025, que instituem e atualizam a Política Nacional de Educação Especial Inclusiva. Sustenta-se que a inclusão da neurodivergência não pode ser tratada como adaptação pontual, mas exige reorganização sistêmica da cultura institucional, do currículo, da avaliação e da governança acadêmica. A partir de abordagem teórico-analítica e diálogo crítico com Boaventura de Sousa Santos, Michel Foucault e epistemologias latino-americanas, argumenta-se que a permanência constitui fenômeno relacional, atravessado por dimensões epistemológicas, políticas e normativas. Conclui-se que a complexidade oferece base paradigmática para superar a monocultura cognitiva e promover justiça epistemológica através de um framework institucional integrado.

PALAVRAS-CHAVE: Neurodivergência. Ensino superior. Complexidade. Permanência estudantil. Epistemologia crítica. Inclusão.

KEYWORDS: *Neurodiversity. Higher education. Complexity. Student retention. Critical epistemology. Inclusion.*

RESUMEN

El aumento de estudiantes neurodivergentes en la educación superior revela límites estructurales del modelo universitario contemporáneo, aún marcado por racionalidades fragmentadas y evaluaciones estandarizadas. Este artículo propone un análisis epistemológico y normativo de la permanencia estudiantil desde el Pensamiento Complejo de Edgar Morin, articulado con los Decretos nº 12.686/2025 y nº 12.773/2025, que instituyen y actualizan la Política Nacional de Educación Especial Inclusiva en

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Brasil. Se sostiene que la inclusión de la neurodivergencia no puede reducirse a adaptaciones puntuales, sino que exige una reorganización sistémica de la cultura institucional, el currículo, la evaluación y la gobernanza académica. Mediante el diálogo crítico con Boaventura de Sousa Santos, Michel Foucault y epistemologías latinoamericanas, se argumenta que la permanencia es un fenómeno relacional atravesado por dimensiones epistemológicas, políticas y normativas. La complejidad se presenta como base paradigmática capaz de superar la monocultura cognitiva y promover justicia epistemológica en la educación superior contemporánea.

PALABRAS CLAVE: *Neurodivergencia. Educación superior. Complejidad. Permanencia estudiantil. Epistemología crítica. Inclusión.*

1 - INTRODUCTION

Contemporary universities, while celebrating broader access to and the democratization of higher education, face a structural challenge that extends beyond the quantitative expansion of enrollment. The growing presence of neurodivergent students—individuals whose modes of cognitive processing do not conform to dominant standards of linearity, predictability, and homogeneity—reveals profound epistemological fissures in the modern university model. This is not merely a pedagogical or administrative issue; it represents a paradigmatic challenge to the very foundations upon which the concept of academic excellence has been constructed.

Historically, the university developed under the influence of an analytical, fragmented, and disciplinary rationality. Knowledge was organized through forms of compartmentalization that separated the individual from context, cognition from emotion, and assessment from historical experience. Within this framework, cognitive difference was frequently viewed through the lens of abnormality, requiring compensatory adjustments without prompting any critical examination of the institutional design itself.

However, as Edgar Morin (2000, p. 36) warns, “pertinent knowledge must confront complexity.” This statement shifts the debate from the level of technical accommodation to the epistemological domain. The retention of neurodivergent students emerges from a web of interactions involving academic culture, assessment mechanisms, public policies, and conceptions of knowledge. Morin (2005, p. 14) defines complexity as “a fabric of events, actions, interactions, and feedback processes.” By employing the metaphor of fabric, he suggests that student dropout cannot be interpreted exclusively as an individual failure; rather, it results from the interaction between diverse individuals and systems governed by rigid normative standards.

Moreover, Decrees No. 12,686/2025 and No. 12,773/2025, which established and updated the Brazilian National Policy on Inclusive Special Education, indicate that inclusion should be understood as a process of systemic reorganization. Nevertheless, as Morin (2003, p. 23) observes, “the reform of education depends on the reform of thought.” When institutional culture remains anchored in a simplifying paradigm, public policy risks being reduced to a bureaucratic formality.

Against this background, this article seeks to integrate Morin’s theory of complexity with Boaventura de Sousa Santos’s critique of the “monoculture of knowledge” and Michel Foucault’s analysis of mechanisms of normalization.

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Its central objective is to propose an institutional framework—understood not as a rigid protocol, but as an interpretive matrix—capable of integrating public policy, epistemic justice, and academic practice. The following sections expand this analysis in order to develop a proposal consistent with the contemporary challenges of student retention.

2 - COMPLEXITY, MODERNITY, AND LATIN AMERICAN EPISTEMOLOGICAL CRITIQUE

The presence of neurodivergence in higher education does more than expose pedagogical shortcomings; it reveals the persistence of a modern rationality grounded in the fragmentation and hierarchization of knowledge. As a central institution of the Western modern project, the university was consolidated upon rigid distinctions between subject and object, reason and sensitivity, and normality and deviation. Edgar Morin identifies this movement as the "paradigm of simplification," which establishes disjunction and reduction as its guiding principles.

Although the analysis of isolated components has enabled undeniable scientific advances, it has also produced what Morin describes as "cognitive mutilations." In academic practice, this is reflected in segmented curricula and standardized assessments that disregard the fact that all knowledge simultaneously involves translation and reconstruction. From this perspective, cognitive diversity ceases to be regarded as an anomaly and instead becomes an expression of the multiplicity of reality itself.

At this point, Latin American critical epistemology offers an essential counterpoint. Aníbal Quijano (2005) discusses the "coloniality of knowledge" to explain how certain forms of rationality have been legitimized while others have been silenced. When this logic is applied to everyday university life, a form of cognitive coloniality becomes evident: modes of learning and expression that diverge from the dominant standard are labeled as deficient. Such "deficiency," however, is a by-product of criteria constructed within a paradigm that fails to recognize difference as a source of potential.

Enrique Dussel (2012) argues that critique must emerge from "exteriority," that is, from the voices of those marginalized by the system. In higher education, the experience of neurodivergent students constitutes this critical exteriority, revealing the limitations of the prevailing model. Listening to these individuals does not imply abandoning rigor, but rather reconstructing it under the principles of epistemic justice. As Morin argues, reforming thought requires the integration of what has been excluded, transforming diversity into a structural element rather than treating it as a mere "problem" to be compensated for.

3 - THE BRAZILIAN NATIONAL POLICY ON INCLUSIVE SPECIAL EDUCATION: BETWEEN REGULATION AND PARADIGM

It is from this perspective that Decrees No. 12,686/2025 and No. 12,773/2025 acquire their full significance. They should not be understood merely as administrative guidelines, but as attempts to shift the paradigm of Brazilian educational policy by treating inclusion as both a cross-cutting and structural principle. Regulation alone, however, cannot transform culture by decree. A regulatory framework becomes effective only when it is internalized by the institution as a guiding principle.

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The network-based coordination established by the legislation directly corresponds to Morin's principle of interdependence. Inclusion cannot remain an appendage or the exclusive responsibility of an isolated accessibility office; it requires the integration of institutional management, faculty development, and assessment practices.

When the university remains a rigid and hierarchical structure, inclusive policy becomes fragmented and bureaucratized. By contrast, when the institution understands itself as an open and complex system, regulation can become a catalyst for innovation. Academic rigor is therefore not diminished; rather, it is expanded to recognize that excellence may be expressed through multiple cognitive pathways.

4 - DEVELOPING AN INSTITUTIONAL FRAMEWORK AS AN EXPRESSION OF COMPLEXITY

Moving from diagnosis to proposition requires avoiding the temptation of simplistic solutions. The purpose here is not to establish a closed operational protocol, but to develop a conceptual architecture capable of guiding decisions in environments characterized by uncertainty. In this context, the term *framework* refers to an interpretive matrix that organizes principles and guides practices while recognizing the interdependence among dimensions that university tradition has generally treated in isolation.

The first movement within this architecture involves shifting the discussion of inclusion from an exclusively pedagogical level to an epistemological one. Discussions are often restricted to teaching methods or assessment accommodations. Such measures, however, remain insufficient unless the conceptions of knowledge underlying the curriculum are also questioned. Morin argues that "knowledge of knowledge must become a principle of knowledge." If institutional assumptions remain grounded in a cognitive monoculture, accommodations will remain merely superficial.

From the perspective of complexity, academic excellence cannot therefore be defined solely by processing speed or standardized forms of written expression. It must also encompass conceptual depth, critical capacity, and creativity. This redefinition does not relativize rigor; on the contrary, it raises the level of rigor by requiring a more sophisticated form of qualitative assessment.

Systemic Reorganization Matrix for Student Retention

This matrix summarizes the proposed framework by integrating public policy with the reform of thought required to ensure effective student retention.

The assessment dimension constitutes the most sensitive core of this reorganization. Foucault demonstrated that the examination functions as an instrument of power and normalization. Therefore, if inclusion is intended to become structural, assessment is precisely where complexity must be incorporated consistently. This requires recognizing that different forms of expression may reveal the same level of conceptual depth. Applied projects and reflective portfolios, for example, may demonstrate mastery of content as rigorously as traditional examinations.

Institutional governance plays a decisive role in this process. It is not sufficient for individual faculty members to adopt inclusive practices in isolation; the institution must incorporate these principles

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into its core planning documents, including the Institutional Development Plan (*Plano de Desenvolvimento Institucional*—PDI). Inclusion must cease to be treated as a peripheral initiative and become a cross-cutting foundation of the twenty-first-century university.

Area of Action	Epistemological Foundation	Practical Action (Implementation)
Governance and Management	**Systemic Interdependence:** Inclusion as a responsibility shared across the institutional network rather than assigned to a single department.	Incorporation of neurodiversity indicators into the Institutional Development Plan (PDI) and establishment of cross-sector monitoring forums.
Curriculum Development	**Ecology of Knowledges:** Moving beyond cognitive monoculture toward greater plurality in educational pathways and forms of knowledge.	Greater flexibility in academic pathways and adoption of Universal Design for Learning (UDL) as a curricular foundation.
Assessment Practices	**Critique of Normalization:** Assessment as an instrument of recognition rather than exclusion.	Adoption of multimodal assessment methods, including projects, portfolios, and oral defenses, capable of evaluating conceptual depth beyond standardized written expression.
Faculty Development	**Reform of Thought:** Faculty members as mediators capable of addressing uncertainty in educational processes.	Continuing professional development programs focused on neurodiversity and critical epistemologies.

5 - BEYOND ACCOMMODATION: STUDENT RETENTION AS EPISTEMIC JUSTICE

A deeper analysis makes it clear that the retention of neurodivergent students is not merely a matter of institutional efficiency, but also one of epistemic justice. Boaventura de Sousa Santos proposes an “ecology of knowledges” as an alternative to cognitive monoculture, implying the recognition that different forms of knowledge may coexist without any single one holding a monopoly on legitimacy. When applied to higher education, this ecology does not entail naïve relativism, but rather a critical expansion of the criteria used to validate academic knowledge.

The complex university does not abandon science; instead, it recognizes science as a situated practice shaped by relations of power. Morin emphasizes that reality is simultaneously one and multiple. This premise encapsulates the central challenge of inclusion: integrating institutional unity with cognitive plurality. From this perspective, student retention reflects the institution’s ability to articulate these dimensions without resorting to simplifications that exclude the individual. The proposed framework therefore does more than reorganize procedures; it reshapes the institutional perspective, transforming the inclusion of neurodivergence into an opportunity for profound paradigmatic revision.

6 - CONCLUSION: COMPLEXITY AS AN ETHICAL AND POLITICAL HORIZON

The analysis presented in this study supports the conclusion that the inclusion of neurodivergence in higher education reveals a structural tension within the modern university paradigm. By exposing the limitations of pedagogical models grounded in homogeneity, the presence of

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neurodivergent students serves as a critical indicator of the shortcomings of simplifying thought. The articulation between Edgar Morin's Complex Thought and Decrees No. 12,686/2025 and No. 12,773/2025 makes it possible to understand student retention as a relational, systemic, and ethically oriented phenomenon.

However, regulation alone does not produce substantive transformation. Public policy creates the conditions for change, but its effectiveness depends on the "reform of thought," which Morin identifies as the primary condition for any educational reform. Universities will not achieve structural inclusion if they remain anchored in a monoculture that treats certain ways of learning as universal.

From the perspective of complexity, scientific rigor is not weakened, but rather combined with cognitive plurality. Academic standards remain in place, although they are applied in a contextualized manner that is attentive to the interactions shaping the educational process. The institutional framework developed in this article represents the practical expression of this reorganization. It recognizes that excellence and inclusion are not opposing terms, but dialogical dimensions of the same reality.

Ultimately, the inclusion of neurodivergence moves beyond a compensatory policy and becomes a project of cognitive justice. Embracing this challenge means recognizing that the twenty-first-century university must integrate diversity without relinquishing depth, reorganize criteria without dissolving standards, and, above all, accept uncertainty as a constitutive element of knowledge. By responding to this challenge through the lens of complexity, the university redefines itself as an epistemologically plural, ethically committed, and politically responsible space.

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