

The Listening Classroom: Professor and Cultural Change in Inclusion for Students on the Autism Spectrum

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Abstract

This article examines the role of university faculty as agents of institutional transformation in the inclusion of students on the autism spectrum in Chilean public higher education. Based on a case study from the Universidad Tecnológica Metropolitana (UTEM) in Santiago, the research explores how faculty training in neurodiversity and inclusive pedagogy shapes attitudes and promotes cultural change within the university. The study adopts a critical qualitative methodology informed by Theory of Change (ToC), which was used to model the causal mechanisms linking staff training in neurodiversity, inclusive practices, and institutional change. Data were collected via focus groups and personal academic narratives from both staff and students, exploring the tensions between institutional inclusion discourses and lived pedagogical practices. Findings suggest that genuinely inclusive teaching occurs when difference is acknowledged and normalized, rather than treated as an exceptional or deficit-based condition requiring management or special assistance. Training initiatives were found to improve communication, flexibility, and empathy, although structural barriers persist due to managerial cultures and the precarization of academic work. The study concludes that the inclusion of students on the autism spectrum requires more than mere institutional policy: It requires learning environments capable of acknowledging, understanding, and reframing differences as a transformative force toward genuinely inclusive higher education.

Keywords

autism spectrum; higher education; inclusive pedagogy; institutional transformation; neurodiversity

1. Introduction

The recognition of neurodiversity in higher education represents a paradigmatic shift that challenges long-standing assumptions of homogeneity, cognitive normality, and standardized learning that have historically shaped the modern university. Since the concept was first articulated by Singer (1999), neurodiversity has been understood as a legitimate expression of human variability, displacing clinical and deficit-based approaches in favor of social, cultural, and ethical frameworks that recognize difference as a constitutive value of the human experience (Armstrong, 2018; Belluigi & Thondhlana, 2019; Botha, 2022; Chapman, 2021). Within this perspective, inclusion is no longer conceived merely as access or individual accommodation, but as a process of cultural transformation that reconfigures pedagogical practices, educational relationships, and institutional structures in higher education.

In the university context, this challenge acquires particular complexity. Despite advances in access policies and institutional support, research consistently shows that students on the autism spectrum continue to face pedagogical, relational, and symbolic barriers that affect their well-being, persistence, and sense of belonging (Anderson et al., 2021; Gurbuz et al., 2019; Kenny et al., 2015; Lim et al., 2023). These barriers are not explained solely by a lack of resources or accommodations, but rather by academic cultures that privilege speed, oral participation, individual autonomy, and standardized performance, limiting the recognition of diverse ways of learning, communicating, and participating in university classrooms.

Although research on autism and education has expanded significantly, much of the existing literature has focused on childhood and compulsory schooling, leaving the experiences of adolescents and students in higher education relatively underexplored, particularly in Latin American contexts. Likewise, faculty training in inclusion and universal design for learning (UDL) has been widely identified as a key factor in promoting inclusive practices (Castillo Armijo, 2021; Florian & Spratt, 2013; Forlin, 2010), yet it has often been approached from instrumental perspectives that emphasize technical skills rather than the subjective, ethical, and relational processes through which faculty engage with neurodiversity in their everyday teaching practice.

Within this landscape, it becomes essential to examine how university faculty experience and re-signify inclusion when engaging with the neurodiversity paradigm—not merely as an institutional requirement, but as a process of pedagogical and cultural transformation. Recent studies highlight that educators become institutional change agents when they participate in sustained, reflexive, and situated professional development processes that challenge their beliefs, attitudes, and understandings of teaching (Andrews et al., 2017; Macdonald et al., 2019). In contexts of neurodiversity, this process is often driven by an explicit desire for transformation: a desire to better understand students, to teach differently, and to build pedagogical relationships grounded in listening, empathy, and recognition of difference.

The present study is situated at the Metropolitan Technological University (UTEM), a public university in Chile that, in recent years, has promoted initiatives aimed at recognizing neurodivergence within its student community, fostering faculty development, student support, and research in inclusion and neurodiversity. Adopting a qualitative and interpretive approach, and using the Theory of Change (ToC) as an analytical framework (Angulo Cázares, 2023; Reinholz & Andrews, 2020; Retolaza Eguren, 2009), this article analyzes the role of faculty as institutional change agents in the inclusion of students on the autism spectrum.

It explores how pedagogical practices and ethical dispositions contribute to the construction of classrooms that listen to other minds, arguing that inclusion is strengthened when teaching becomes an act of active listening and re-signification of difference as a structural value of learning and university life. The article is structured as follows: First, the methodology is presented; second, the results are reported, focusing on processes of faculty transformation and student perceptions; third, the findings are discussed in relation to existing literature and the ToC framework; and finally, conclusions and recommendations are offered for institutional policy, faculty development, and future research.

2. Theoretical Framework and Literature Review

2.1. Epistemological Shifts in Higher Education: Neurodiversity as a Catalyst for Inclusion

The term neurodiversity emerged in the late 1990s as a sociopolitical category proposed by Singer (1999), which challenged pathologizing notions of neurological development. Since then, several authors (Armstrong, 2018; Botha, 2022; Chapman, 2021; Kapp, 2020) have advanced a critical framework that understands neurocognitive diversity as a natural manifestation of human variability.

In contrast to medical or compensatory models, the neurodiversity paradigm is grounded in three fundamental principles:

1. The recognition of neurological variation as part of human biodiversity.
2. A critique of systems that impose a standard of cognitive normality.
3. The affirmation of universal accessibility and full participation as human rights.

This perspective offers an epistemological shift that impacts educational spheres by reinterpreting neurodevelopmental conditions through the recognition of neurodiversity as a natural expression of the human species and its cognitive variability (Kapp, 2020). Consequently, inclusive education has evolved from approaches focused on the integration of individuals with disabilities toward a structural understanding of diversity as both a value and a right. As Florian and Spratt (2013) argue, inclusive pedagogy is grounded in “planning for everyone,” transcending the logic of individualized accommodations. According to these authors, the model of inclusive pedagogy should emphasize planning for diversity from the outset of teaching, rather than implementing *ex post* adaptations. In this sense, an inclusive classroom is one that recognizes that all students learn differently; therefore, pedagogical design must originate from that inherent plurality. The valorization of neurodiversity recognizes cognitive differences—such as autism—not as deficits, but as legitimate variations of the human experience, demanding the development of flexible and non-medicalized pedagogical practices (Andrews et al., 2017).

This new orientation in inclusion challenges homogenizing educational models while simultaneously paving the way for flexible, ethical, and culturally sensitive teaching practices (Núñez et al., 2025). According to Anderson et al. (2021), the paradigm of inclusive education has evolved from the integration of specific groups toward the structural transformation of educational systems. Through the Index for Inclusion, they argue that truly inclusive education is grounded in the ongoing revision of institutional cultures, policies, and practices, fostering communities that learn to recognize difference as a value. From this perspective, inclusion is not limited to the removal of physical or curricular barriers but involves the creation of spaces of

belonging and participation for all learners. Neurodiversity thus calls universities to move beyond compensatory policies toward deep cultural change, where difference is understood as a source of innovation and cognitive justice (Gonzales Otárola et al., 2023).

2.2. Global and National Context for Inclusion and Students on the Autism Spectrum

At the university level, within a global context, tensions are particularly evident. Traditional academic structures tend to value autonomy, oral participation, and speed of response as markers of performance parameters that can exclude students with divergent learning styles (Gonzales Otárola et al., 2023). Some research (Anderson et al., 2021; Gurbuz et al., 2019) warns that university environments are rarely prepared to accommodate neurocognitive diversity, leading to experiences of isolation, anxiety, and academic withdrawal. These challenges arise not only from a lack of pedagogical adjustments but also from persistent institutional cultures and a limited understanding of Students on the autism spectrum as a relational rather than purely clinical phenomenon (Kenny et al., 2015).

Regarding the prevalence of this condition, the World Health Organization (2022) estimates that approximately one in every hundred people worldwide is on the autism spectrum—a figure that continues to rise alongside improvements in diagnostic processes and social awareness. In the Chilean case, although official statistics on university students remain scarce, the National Disability Service (SENADIS, 2022) reports that 13.5% of people with recognized disabilities present a psychological or mental condition, a category that encompasses autism. This demographic reality reveals a structural gap in universities' institutional responses, which often rely on fragmented inclusion policies (Ferrer-Mavárez et al., 2025).

In response to these gaps, the enactment of Chile's Autism Law No. 21.545 (Government of Chile, 2023) marked a significant step toward strengthening the legal framework for inclusion. This law mandates compulsory training for educational personnel at all levels, promotes UDL, and seeks to eliminate attitudinal and communicational barriers. As Castillo Armijo (2021) note, the law provides more than just a legal framework; it encourages a cultural shift by compelling institutions to recognize and value neurodiversity. However, the existence of such a mandate does not guarantee immediate transformation; as Leiva et al. (2023) emphasize, it is crucial to understand how faculty members interpret, internalize, and transform their own practices in response to this new legal and ethical landscape.

Despite this progress, the implementation of these mandates in higher education remains uneven, as progress largely depends on faculty agency and institutional commitment.

Recent studies indicate that while training programs are necessary, they are often fragmented and compliance-driven, yielding limited impact on deep-seated beliefs or pedagogical practices (Castillo Armijo, 2021). Similarly, international evidence shows that teacher education in inclusion achieves lasting effects only when it integrates reflective and attitudinal components capable of questioning traditional assumptions about learning and difference (Lim et al., 2023; Skutil & Kratochvílová, 2023). Consequently, the university classroom must be understood as a political and relational space where teaching practices may either reproduce or challenge conditions of exclusion. As Courtois and O'Keefe (2015) point out, managerialism and academic precarity often limit faculty agency, shifting attention from pedagogy to productivity. In response, Belluigi and Thondhlana (2019) propose a critical reading of inclusion as an emancipatory

practice, where difference is not merely “tolerated” but actively listened to and re-signified as a source of learning and cognitive justice.

2.3. ToC: A Framework for Institutional and Pedagogical Transformation

The ToC has emerged as a pivotal tool for understanding and managing complex social and organizational transformations. Beyond its utility as an evaluation instrument, ToC functions as a robust conceptual framework that visualizes causal relationships among actions, intermediate outcomes, and long-term sustainable changes, while explicitly articulating the assumptions underlying each link in the chain (Mayne, 2015; Retolaza Eguren, 2009; P. Rogers, 2014). Its core strength lies in recognizing the non-linear nature of change and the imperative to incorporate stakeholder voices when defining pathways for transformation (Aguirre-Villalobos et al., 2023, 2025).

In contemporary literature, ToC has been widely adopted across health and community development sectors to map processes of cultural and structural shift. For instance, Cassetti and Paredes-Carbonell (2020) highlight its efficacy in participatory planning, while Núñez et al. (2025) demonstrate its value in identifying success factors within national health programs. Similarly, Jones et al. (2025) document how ToC facilitated the co-creation of healthcare systems in rural Australian communities by integrating local knowledge with scientific evidence. These cases underscore that profound transformations depend not only on policy or resources but also on organizational learning and the collective reflection of those driving the change.

Within the educational sphere, ToC is increasingly recognized for its capacity to plan and evaluate curricular innovations and institutional change (Angulo Cázares, 2023; Reinholz & Andrews, 2020; Worden & Bray, 2025). As López Herrera and Cos Garduño (2025) emphasize, this approach helps navigate uncertainty and coordinate efforts among diverse actors, fostering collaborative and sustainable learning environments. This is particularly relevant for higher education institutions—complex systems exposed to multiple internal and external tensions—which require methodologies that frame change as a dynamic, adaptive, and reflective process (Montenegro & Schroeder, 2019).

ToC distinguishes between first-order changes—technical or procedural adjustments—and second-order changes, which involve profound paradigm shifts in beliefs and values (López-Larios et al., 2022; Manrique Molina, 2024). This distinction is vital in educational settings, where authentic inclusion requires revisiting the fundamental assumptions that guide teaching and learning. As Manrique Molina (2024) notes, ToC not only enhances management but also strengthens the institutional capacity for reflection needed to address future challenges.

When applied to the university context, ToC provides a pathway to understand how faculty training in inclusion generates sustainable cultural transformations. From this perspective, educators are positioned as central agents of change, responsible for activating the sequences of action that lead to inclusive outcomes. Their role extends beyond the mere implementation of institutional programs; it involves interpreting, adapting, and co-creating transformative practices through a continuous process of re-signification. This paradigm invites faculty to systematically reflect on their pedagogical practices, generate evidence, and transform their teaching through a deeper understanding of their students’ diverse needs (Fanghanel, 2013).

2.4. Faculty Agency as a Catalyst for Institutional Transformation

Within the logic of the ToC, faculty occupy a strategic position as the primary mechanisms of institutional transformation. As Ferrare (2019) argues, meaningful change in higher education depends on the dynamic interaction between teachers' internal beliefs and the external practices they enact in the classroom. This perspective recognizes that educators are not mere curriculum implementers but reflective actors who mediate between top-down institutional policies and the bottom-up lived experiences of students.

The impact of faculty on university inclusion lies fundamentally in their capacity for agency. According to Macdonald et al. (2019), faculty members act as “accelerators of change” when they influence peers, share pedagogical innovations, and sustain communities of practice that amplify institutional transformation. Similarly, Skutil and Kratochvílová (2023) identify teacher attitude as a decisive factor in constructing inclusive environments, as faculty expectations and dispositions directly shape the educational trajectory of neurodivergent students.

From this standpoint, effective inclusion extends beyond physical or administrative access—it demands active participation, persistence, and meaningful learning (Tulcanaza-Mantilla et al., 2025). In this process, faculty members perform a triple role: They serve as pedagogical mediators, guarantors of rights, and social change agents (Duta-Toapanta et al., 2025). As Florian and Black-Hawkins (2011) argue, inclusive educators are characterized by their ability to critically reflect on their practice, adapt curricula from a universal perspective, and promote the participation of all learners. These inclusive teaching practices function as “foundational educational bonds” that reduce learning barriers and foster equity within the classroom (Torres, 2021).

Ultimately, institutional transformation depends on the complex interplay of beliefs, emotions, and reflective practices within the teaching body. Pilgrim et al. (2020) contend that lasting educational change requires a fundamental modification of the belief systems that sustain daily practice. Furthermore, the diffusion of pedagogical innovations among peers creates a multiplier effect, facilitating the broader adoption of inclusive strategies across the institution (Andrews et al., 2017). This positions ongoing professional development not merely as a technical requirement, but as an essential driver of organizational change, particularly in contexts where institutional policies remain incipient or fragmented.

2.5. Faculty Training in UDL: From Technical Compliance to Transformative Pedagogical Agency

Faculty training for inclusion has emerged as a central strategy for advancing educational equity, yet its effectiveness depends heavily on the underlying pedagogical approach. When training is conceived through a technical or compliance-oriented lens, its impact tends to be superficial and short-lived. In contrast, programs that integrate critical reflection, interdisciplinary collaboration, and situated experience are more likely to produce lasting institutional transformations (Castillo Armijo, 2021; Forlin, 2010).

In this regard, inclusive training should not be viewed as a static product but as an ongoing process of professional learning and critical self-examination. According to Founes-Méndez et al. (2023), developing inclusive teaching competencies requires a dual focus: Technical knowledge combined with ethical sensitivity, empathy, and a willingness toward self-critique. Within the framework of the ToC, these

competencies operate as essential inputs that activate the causal chain of results, translating professional development into observable shifts in pedagogical practice.

As Torres (2021) emphasizes, these transformations manifest through didactic innovation and the strategic adaptation of methods, resources, and assessments designed to reduce learning barriers. This approach aligns seamlessly with UDL, defined as a pedagogical framework that ensures equal opportunities by creating flexible learning environments and products that can be used by everyone without the need for specialized adaptations (Díez Villoria & Sánchez Fuentes, 2015). This model seeks to preemptively remove obstacles by anticipating diverse ways in which students perceive, process, and express knowledge (CAST, 2018).

Furthermore, specialized training in UDL redefines the faculty role from a mere transmitter of content to a mediator of diverse learning experiences, fostering a transition from an “integrative” model to a truly inclusive one. By equipping educators with digital and pedagogical competencies, UDL training minimizes the need for individualized curricular adaptations, addressing “systemic barriers” within the environment rather than viewing them as student deficits (Parody et al., 2022). Ultimately, this model promotes educational justice by ensuring equal opportunities for access and participation, where the teacher acknowledges the student’s potential from a principle of equality (Gamboa Sandoval, 2024). Consequently, faculty development becomes the catalyst for a broader “chain of change” that impacts not only the individual classroom but also the overarching institutional culture, moving from mere accommodation toward a standard of universal accessibility.

3. Methodology Design

3.1. *Research Design, Phases of the Study, and Description of Instruments*

The study adopts a qualitative, inductive, and exploratory approach grounded in the interpretive tradition, particularly within the phenomenological–hermeneutic framework. This methodological positioning enables an in-depth understanding of how educational actors construct meaning through their experiences, practices, and reflections on inclusion and neurodiversity in the university context.

From this perspective, the study seeks to interpret the meanings, tensions, and contradictions that emerge between institutional discourses on inclusion and the situated realities of pedagogical practice, recognizing faculty members as key agents of cultural and institutional transformation within the university. Accordingly, the research does not focus solely on identifying technical or methodological changes in teaching practices, but rather on understanding the subjective and relational transformation processes experienced by both faculty and students. These processes include shifts in conceptions of neurodiversity, pedagogical attitudes, empathy, listening practices, and the ethical dispositions that sustain inclusive teaching.

In terms of design, the study was developed as a qualitative inquiry based on faculty focus groups, student focus groups, and academic life narratives. The methodological process was organized into three phases: (a) design and preparation of instruments, (b) data collection, and (c) analysis and interpretive integration. Data collection was conducted between August and September 2025 through remote focus groups and written narrative submissions.

3.1.1. Description of Instruments and Tools

Data collection relied on a set of qualitative instruments. First, semi-structured focus group guides were used with both faculty and students. These guides were developed based on the objectives of the study and the ToC framework and were designed to explore conceptions of neurodiversity, pedagogical attitudes, teaching practices, institutional conditions, and relational experiences within the classroom.

In addition, an accessibility and remote participation protocol was implemented to ensure inclusive communicational conditions. This protocol included the use of clear language, scheduled breaks, optional camera use, and the possibility of participating either orally or via chat, thereby fostering an emotionally safe environment, particularly for students on the autism spectrum.

A narrative format for academic life stories was also employed to guide faculty members in producing written accounts of meaningful experiences supporting neurodivergent students. This format encouraged reflection on lived situations, pedagogical decisions, ethical dilemmas, institutional supports, and emergent learning.

All sessions and narratives were audio-recorded and fully transcribed, forming the qualitative corpus of the study. For data organization, coding, and analysis, the software Atlas.ti 23 was used, enabling systematic management of the corpus, construction of analytical matrices, and traceability of the interpretive process.

All sessions were conducted remotely, ensuring informed consent and adherence to ethical principles of confidentiality and voluntariness. Faculty participants had attended, during the eighteen months preceding the study, professional development initiatives related to UDL, neurodiversity, and the inclusion of students on the autism spectrum. Participants were selected through purposive criterion sampling, considering disciplinary diversity, gender, and representation across campuses.

From an analytical standpoint, the study employed an inductive and exploratory strategy, using the ToC as both a methodological and analytical framework. The ToC enables the explicit modeling of causal relationships among actions, assumptions, contextual conditions, and expected outcomes, facilitating an understanding of how and why change processes unfold in complex educational contexts (Reinholz & Andrews, 2020; Retolaza Eguren, 2009). In this study, the ToC framework allowed for the articulation of faculty training processes, subjective and relational mechanisms of change, and the observed effects on pedagogical practices and institutional culture.

3.2. Data Collection and Analysis

Three complementary data collection techniques were employed, allowing for the triangulation of perspectives and a comprehensive understanding of the phenomenon, integrating both faculty and student voices: (a) faculty focus groups, (b) student focus groups, (c) academic life narratives, and (d) data analysis.

3.2.1. Faculty Focus Groups

Three virtual focus group sessions were conducted with university faculty members ($n = 6$ to 8 participants per group), each lasting approximately 60 minutes. The objective was to explore the effects of neurodiversity training on faculty members' conceptions, attitudes, emotional dispositions, and pedagogical practices.

The discussion guide addressed the following dimensions: (a) prior conceptions of neurodiversity and perceived teaching self-efficacy; (b) significant experiences during the Unidad de Mejoramiento Docente (UMD) training process; (c) changes in beliefs, attitudes, and pedagogical practices following the training; (d) concrete examples of pedagogical adjustments implemented in the classroom; (e) institutional barriers and facilitators affecting the sustainability of change; and (f) recommendations for strengthening future faculty development programs.

3.2.2. Student Focus Groups

Two remote focus group sessions were conducted with students ($n = 6$ students per session), each lasting between 75 and 90 minutes. Each group included both autistic and neurotypical students. Communicational accessibility was ensured through the use of clear language, voluntary pauses, optional camera use, and open participation via chat.

The discussion guide was structured around five thematic axes: (a) experiences in courses taught by faculty trained in neurodiversity; (b) accessibility and assessment practices, considering clarity, timing, and formats; (c) classroom climate and participation, with emphasis on sensory regulation and respect for diversity; (d) perceived impact on learning processes and emotional well-being; and (e) recommendations for future training initiatives and inclusive teaching practices.

3.2.3. Academic Life Narratives

Four academic life narratives were collected from faculty members, focusing on meaningful experiences supporting neurodivergent students. These narratives enabled a deeper exploration of the subjective, ethical, and reflective dimensions of change, revealing processes of identity reconfiguration, cultural resistance, and emergent learning associated with inclusive teaching practices.

3.2.4. Data Analysis

Data analysis followed a systematic process of open, axial, and selective coding, guided by the ToC framework. A hybrid coding strategy was employed: deductive, based on the core components of the ToC framework, and inductive, allowing categories to emerge from participants' discourse.

The resulting categories were organized to represent inputs (training and content), mechanisms of change (conceptual understanding, belief modification, and the development of pedagogical empathy), proximal outcomes (pedagogical adjustments, accessibility practices, and classroom climate), contextual conditions (time, resources, and institutional support), and perceived impacts (inclusive culture and sustainability). These categories were articulated into chains of change, enabling interpretation of the transformation processes described in the results, from individual and relational modifications to second-order cultural effects at the institutional level.

The software Atlas.ti 23 was used to organize the corpus, manage codes, and construct analytical matrices integrating faculty and student perspectives. Triangulation across techniques and data sources strengthened the study's internal validity and supported a holistic interpretation of the observed processes. As shown in Table 1, the distribution of participants varied slightly by data collection technique and gender.

Table 1. Approximate percentage distribution of participants by data collection technique and gender.

Data collection technique	% Women	% Men
Faculty focus groups	~65–70%	~30–35%
Student focus groups	~60–65%	~35–40%
Faculty narratives	~75%	~25%

Notes: Percentages are presented as approximate figures, given the qualitative and interpretive nature of the study; the table is descriptive and intended to provide methodological transparency, not to support statistical comparisons by gender; faculty narratives correspond to individual accounts and are analyzed as a complementary technique to focus groups.

3.3. The Case Study

The Chilean higher education system is defined by a structural tension between its role as a vehicle for social mobility and a market-oriented logic characterized by intense competition for enrollment and public funding (Mella & Moya, 2024). While policies based on credit have significantly expanded enrollment over the last two decades, this expansion has not necessarily translated into a reduction of inequality. Instead, the system often reformulates segregation, where access remains highly stratified by social origin and institutional prestige (Valenzuela & Kuzmanic, 2023). In this context, the university is perceived as a primary mechanism for social advancement. Nevertheless, students from the lower deciles who often constitute the first generation in their families to access higher education frequently encounter systemic barriers that undermine their persistence and academic success.

Within this setting, Chilean public universities are called upon to address national priorities by broadening coverage and ensuring equity. Unlike elite private institutions that operate under a logic of exclusivity, public entities such as the UTEM assume a state-mandated responsibility for social inclusion. However, these processes unfold amid academic precarity and managerial pressures that constrain faculty agency (Courtois & O’Keefe, 2015; Deem et al., 2007). Nevertheless, as Leiva et al. (2023) argue, collaborative networks and political pedagogical commitment can counter these limitations, generating spaces of resistance and creative engagement within rigid institutional structures.

As a state institution, the identity of UTEM is intrinsically linked to the democratization of knowledge and the promotion of social justice. According to its updated educational model of 2023 (Universidad Tecnológica Metropolitana [UTEM], 2023), the university defines its mission through a vocation of service, prioritizing students from vulnerable social and economic backgrounds. The model moves beyond a traditional focus on academic performance to embrace an approach centered on the student that values diverse educational trajectories. In recent years, this commitment has expanded to the broadest level of inclusion, implementing an active equity and inclusion policy since 2018. This situation made the UTEM context a suitable case study for exploring the impact of the neurodiversity training programs aimed at supporting students on the autism spectrum. The selection of UTEM as a case study is justified by its empirical relevance and its potential to provide transferable insights to other Latin American public universities undergoing similar processes of institutionalizing educational inclusion. This case represents a strategic entry point from which to observe how public institutions, under-resourced and facing market pressures, can leverage faculty development to foster second-order cultural changes. According to Castillo Armijo (2021), this type of design facilitates a comprehensive examination of contextual dynamics, valuing the uniqueness of the case as a source of transferable knowledge.

The neurodiversity training program Universal Design for Learning (UDL): Reasonable Adjustments in the University Context, developed by the UMD, was designed to bridge the gap between institutional policy and the lived classroom experience of neurodivergent students. Within the framework of the ToC, this faculty training is conceived as a key strategic intervention to promote more inclusive pedagogical practices. It aims to equip faculty with practical strategies that allow them to address student diversity and rethink traditional teaching models.

The UDL course was structured into a series of modules oriented toward introducing and deepening the core principles of UDL: representation, action and expression, and engagement. The objective was to ensure that course planning and classroom practices were accessible and effective for all students, including those on the autism spectrum. The focus of the training was not limited to a single educational event; instead, it was articulated as a sequence of activities that foster equitable access to learning, the diversification of teaching strategies, and the enhancement of student commitment and performance. Following the training, faculty were encouraged to integrate UDL principles into their course planning, anticipating student variability and reducing structural barriers within their teaching environments. From the perspective of the ToC, this formative process acts as a mechanism that triggers first-order changes in pedagogical practices and second-order changes in beliefs and values. Ultimately, this contributes to the construction of inclusive classrooms and the resignification of difference as a structural value in higher education (UTEM, 2023).

3.4. Participant Recruitment

Participant recruitment was carried out through a progressive and structured process designed to safeguard ethical principles, voluntariness, and accessibility. Differentiated procedures were established for students and university faculty.

Student recruitment was conducted in three stages. First, institutional information was used regarding students who had declared a diagnosis on the autism spectrum at the time of university admission or during their academic trajectory. This information was provided by the Inclusion and Student Support Unit of the Office of Academic Affairs at the UTEM, in accordance with existing confidentiality protocols. In a second stage, academic program directors from different schools were contacted to disseminate the invitation to participate via institutional email. The message explained the objectives of the study, its academic relevance, and the voluntary nature of participation, and included a direct contact link to the project lead. Finally, students who expressed interest participated on a voluntary basis and formalized their involvement by signing an informed consent form.

Faculty recruitment was linked to prior institutional processes of training in inclusion and neurodiversity. Within the framework of an institutional diagnosis regarding the presence of neurodivergence in the student community, UTEM implemented faculty development programs oriented toward UDL, which were disseminated through official institutional channels.

Approximately eighteen months later, faculty members who had participated in these initiatives were invited on a voluntary basis to take part in focus groups, with the purpose of reflecting on their training experiences and the perceived changes in their pedagogical practices. This recruitment process was carried out with the support of the Faculty Development Unit. Participation was formalized through informed consent, ensuring confidentiality and the academic use of the information collected.

3.5. Ethical Protocol

The study was conducted in accordance with recognized ethical principles for qualitative research in education and received approval from the Ethics Committee of the UTEM, which reviewed and authorized all data collection instruments, interview procedures, and accessibility protocols. All participants were informed about the objectives of the study, the voluntary nature of their participation, and their right to withdraw at any time without academic or institutional consequences. Participation was formalized through the signing of an informed consent form.

Strict confidentiality and anonymity were ensured throughout the research process, using alphanumeric codes in transcripts and in the presentation of findings. Given the participation of students on the autism spectrum, specific measures were adopted to prevent forced disclosure of diagnostic status and to ensure accessible and emotionally safe conditions for participation, including the use of clear language, scheduled breaks, flexible participation formats, and optional camera use. The facilitation of focus groups prioritized an ethical stance grounded in listening, respect, and care, consistent with the understanding of inclusion as a relational practice.

4. Results: Faculty Change as a Process of Understanding

Overall, the findings show that faculty change does not occur as the immediate application of new strategies, but rather as a progressive process of understanding that involves conceptual, emotional, and relational dimensions. From students' perspectives, these changes translate into everyday experiences characterized by greater attention, improved communication, and a pedagogical relationship perceived as more respectful and supportive. Neurotypical students reported increased empathy toward their peers on the autism spectrum, while students on the autism spectrum emphasized feeling more listened to, understood, and emotionally safe during the learning process. These perceptions provide the context from which the transformation processes described below unfold.

4.1. Redefining Neurodiversity

One of the first changes identified concerns a redefinition of how neurodiversity is understood by faculty. Prior to participating in training initiatives, several faculty members acknowledged that their understanding of the topic was limited and predominantly clinical. As one participant explained: "Before the training sessions, it was a completely unknown area for me...we used to talk about dyslexia or hyperactivity, and that was the extent of our knowledge" (Faculty D1, FG1).

Another faculty member noted that their conceptual framework relied on categories learned years earlier: "I stuck with what I learned years ago: dyslexia, hyperkinesia, cognitive difficulties. I had no idea there were terms like neurotypical or neurodivergent" (Faculty D2, FG1).

From students' perspectives, this conceptual shift was experienced through pedagogical practices that felt more respectful and less intrusive. One student on the autism spectrum (22 years old) described feeling supported without being overexposed: "The professor knew how to guide me through a path I could follow, without overstepping" (FG1). These accounts reflect a move away from deficit-oriented frameworks toward an understanding of cognitive diversity as a legitimate expression of human variability. From a ToC

perspective, this conceptual transformation constitutes an initial mechanism that enables subsequent changes in faculty attitudes and teaching practices.

4.2. Attitudes and Pedagogical Confidence Toward Students on the Autism Spectrum

As conceptual understanding expanded, faculty members also became more aware of the emotional dimensions involved in working with students on the autism spectrum. Several participants described feelings of uncertainty and vulnerability when facing situations for which they lacked clear tools or sufficient institutional support. As one faculty member stated: “You act on intuition. I try to offer a calmer space or give more time, but I feel vulnerable—not knowing whether the student’s blockage is cognitive or emotional” (Faculty D3, FG1).

Paradoxically, this acknowledgment of vulnerability emerged as a turning point that prompted the search for adaptive strategies and gradually strengthened pedagogical self-efficacy (Botha, 2022). From students’ perspectives, these efforts were recognized and valued, although not without tension. One student on the autism spectrum (20 years old) described feeling infantilized in some interactions: “Sometimes I feel like they treat me as if I were a child....I’m not sure if it’s me or the professors, but that’s how it feels” (FG1). Another student (21 years old) explained their decision not to disclose their diagnosis: “I’ve preferred not to make my diagnosis public because sometimes you get segregated or looked at differently” (FG1). These testimonies suggest that inclusion depends both on faculty members’ ethical and relational dispositions and on institutional conditions that sustain—or constrain—pedagogical change. From a ToC perspective, these dynamics correspond primarily to first-order transformations.

4.3. The Learning of Pedagogical Empathy

Beyond technical adjustments, both faculty and students described a profound shift in the pedagogical relationship, characterized by the development of greater empathy. Several faculty members reported changing how they interpreted student behaviors. As one participant explained: “I no longer see students as lazy but as unmotivated or overwhelmed. If they are in class, it’s because they want to learn” (Faculty D4, FG2). Another faculty member described a similar process: “Understanding the phenomenon helped me become more patient and go with the flow instead of reacting. I used to feel anxious; now I can observe without judgment” (Faculty D5, FG2).

For students on the autism spectrum, this shift translated into a greater sense of emotional safety. One student (21 years old) explained feeling calmer when differences were not emphasized: “I feel calmer when the professor explains naturally, without isolating me” (FG2). These experiences align with the notion of epistemic empathy (C. Rogers, 2019), understood as the capacity to situate oneself within another person’s cognitive experience. In this context, empathy operates as a relational mechanism of change, transforming teaching into an act of listening and recognition.

4.4. Transfer and Limits in Pedagogical Practice

The subjective and relational changes described above were reflected in concrete pedagogical adjustments. Faculty members reported modifications in planning, assessment, and student support, including the use of

diversified methodologies and principles of UDL. One faculty member noted: “In my course, we incorporated UDL as part of the design of social projects; students understood that no one should be left behind” (Faculty D6, FG2). Another highlighted both progress and ongoing limitations: “I use short capsules, concise videos, and collaborative groups. However, there is still a lack of professional support in the classroom to accompany these cases” (Faculty D7, FG1).

From students’ perspectives, these changes were experienced as greater clarity in instructions, improved time organization, and more accessible visual support. However, they also identified persistent structural barriers, including the coexistence of inclusive practices with traditional teaching methods, sensory overload associated with excessive use of technology, and a lack of transparency regarding which faculty members had received inclusion training. These findings suggest that faculty training is valued when it translates into tangible pedagogical practices, but loses impact when it is not supported by sustained institutional structures.

4.5. Inclusion as a Relational Act

Faculty and students converge on a fundamental idea: inclusion cannot be imposed by decree—it is constructed through the pedagogical relationship. Meaningful change occurs when teaching incorporates listening, flexibility, and naturalness as everyday guiding principles in classroom practice. Under these conditions, inclusion is no longer experienced as an external mandate, but as a different way of relating to learning and to others. From this perspective, inclusion is configured as a deeply relational act that articulates several interdependent dimensions. Faculty dispositions are central, particularly the ability to avoid infantilization, foster student autonomy, and implement adjustments without segregation. These dispositions are expressed through concrete practices such as clarity in instructions, the use of diverse formats, active pauses, and experiential methodologies that accommodate different learning rhythms and styles. Together, these practices shape classroom climates characterized by empathy, respect, and emotional containment, especially in moments of dysregulation or overload.

Participants’ accounts also highlight the importance of a supportive training infrastructure, including professional development initiatives grounded in an ethic of care and the visible recognition of inclusive competencies. From a ToC perspective, these dimensions operate as interconnected chains of institutional learning, in which micro-level adjustments in everyday classroom practice can trigger second-order cultural transformations. In this sense, the “classrooms that listen to other minds” function as laboratories of educational innovation, spaces where a new ethic of difference is practiced and refined.

5. Discussion

Taken together, the findings confirm that training in neurodiversity does not operate as an immediate transfer of techniques, but rather as a gradual process of identity reconfiguration for faculty (Brookfield, 2017; Illeris, 2018). Inclusive teaching becomes consolidated when technical knowledge is interwoven with reflective and emotional processes that transform beliefs, foster pedagogical empathy, and reshape the overall meaning of teaching. From the perspective of the ToC, this process can be situated in the transition between mechanisms such as conceptual understanding and belief modification and proximal consequences, including pedagogical adjustments and improvements in classroom climate. Although these changes remain

fragile and uneven, they signal an emerging cultural transformation: a shift from an assistance-based logic toward an ethic of recognition, in which difference is understood as a legitimate and productive dimension of learning.

The study further demonstrates that authentic faculty change is unlikely to occur through isolated training initiatives. Rather, it emerges when professional development is embedded within sustained processes, supported by communities of practice and institutional spaces for dialogue and reflection (Wenger, 2001). In this sense, neurodiversity moves beyond being a discrete field of intervention and becomes a collective learning laboratory that challenges the dominant power structures, temporalities, and epistemologies of the university.

Consequently, inclusion is revealed not merely as a policy objective, but as a relational, situated, and inherently political practice. It requires not only institutional frameworks and regulations, but also ethical dispositions, pedagogical sensitivity, and a willingness to listen. The “classrooms that listen to other minds” thus symbolize a transformative horizon: spaces where learning occurs in two directions—between faculty and students—and where difference is re-signified as a driving force for cultural change within higher education.

5.1. Institutional Policy Recommendations

Based on the findings, several policy-oriented recommendations can be proposed to strengthen inclusive transformation processes in higher education.

First, universities should promote transformative faculty training grounded in inclusive pedagogies (Florian & Spratt, 2013; Forlin, 2010), prioritizing reflective components and an ethic of care over purely technical instruction. Second, institutions may consider the development of formal certification systems for inclusive competencies, including training in neurodiversity and emotional management, applicable not only to academic staff but also to administrative personnel and leadership teams. In addition, the creation of interfaculty communities of practice can facilitate the sustained exchange of inclusive strategies and collective learning, as suggested by Macdonald et al. (2019) and Andrews et al. (2017). These spaces should be complemented by participatory co-design mechanisms that actively integrate the voices of neurodivergent students into course planning and evaluation processes (Leiva et al., 2023).

From a monitoring perspective, the ToC framework offers a valuable tool for evaluating inclusion not through regulatory compliance, but through transformational outcomes related to classroom climate, pedagogical relationships, and students' sense of belonging (Angulo Cázares, 2023; López Herrera & Cos Garduño, 2025). Further recommendations include the development of an emotional infrastructure within universities, such as brief crisis response protocols and basic training in mental health, as well as institutional recognition of time and workload allocation for inclusive planning and pedagogical reflection.

Finally, universities should promote the ethical and accessible use of educational technologies, aligning digital platforms with inclusive instructional design principles, avoiding sensory overload, and prioritizing universal accessibility (Gonzales Otárola et al., 2023).

5.2. Study Limitations and Future Research Lines

First, the number of testimonies included in this study was determined by voluntary participation, considering both the existence of a prior diagnosis and participants' personal interest and motivation regarding autism. Nevertheless, some students on the autism spectrum did not feel comfortable making their diagnosis public, which limited their participation and constitutes one of the main limitations of the study.

Second, due to the case study design, the findings are not generalizable across higher education systems. Comparative research involving public universities in different Latin American countries would be particularly valuable for identifying institutional, cultural, and policy-related factors that enable or constrain the sustainability of inclusive change processes. Such approaches would also help distinguish context-specific dynamics from broader regional patterns in the implementation of inclusive pedagogies. In relation to the above, a limited number of studies were identified that apply ToC within educational settings, particularly in contexts focused on the inclusion of neurodivergent individuals and students on the autism spectrum. Therefore, the development of this research focus helps to address an existing gap in the literature.

Third, future studies should adopt longitudinal research designs to assess the long-term impact of faculty development initiatives, such as communities of practice and certifications in inclusive competencies. Examining their effects on student retention, well-being, academic engagement, and autonomy, particularly among students on the autism spectrum, would provide more robust evidence regarding the sustainability of institutional transformation processes.

Finally, future research should explore the role of educational technologies as supportive platforms for inclusion, not only in terms of academic accessibility but also as resources for socio-emotional support. Particular attention should be paid to how digital tools, learning management systems, and hybrid teaching environments can contribute to emotional regulation, anxiety reduction, and the creation of emotionally safe learning spaces for students on the autism spectrum. The ethical and situated use of technology, such as visual supports, anticipatory task structuring, asynchronous communication channels, clear feedback mechanisms, and emotional self-regulation resources, may play a key role in strengthening student well-being, autonomy, and active participation in higher education.

6. Conclusion and Policy Recommendations

This study aimed to analyze the role of university faculty as agents of institutional transformation in the inclusion processes of Students on the autism spectrum within a Chilean public university, with particular attention to the relationship between training in neurodiversity, inclusive pedagogical practices, and institutional cultural change.

In this regard, the research team found that the university's inclusion of students on the autism spectrum advanced when teaching capacities developed through training initiatives were translated into reflective and situated pedagogical practices oriented toward mutual understanding, emotional regulation, and instructional flexibility. In addition, the findings showed that active listening and the normalization of difference constituted central ethical dimensions for transforming teaching into a practice of cognitive justice, capable of recognizing a plurality of ways of learning and inhabiting the university.

However, the results also revealed the persistence of structural tensions between institutional inclusion discourses and university cultures marked by managerialism and the precarization of academic labor, which limited the sustainability of pedagogical innovations and constrained faculty agency as a driver of institutional change. In this context, the ToC proved to be a relevant analytical framework for identifying causal mechanisms, forms of resistance, and levels of transformation, allowing inclusion to be understood not as a set of isolated actions but as a systemic and relational process.

From a public policy perspective, the study results underscore the need for regulatory frameworks, including the Chilean Autism Law, to move beyond an exclusive focus on diagnosis and individualized accommodations and to promote institutional conditions that strengthen faculty development, curricular flexibility, and the recognition of neurodiversity as a structural component of higher education.

In this sense, the findings highlight the importance of strengthening faculty agency as a key driver of inclusive transformation in higher education. When supported by institutional conditions that value pedagogical reflection, collaboration, and recognition of neurodiversity, faculty agency can contribute to reshaping university cultures toward more equitable and responsive learning environments.

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Conflict of Interests

The authors declare no conflict of interests.

Data Availability

The datasets analyzed in this study are not publicly available due to interviewees' anonymity and data protection requirements. A de-identified summary of the data is available from the corresponding author upon reasonable request.

LLMs Disclosure

LLM tools were used solely for stylistic improvement.

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