

# THE DYNAMIC INTERPLAY BETWEEN STUDENTS AND STAFF IN ENHANCING INCLUSION IN HIGHER EDUCATION IN LATIN AMERICA

# A INTERAÇÃO DINÂMICA ENTRE ESTUDANTES E FUNCIONÁRIOS PARA MELHORAR A INCLUSÃO NO ENSINO SUPERIOR NA AMÉRICA LATINA

# LA INTERACCIÓN DINÁMICA ENTRE ESTUDIANTES Y PERSONAL PARA MEJORAR LA INCLUSIÓN EN LA EDUCACIÓN SUPERIOR EN AMÉRICA LATINA

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RESUMO Este artigo apresenta os resultados do projeto ENTENDER Erasmus+Capacity Building in Higher Education (CBHE) (financiado pela Comissão da União Europeia) envolvendo cinco universidades latino-americanas (AL) na Argentina e no México e três universidades europeias parceiras. O projeto teve como objetivo aumentar a conscientização sobre a neurodiversidade, criar processos e ferramentas para identificar as necessidades de aprendizagem dos alunos neurodivergentes e promover a formação de professores para projetar e fornecer ambientes de aprendizagem inclusivos. Uma abordagem de cocriação colaborativa foi implementada. Todos os elementos do projeto foram avaliados em relação a uma linha de base por meio de uma análise de necessidades. Discutimos os desafios iniciais, os ganhos e os resultados inesperados que levaram a neurodiversidade ao topo da agenda nas instituições parceiras, iniciando uma mudança de atitudes de um modelo de déficit para um foco baseado em pontos fortes.

**Palavras-chave:** Vantagem autista. Baseado em potencialidades. Educação Superior. Inclusão.

ABSTRACT This paper presents findings from the ENTENDER Erasmus+ Capacity Building in Higher Education (CBHE) project (funded by the European Union Commission) involving five Latin American (LA) universities in Argentina and Mexico and three European partner universities. The project aimed to raise awareness of neurodiversity, create processes and tools to identify neurodivergent students' learning needs and promote teacher training to design and provide inclusive learning environments. A collaborative cocreation approach was implemented. All elements of the project were evaluated against a baseline via a needs analysis. We discuss the initial challenges, the gains, and the unexpected outcomes that have propelled neurodiversity to the top of the agenda in the partner institutions initiating a change in attitudes from a deficit model to a strengths-based focus.

**Keywords:** Autistic advantage. Strengths based. Higher education. Inclusion.

RESUMEN Este documento presenta los hallazgos del proyecto ENTENDER Erasmus+ Capacitación en Educación Superior (CBHE) (financiado por la Comisión de la Unión Europea) que involucra a cinco universidades latinoamericanas (LA) en Argentina y México y tres universidades europeas asociadas. El proyecto tuvo como objetivo crear conciencia sobre la neurodiversidad, crear procesos y herramientas para identificar las necesidades de aprendizaje de los estudiantes neurodivergentes y promover la formación de docentes para diseñar y proporcionar entornos de aprendizaje inclusivos. Se implementó un enfoque de cocreación colaborativa. Todos los elementos del proyecto fueron evaluados contra una línea de base a través de un análisis de necesidades. Discutimos los desafíos iniciales, las ganancias y los resultados inesperados que han llevado a la neurodiversidad a lo más alto de la agenda en las instituciones asociadas, iniciando un cambio de actitud de un modelo deficitario a un enfoque basado en las fortalezas.

Palabras clave: Ventaja autista. Basado en fortalezas. Educación más alta. Inclusión.



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#### 1 INTRODUCTION

UNESCO (2023) argues that "education is a basic human right [...] one of the most powerful tools in lifting excluded children and adults out of poverty and is a stepping stone to other fundamental human rights." The global community's adoption of the United Nations 17 Sustainable Development Goals (SDGs), in 2015, specifically identified education in SDG number 4 referring to 'quality education' as a target goal. Its mission is to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." This is an ambitious aspiration that challenges education providers to review their practices in an effort to move towards achieving equity. However, inclusion, exclusion and equity are complex concepts that demand more than instrumental approaches to make them happen. Marginalised groups who can experience exclusion are many and diverse but one aspect of difference that has received limited attention in the higher education literature is neurodiversity (Hamilton; Petty, 2023).

Neurodiversity is an umbrella term that covers a range of conditions that have been pathologized and associated with deficit including Dyspraxia, Dyslexia, Attention Deficit Hyperactivity Disorder, Dyscalculia, Autistic Spectrum and Tourette Syndrome (Singer,1999). However, much of the research in the neurodiversity area focuses on autistic students and the discourse of stigma and deficit with which autism is associated (Grant; Kara, 2021). Stigma refers to negative or unfair beliefs that discredit an individual and treats them as being less valuable to society (Major et al, 2018; Goffman, 1963). Turnock et al. (2022) highlights how autistic people frequently experience prejudice and discrimination as a result of the stigma attached to their condition resulting in poor outcomes and negative impact on their wellbeing. In an educational context autism tends to be associated with deficit, failure and the need for remediation (Hodges, 2018), the focus on deficit being attributed to the medical model of disability (Black et al, 2019).

However, Lim Lee (2023) notes that in line with positive psychology, and the acknowledgement of the many strengths that autistic people possess, strengths-based approaches are increasingly being used to harness abilities and develop skills (Jones



et al., 2021). Grant and Kara (2021) also argue in favour of an asset-based approach focusing on strengths and contributions rather than deficits. This movement is supported by recent discussions in the popular press and social media questioning whether autism is a superpower. Russell, Kapp, Elliott, Elphick, Gwernan-Jones and Owen (2019, p.8) explore the notion of 'autistic advantage' highlighting ability to hyperfocus, attention to detail, good memory and creativity as some of the traits that in certain circumstances could be advantageous with a caveat that other variables such as social context can swiftly turn advantage to disadvantage. These findings suggest the potential of focusing on advantageous aspects of autism to "construct (as

Turnock et al. (2022) note that autism stigma is socially constructed and influenced by both a public and professional understandings as well as visible autistic traits that are viewed negatively. Lack of knowledge is a major issue that influences attitudes and potential prejudicial behaviours (Turnock et al, 2022). However, recent survey research of neurotypical people found that increased knowledge of what it is like to have autism predicated more positive attitudes towards it (Kuzminski, 2019).

well as report on) a more nuanced narrative, destigmatizing autism".

This positive response shows that attitudes can change and have been shown to be changing as the number of neurodivergent students progressing into higher education is increasing worldwide (Bakker et al, 2019; Pino; Mortari, 2014; Griffin; Pollak, 2009). Yet there is a highly variable response to the needs of these students or the availability of a climate conducive to their success across countries (Cloude et al. 2020; Dwyer, 2022). The number of neurodivergent students managing to succeed in higher education, in some cases against the odds, is questionable. However, the number of potential students who are discouraged from continuing their education beyond the minimum length is probably very much greater, highlighting the need to address educational system failures as a first step towards challenging wider societal stereotypical assumptions. This paper discusses how this strategy of initiating instrumental changes in educational institutions provided a tangible foundation for change and progress at an institutional level that has begun to influence wider discourse around neurodiversity.

#### 2 OBJECTIVES



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The ENTENDER Erasmus+ Capacity Building in Higher Education (CBHE) project took place between 2020 – 2023. The project involved five Latin American (LA) universities in Argentina and Mexico and four in the EU (from Italy, Macedonia, Spain and United Kingdom (UK)). Its overarching aim was to improve access, retention, attainment, and employment prospects of people with neurodiverse conditions. Amongst its many objectives here we share three that specifically addressed issues of knowledge, attitudes and perceptions all underpinned by a strength-based approach:

- 1. Create sensitive processes and tools to screen for neurodiversity and assess learning needs.
  - 2. Enhance human capital of teachers through training.
  - 3. Empower neurodivergent students to participate in activities.

#### 3 METHODOLOGY

The Erasmus+ programme, funded by the European Union Commission, aims to promote collaboration and cooperation between institutions within the EU and surrounding countries. Its capacity building stream focuses on promoting growth and reform of higher education institutions, fostering a spirit of collaboration in a 'people-to-people approach' (European Commission 2013b). Erasmus+ priorities make the aim of convergence transparent; the message is one of bringing "partner countries" (non-EU) up to "programme country" (EU) standards. Partner countries benefit in real terms from Erasmus+ funding (from equipment, new ways of teaching and learning, shared knowledge and beliefs) however, gains are by no means limited to partner countries. Our project approach was one of collaborative cocreation. Several work packages (WP) were led by Latin American colleagues and one in particular was dedicated to student capacity building which was a central pillar of the project.

All elements of the project were evaluated against a baseline via a needs analysis including institutional surveys and focus group interviews. Whilst a focused investigation of the impact and changes in outcomes for students participating in the pilot of the strengths-based tools was not completed during the project lifetime, the RE-



AIM framework was used to evaluate the possibility of adoption, implementation and sustainability (Lee et al, 2017) and qualitative feedback was gained.

The short-term impact of staff training was measured through participants completing pre and post-training surveys. The scales TEIP and SACIE-R were identified for this purpose. The SACIE-R scale (Sentiments, Attitudes, and Concerns about Inclusive Education - Revised) is a questionnaire implemented to measure teachers' perceptions in three constructs of inclusive education: sentiments or comfort levels when engaging with people with disabilities; acceptance of learners with different needs; and concerns about implementing inclusion. The scale consists of 15 items that are rated on a 4-point Likert-type scale (1 = strongly disagree, 4= agree) (Forlin et al., 2011). The TEIP scale (Teacher Self-Efficacy for Inclusive Practices) is a questionnaire used to measure perceived teacher efficacy to teach in inclusive classrooms. The scale consists of 18 items that are rated on a 6-point Likert-type scale (1 = strongly disagree, 6 = strongly agree). The TEIP scale is divided into three subscales: efficacy in instruction (to adapt teaching according to learners' need), efficacy in managing behaviour, and efficacy in collaboration. Higher TEIP scale scores indicate greater teacher self-efficacy (Malinen et al., 2013).

### 4 RESULTS

Neat as the project proposal was, the scale of change that was required had not been anticipated. Our first major challenge was that the term neurodiversity was new to the majority of colleagues in the partner institutions. In several cases, it was suggested that there were no neurodivergent students currently studying in the institutions although as the project progressed, the students began to become visible, through the different training and awareness activities. While some admissions processes did capture statistics on disabled students, neurodiversity was not a category of demographic data that had been collected. As such, neurodivergent students were effectively invisible within the administrative processes of the institutions even though it became apparent that teachers were aware of, and were responding to the needs of some individual students who asked for support or adaptations. An important result of the project is that it has convinced institutions that there is an



imperative to gain insight into the needs of the student population and generated conditions to collect data on disability and neurodiversity as separate dimensions in order to obtain better information leading to improved support that is more systematic and we can offer better support services.

### 4.1 Assessment Tools supporting a strengths-based approach

Once enrolled, students are now encouraged to voluntarily complete one or both strength-based self-assessments. Two existing tools were selected to be piloted in schools and with students in higher education. The first, the Active Learner Student Questionnaire II (ALSQ-II) is designed to identify students' strengths individually (Farmer, 2011). It consists of 70 items that are connected to four (4) areas: organization, general learning, reading and writing. These areas have been found to be connected with the difficulties that students usually face. Also, the mentioned fields are considered to be difficult for students with learning difficulties and/or ADHD. Students respond to statements. The results can provide insight into the students' traits in each one of the four areas mentioned above. Self-awareness, self-regulation, and goal setting are fields that can be inferred from the results. Importantly, the purpose of this questionnaire is to help students to understand their learning strengths and needs so they can work on incorporating those strengths into their daily life to achieve success.

The second tool, the Personal Strengths Inventory is also a self-report inventory for adolescents and focuses on using students' strengths to achieve goals (Liau et al, 2011). Again, it can be used to evaluate students' personal strengths, by examining five factors that have been found to be associated with healthy adjustment: Social Competence (SC), Emotional Awareness (EA), Goal Setting (GS), Emotional regulation (ER), Empathy (EM). Both tools, which can be completed online or face to face, are self-report tools that position students in control of the disclosure process although teachers can facilitate the completion of the questionnaire/inventory if necessary.

The RE-AIM framework was used to evaluate the possibility of adoption, implementation, and sustainability of the self-assessment tools by institutions piloting

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them (Lee et al. 2017). The resources were delivered to students, teachers and senior and middle level managers and all partners piloted them in approximately 70% of their faculties. Evaluation occurred before, during and following piloting. Pilot results show that although the mean score for confidence during the adoption and implementation stages was low, by the final "maintenance stage" all participants were very confident that the resources and tools will produce lasting benefits for the participants, and that they will be sustained in the future. The Strengths Inventory has been especially well received given its immediate impact on identifying students with learning difficulties. Notwithstanding the importance of expert diagnosis, that unfortunately in some cases can take several years to secure, the project has established and implemented the use of a strengths-based inventory that has proved game changing in identifying students with additional learning needs. Encouraging all students to complete the selfassessment means that students who may be neurodivergent are not separated out as different or deficient in any way thus avoiding feelings of inadequacy or stigmatisation. The outcome of the self-assessment has allowed teachers to be responsive in providing support, and adapting teaching materials, learning spaces and pedagogies. The adoption of systems to collect data about neurodivergent students on admission is still reliant on students being willing to disclose their condition, and some may not feel confident to do so. However, Dwyer et al. (2023) suggest that greater neurodiversity acceptance on campuses might help students feel safe to seek out support when necessary, rather than being fearful of judgement and discrimination. The self-assessment tools are a first step to disclosure for some students and offer a cheap, accessible and acceptable means of screening for neurodiversity that might well help to de-stigmatise it. The use of the strengths inventory has already extended far beyond the project's parameters. For example, adoption across 10 middle schools has led to its spread across the Middle Schools Network (of 37 schools nationally) in Mexico. Through its use teachers are now aware of learning needs and can develop registers of students that are independent of a formal diagnosis. This has led to interventions for individual students' management as well as programme adaptations to promote inclusion. In the medium to longer term the use of this simple intervention could result in an increased number of school students progressing into higher education with the consequence of improved social and economic futures.

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# 4.2 Staff Training

Given that Emmers et al. (2020) note that there is a lack of research on attitudes towards inclusion and the preparation of higher education teachers for inclusive education, a crucial element of embedding the project was to discover whether or not the training provided had an impact on teachers' beliefs and attitudes deemed to be critical to promoting change (Avramidis; Norwich, 2002). A train the trainer approach adopted was with 118 staff undertaking initial training (designed by the University of Macedonia with input from all EU partners). Follow-on cascade of that training (overseen by the University of San Juan) was facilitated by this group of trainers and was eventually delivered virtually both synchronously and asynchronously (necessary due to COVID-19 restrictions) to 1,355 staff. The training consisted of eight modules:

- 1. Neuroeducation and neurodidactics
- 2. Multiple intelligences and neurodiversity
- 3. Strategies for Success for neurodivergent students
- 4. Emotional intelligence
- 5. Resilience in Education
- 6. Accessible and Inclusive Virtual Teaching
- 7. New active methodologies for learning scenarios
- 8. Neurodiversity in the workplace.

Trainee feedback was sought immediately following training. Tables 1 and 2 show the trainee satisfaction with the learning achieved and the content of the training modules.

Table 1. Learning outcomes of training participants from the training satisfaction questionnaire.



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	I feel reliably and objectively informed about the training topics.	value to the current status of	training	I will work with/apply /integrate the training results in(to) my work.	The training format (duration, size, group of participant s, etc.) met my needs.	n provided prior the training has been	Informatio n provided prior the training has been useful.		If applicable: Accompan ying material on the training has been useful.
■MODULE8	93%	90%	93%	87%	83%	97%	83%	90%	97%
■MODULE7	79%	66%	75%	89%	68%	75%	81%	83%	89%
■MODULE6	77%	40%	65%	90%	71%	73%	79%	81%	83%
■MODULE5	83%	42%	75%	92%	42%	67%	67%	67%	67%
■MODULE4	70%	35%	52%	82%	70%	72%	82%	80%	82%
■ MODULE3	77%	64%	77%	86%	73%	68%	77%	68%	73%
■MODULE2	67%	40%	70%	88%	44%	65%	67%	72%	77%
■ MODULE 1	88%	67%	86%	91%	81%	77%	82%	82%	89%

Source: Authors, 2023

Table 2. Satisfaction with the contents of training from the training satisfaction questionnaire.

	I received new and relevant information for my work.	raised my awareness for the	The training provided relevant background information from other countries.	I will inform my colleagues about the training and its content.	The training programme met my	I would attend this training again.	I would recommend the participatio n in such a training to a colleague.	The training provides an added value to my work.
■MODULO8	90%	87%	93%	93%	90%	97%	97%	97%
■MODULO7	83%	58%	83%	91%	87%	91%	91%	89%
MODULO6	83%	56%	77%	92%	73%	88%	88%	90%
■MODULO5	92%	67%	75%	92%	67%	75%	83%	92%
■MODULO4	73%	46%	75%	92%	65%	83%	86%	86%
■MODULO3	82%	68%	77%	86%	73%	77%	82%	82%
■MODULO2	84%	60%	67%	93%	72%	74%	81%	84%
■MODULO1	89%	65%	82%	91%	84%	88%	91%	93%

Source: Authors, 2023

Insight into the impact of training was gained from the completion of the two online questionaries pre and post training. We analysed the pre-post training scores using one way analysis of variance model (ANOVA) and using repeated measures models (RM), controlled for neurodivergence experience. Two hypotheses were



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tested: (1) self-efficacy and attitude towards neurodivergence are two interconnected dimensions. A positive attitude with respect to neurodivergence reinforces the sense of self-efficacy; (2) experience, professional or personal, influences positive attitudes towards neurodiversity. Self-efficacy and attitude towards neurodivergence are positively correlated. A positive attitude towards neurodivergence restores our ability to manage the classroom, implement inclusive teaching and promote collaboration. The second hypothesis test showed that training is not only a transfer of knowledge, but also an increase in awareness.

Findings indicated a statistically significant correlation between the attitude dimension and teacher self-efficacy. These findings reflect those of Gillespie-Lynch et al. (2015) who investigated the efficacy of an online training programme aimed at students using pre and post-test measures which indicated an increase in knowledge and decrease in stigma. Qualitative feedback was rich suggesting that the training and involvement in the ENTENDER project has contributed greatly to improving the competence of staff in their field of expertise and their understanding of education policies, practices and systems. Because staff are now more aware of the challenges that neurodiversity brings, their confidence in dealing with individual student problems in the classroom has increased. As a consequence, they feel less stressed about not being able to meet certain students' needs and no longer simply see these students as problem students. The participants of the different courses have expressed that they feel more qualified to provide adequate attention to neurodivergent students in their classrooms and have shown their interest in continuing to participate in courses on neurodiversity. In addition, these participants have helped to disseminate the information provided to their peers, thus raising awareness of the topic among the university community.

#### 4.3 Student Capacity Building

Arguably, any project focusing on inclusion cannot succeed without the target population being fully committed to making it a success. In the ENTENDER project it was crucial that students felt that they had a voice, that their input was valued, and that their institutions were serious about promoting inclusion and change where deemed necessary. Student capacity building was a central pillar of the project promoted

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through a bespoke WP. The WP leads (University of Colima) developed a capacity building protocol that gave all partner HEIs a blueprint to foster student engagement in their own institutions. Recognising the challenge of getting neurodivergent students involved, they cleverly saw a need to normalise neurodiversity. This involved adopting a strategy to effectively involve all students - neurodivergent, and importantly also neurotypical students, in all piloting activities so as not to segregate students or amplify any sense of deficiency but rather to applaud difference. A recognised strategy for changing attitudes to difference, underpinned by intergroup contact theory, is by meeting and working alongside those who differ (Allport, 1954). White, Hillier, Frye and Makrez (2019) note the importance of shared goals, being seen as equals, and the opportunity to get to know each other for changing attitudes and behaviours and these were fundamental aspects of the WP.

An unanticipated consequence of the student capacity building element of the ENTENDER project is the impact on all staff groups including administrative staff, teachers and university leaders. It is well recognised that well motivated teachers have an impact on their students (Ahn et al. 2021). However, our findings suggest that in the context of working towards an inclusive educational environment motivated students (including neurodivergent and neurotypical) can have a positive impact on increasing motivation of their teachers and other people with whom they come into contact. The development of networks consisting of staff and students is a massive project achievement that will sustain post funding not least because they cost nothing except the will to keep them going. Several conference panel discussion points and testimonials provided by teachers support the motivational nature of seeing neurodivergent students develop confidence and skills to challenge the deficit discourse surrounding neurodiversity that triggers staff capacity building potential. We argue that many capacity building activities might start with building the capacity of project beneficiaries including staff and students who in turn can convince other stakeholders of the worth of their efforts and the impact that buying into participation can have. This is an area that deserves further research.

#### 5 DISCUSSION



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The three ENTENDER objectives that we argue have had a particular impact on knowledge, attitudes and perceptions of neurodiversity in the Latin American partner institutions are all underpinned by a strength-based philosophy and they are interdependent. Sensitive processes and tools to screen for neurodiversity and assess learning needs goes some way to decreasing stigma that encourages student engagement. Training gives teachers the insight and belief in their own abilities to think differently about their teaching which in turn impacts on student disclosure of learning needs and engagement. Tschannen-Moran and Hoy (2001) suggest that teachers' confidence in their own knowledge, skills and attributes to implement inclusive education, is essential for a successful inclusive approach. Research on inclusive practice by Hofman and Kilimo (2014) reinforces this point suggesting that teachers with high levels of self-efficacy are open to new ideas and methods, and are also more open to considering students' individual needs in their educational practice. In agreement with Hamilton and Petty's (2023) recent research that advocates the need for university-wide training in neurodiversity our findings suggest that this is an important strategic approach to maximising training impact.

Hand-in-hand with training on a wider institutional scale, the implementation of a range of measures that are campus-wide have been critical for project success. Such interventions can only happen with the approval and involvement of senior leadership in the activities and we argue that this is crucial to any such strategic approach to fostering inclusion. The identification of neurodiversity as an area of impact in an Institutional Development Plan and the creation of a Sensory Room (University of Colima), the creation of an Inclusion Council (University of Rosario), a Standing Commission for assistance of neurodiverse students (University of Jujuy), the creation of a Neurodiversity Unit (University of Guadalajara), and the creation of a free Chair in Neurodiversity (University of San Juan) all demonstrate campus wide institutional commitment.

Hamilton and Petty's (2023) research also suggests that activity should be driven by neurodivergent staff and students in collaboration with neurotypical allies. Institutional support for intergroup contact is associated with the most positive outcomes (Allport, 1954; May, 2012) and certainly, the collaboration between neurodiverse and neurotypical students has been and will continue to be a major



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positive influence in promoting change. For example, the student peer engagement protocol (University of Colima) is now integral to the operative plan for the institution. It is debateable whether prior to the roll-out of the ENTENDER project staff recognised their own neurodiversity or if they did that, they openly acknowledged it. Notwithstanding, the project's focus on achieving change to improve access, retention, attainment and employment prospects of young people with neurodiverse conditions, the project training did initiate conversations about neurodiversity amongst staff. Following training, several staff members recognized traits in themselves, colleagues or family members as an unintended consequence that could result in valuable future staff support mechanisms and the potential for greater openness about the issues that neurodivergent people face.

This finding points to the ubiquity of neurodiversity that requires a fundamental change in attitudes that foster a tolerance of difference which will only be achieved by dismissing, as out of date, stigmatizing and stereotypical views to see difference as part of the human condition which can be celebrated. The ENTENDER project has highlighted how the implications of neurodiversity as an aspect of difference are not yet fully understood. It has shown an interesting dynamic interplay between students and staff working towards creating an inclusive learning space whether that is in the classroom or at institutional level that is worthy of further research.

#### 6 CONCLUSION

This paper reports on the initial challenges, the gains, and the unexpected outcomes that have propelled neurodiversity to the top of the agenda in Latin American partner institutions. As one project partner suggested "when we move the earth we create a lot of dust" suggesting that the implications of raised awareness and responding to the needs of neurodivergent students (and interestingly staff) are only just coming into view. Undoubtedly, there is a lot more work to do to really achieve a shift in policy, practice and attitudes to neurodiversity. However, the early signs are positive. Diminishing stereotypical assumptions and associated stigma means that neurodivergent students are working with neurotypical students and staff in peer support groups and staff are less stressed as they feel that they are addressing



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learning needs that have been previously overlooked. The positive proactive approach to assessing learning needs is spreading to middle schools in Mexico whose students might previously never have considered making the transition to higher education. In the longer term, this could mean that more neurodivergent students will progress to higher education with improved social and economic prospects. The possibility of challenging the deficit model and its replacement with a strengths-focused or asset-based discourse of neurodiversity is beginning to decrease the stigma surrounding it.

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