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EDITORIAL

This first issue of REACH: *Journal of Inclusive Education*, of 2026, brings together a diverse and timely collection of articles that deepen our understanding of inclusive and special education across varied contexts and has a mix of both empirical research and broader theoretical perspectives.

Keenan's article offers a critical and thought-provoking ideological lens on inclusive mathematics education for all students. By interrogating the assumptions underpinning current practices, Keenan challenges educators and researchers to reconsider what it means to be inclusive within subject-specific contexts. The paper raises important questions and key thinking points about knowledge, access, and participation, urging a shift away from deficit-oriented models towards more expansive and socially just approaches to mathematics education. This theoretical contribution provides a strong conceptual anchor for the issue.

In contrast, O'Connell's study brings us into the classroom, offering rich insights from children in a senior autism class. By foregrounding students' perspectives, this article exemplifies the principles of inclusive pedagogy in action. The findings demonstrate how listening to and learning from children can inform more responsive and meaningful teaching practices. This work reinforces the importance of student voice as a cornerstone of inclusive education and highlights the potential for participatory approaches to transform classroom experiences.

Dubey's exploration of teachers' perceptions in four major metro cities in India centres the voices of teachers working in inclusive classrooms, highlighting the gap between policy expectations and classroom realities. It outlines the challenges faced by teachers in addressing the diverse needs of learners, investigates their professional development needs in relation to inclusion and proposes the framework of a professional development programme. This reminds us that inclusion cannot be realised without investing in teacher capacity and wellbeing, particularly in contexts where structural constraints remain significant.

The study by Murray and Kazmierczak-Murray shifts the focus to the Republic of Ireland, examining the adoption and implementation of powered augmentative and alternative communication (AAC) in special schools and classes. Using a contextual framework for equitable AAC implementation, the authors illuminate the multifaceted factors that influence access to and use of communication technologies. Their findings underscore the importance of moving beyond provision alone, towards a more holistic understanding of equity that encompasses training, ongoing support, and the broader communicative environment. This article makes a valuable contribution to the growing discourse on assistive technology as a key enabler of inclusion.

Finally, Connolly's article on transitions from special schools addresses a critical yet often underexplored phase in the educational journey of students with special educational needs. Transitions represent moments of both opportunity and vulnerability, requiring careful planning, collaboration, and support. This paper sheds light on the experiences of students navigating these transitions, drawing attention to the systemic and relational factors that facilitate or hinder successful outcomes. It serves as a timely reminder of the need for continuity and coherence across educational settings as well as offering a set of practical work experience guidelines for schools.

Taken together, the articles in this issue offer a space for critical reflection on inclusion as an ongoing process and not a singular destination. We glean the importance of the interplay between policy and practice, the centrality of teacher and student voices, and the significance of context in shaping inclusive education. As the field continues to evolve, these contributions offer valuable insights and provoke important questions for researchers, practitioners, and policymakers alike.

Dr Miriam Colum,

Editor.



AN IDEOLOGICAL PERSPECTIVE ON INCLUSIVE MATHEMATICS EDUCATION FOR ALL STUDENTS

Every single child is a mathematician and possesses the capability to grasp mathematical ideas from the beginning of life. Students' performance in mathematics continues to be a focus of educational research globally. Despite curricular reforms promoting inclusivity, disparities in performance, attitudes, and dispositions remain, highlighting the need to consider factors influencing mathematical learning for all students. This paper provides a narrative review of the literature on inclusive mathematics education (IME) from an ideological perspective that explores growth and fixed mindset, mathematics anxiety, and school structure. There is reference to the Irish context and its pedagogical implications from this ideological perspective, highlighting gaps in the literature and offering guidance for future research and strategies to support inclusive teaching practices for teachers and school leaders.

Keywords: Inclusive mathematics education, mathematics education, growth and fixed mindset, ability grouping, mathematics anxiety.

HELEN KEENAN is a PhD Researcher in the School of Education at Ulster University. She is a post-primary mathematics teacher and has lectured part-time in the School of STEM Education, Innovation and Global Studies at Dublin City University Institute of Education.

Corresponding author: Keenan-h5@ulster.ac.uk

INTRODUCTION

Inclusion holds a central position in mathematics education research (Askew, 2015). Recent research has highlighted multiple interacting factors associated with mathematics achievement (Wang et al., 2023) underscoring the importance of holistic approaches to inclusion. Although inclusion is widely understood as a multidimensional concept, inclusive mathematics education (IME) is rarely examined through the same lens. Roos (2019) claims that inclusion in this context is often treated as two distinct, one-dimensional complexes, as an ideology and a pedagogy. It is noted that there is a gap between both discourses in the literature; however, Roos (2019) argues that in order to foster sustainable inclusion in mathematics, there must be an interconnectedness between the two domains.

The basis of inclusive education has been described as 'Education for All' (United Nations Educational, Scientific and Cultural Organisation (UNESCO), 2005, p. 9). However, there have been arguments that have described mathematics as a subject that 'is not for all' (Pais, 2014, p. 1091). This perspective attempts to dismantle the idea that universal success in the subject is possible and emphasises that the social structure of school will always be selective and embed exclusion (Pais, 2014). Although this argument provides stimulus for further study, this theoretical critique is limited in its focus from an economic and political perspective, and lack of empirical evidence. The evidence supporting inclusive education, from both a general and mathematical perspective, is strongly optimistic (Cosier et al., 2013; Faragher et al., 2016; Kefallinou, 2020). However, it is important to acknowledge that the purpose of IME extends beyond the mere pedagogical implications. In line with the ideological perspective of IME, it is impossible to deny that every person has a right to a meaningful and quality education, and that is the fundamental purpose and outcome of inclusive education (UNESCO, 2005). Thus, the goal of IME is to ensure that every learner has access to mathematics in ways that respect their rights, dignity, and identity; challenging systemic exclusion and promoting participation.

INCLUSIVE MATHEMATICS EDUCATION AS AN IDEOLOGY

The ideological narrative of mathematics education has received considerable attention in academic literature (Roos, 2019). This ideological perspective encompasses the sociological issues that impact students' mathematical educational experiences and engagement, including issues of gender, mindset, perspectives and attitudes (Cribbs et al., 2021; Lindberg et al., 2010). In the realm of IME research, this sociological perspective has been documented as more prevalent in comparison to the pedagogical interventions (Roos, 2019). Pierre Bourdieu's concept of 'habitus' serves as a cornerstone in sociological theory, and it can be defined as a collection of 'durable' and 'transposable' dispositions that an individual has (Bourdieu, 2004, p. 107). These can manifest through enduring patterns of behaviour, percep-

tion, and 'feeling and thinking' (Bourdieu, 1990, p. 70). This paper examines the ideological implications for students within the context of IME. This will be reflected in the discussion of students' perceptions, including their feelings and thoughts, as seen through growth and fixed mindsets, the development and impact of mathematics anxiety, and the impact of school structure. These three areas have been selected for this paper as they provide complementary perspectives of dispositions and experiences of students in mathematics, drawing on Bourdieu's (1990, 2004) concept of habitus to understand how students' attitudes and behaviours are shaped by social and educational contexts.

Growth and Fixed Mindset

Dweck's (2006) conceptualisation of growth and fixed mindset is a heavily documented phenomenon in student learning. This idea centres on how students perceive learning, and whether they view ability as an inherent, unchangeable trait, or as something that can be developed. Students with a fixed mindset often prioritise proving their intelligence rather than focusing on its development. This perspective is shown to impact their behaviour, as seen in their tendency to avoid challenging tasks and exhibit lower persistence, resulting in academic underachievement (Yeager & Dweck, 2012). In contrast to this, students with a growth mindset are more likely to embrace challenges, viewing them as opportunities to improve their abilities and enhance their competence (Dweck, 2006; Yeager & Dweck, 2012).

It has been argued that the prevalence of fixed mindsets in mathematics education contributes to the persistence of inequities in attainment and participation. Teaching methods within mathematics classrooms, alongside entrenched societal beliefs about mathematics ability, are argued to reinforce the idea that mathematical competence is an innate gift rather than a skill that can be developed (Boaler, 2015). Mathematics has been characterised as a subject in which students are particularly prone to developing fixed mindsets (Blackwell et al., 2007; Boaler, 2015). This may be linked to the nature of mathematics learning itself, which often requires challenge and struggle to develop understanding (Warshauer, 2015). Such beliefs, which can be transmitted both in educational settings and within the home (Gunderson et al., 2012; Yeager, 2022), risk perpetuating the view that some individuals are naturally good at mathematics while others are not, which may discourage effort, persistence, and the cultivation of mathematical identity.

Research has documented fixed mindset as a barrier to reducing inequalities in mathematics education, especially concerning gender. Heyder et al., (2020) examined the influence of beliefs in fixed, innate ability in mathematics and language arts among German post-primary students ($n = 423$). Specifically, the study investigated the extent to which such beliefs shaped students' ability self-concept and intrinsic motivation. The findings revealed that endorsing beliefs in innate mathematical ability was associated with lower ability self-concept and reduced intrinsic motivation among girls, whereas no such relationship was found for boys. By contrast, no association was observed between fixed beliefs about language arts ability and either ability self-concept or intrinsic motivation for either gender. These results suggest that fixed mindset may pose a particular burden for girls in mathematics, reinforcing existing gendered inequities in this subject.

Such beliefs about mathematical ability have been shown to influence performance in the subject. Stankov and Lee (2017) reported that students' self-beliefs were associated with mathematics outcomes, with positive self-beliefs linked to improved cognitive performance. This evidence supports the potential value of implementing growth-mindset interventions in schools; however, according to two meta-analyses conducted by Sisk et al., (2018), the outcomes of such interventions produce mixed and weak results. The mixed effects of growth-mindset interventions demonstrates a need to explore alternative approaches for cultivating growth mindset within school settings.

Teachers have been noted to play a pivotal role in the development of growth and fixed mindsets in their students. Yeager et al. (2022) investigated the impact of teachers' own growth or fixed mindsets on their students, analysing data from 9,167 first-year high school students and 223 mathematics teachers. The findings indicate that students are more likely to sustain a growth mindset when their teachers possess a growth mindset and foster a supportive classroom climate (Yeager et al., 2022). Such evidence underscores the influence of adults' beliefs in shaping students' perceptions of their abilities, suggesting that limiting perceptions among teachers or parents can have tangible effects on student outcomes. Indeed, in the Irish context, the National Council for Special Education (NCSE) reports indicate that both teachers and parents are twice as likely to underestimate the mathematical performance of children with Special Educational Needs (SEN) compared to their peers without SEN (Cosgrove et al., 2014). Moreover, these limiting perceptions may extend to gendered assumptions. McCoy et al. (2022) reported that both mothers and teachers systematically under-estimate girls' mathematics performance relative to boys, even when controlling for actual achievement.

Mathematics Anxiety

In the field of mathematics education, a fixed mindset has been linked to the development of an occurrence in students known as mathematics anxiety (MA) (Cribbs et al., 2021), a concept that has occupied an important role

in the research of mathematics education in the last two decades (Carey et al., 2016; Dowker et al., 2016). MA has been described as a condition of apprehension when engaging in mathematical tasks (Johnson et al., 2021). MA is noted to encompass multiple dimensions, including cognitive and affective components (Henschel & Roick, 2018). When considering it from this perspective, the cognitive component can represent students' worry and apprehension regarding their ability, performance, and the aftereffects. The affective component reflects the tension and uneasy emotions and feelings that accompany this. Academic literature has highlighted a complex relationship between MA and mathematical skills (Carey et al., 2016), with a common argument describing it as a reciprocal relationship (Jansen et al., 2013). This phenomenon is noted to potentially be impactful from the very beginning of a child's formal mathematics education, with anxiety-related disruptions to memory encoding potentially contributing to persistent gaps in mathematical proficiency (Tomasetto et al., 2021).

Research has indicated that traditional pedagogical practices in mathematics, such as those that prioritise rote memorisation and repetitive, monotonous tasks, contribute to the development of inaccurate and negative perceptions regarding the subject, as well as individuals' own performances and abilities (Frankenstein, 1989). Recent studies have identified a link between MA and the pedagogical approaches employed in mathematics classrooms, indicating that student-centred practices can be beneficial, while teacher-centred approaches alone are unlikely to alleviate MA (Alanzi, 2020; Atoyebi & Atoyebi, 2022). A study conducted by Alanzi (2020) investigated the effect of active recreational mathematics games (ARMG) on first-grade male students. It found that those exposed to ARMG, in addition to traditional methods, reported lower levels of MA and achieved higher performance scores compared to their peers taught solely through traditional methods. This evidence suggests that innovative, play-based strategies may enhance both affective and cognitive dimensions of mathematics learning. Consistent with this, Boaler (2015) identifies the traditional practice of timed testing as a contributing factor to MA. It is argued that under stressful testing conditions, students may struggle to retrieve mathematical knowledge from working memory, which can lead to underperformance and, over time, the development of MA (Beilock & Maloney, 2015; Boaler, 2015).

Certain practices in mathematics education within the Irish system may raise concerns regarding their potential contribution to the development of MA. For example, the routine testing of times-tables has long been a recognised feature of Irish primary schools; however, there remains a gap in research investigating its prevalence in practice today and its potential impact on student learning and MA. More broadly, Dunphy (2009) found that infant primary classrooms were predominantly teacher-centred, with whole-class instruction serving as the dominant pedagogical approach. In contrast, recent reforms have introduced a new primary mathematics curriculum, which signals a shift away from traditional practices towards more 'playful and engaging learning experiences' (NCCA, 2025, p. 5), reflecting a positive progression in policy towards practices that may combat MA.

From a post-primary perspective, ongoing debate has focused on the high-stakes examination culture surrounding the Junior Cycle (JC) and Leaving Certificate (LC), which serve as the terminal assessments for students at approximately ages 15 and 18, respectively. These examinations have been shown to contribute to a high-pressure, stress-laden school experience (Banks & Smyth, 2015). The LC is particularly significant as it functions as a key gateway to further and higher education. Within this framework, all students are required to complete a mathematics examination. A minimum pass grade is typically necessary for entry to most institutions, while additional bonus points are awarded to students who sit the subject at Higher Level¹ (HL). This positioning reinforces mathematics as a core subject within post-primary education. There is a gap in literature surrounding the levels of MA experienced by students during their post-primary experience, however, upon the new developments of both JC and LC mathematics over the last decade, there has been research conducted in relation to the methods of instruction in classrooms. Berry et al., (2021) investigated instructional practices in LC HL mathematics classrooms. Their findings indicated that 'direct instruction (chalk and talk)' was the most frequently employed pedagogical approach (p. 137). While the study provides useful insight, it was based on a quantitative survey of 111 teachers, which may not be fully representative of the wider teaching population. Nevertheless, it highlights a gap in the literature concerning pedagogical practices that may contribute to heightened MA during an already stressful and high-stakes period in post-primary education.

Research suggests that certain student cohorts, particularly those with learning difficulties, lower achieving, and female students, may be especially susceptible to MA (Mutlu, 2019; Goetz et al., 2013). Mutlu (2019) conducted a study of elementary school students and demonstrated that MA was more prevalent among students with mathematics learning difficulties and 'low achievers' in comparison to their peers who were 'normal' and 'high achievers' (Mutlu, 2019, p. 472). The impact of this on performance was described as detrimental for these students due to the debilitating effect that MA can have on working memory. Female students are also more vulnerable to the negative impacts of

¹ In the Irish Leaving Certificate, students choose between Higher Level (HL), Ordinary Level (OL), and Foundation Level (FL) for each subject. HL is the most advanced and covers content in the greatest depth, OL covers core material, and FL focuses on essential content. The highest points are awarded for HL, followed by OL, and then FL subjects. At Junior Cycle (JC), the first stage of post-primary education, students can opt to sit the mathematics examination at HL or OL.

MA. Goetz et al. (2013) reported that, despite achieving grades comparable to boys, girls in German post-primary schools exhibited higher levels of trait anxiety and lower self-perceived competence in mathematics.

School Structure

As previously mentioned, Bourdieu posits the argument that through the structures of the social world, perceptions are made (Bourdieu, 1989). This is particularly relevant from an educational perspective, as there has been increasingly more attention given to the school structures in place to effectively implement inclusive education. For example, school structure is noted to have a key influence in the nature of social interactions that take place between students (Richardson, 2002), as students in inclusive schools are more likely to identify themselves as having friends inside and outside of school, and experience healthy social interactions with peers (Bunch & Valeo, 2004; Meyer, 2001). However, the format of school structures has also been argued to result in negative social implications for students, including systems that foster ability grouping (Boaler, 2013; Bracey, 2003).

From a Bourdieusian perspective, ability grouping has been described in academic literature as an act of 'symbolic violence' (McGillicuddy & Devine, 2018, p. 89). Sociologically, symbolic violence refers to the subtle and sometimes unrecognisable forms of domination that may occur in social or cultural norms (Bourdieu & Passeron, 1977). A study conducted in disadvantaged Irish primary schools demonstrated that students are more likely to be ability grouped for mathematics and English (McGillicuddy & Devine, 2018), a common practice also active in a more formal and consistent capacity in Irish post-primary schools (Smyth, 2018). This division can take place for students as early as in their second year of post-primary school, when they, their parents and/or their teacher make the decision for the student to study and be examined at HL or OL mathematics (O'Reilly et al., 2017). Although this is a fundamental structure of the Irish mathematics education system, its influence across various domains remains under-researched, and its true impact is not fully understood.

In mathematics education, the widespread practice of ability grouping has been argued to contribute to students' beliefs that some of their peers are inherently more capable than others, and to foster the perception that such ability is fixed (Boaler, 2005, 2013). However, disregarding whether students' self-beliefs are impacted by this structure, there is evidence to suggest that ability grouping has an impact on mathematics performance and learning experiences. Wiliam & Bartholomew (2004) employed a longitudinal study of 955 students across six schools in London over a four-year period. The findings suggest that ability grouping can lead to significant differences in student progress, with those in higher ability groups, or 'sets', achieving better General Certificate for Secondary Education (GCSE) outcomes compared to peers in lower sets, even when the students had similar prior attainment. However, it is important to acknowledge that the teachers who were assigned lower sets were the least qualified to teach mathematics, had lower expectations of their students, frequently set work that was not challenging for the students, and utilised a 'narrower' range of teaching methodologies (Wiliam & Bartholomew, 2004, p. 290). In contrast, two second-order meta-analyses examining ability grouping over a 100-year period suggest that it can enhance student learning across all ability levels (Steenbergen-Hu et al., 2016). These findings underscore the complex nature of this school structure and its potential to both support and hinder student learning and experiences.

In the Irish context, research has increasingly focused on the supply and qualifications of mathematics teachers in schools. It is estimated that approximately 25% of mathematics teachers in Ireland are 'out-of-field', meaning they are assigned to teach mathematics without holding the corresponding subject specific qualifications (Goos et al., 2023, p. 401). Lane and Ní Riordáin (2020) investigated the professional learning needs of out-of-field mathematics teachers in the Irish context. The study identified significant gaps in participants' mathematical content knowledge, with evidence of conceptual misunderstandings relating to the curriculum they were required to teach. The authors argue that instruction delivered by out-of-field teachers may have an effect on students' mathematical attainment and, by extension, their future learning trajectories.

CONCLUSION

The ideological dimension of IME demonstrates that inclusion extends beyond pedagogical interventions to encompass broader sociocultural factors that impact students' mathematical experiences. In particular, the roles of *Growth and Fixed Mindset*, *Mathematics Anxiety*, and *School Structure* are significant in the implementation of IME for all students.

The concept of Growth and Fixed Mindset underscores the potential implications of fostering growth-orientated beliefs in both students and teachers to enhance learning outcomes for students. Furthermore, MA emerges as a significant barrier to IME, disproportionately affecting students with learning difficulties, low achievers, and female students. The interplay between anxiety, mindset, and pedagogical approaches suggests the need for holistic

reconsideration of how mathematics is taught and assessed. High stakes testing and traditional instructional practices may contribute to the persistence of MA, necessitating a shift towards student-centred, inclusive practices that support all learners. Moreover, the role of Higher and Ordinary level grouping, is under-researched, and may have implications on students' learning experiences. The influence of the high number of out-of-field mathematics teachers is also an important facet of the Irish school structure that could affect both teaching quality and student outcomes.

The ideological underpinning of IME challenges the prevailing narrative that mathematics is an exclusionary subject for only a select few. Through critically analysing the interplay between sociocultural and pedagogical practices, this review reinforces the necessity of embedding inclusive ideologies within mathematics education. Future research should investigate teachers' mindsets in relation to mathematics teaching, with particular attention to the intersection of the ideological and pedagogical dimensions of IME within the Irish context. Such inquiry could inform the development of evidence-based strategies that promote meaningful and equitable learning experiences. Additionally, further exploration is warranted into how inclusive practices across mindset, pedagogy, and school structures influence measurable mathematics achievement, ensuring that inclusion and attainment are understood as interconnected rather than competing goals. Ultimately, achieving IME requires a concentrated effort from educators, policymakers, and researchers to dismantle systemic barriers and cultivate a mathematics culture where all students can thrive.

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UNLOCKING INCLUSIVE PEDAGOGY: LEARNING FROM CHILDREN'S INSIGHTS IN A SENIOR AUTISM CLASS

This study explores the experiences of six boys in a senior autism class in a suburban Irish primary school, focusing on their transitions from mainstream classrooms. Centring their voices through participatory creative workshops, the research uncovers how students perceive belonging, participation, and teaching approaches. Findings highlight the importance of sensory accommodations, flexible pedagogy, and authentic peer relationships. The novelty of this study lies in integrating autistic children's verbal and non-verbal contributions, such as LEGO® models, friendship chains, and ranking tasks, into the analysis, offering practical insights for teachers and policymakers. By embedding children's rights (United Nations Convention on the Rights of the Child [UNCRC], Articles 2, 5, and 12) within inclusive pedagogy, the study demonstrates that meaningful participation by autistic students is essential for equity in Irish education.

Keywords: autistic student voice; special education; inclusive pedagogy; creative workshops; participatory research

LOUISE O'CONNELL qualified as a primary school teacher from Mary Immaculate College in 1999 and currently works as a Special Education Teacher in a senior autism class attached to a mainstream boys' school. She holds a Postgraduate Diploma in Special Education from UCC and a Master's in Education, with research focused on inclusive pedagogy and the perspectives of autistic learners.

Corresponding author: 121115134@umail.ucc.ie

INTRODUCTION

Inclusive education is integral to fostering equity and diversity, particularly for neurodivergent learners. The National Council for Special Education (NCSE, 2024) stresses that inclusive practices must be tailored to autistic students. Yet, autistic children's own perspectives remain underrepresented in Irish educational discourse (Leonard and Smyth, 2022). This study addresses this gap by examining the experiences of six boys enrolled in a senior autism class. All participants began their schooling in mainstream classrooms prior to the establishment of the autism classes, and they now transition between the mainstream and autism settings. Through participatory creative workshops, the research amplifies autistic children's voices to inform more inclusive pedagogical practices (Morales, 2019).

RATIONALE

This study adopts an interpretivist and transformative paradigm, recognising the socially constructed nature of inclusive practices and the ethical imperative of promoting social justice in research (Mertens, 2007, 2015). Participatory approaches have gained increasing prominence in autism research, shifting from research on autistic people to research with them (Zanuttini, 2023). Such methods are grounded in children's rights: Article 12 of the United Nations Convention on the Rights of the Child (UNCRC, 1989/2005) guarantees all children the right to express their views on matters affecting them; Article 2 prohibits discrimination on the basis of disability; and Article 5 emphasises the role of guidance and support in enabling children's participation. This rights-based perspective highlights the ethical imperative of involving autistic children directly in shaping research and practice.

LITERATURE REVIEW

Inclusive pedagogy goes beyond accommodation to embrace collaborative and flexible teaching methods. It rejects ability-based grouping in favour of "multiple ways of being" (O'Brien, 2020, p.12). Universal Design for Learning (UDL) provides a practical framework, encouraging flexibility in representation, action, and engagement (Center for Applied Special Technology [CAST], 2024). Despite its promise, barriers such as large classes, limited time, and scarce resources constrain implementation (Materechera, 2020). Professional development is therefore essential to build teacher confidence and competence (Ní Bhroin and King, 2020).

Student voice is a cornerstone of inclusive pedagogy. For autistic students, whose perspectives are often marginalised, enabling authentic expression is vital (Ne'eman, 2011). Participatory methods, including non-verbal approaches,

expand the range of communicative possibilities (Zanuttini, 2023; O’Keeffe and McNally, 2025). Positioning autistic children as co-constructors of knowledge challenges tokenistic inclusion and ensures practices align with their lived realities.

Ireland has made significant strides toward inclusion through legislation such as the Education for Persons with Special Educational Needs (EPSEN) Act (2004) and ratification of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). However, the rapid growth of autism-specific classes raises concerns about isolation and limited reintegration into mainstream education (Travers, 2023). Effective leadership and whole-school planning remain critical to advancing inclusion (Rose and Shevlin, 2021).

This literature review demonstrates the urgent need to integrate autistic students’ voices into research and practice. By combining a children’s rights framework, participatory approaches, and an inclusive pedagogy lens, the current study contributes both theoretically and practically to the field. It offers insights not only into the educational experiences of autistic pupils but also into how schools and teachers can move toward more equitable and responsive practices.

METHODOLOGY

This study adopts an interpretivist paradigm, recognising the socially constructed nature of inclusive practices (Merriam, 2002; Creswell, 2007). A qualitative design incorporating elements of Participatory Action Research (PAR) ensured students’ active involvement and authentic representation of their voices, including both verbal and non-verbal contributions (Milton et al., 2014; Morales, 2019; Stringer, 2019).

ETHICAL CONSIDERATIONS

Ethical approval was obtained from University College Cork (UCC). Safeguards included tailored assent procedures (visual supports, simplified explanations), predictable routines, sensory breaks, and the right to withdraw at any time. Confidentiality was maintained through anonymisation and use of pseudonyms. Collaboration with teachers and Special Needs Assistants (SNAs) ensured accessibility and enriched data collection and analysis. A critical friend provided reflective oversight throughout the research process.

PARTICIPANTS AND SETTING

The research took place in a suburban Irish boys’ primary school with recently established autism classes. Six male students, aged 10–12, participated through purposive sampling (Flyvbjerg, 2011). Informed parental consent and student assent were secured. For confidentiality, participants are referred to using the code “P” followed by a number (e.g., P1, P2) when quoting or referencing their contributions.

DATA COLLECTION AND ANALYSIS

Six creative workshops, designed around Universal Design for Learning (UDL) principles, were used to explore students’ experiences of participation, belonging, and pedagogy. The following multimodal activities were employed:

- **LEGO® Serious Play®** – a hands-on, constructivist method in which students used LEGO bricks to build 3D models representing their vision of an ideal classroom. This approach enabled metaphorical expression and facilitated deeper reflection and communication (McCusker, 2020; Simpson et al., 2002; DES, 2019; DE, 2022a).
- **Bean Pot Activity / Visual Preference Ranking (VPR)** – a structured sorting activity where children evaluated and ranked everyday school activities using cue cards to indicate their likes and dislikes. This provided an accessible and developmentally appropriate means of capturing pupil preferences (Goodhall, 2020).
- **Arts and Crafts (Friendship Chains)** – students created friendship chains as a hands-on arts activity, using visual and creative expression to prompt discussion and reflection on belonging and social connectedness (Kelchtermans, 2021; Wyse et al., 2021).
- **Facilitated Discussions (World Café)** – a structured small-group discussion method that employed themed tablemats as visual prompts to guide conversations about strengths and areas for improvement in creating an inclusive school. This method encouraged collaborative dialogue, idea sharing, and collective reflection (Brown & Isaacs, 2005; Lohr et al., 2020; Brown, 2010).
- **Teacher-Spider Exercise** – a creative, participant-centred worksheet activity designed to explore students’ perceptions of ideal teacher qualities. Using multimedia stimuli and open-ended prompts, students

independently and collaboratively reflected on effective teaching behaviours, preferred teacher attributes, and approaches that foster positive learning environments, with visual representations capturing diverse perspectives (Bakx et al., 2015; Goodhall, 2020; Shankman, 1996; DE, 2022b).

- **Diamond Ranking (DR)** – a visual sorting technique in which students ranked images of school-related activities in a diamond-shaped layout to differentiate most- and least-preferred options (Dabel, 2006; Clark, 2012).

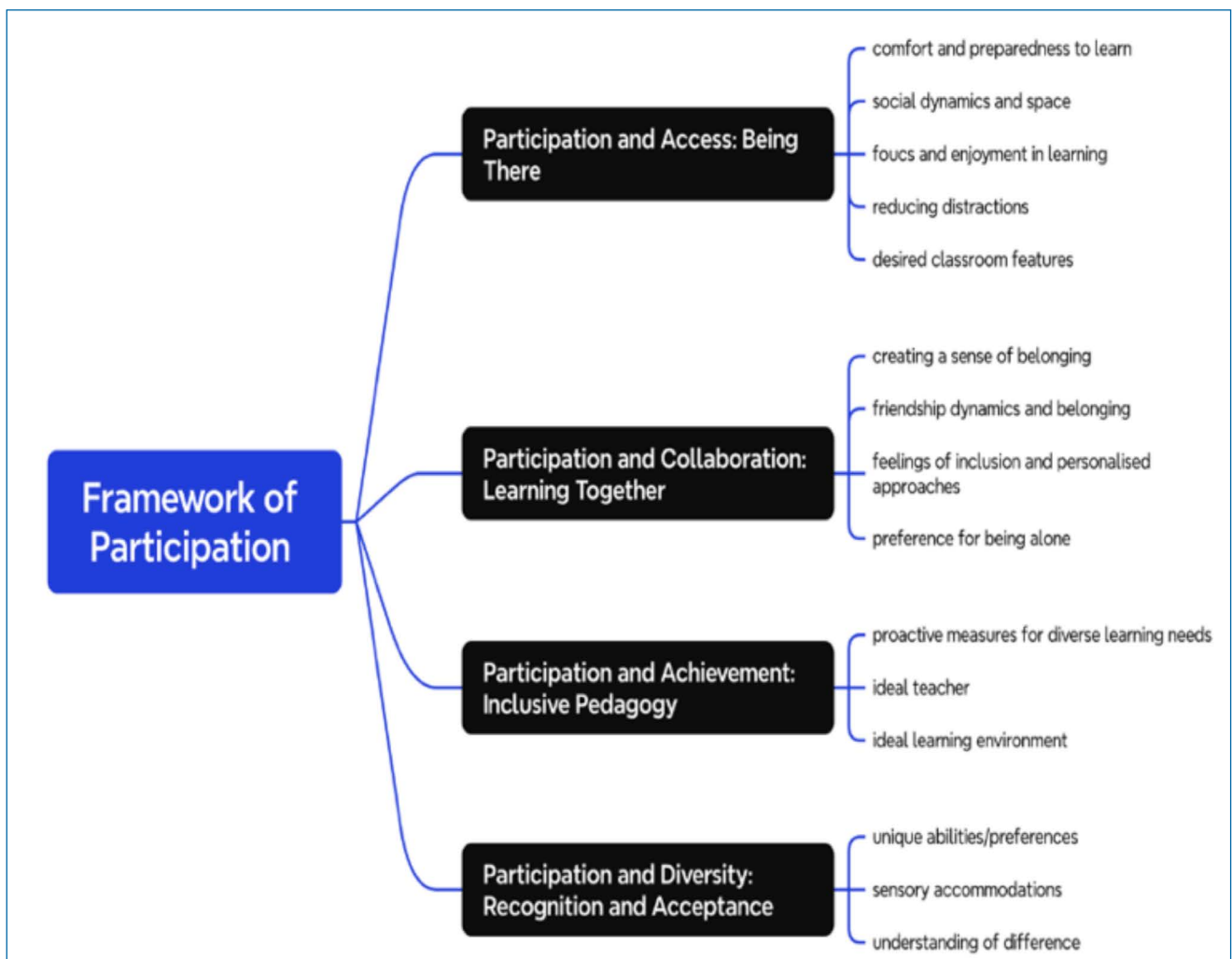
These multimodal methods accommodated varied communication styles and provided opportunities for both verbal and non-verbal expression. Verbal contributions were transcribed, while creative artefacts and researcher observations captured non-verbal data. Input from teachers and SNAs further enriched the dataset.

Data were analysed using Braun and Clarke’s (2006) thematic analysis framework, supported by colour-coded matrices (Bree & Gallagher, 2016) to identify patterns across contributions. To enhance analytic rigour, redundant codes were refined and consolidated using Black-Hawkins’ (2014) Framework of Participation, which foregrounds multiple dimensions of inclusive practice. Triangulation of data sources further strengthened the trustworthiness and credibility of the findings.

FINDINGS

Analysis of the data generated four interconnected themes: Participation and Access, Collaboration and Belonging, Inclusive Pedagogy, and Recognition and Diversity. Together, these highlight how autistic students experience inclusion, what they value in learning environments, and how they articulate belonging and difference. The themes integrate both direct student quotations and non-verbal artifacts (e.g. LEGO® models, friendship chains, spider diagrams, doodles), ensuring that multiple modes of expression are recognised as authentic forms of student voice.

Figure 1: Framework of Participation and Sub Themes



THEME 1: PARTICIPATION AND ACCESS

Students consistently emphasised the importance of comfort and sensory-friendly environments as prerequisites for participation. For example, one student explained:

“The sensory room first thing in the morning gives me a good chance to prepare for the day.” (P2)

Others described the value of physical comfort and calming resources:

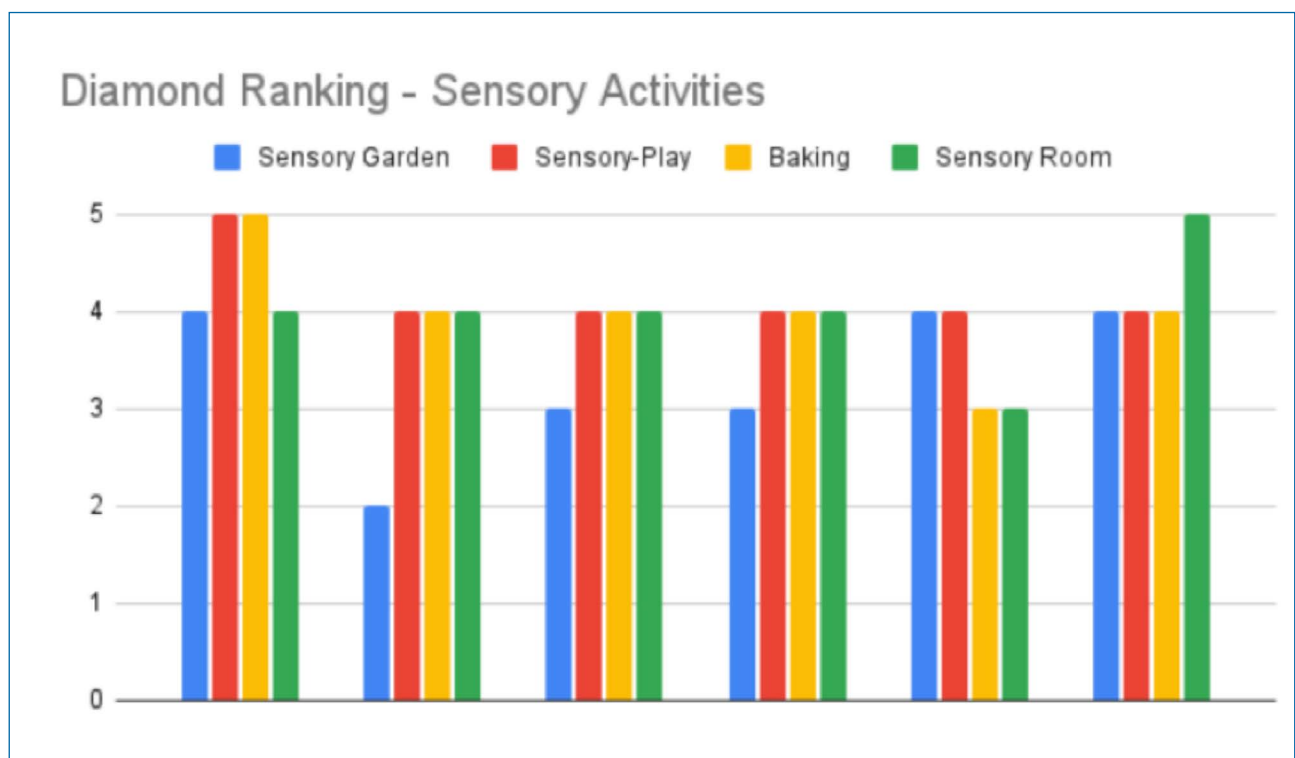
“Beanbags in the corner.” (P1)

“Cosy cushions.” (P3)

“Music in the background.” (P4)

These accounts echo Ashburner et al. (2008), who found sensory processing challenges significantly influence autistic students’ classroom engagement.

Figure 2: Sensory Activities (Preferences from Diamond Ranking Data).



Students also generated non-verbal representations of participation. Through LEGO® Serious Play®, several boys built models showing swings, beanbags, and “quiet corners.”

“Expansion to the chill-out zone – have a swing in it.” (P4)

“A treadmill for exercise for a walking break or a gym in the classroom.” (P2)

“Classrooms should be calm ... like the beach.” (P5)

Figure 3: LEGO® models of students' ideal classroom.

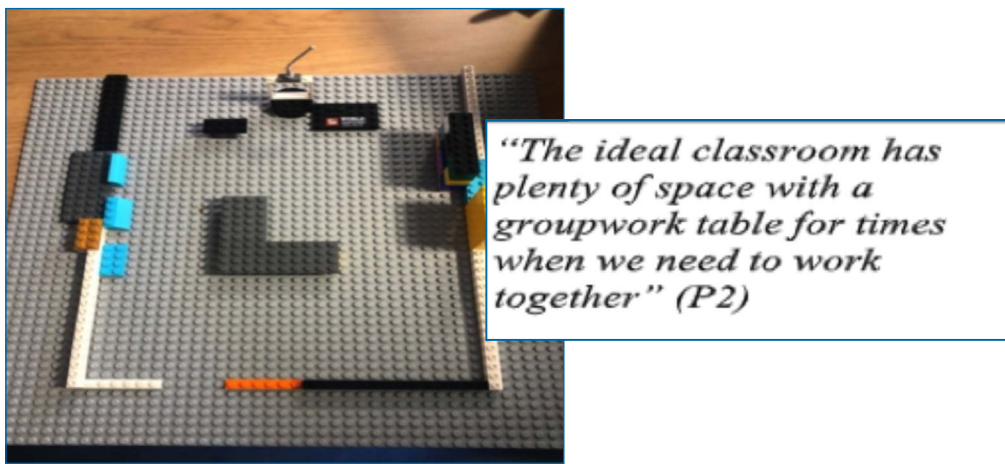
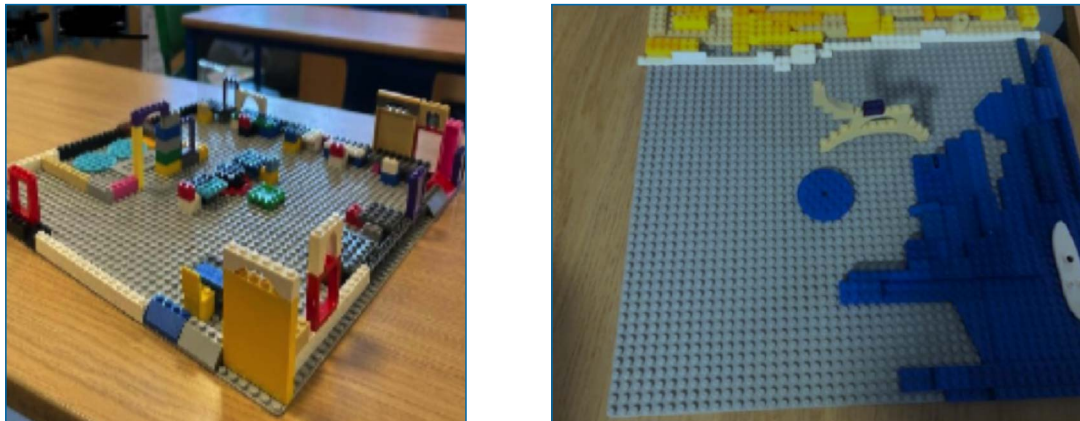


Figure 4: Bean Pot Activity: Students ranking preferred and non-preferred activities.

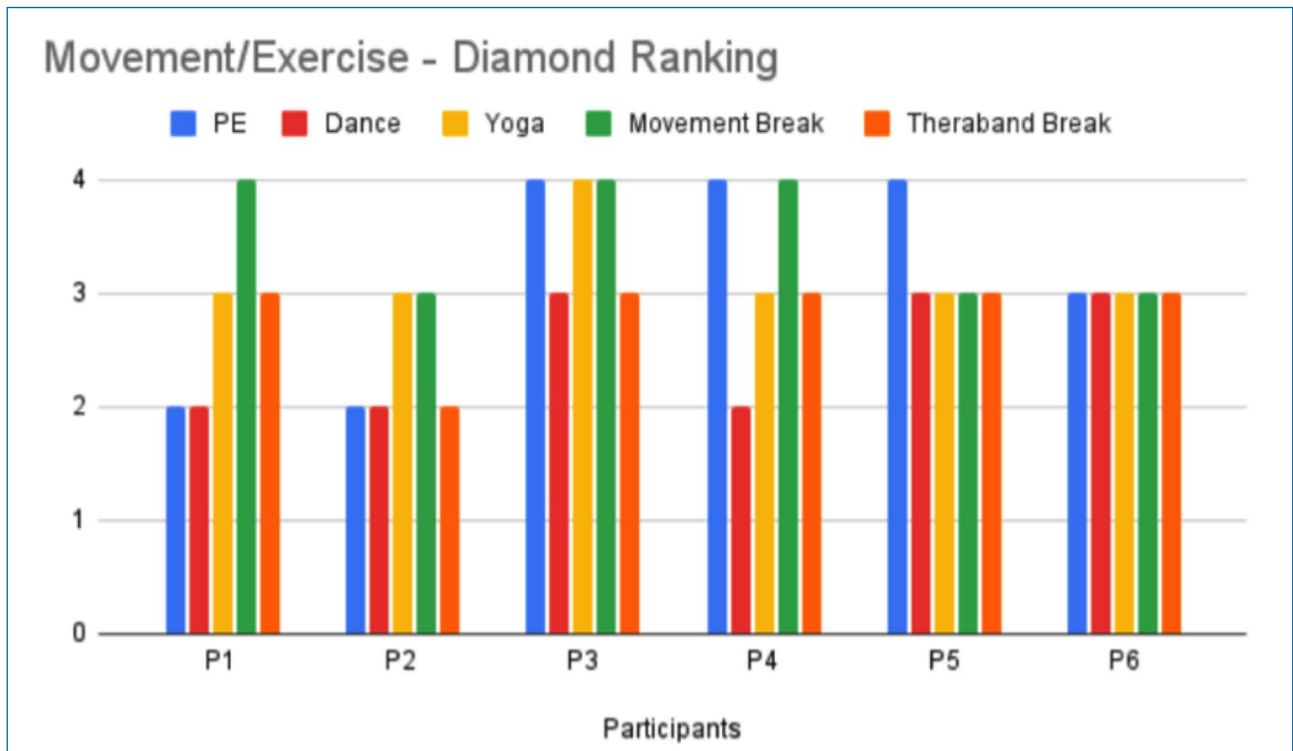


The Bean Pot activity further revealed preferences and aversions. Students placed art, PE, and project work into the “yes” pot, while tests and homework went into the “no” pot. One student explained:

“I don't like tests. They make me feel nervous. But projects are fun because I can choose.” (P2)

These findings illustrate that participation is contingent not only on access but also on flexibility, choice, and attention to sensory regulation.

Figure 5: Movement Preferences (Diamond Ranking Data).



THEME 2: COLLABORATION AND BELONGING

Friendship and belonging emerged as central but complex aspects of the boys’ experiences. For some, the autism class provided comfort and familiarity, while others preferred their mainstream peers.

Figure 6: Advantages of Mainstream/Autism Class (World Café Method Data).

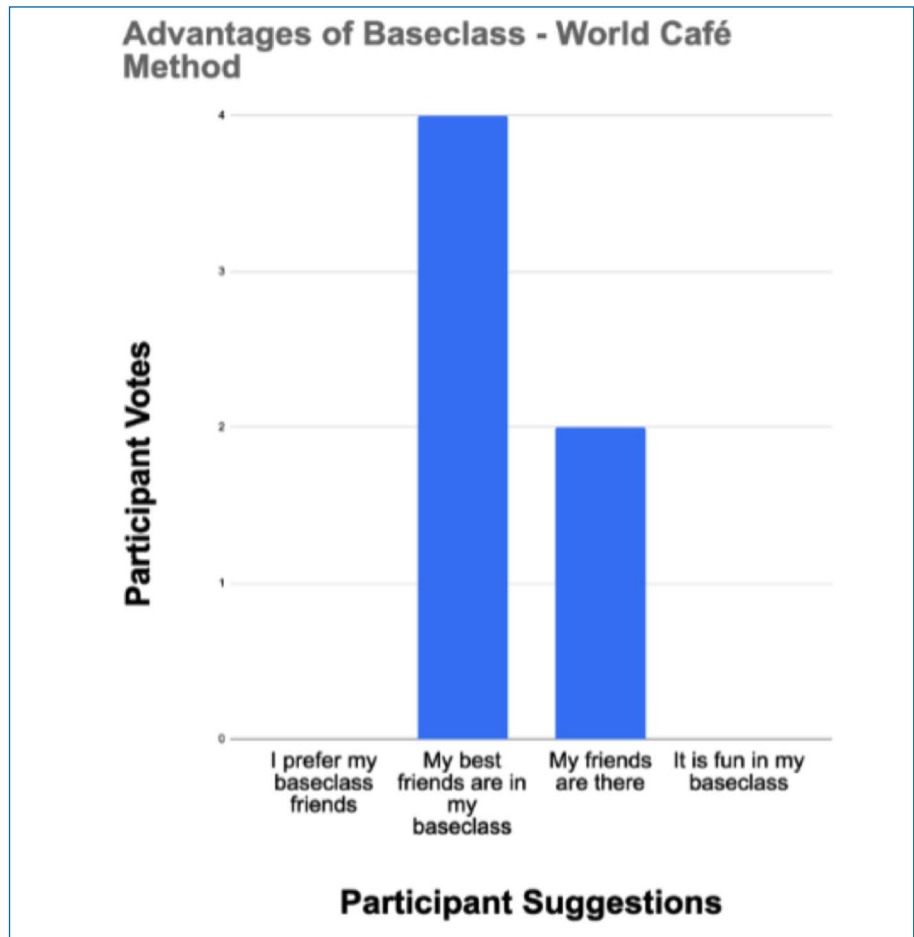
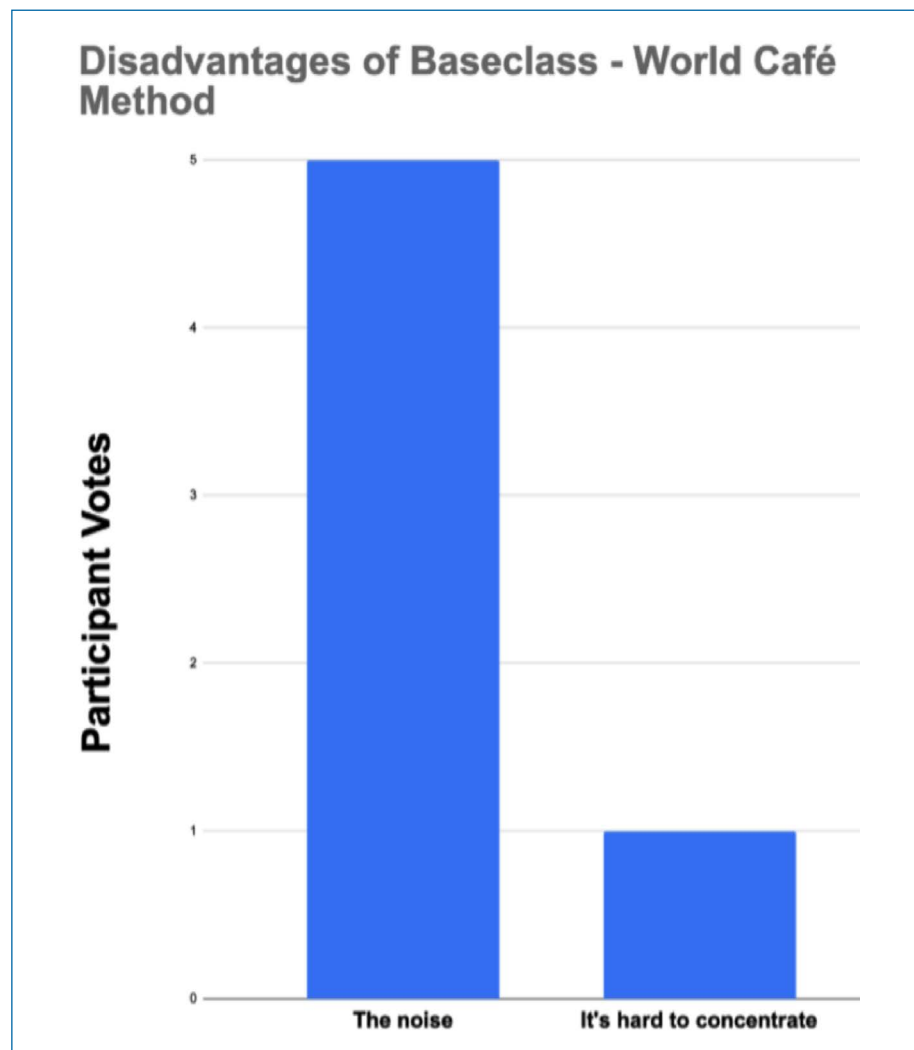


Figure 7: Disadvantages of Mainstream/Autism Class (World Café Method Data).



"75% I feel I fit in in (Autism Class). In my base class fully yes as I have been with them since Junior Infants and I feel comfortable." (P1)

"Honestly, they (friends) feel the same (in both settings) and they make me feel happy." (P4)

"Classroom is obviously better as the people in (Autism Class) are straight up annoying – I prefer my friends from my base class. In (Autism Class) my friends are very different to me." (P5)

Some students expressed confusion or difficulty navigating social situations:

"I basically feel confused all of the time." (P1)

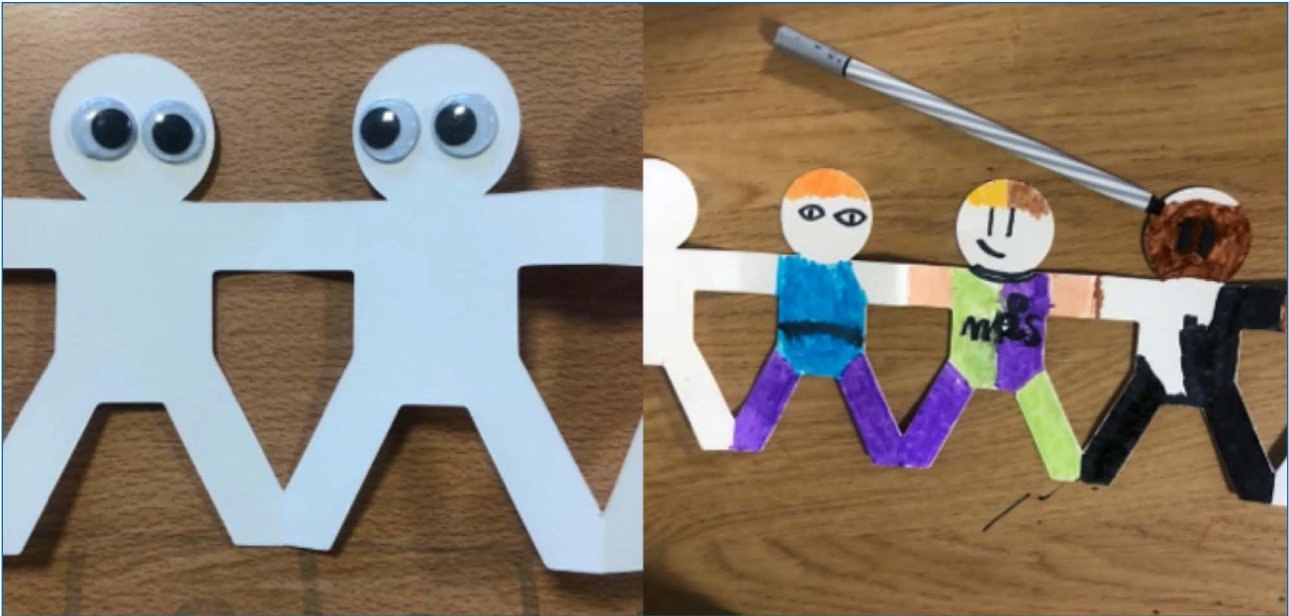
"They can be talking about a subject that I know very little about." (P3)

Others highlighted the positive qualities they valued in friends:

"All friends are different, and you can play different games with different friends... I like playing Lego." (P1)

"I like friends that are kind, loyal and talking nice behind my back – they don't say bad things when I'm not there. Not sneaky friends." (P4)

Figure 8: Friendship Chain representing Belonging.



The Friendship Chain activity visually represented these dynamics. One student described his artwork as:

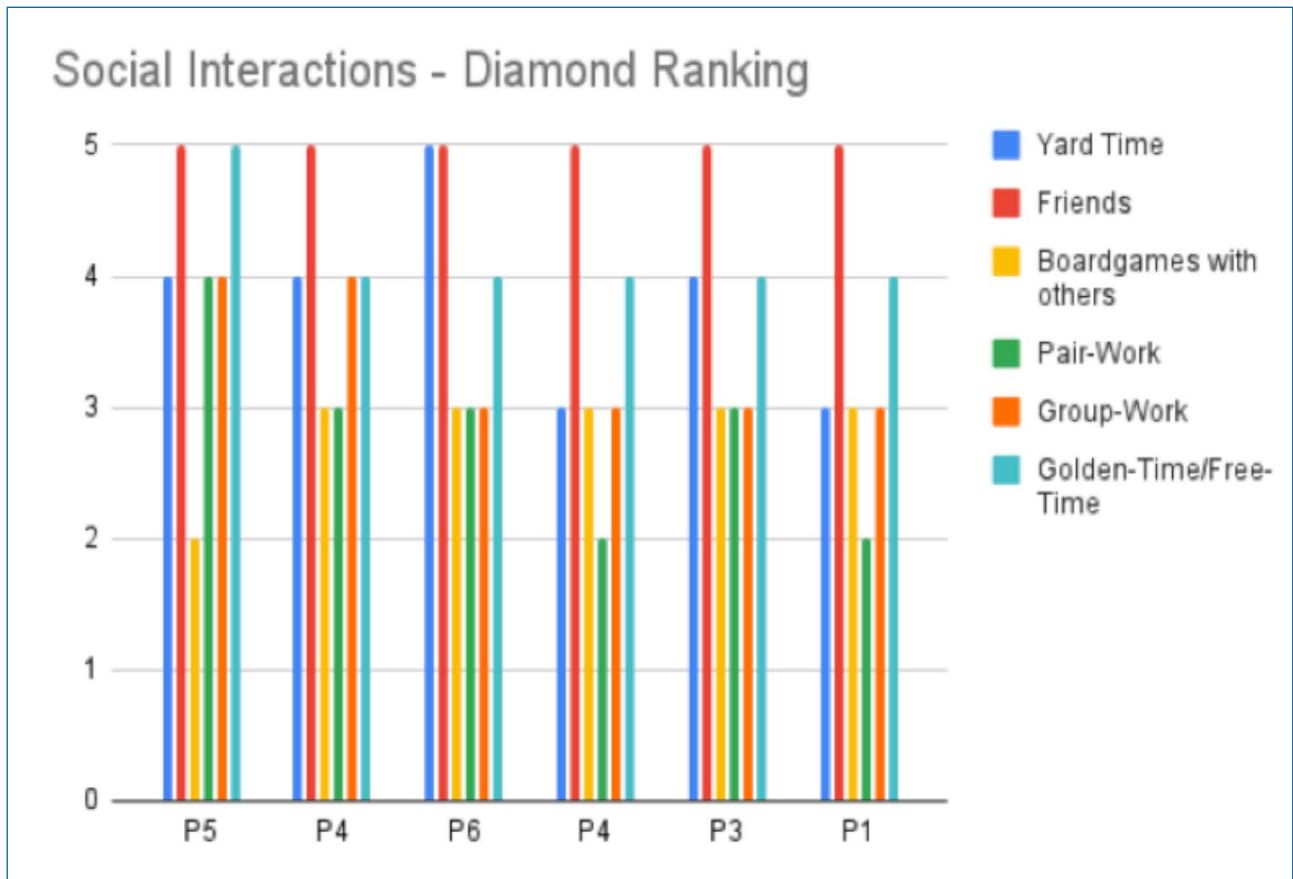
“The prints that friends leave.” (P4)

Figure 9: “The prints that friends leave.” (P4)



These insights show how belonging is both relational and fragile: friendships can foster joy and security, yet exclusion or misunderstanding remains a risk. As Calder et al. (2013) argue, autistic children’s friendships often reflect both resilience and vulnerability, highlighting the need for inclusive environments that nurture authentic peer connections.

Figure 10: Social Interaction Preferences (Diamond Ranking Data).



THEME 3: INCLUSIVE PEDAGOGY

Students voiced a strong desire for teaching that was flexible, empathetic, and responsive rather than standardised or harsh. They identified relational qualities as central to good teaching:

- “Kind and happy, speaks in a soft gentle voice – doesn’t shout – they make you feel happy and in the green zone.” (P5)*
- “Be kind to the pupils, correct pupils but don’t let your voice get too high or angry.” (P2)*
- “A teacher should understand the way you are feeling.” (P2)*
- “A teacher that makes me feel safe.” (P5)*

These insights reinforce the importance of relational pedagogy, echoing Florian and Black-Hawkins (2011) and Rose and Shevlin (2021), who highlight kindness, empathy, and adaptability as foundational to inclusive teaching.

The Teacher Spider exercise allowed students to map these ideas visually. In their spider diagrams, “kind” consistently appeared at the centre, supported by qualities such as “helpful,” “funny,” and “understanding.”

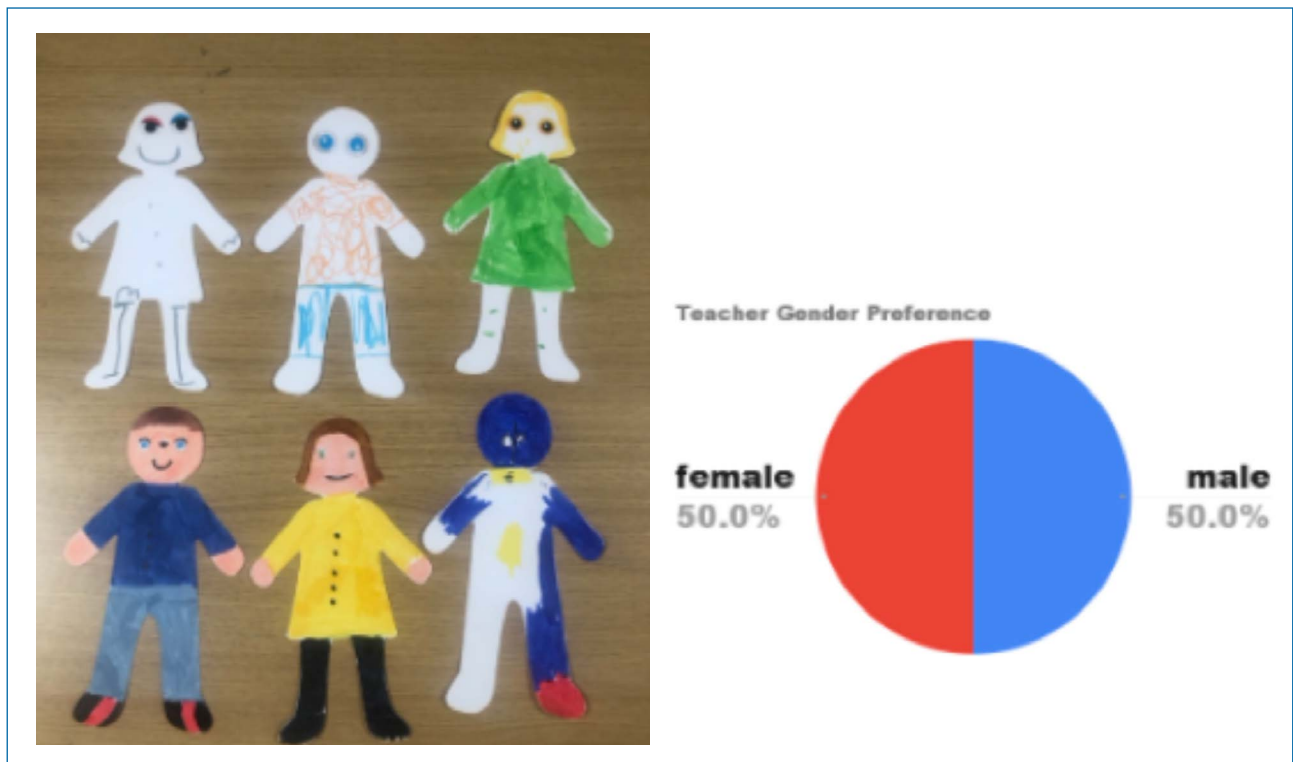
Figure 11: Spider Diagram illustrating student-identified qualities of an Ideal Teacher.



Figure 12: Undesirable Characteristics of a Teacher (Spider Diagram Data).



Figure 13: Gender Preferences of the Ideal Teacher.



Students also engaged in the Diamond Ranking activity to prioritise school subjects. Creative subjects such as art, PE, and project work consistently ranked highest, while tests and copying activities were placed at the bottom.

Figure 14: Diamond ranking of school activities.

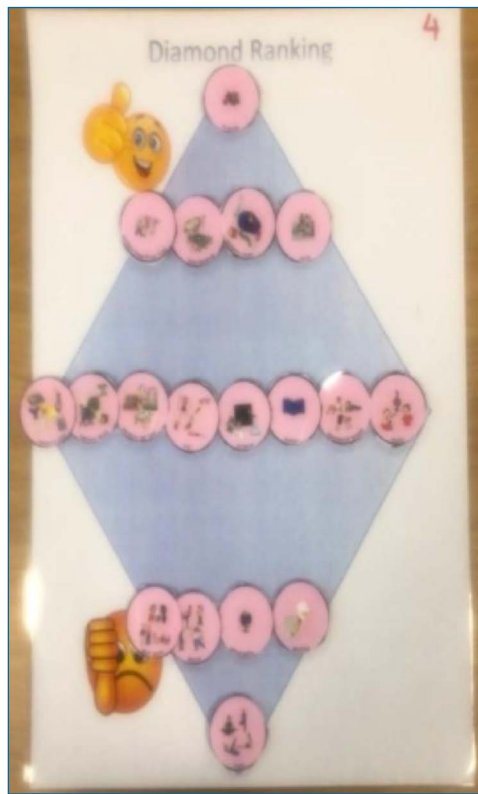
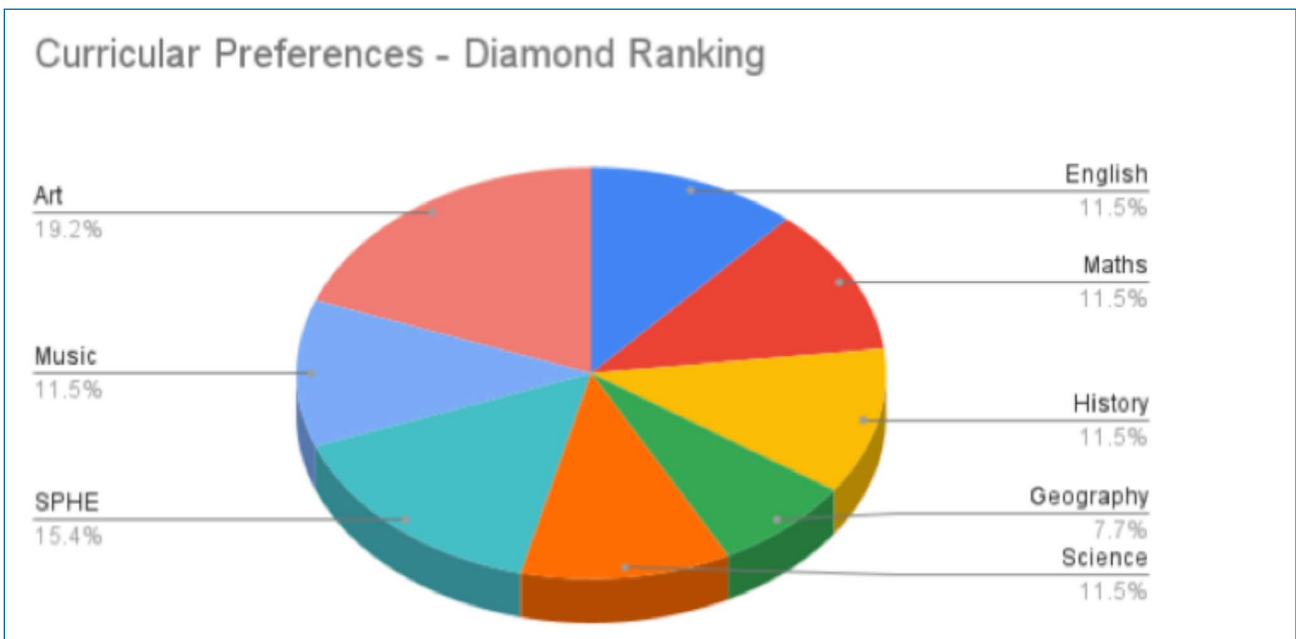


Figure 15: Curricular Preferences (Diamond Ranking Data).



These findings highlight students' clear preference for learning environments that value creativity, autonomy, and relational support over rigid academic measures. This resonates with Goodall's (2015) perception of an Autism-friendly school and McCormack (2019), who stresses that teacher professional development must go beyond technical strategies to address attitudes and relational competence.

THEME 4: RECOGNITION AND DIVERSITY

Participation and diversity in education demand recognition and acceptance. For the students in this study, this meant a classroom where differences were understood and valued, and where teachers provided both flexibility and emotional support. As one student explained:

"A teacher that understands your abilities." (P4)

Another highlighted the importance of creative, personalised learning:

"Activities that would evoke more creativity – people that can explain things to you in a different way – a way that suits you." (P2)

These perspectives echo Hummerstone and Parsons (2021), who argue that autistic students often prioritise emotional support and innovative teaching approaches, yet staff may focus narrowly on academics.

Sensory activities emerged as central for concentration, regulation, and engagement. Students valued opportunities to self-regulate:

"A teacher might let you use fidgets." (P2)

"I really like the sensory room because if I am not feeling good I can go there and if I am feeling good I can also go there." (P1)

Students also linked creativity to regulation, describing drawing and doodling as strategies to support focus:

"I like to draw as I think." (P4)

"Yeah ... so do I ... doodle!" (P2)

"Me too!" (P5)

Yet sensory tools were not universally welcomed, showing the importance of flexibility and choice:

"I like therabands – they are cool – I love to stretch my body." (P3)

"I don't – I'm scared of them snapping." (P4)

These exchanges highlight how autistic students balance common ground with diverse preferences. They illustrate the need for inclusive pedagogy that values individuality, recognises contrasting perspectives, and supports agency.

SUMMARY OF FINDINGS

Across all themes, students emphasised the importance of:

- Comfort and sensory regulation (Participation and Access).
- Fragile but vital friendships (Collaboration and Belonging).
- Flexible, creative pedagogy (Inclusive Pedagogy).
- Recognition of individuality and voice (Recognition and Diversity).

These findings contribute to a richer understanding of inclusion, rooted in autistic children's own voices, verbal and non-verbal alike.

DISCUSSION

This study sought to explore autistic children's perspectives on classroom experiences and to foreground their voices in shaping inclusive pedagogy. By using participatory and creative methods, the findings revealed nuanced insights into participation, belonging, pedagogy, and recognition of diversity. This discussion interprets those findings in relation to existing literature, highlights the novelty of the study, and reflects on limitations and directions for future research.

PARTICIPATION AND ACCESS

Students' prioritisation of calm, sensory-friendly environments emphasises the centrality of comfort to participation. This echoes Ashburner et al. (2008), who found that sensory processing difficulties significantly affect classroom engagement. The children's emphasis on quiet zones, beanbags, and swings reflects the guidance of the Department of Education (2022c), which calls for personalised learning environments in autism classes. Importantly, the children's LEGO® models and verbal suggestions demonstrate that they not only identify challenges but also generate practical solutions.

The Bean Pot activity reinforced the idea that autistic students value choice in learning. By ranking projects and creative work as preferred, and tests or homework as aversive, the students articulated the importance of autonomy in curriculum design. This supports Goodall (2015), who argues that ASD-friendly schools must balance academic demands with engagement and self-expression.

COLLABORATION AND BELONGING

The children's accounts of friendship reveal the complex and sometimes contradictory nature of belonging. For some, peers in mainstream classes represented stability and comfort, while others valued the support and familiarity of the autism class. These findings align with Calder et al. (2013), who highlighted both opportunities and challenges in autistic children's social relationships.

The friendship chain artifacts illustrated both connection and fragility. Long, continuous chains symbolised secure ties, while shorter chains highlighted exclusion or loneliness. Booth and Ainscow's (2016) *Index for Inclusion* positions belonging as a central dimension of inclusion. This study adds weight to that argument by showing how autistic children themselves visualise belonging through creative expression.

INCLUSIVE PEDAGOGY

The findings highlight a strong preference for flexible, individualised teaching. Students rejected "standardised work" in favour of differentiated projects, aligning with Florian and Black-Hawkins' (2011) inclusive pedagogy, which resists ability grouping and focuses on diversity.

The Teacher Spider diagrams reinforced the centrality of relational pedagogy: kindness, patience, and humour were prioritised over academic skills. This echoes Rose and Shevlin (2021), who argue that relationality is critical for inclusion in Ireland. Similarly, the Diamond Ranking activity demonstrated that creativity, art, and movement were valued above rote learning, highlighting the importance of balancing academic rigour with opportunities for engagement.

Importantly, frustrations about being underestimated in mainstream classrooms highlight persistent deficit perspectives. McCormack (2019) emphasises that teacher professional development must address not only strategies for differentiation but also attitudes that may limit autistic students' potential.

RECOGNITION AND DIVERSITY

The findings show that autistic children are aware of both their individual needs and broader dynamics of disclosure and difference. Divergent responses to sensory tools (therabands) highlighted the inadequacy of universal solutions, supporting UDL's insistence on multiple means of engagement (CAST, 2024).

Identity and agency were also central. Calls for student voice in school decision-making reflect Article 12 of the UNCRC, highlighting the ethical and legal imperative to include children in decisions that affect them. Non-verbal doodles depicting nervousness and regulation further demonstrate the expressive richness of participatory methods, aligning with O'Keeffe and McNally (2025), who highlight strengths-based approaches to autistic play and creativity.

CONTRIBUTION AND NOVELTY

This study contributes uniquely to inclusive education in Ireland by placing autistic children's own voices, both verbal and non-verbal, at the centre of analysis. While much Irish research has focused on teacher or parent perspectives (e.g., McCormack, 2019), few studies have given such prominence to children's creations, symbols, and metaphors.

By employing LEGO® Serious Play®, friendship chains, Bean Pot activities, and doodles, this research demonstrates that autistic children can meaningfully co-construct knowledge when provided with accessible methods. This advances participatory approaches in autism research, responding directly to calls for research *with* autistic people rather than *on* them (Ne’eman, 2011; Zanuttini, 2023).

LIMITATIONS

Several limitations must be acknowledged. The sample was small (six boys) and from a single suburban school, limiting generalisability. Perspectives of autistic girls, secondary school students, or children in diverse socio-economic contexts may differ. The researcher’s dual role as teacher may also have shaped responses, despite efforts to mitigate power dynamics through creative methods and reflexivity.

CONCLUSION

This study demonstrates the transformative potential of inclusive pedagogy when autistic children’s voices are placed at the centre of educational practice. Through participatory workshops using creative, multimodal methods, six boys in a senior autism class articulated their perspectives on participation, belonging, teaching, and diversity. Their contributions highlighted the importance of sensory accommodations, flexible pedagogy, and authentic peer relationships in creating learning environments where autistic students can thrive. By integrating both verbal and non-verbal expressions, including LEGO® models, friendship chains, and doodles, the study illustrates the diverse ways autistic children communicate their experiences. It also responds to the ethical imperatives of the UNCRC (Articles 2, 5, 12) and the UNCRPD, affirming children’s rights to express their views and participate in decisions that affect their lives.

IMPLICATIONS FOR POLICY AND PRACTICE

Policy

The findings indicate the need for policy frameworks that meaningfully embed autistic children’s perspectives in the development of inclusive education strategies. National and local initiatives should support the use of participatory and creative methods to ensure that autistic learners’ views contribute to systemic change.

Teacher Education and Professional Development

Teacher education should address not only pedagogical strategies but also relational competencies. Initial teacher education and continuing professional development must support:

- flexible and differentiated approaches to instruction
- the application of UDL principles to promote multiple pathways for engagement and expression
- opportunities for teachers to learn directly from autistic students’ accounts of comfort, belonging, and participation

Such approaches can challenge deficit-based assumptions and promote inclusive, responsive classroom practice.

Classroom Practice

The insights provided by students point to practical strategies that can enhance day-to-day inclusion. These include:

- fostering creativity and choice through art, movement, and project-based learning
- strengthening peer relationships and belonging by drawing on students’ own definitions of friendship and inclusion
- accommodating sensory differences through quiet zones, flexible seating, and optional regulation tools
- promoting student agency by creating formal opportunities for autistic learners to contribute to decision-making within the classroom

These practices align closely with UDL principles and reflect students’ clearly expressed preferences.

Future Research

Future studies should extend participatory approaches to a broader range of educational contexts, including secondary schools where belonging and identity may become more complex. Longitudinal research could explore how autistic students' perspectives develop over time and across transitions. Research should also include autistic girls, non-speaking autistic children, and pupils from diverse socio-economic and cultural backgrounds to deepen understanding of inclusive pedagogy. In addition, there is a need to examine how autistic students' insights can be systematically incorporated into teacher professional development and whole-school planning.

Concluding Remarks

This research contributes a distinctive perspective to inclusive education in Ireland by showing that autistic children are not passive recipients of support but active, insightful co-constructors of knowledge. As one participant observed, "Kids can have a voice to help run the school. Teachers shouldn't decide everything." Listening to such voices brings educators and policymakers closer to realising inclusion as a lived experience rather than an aspiration. As Eisner (1992) reminds us, "different ways of seeing give us different worlds." Embracing autistic children's perspectives offers one such way of seeing—and moves us toward classrooms that are inclusive not only in principle but also in practice.

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TEACHERS' PERCEPTIONS OF THEIR NEEDS IN MANAGING INCLUSIVE CLASSES IN INDIA

India, in common with many countries has made a commitment to the development of an education system that is more equitable and inclusive. Policies within India have emphasised the need to ensure that all children, including those with special educational needs have access to education that addresses their collective and individual needs. Many teachers in India have expressed apprehensions about an increased diversity of students entering their classrooms. This research was undertaken in four major metro cities of India (Delhi NCR, Mumbai, Bangalore and Kolkata) to understand the challenges faced by teachers in addressing the diverse needs of learners, investigate their professional development needs in relation to inclusion and propose the framework of a professional development programme. The reported investigation generated data, which has been used to discuss with teachers their perceptions of their professional needs to work effectively in inclusive classrooms. Issues of professional development curriculum challenges and the need to support teacher well-being were amongst those that emerged from the data.

Keywords: Inclusive education, Teacher professional development, Diverse learners, Policies in India, Teacher perceptions

DR. DIVYA DUBEY is a special education teacher, consultant and teacher trainer with over 16 years of experience supporting children and adolescents across diverse educational settings in India. She holds a Masters and Doctorate from the University of Northampton, UK, where her research focused on the practical implementation of inclusive practices in mainstream schools. She is presently based in Delhi NCR, where she heads the Department of Learning Support of a large, mainstream school.

Corresponding author: dr.divyashukladubey@gmail.com <https://orcid.org/0009-0009-3546-7915>

INTRODUCTION

It has been suggested that inclusive education is the most reasonable, just and successful approach to educating all learners regardless of need or ability (Florian and Linklater, 2010; Forlin, 2018). International agreements (United Nations Educational, Scientific and Cultural Organisation (UNESCO), 1990; 1994), initiated discussions about the causes of marginalization, and encouraged policy makers to consider how a more equitable approach to education might be achieved. This prompted governments, including the Indian administration, to issue new policies and strategies for inclusion (Ministry of Human Resource Development, 2009; 2020).

Inclusive education has gained currency across the world in the last four decades, with its foundation on the premise that diversity exists in all classrooms. An inclusive ideology prioritises provision for all learners and places the responsibility on schools to reform and improve their systems, practices and methods of classroom instruction; to meet the needs of every learner. An emphasis upon the inclusion of students' special educational needs and disability has driven much of the research in this area, and continues to provide a focus for much of the work reported (Keles, Ten Braak and Munthe, 2024). It acknowledges that inclusion is more than the physical placement of students with diverse needs in mainstream classes. (Kinsella and Senior, 2008; Winter, 2006). In India, provisions for students with special educational needs are informed by policies including the Rights of Persons with Disabilities Act (2016), which mandates inclusive education, and schemes such as Samagra Shiksha that support resource rooms, special educators, and assistive aids in schools. However, implementation remains uneven and varies widely across states and institutions.

Sharma *et al.* (2012) have summarised studies conducted on teachers' ability to address diverse needs and contend that teacher confidence and understanding is an important determinant in making classrooms more inclusive as these perceptions impact their thoughts and actions. They also note the dearth of studies that focus on teacher efficacy in including students with diverse needs in regular classrooms. Inclusive teaching understandably requires skills and proficiency but determining these demands further investigation. Therefore, the attitudes, capabilities and training of mainstream teachers become a legitimate focus of inquiry to provide greater understanding of what constitutes an inclusive classroom.

REVIEW OF LITERATURE

Training teachers features prominently among the reforms listed by the EFA Global monitoring report (UNESCO, 2013-14). Singal *et al.* (2010), contend that training of mainstream teachers is one of four critical factors necessary to make

inclusive education in India a reality. This is further emphasised by researchers who have explored the challenges of developing a more inclusive approach to education in several parts of India (Sharma, Moore and Sonawane, 2009; Das, Gichuru and Singh, 2013; Kumari *et al.*, 2019).

Recent studies of Indian teacher concerns regarding their abilities to include learners with special educational needs and disabilities (SEND) in their classrooms also suggest that there are significant deficiencies in their understanding, knowledge and skills in this area (Sharma, Moore and Sonawane, 2009; Bhatnagar and Das, 2013), and this has been identified as an area in need of greater research to understand how progress can be made (Unnikrishnan, 2010). The promotion of inclusion must begin with raising awareness of the issues. In a study conducted in Maharashtra State, Yerankar (2015) found that National Education Policy (Ministry of Human Resource Development, 2020) based upon the Right to Free and Compulsory Education Act (RTE, Ministry of Human Resource Development 2009) was having a positive impact.

However, there were still significant numbers of education administrators and school staff who were not conversant with the legislation's requirements, most notably in rural districts of the state. Furthermore, it was apparent that curriculum adaptations had not been made, and the professional skills of teachers had not been updated to address a changing school population. In India, teacher professional development includes pre-service and in-service training, though the latter remains non-standardised across institutions. Pre-service programs offer limited, often optional, theory-based content on disability education, leaving teachers ill-equipped for inclusive classrooms (Singal, 2015; Myreddi and Narayan, 2000). Most training focuses on single disabilities, a concern highlighted by several scholars and UNESCO (Mitchell and Desai, 2005; Sharma *et al.*, 2009; Sharma and Das, 2015; UNESCO, 2005). Sharma and Das (2015) advocate for systemic reforms and mindset shifts within the National Council for Teacher Education and UGC to prioritise inclusive teaching as essential, not optional.

A further study (Ramchand, 2021) from Karnataka State, suggested that while schools were beginning to comply with legislative requirements, issues related to the provision of quality education were still being interpreted in narrow academic terms, and there were ambiguities regarding the responsibilities of regular class teachers and special educators. The acceptance of learners with special educational needs as being the responsibility of all teachers is far from established (Shah *et al.* 2016; Forber-Pratt and Sarkar, 2022; Sharma, Malik, and Nagy 2022), and is further limited by the lack of available teaching expertise, specialist resources and necessary adaptations of building infrastructure (Sarin, 2020; Mondal and Islam, 2023). Despite the many challenges that persist and create obstacles to the promotion of inclusive schooling in India, there have been promising developments, and reported initiatives taken by teachers and others to bring about change. In a study from the north-east of India, Ningombam (2016) found that some schools had made strides towards making changes in practice to accommodate a more diverse population. However, these remained a minority of schools, echoing findings from elsewhere across the country (Femandes and Kakodka, 2016; Malkani and Rose, 2018).

METHODOLOGY

An investigation was conducted to address the research question - *"What are teachers' perceptions of their professional needs to enable them to manage an inclusive class?"*.

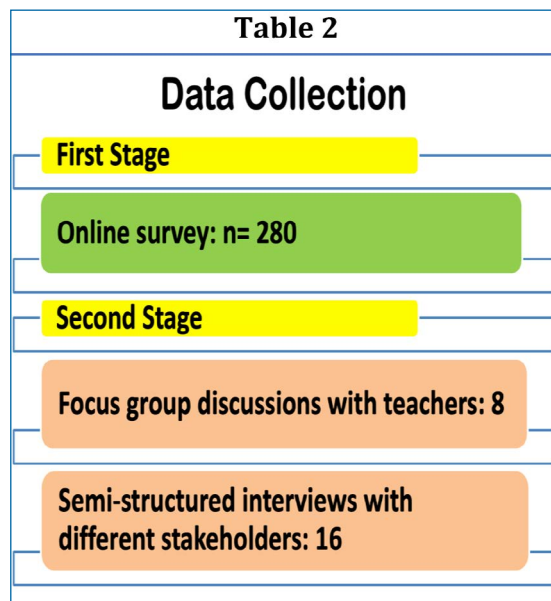
A purposive sample was established from ten schools across four metro-cities of India, these being Delhi -NCR, Mumbai, Kolkata and Bangalore. Data were collected in two stages. The first being an online survey of teachers (N= 280) which enabled the collection of data from ten schools in four different locations simultaneously. This dataset was electronically stored and categorised according to both school and city location. The composite data having been organised to provide ease of access to responses to the 24 survey questions allowed for categorization and coding (Kawulich, 2017). A code was assigned to each participant and school so that open-ended responses could be traced back to each participant, whilst maintaining data anonymity. All school names were replaced by codes and participants assigned individual numbers and codes. All ethical approval, including the oversight of data management and storage were obtained from the University that was supporting the research.

Thereafter, responses to all the questions for each participant were compressed into one excel sheet by simplifying the questions, using alphabets for responses to multiple choice questions, and including the responses to open ended questions. After this final process of simplification, the data could be easily read and understood immediately, enabling the development of an initial overview and the identification of emergent themes.

One school from each location was chosen for the second stage of data collection. Focus group discussions with teachers and semi-structured interviews with other stake holders including the Heads of school, SEN Coordinators, Section Heads or Coordinators and Counsellors enabled the collection of more in-depth qualitative data in this phase.

Two focus group discussions were conducted in each school with each group comprising 6-7 participating teachers who taught different subjects and classes in the upper primary and high school section. Thereafter interviews were conducted with the other stakeholders. 8 focus groups with teachers and 16 semi-structured interviews with other stakeholders were conducted (see Table 1 and 2 below).

LOCATIONS	DELHI NCR MUMBAI KOLKATA BANGALORE
DATA COLLECTION METHODS	ONLINE SURVEY FOCUS GROUP DISCUSSIONS SEMI STRUCTURED INTERVIEWS
NO.OF SCHOOLS	FIRST STAGE- DELHI NCR-2 MUMBAI- 3 KOLKATA-2 BANGALORE- 3 SECOND STAGE- 1 SCHOOL FROM EACH LOCATION



After the qualitative data were transcribed, segmented and arranged in relation to each research question, the responses to the open-ended questions from the survey were incorporated wherever relevant and applicable. This enabled scrutiny of the comprehensive data pertaining to each research question from all three sources at one glance and assisted in the early process of triangulation.

The segmented data was scrutinised to arrive at codes and develop code definitions. Coding assisted with the organization of data by clustering it into various categories such that conclusions could be drawn later (Bell, 2005). The initial codes were obtained from the survey and applied to each research question beginning with one location, with other codes added as the data was obtained. Some codes were also added to or refined by expanding or strengthening definitions to incorporate more issues arising from the data. There were 53 initial codes which were reduced to a manageable number of 26 after merging of similar codes and elimination of the non-essential ones as suggested by Creswell (2015). These codes were then grouped together into clusters that addressed the research questions, and this enabled identification of the major themes. Data were analysed until a point of saturation when after several readings of the data, no new information could be found that would expand on any of these existing themes or sub themes (Hennink and Kaiser, 2019)

The 5 major themes derived from the data were:

- Teacher challenges in addressing the diverse needs of learners,
- Professional development needs of teachers,
- Professional development programme for teachers (PDP),
- Methods currently adopted and their effectiveness
- Inclusion in schools.

Having arrived at the themes and sub themes, the data was reorganised theme-wise to enable easy access, and final analysis was carried out. The study adopted a sequential mixed methods approach which allowed for triangulation of findings and helped refine qualitative research tools based on survey results, ensuring a comprehensive exploration of the topic (Creswell, 2018). Both quantitative and qualitative data were integrated during analysis and interpretation.

This study was guided by social constructivism, which helped situate teachers’ perceptions within the context of their environment, background, and work setting. By enabling teachers to share their experiences, an understanding of

the factors shaping their views on special educational needs was constructed. This knowledge was examined through triangulation of data, with constructivism providing the lens for both the research questions and interpretation of findings.

FINDINGS

The paper provides only an overview/summary of findings as they relate to the topic of teachers' perceptions of their professional needs to manage an inclusive class. The answers to the question have thus been collated from the findings of the study across the different themes identified. To become more inclusive, teachers believe that they not only need their challenges to be understood and addressed by those who aim to support their development, but their professional development needs have to be addressed through well-designed professional development programmes. Suggestions were also provided by participants on how to make inclusion more effective in schools, and the ones pertaining to teachers' needs are considered here.

1. Knowledge, Skill Gaps, and Professional Development Needs

Data from the survey, focus groups, and interviews consistently revealed that teachers lacked adequate knowledge, skills, and capabilities to address the diverse learning needs in an inclusive classroom. A recurrent concern was the challenge in identifying the different kinds of difficulties children face and how these manifest in classroom settings.

As a group of teachers from Delhi shared during a focus group:

"To understand each learner very well, where exactly is the problem and also identify their problems, their traits."

Managing diversity in student abilities, pace of learning, and behaviour was another area where teachers felt ill-equipped:

Teacher (Delhi):

"I may not have the right skills to be able to cater to so many diverse needs. So I might want to do something with a child but may not have it in me to get out the level."

Teacher (Mumbai):

"Some understand very fast, they become restless when the teacher starts explaining again and again to those who take time to learn. So there is restlessness in the class."

In the absence of requisite training, teachers admitted to often misinterpreting children's behaviours. A teacher from Bangalore candidly explained:

"Most of the time we feel that the child is lazy, hence he is acting like that but when other people, for example those trained in this, say that it is not true, that the laziness is because of that difficulty, some problem the child has, we understand, but superficially we feel it is not related. So we need to know."

When asked about what could help address these gaps, teachers across locations expressed a strong need for **hands-on, practical training programmes**. Many described their requirement for specific strategies and inputs to manage both high-achievers and children with special needs within the same classroom.

One teacher suggested:

"If some training, some input is given to us like if you have a child with this kind of a thing, you can deal with the child in this particular manner, so something like that. Even if it's in a normal class, you have high achievers — like what can you do — some workshop, training on that."

Interestingly, although the term *differentiated instruction* was rarely used, many of the strategies teachers desired directly related to its principles. They wanted to learn how to modify content, assessments, and teaching methods to suit the individual needs of diverse learners.

Further, classroom management, lesson planning, and behavioural management training were high priorities. As one teacher remarked:

"More than academics, behavioural issues have to be addressed. We need to be trained properly in that."

Another elaborated:

“How to cater to the class, we need real training for that, how to handle all this in a given situation, given 40 minute period and 40 children, we need to be trained well, because we are not trained for that sort of a thing.”

A teacher from Kolkata echoed this:

“How to deal with the special children and common children at the same time in a class.”

Beyond classroom practices, teachers identified the need to understand and support parents of students with special needs — another area rarely addressed in their current professional development experiences.

In response to these multifaceted needs, participants proposed a comprehensive **professional development programme (PDP)**. Key recommendations for the PDP included making it practical and case-based, with actionable strategies, regular follow-ups, opportunities for interactions with experts, and platforms for exchanging ideas and best practices within and beyond their institutions.

2. Attitudes, Soft Skills, and Personal Readiness for Inclusion

Alongside gaps in knowledge and skills, the attitudes and personal readiness of teachers emerged as critical factors influencing inclusive practices. Both teachers and other stakeholders such as counsellors and heads of schools acknowledged that negative or indifferent attitudes, lack of empathy, and insufficient sensitivity among teachers posed significant challenges to effective inclusion.

Teachers themselves articulated concerns about balancing curriculum demands with the needs of diverse learners:

“It’s not possible to meet the needs of every child as we have to be firm enough to complete the curriculum.”

Another reflected on limitations in accommodating diverse learners within existing assessment frameworks:

“I feel that when you are in a class it’s not possible to do any kind of different thing, differentiation, only marking scheme you can do it so I would prefer that in question paper and all, that way if you can do, it’s possible. That’s the only way.”

Counsellors noted that some teachers often distanced themselves from responsibility for children with special needs:

“Most of the times they end up outsourcing it if there is a department in the school. What happens is, OK this is the responsibility of the department of special needs, it’s not my job.”

The importance of personal attributes such as empathy, patience, tolerance, and the ability to manage emotionally demanding situations was emphasised. A principal from Mumbai observed:

“Everyone does not have that drive, the drive or the patience to handle situations like this because now more than teaching skills, you need patience and tolerance. So everyone is not equipped to handle them.”

A teacher from Delhi added:

“There are personal challenges, I would say that sometimes children test the patience of a teacher, we get drawn into a power struggle.”

These reflections highlight the need to incorporate soft skill development and attitudinal training as an essential component of any professional development programme aimed at supporting inclusive education.

3. Stress Management and Emotional Support Needs

An unexpected yet important theme that emerged was the teachers’ need for stress management support and opportunities for emotional expression. Many teachers spoke of the mental and emotional strain associated with managing inclusive classrooms, alongside the routine demands of curriculum delivery and administrative responsibilities.

Teachers proposed the introduction of **stress management workshops**, platforms to share challenges and frustrations, and access to counselling services when needed. Additionally, they recommended that schools provide avenues for teachers to relax and unwind from work pressures, recognising the emotional labour involved in inclusive teaching.

CONCLUSION AND IMPLICATIONS

The findings from this Indian study can be seen to have parallels with those conducted in other countries. The need for focused professional development (Holmqvist, and Lelinge 2021; Ainscow *et al.*, 2024), curriculum modification

(Fitri, 2022; Barron, 2024) and differentiated instruction (Lindner and Schwab 2020; Strogilos *et al.*, 2023), have been identified in international studies, and have helped to shape our understanding of the conditions required to promote inclusion. It is however, important to recognise that the socio-economic and cultural conditions that pertain in India may differ greatly from those reported in other studies. Hence, studies conducted within India will be important in informing future development. The insights gained from the research will ultimately help define the framework of professional development programmes in Indian States designed for teachers, and thereby influence policy and practice. Teachers who are trained will be more effective in catering to the different aspects of a child's education and also to the different types of learners, making them learners for life; the key tenets of quality education. As Florian and Camedda (2020) also contend, a renewed approach of thinking and focus is required to prepare teachers and support them to deliver effectively in diverse classrooms.

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POWERED AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN IRISH SPECIAL EDUCATION: CONTEXTUAL FACTORS FOR EQUITABLE IMPLEMENTATION

This paper reports on the implementation of powered augmentative and alternative communication (AAC) in special education in Ireland. An online, cross-sectional survey was used to gather teachers' perspectives on the barriers to the successful adoption, implementation, and sustainability of powered AAC in schools. The Consolidated Framework for Implementation Research (CFIR) conceptually guided both the survey design and data analysis. Findings from 297 completed surveys revealed that the implementation of powered AAC in Irish special education is fragmented, inconsistent, and unsupported. Key issues include a lack of quality training and ongoing support, insufficient planning for and evaluation of powered AAC in schools, and inadequate collaborative processes. The research highlights systemic fragmentation surrounding powered AAC implementation and calls for greater support for its effective and sustained adoption in special education in Ireland.

Keywords: powered AAC, implementation in schools, Consolidated Framework for Implementation Research, special education classroom

NIAMH MURRAY is a special education teacher and Assistant Principal at Drumconrath National School, where she leads the coordination of special educational needs (SEN) provision across the school. She holds a Master of Education in Autism, a Professional Diploma in Inclusive and Special Education, and a Bachelor of Education, all from Dublin City University (DCU). SYLWIA KAZMIERCZAK-MURRAY is an Assistant Professor in the School of Inclusive and Special Education at DCU Institute of Education. She is a CORU registered Speech and Language Therapist. She co-chairs a European Implementation Collaborative working group on Implementation in Education. <https://orcid.org/0000-0002-1629-5566>

Corresponding author: Sylwia Kazmierczak-Murray, School of Inclusive and Special Education, Institute of Education, Dublin City University, sylwia.kazmierczakmurray@dcu.ie.

POWERED AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN IRISH SPECIAL EDUCATION: CONTEXTUAL FACTORS FOR EQUITABLE IMPLEMENTATION

In the ten years from 2013 to 2023, there has been over a 600% increase in special classes in Ireland, with 89% (2466 classes) of these being autism-specific special classes (Travers, 2023). It is estimated that up to 30% of autistic learners globally may not use speech as their primary method of communication (Lorah et al., 2022). These figures highlight how a large percentage of autistic learners, globally and in Ireland, likely use an augmentative and/or alternative method of communication (AAC), and this may include powered AAC¹. AAC refers to a range of tools and strategies used to either enhance a person's speech or provide an alternative to it. 'Augmentative' means to add to a person's speech, while 'alternative' means to use a method of communication instead of speech (Kazmierczak-Murray, O'Mahony & Carey, 2024). AAC can involve any form of communication used with or instead of oral speech that is separate to one's body, including an external, battery-operated device (i.e., powered AAC), which is the focus of this research. Technology use in education has grown significantly in recent years (Fernández-Batanero et al., 2022), including in Ireland (O'Sullivan et al., 2021), however, there is still a dearth of research about the state of implementation of powered AAC in special education in Ireland. To advance this research, we explore if and how powered AAC is being used in Irish schools. Our exploration is guided by the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al., 2022), an interdisciplinary theoretical framework widely used in implementation research.

THE CONCEPTUAL FRAMEWORK FOR IMPLEMENTATION RESEARCH (CFIR)

The CFIR consists of five domains influencing implementation: innovation characteristics, inner setting, outer setting, characteristics of individuals, and process of implementation. Innovation characteristics are the features of an innovation which may influence implementation, for example, the cost or 'ease of use' of an innovation. Inner setting includes features of an organisation within which an innovation is implemented, for example, available funding or support systems for individuals who are adopting an innovation. Outer setting refers to features of the external, wider environment which might influence implementation and could refer to policy and legislation in place in the educational context. In this research, the domain referring to the characteristics of individuals will refer to

¹ The term powered AAC is used in this paper after Judge et al. (2017) and is largely synonymous with previously used 'high-tech' AAC.

participants' knowledge of powered AAC, received training, and participants' attitudes towards powered AAC. Finally, the implementation process refers to strategies or targets which may influence the success of implementation, for example, engaging in appropriate needs assessment, reflecting and evaluating.

While CFIR has not been previously applied to powered AAC, the use of this and other Implementation Science frameworks in Irish educational research has grown in recent years (Kazmierczak-Murray, Lehane & Hannify, 2025; Kazmierczak-Murray, O'Mahony & Carey, 2025; Prendeville et al., 2023). The CFIR framework guided the review of the literature, data collection, and the analysis of the findings in this study, providing a robust conceptual alignment to the study. Below we present the current literature on the implementation of powered AAC under the CFIR constructs.

Characteristics of the individuals involved

Research tells us that practitioners' knowledge, skills and attitude to an innovation is known to impact all aspects of its implementation, including initial adoption, implementation quality and whether or not the innovation will be sustained (Fixen et al., 2005). Teacher attitude has been consistently highlighted as a key determinant in whether children access technology (Fernández-Batanero et al., 2022; Lamond & Cunningham, 2019). Research has also shown that teachers lack knowledge and skills to use assistive technology (Da Fonte et al., 2022; Flanagan et al., 2013). In line with this, teacher professional development is consistently named as one of the most influencing factors in AAC implementation in schools (Andzik et al., 2019; Flanagan et al., 2013; Judge et al., 2022; Young et al., 2023).

Inner and outer setting

In addition to appropriate resourcing and developing the skills and attitudes of 'implementers' (who in our research are teachers), for effective adoption, implementation and sustainability of an innovation, we also need supportive policy and organisational context (Damschroder et al., 2022). The importance of systems thinking in relation to technology implementation in schools has been highlighted by many researchers (Baxter et al., 2012; Ley et al., 2021; O'Sullivan et al., 2021). For example, Baxter et al. (2012) found that a *team working* can positively influence functional use of AAC devices. More recently, Norrie et al. (2021) argued for the establishment of effective operational, interactional, and pedagogical context supporting the implementation of powered communication devices in schools. At a classroom level, the importance of systems thinking in AAC implementation has been highlighted also by Lorah et al. (2022), who stress that simply introducing technology is insufficient, rather, evidence-based instructional practices are needed to enhance communication outcomes. Alzayer (2024) argues that simply giving a child with complex communication needs a powered AAC device and not providing learning opportunities throughout the day will not make them a competent communicator.

Beyond the quality of classroom instruction, school policies, at both local and national levels, should support coordinated and consistent AAC implementation yet previous research showed that two-thirds of Irish primary schools lack clear policies for AT use (O'Sullivan et al., 2021). Furthermore, a school's financial position and availability of funding can be considered an element of the enabling context, and as noted by many researchers, the availability of funding has a significant impact on the adoption of AAC in schools (Norrie et al., 2021; O'Sullivan et al., 2021). While this research refers to AT more broadly, it is likely that AAC, including powered AAC, is similarly unsupported at a policy level.

The process of implementation

Research in both the US and UK highlight that although AT is an important component of the academic success of students with learning disabilities, it is often abandoned or inconsistently implemented (Judge et al., 2017; Lamond & Cunningham, 2019; Zhou et al., 2012). In fact, some UK researchers estimate 30% abandonment of technology devices (Lamond & Cunningham, 2019). To prevent this abandonment or inconsistent implementation, an assessment of the *effectiveness* of a chosen device should be an ongoing process (Andzik et al., 2019). Such an assessment is part of both initial and ongoing planning, monitoring and evaluation activity. AT, and powered AAC within it, should not be considered separate to this preparation and planning, rather it should be central to it, especially for children who do not use speech as their main method of communication.

Innovation characteristics

Beyond training gaps, policy shortcomings, and lack of evaluation frameworks, AT remains largely inaccessible due to high costs. Teachers and parents often lack confidence in sourcing equipment (O'Sullivan et al., 2021). These issues persist in both Irish (Inclusion Ireland, 2022; O'Sullivan et al., 2021) and international contexts (Fernández-Batanero et al., 2022; Lamond & Cunningham, 2019; Lorah et al., 2022).

In Ireland, there is no national funding for AT use in schools, including powered AAC. The charity AsIAM leads a funding programme for powered AAC that provides devices and support for autistic children who need AAC (AsIAM, 2025). This programme, funded by the Health Service Executive (HSE), is welcome, however, its limited scale is unlikely to address powered AAC funding issues and associated implementation issues in schools. The Irish Department of

Education and Youth also provides a grant scheme to contribute to the cost of powered AAC in schools. The criteria each individual must meet is outlined in Circular 0010/2013 (Department of Education and Skills, 2013). It is specified that to meet the requirements an individual must have a degree of physical or communicative disability to the extent they require specialised equipment to access the school curriculum, along with an application from the school and a medical recommendation. The application process is a staged approach with applying for the grant being the final of five stages a school must navigate. Each school must apply for this grant on a case-by-case basis and any additional costs not covered by the grant are absorbed by the school itself or parental contributions.

Given this potentially inequitable implementation of AT in schools and the absence of research on powered AAC in Ireland in general, this study was guided by two key questions:

1. What is the current use of powered AAC in special classes and special schools in Ireland?
2. What structures and processes support the implementation of powered AAC in these settings?

METHOD

Participants

We surveyed teachers in special classes in mainstream schools and special schools in Ireland. At the time of this research, a publicly available list from the National Council for Special Education (NCSE) identified 121 special schools and 2,916 special classes. All schools were invited to participate via an initial email to principals, who were requested to forward the survey to relevant teachers. As per the university's Research Ethics Committee advice, no follow-up reminders were sent.

A total of 327 teachers engaged with the survey, with 297 fully completing it. Partially completed surveys were excluded from analysis. It is not possible to calculate at what level this sample represents all teachers in special schools and classes in Ireland and given a large number of special classes and schools in Ireland, the response rate was limited. Additionally, the role of principals as gatekeepers in the recruitment process could have potentially influenced the inclusivity and transparency of participation. Nevertheless, the total number of completed surveys in this exploratory study is sufficient to make some initial conclusions on the use of powered AAC in Ireland. The survey was administered using Qualtrics (institutionally licensed version).

Research Design

The study employed a cross-sectional quantitative survey design (Cohen et al., 2017) to provide a broad overview of powered AAC use in Irish special education. Given the absence of prior Irish research in this area, gathering insights from as many teachers as possible was essential. The research has received all required approvals from the appropriate ethics committee of the authors' institution.

Measures

Self-report surveys are commonly used to quantify teacher beliefs and instructional practices (Hoffman & Seidel, 2015). Given their efficiency in gathering large-scale data (Wilson, 2013), and in order to reach a large and geographically dispersed sample, an online survey was designed to address the research questions. The survey was structured with mostly multiple-choice and numerical questions, alongside six open-ended questions to allow for qualitative insights (Denscombe, 2021). Survey questions were developed after a) reviewing existing literature on the topic and b) with consideration of the key domains and subdomains influencing implementation as codified in the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al., 2022) which guided this study conceptually, and included questions on practitioner skills, training, contextual supports, funding, collaboration, and evaluation processes. These implementation domains and subdomains corresponded to questions about practitioner skills and attitudes, provision of ongoing training and support, as well as contextual processes and structures supporting implementation, such as financing and provision of resources, collaborative planning and ongoing assessment, monitoring and evaluation.

In total, the survey consisted of 34 questions in six sections, as follows: a) consent section, b) demographic information (4 questions), c) adoption of powered AAC (9 questions), d) use of powered AAC (7 questions), e) training and supports (10 questions), and f) planning and evaluation (4 questions). Respondents were introduced to the purpose of each section in the survey to focus them on each area of their experience. The importance of this specificity in survey sections was emphasised by Denscombe (2021).

Procedures

To enhance reliability and validity, the survey was piloted with five special education teachers. Feedback confirmed that multiple-choice questions covered relevant response options and that the survey was user-friendly. Based on pilot responses, "I do not use powered AAC" was added as an option to the yes/no questions to accommodate non-users.

Following the pilot, data collection occurred over four weeks. Responses were transferred to the Statistical Package for Social Sciences (SPSS) for descriptive statistical analysis. As this was an exploratory study focused on gathering initial data on the state of implementation of powered AAC in Irish special education in order to consider further research areas and implications for the sector, no further statistical calculations were conducted.

The analysis of the qualitative data from six open-ended questions included in the survey followed an inductive process of thematic analysis (Braun & Clarke, 2021), which was based on carefully reading the open-ended responses and creating categories that represented the emergent themes. Most responses to the open-ended questions were provided as list-style content. The findings arising from both quantitative and qualitative data were then mapped onto the domains of the Consolidated Framework for Implementation Research (Damschroder et al., 2022). The potential of this framework to guide the implementation of AT has been recently noted by Aldawood et al. (2024). To our knowledge, our study is the first internationally which illustrates how this framework can be practically applied in such research and how it can be applied specifically to powered AAC.

Validity

The validity of survey findings relies on participant honesty (Denscombe, 2021), which is more likely in anonymous, online formats where no identifiable data is collected (Cohen et al., 2017). We acknowledge that the survey was reliant on principals forwarding it to staff and participation was voluntary, therefore, the results may represent more informed perspectives. However, given the lack of prior research on powered AAC in Irish special education, the 297 completed surveys provide a strong foundation for initial insights.

The reported findings relate to all survey respondents (n = 297). The responses to the broader attitudinal questions might have included the respondents who did not teach a learner who requires support via an AAC device. This is noted clearly on each graph and was considered in the interpretation of data.

FINDINGS

Responses from teachers working in special classes in mainstream primary schools composed the majority of the data (64%), followed by responses from teachers working in special schools (27%), and teachers teaching in special classes in post-primary schools (9%). This is an accurate reflection of the distribution of the current educational landscape in special education in Ireland. The presentation of the findings is structured under themes which are mapped onto the domains of the Consolidated Framework for Implementation Research (CFIR) in Table 1.

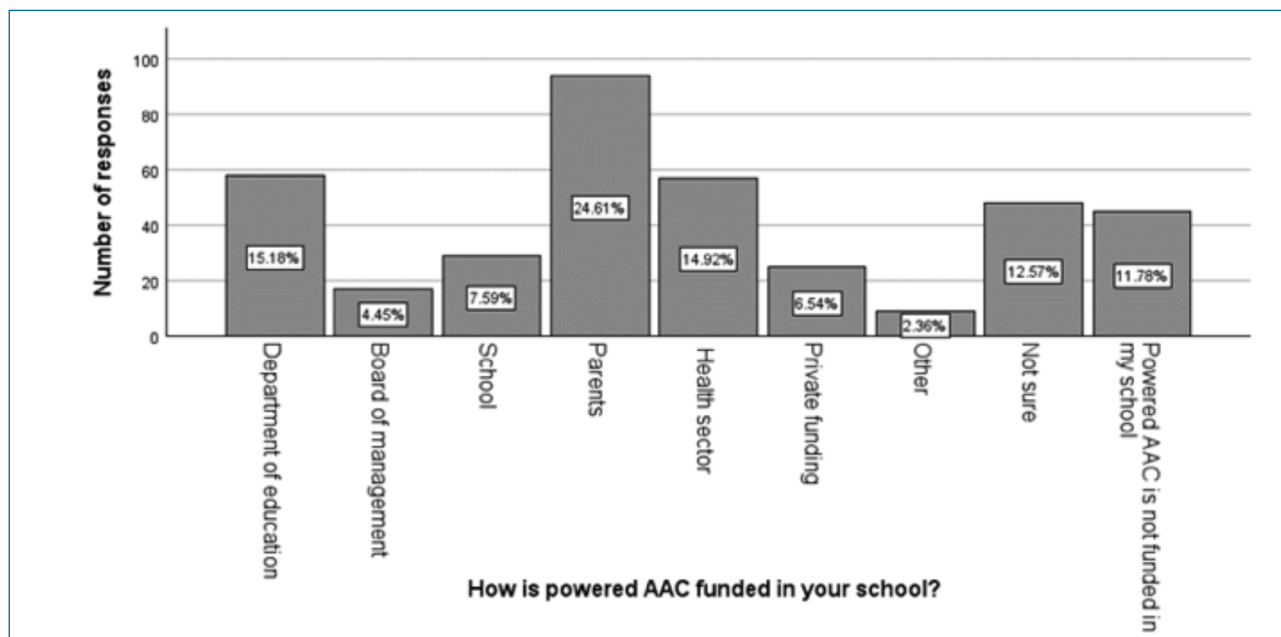
Availability of Powered AAC

Powered AAC is not consistently available to all teachers who wish to use it. While 77% of teachers have used powered AAC in their classroom, only 52% reported it being readily available when needed. This suggests inconsistencies in access. Notably, 91% of teachers stated that they would use powered AAC if it were more accessible, demonstrating a strong willingness to integrate it into their teaching.

Funding of Powered AAC

Responses to the survey suggested that funding is inconsistent and often falls on parents.

Figure 1: Survey question: How is powered AAC funded?



While 88% of teachers report some level of funding, the reliance on local sources like parents, private donors, and school boards indicates that funding may be discretionary and unevenly distributed.

Teachers’ Attitudes Towards Powered AAC

On the whole, teacher attitudes towards powered AAC were positive, for example, 91% of respondents stated that they would use additional powered AAC if available and 77% considered it ‘useful’. The research design did not allow us to make definitive conclusions as to the reasons why nearly a fifth of respondents did not consider powered AAC ‘useful’, however, in their responses to an open-ended question about implementation barriers, one respondent cited “tech fear” while another added “They are very difficult for adults to use so it’s too difficult for children with learning disabilities to use them”.

Teachers’ years of experience can also be considered a factor in whether they perceive powered AAC to be ‘useful’ or not. Teachers with more years in the profession are less likely to find powered AAC ‘useful’ and report low confidence in using it (Figures 2 & 3). These findings suggest the need for targeted support, particularly for experienced teachers who may not be familiar with emerging AAC technologies.

Figure 2: Survey question: Do you think powered AAC is useful for children in your class? With respondents’ mean years of experience indicated on the graph

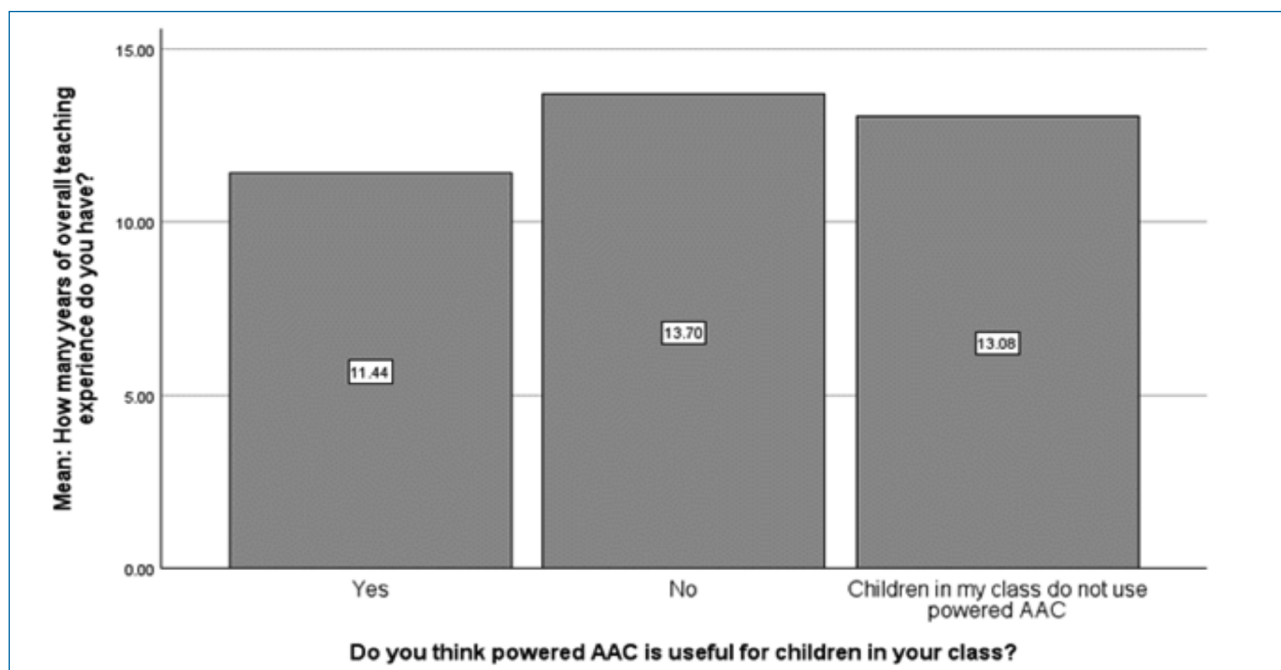
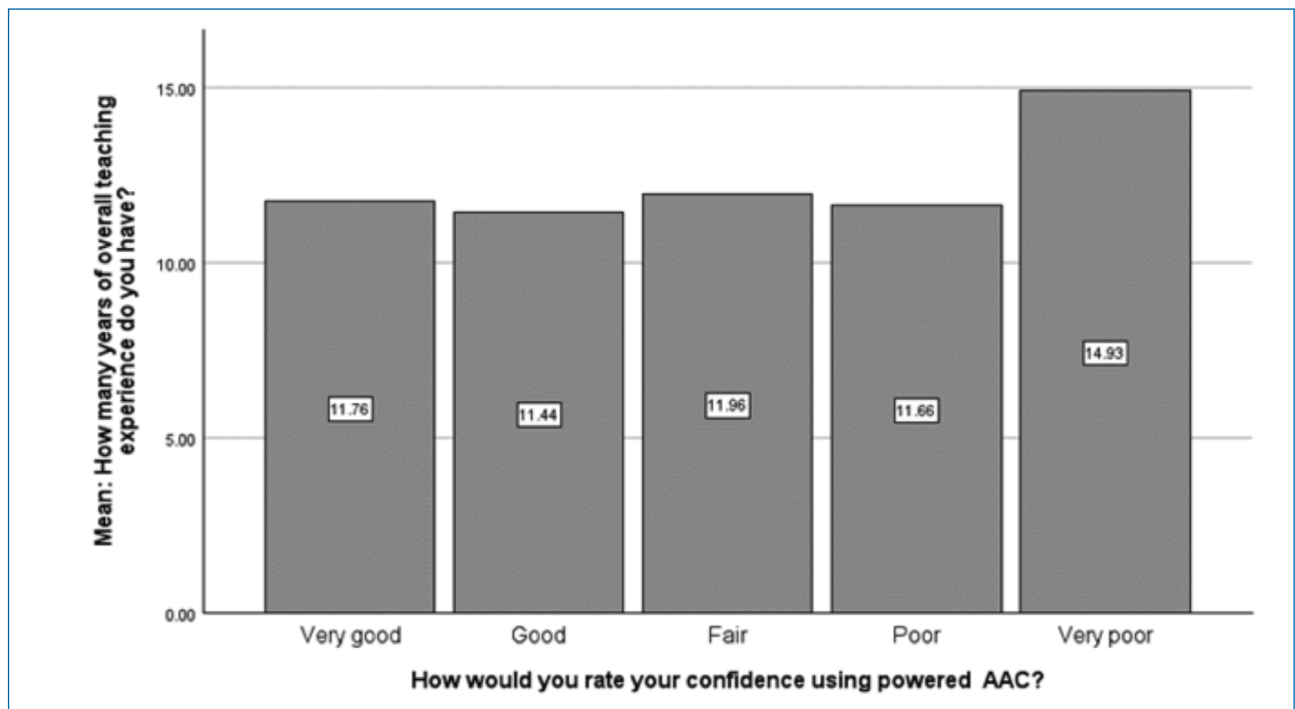


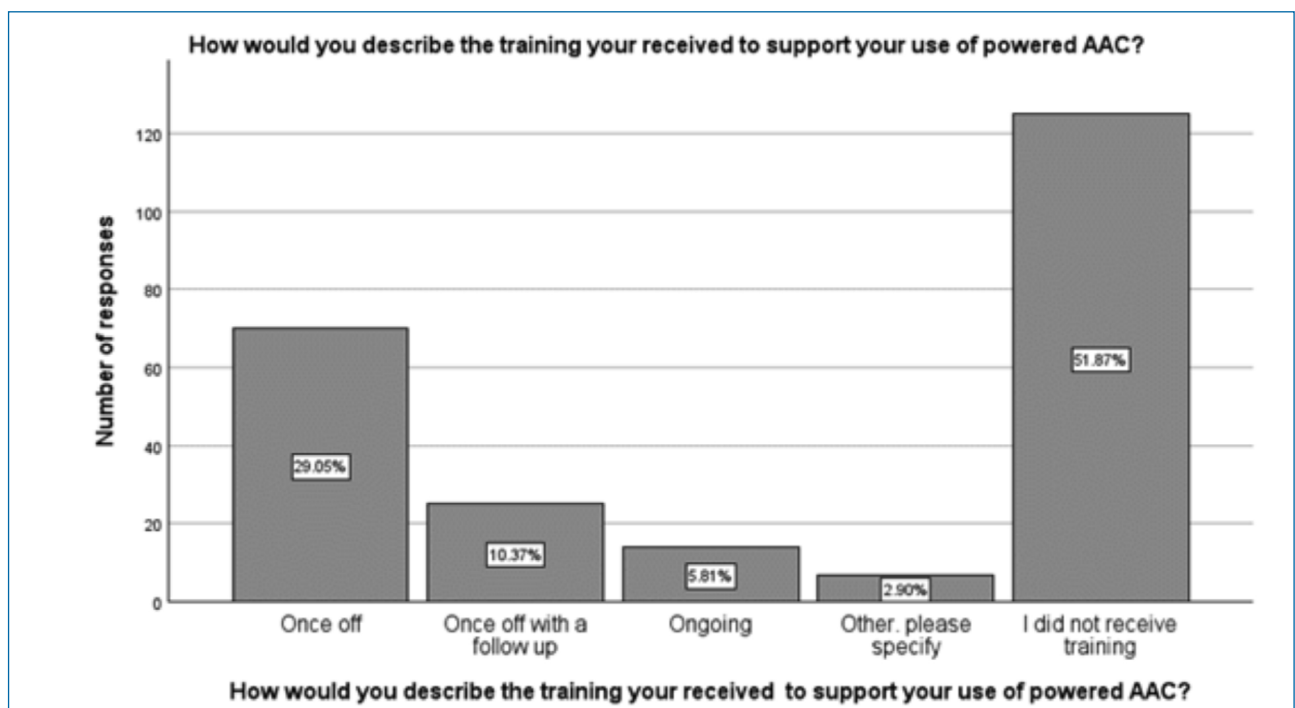
Figure 3: Survey question: How would you rate your confidence using powered AAC? With respondents' mean years of experience indicated on the graph.



Availability and Quality of Training

Our results indicate that training in powered AAC is inconsistent. A slightly higher number of teachers reported never receiving training (52%) compared to those who had (48%), meaning that some teachers may be using AAC without formal preparation. Among those who received training, many rated it as “fair” and 29% described it as “once-off”. Only 6% of respondents reported receiving ongoing training (Figure 4).

Figure 4: Survey question: How would you describe the training you received to support your use of powered AAC?

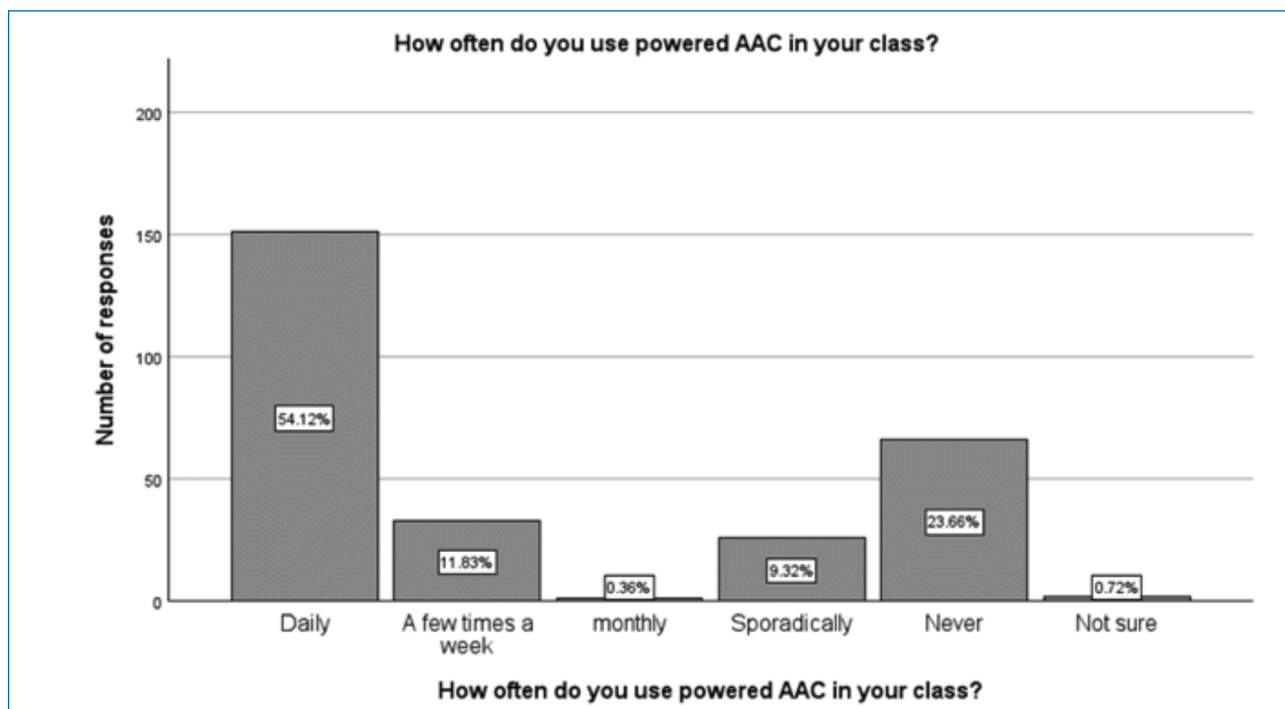


The demand for training is high - 93% of teachers expressed interest in additional AAC training. These findings suggest an urgent need for ongoing professional development to ensure effective implementation of powered AAC.

Use in the Classroom

Only 50% of teachers indicated that they use AAC daily, and 24% stated that they never use it at all.

Figure 5: Survey question: How often do you use powered AAC in your class?



These figures indicate possible underutilization or abandonment of AAC in schools.

Planning for Powered AAC

Only 32% of teachers incorporate powered AAC into their short-term planning (Figure 12), while 36% do not include powered AAC in their planning at all. Furthermore, just 6% of teachers reported that AAC is included in whole-school policy. This means teachers have autonomy over AAC use which may mean that their individual perceptions may influence the use of powered AAC. For example, in qualitative responses, one respondent commented that powered AAC devices are “far beyond our children”, indicating attitudinal barriers.

In-School Support

In-school support for powered AAC is lacking. 59% of teachers have never received any support in implementing AAC. Of those who have, only some received assistance from visiting speech and language therapists (24%). Only 17% indicated that they received support from principals (5%) or colleagues (12%) in relation to powered AAC. Collectively, these figures highlight that only 17% of teachers have support within their schools when using powered AAC if they need it throughout the day (from either the principal or colleagues). This highlights that 83% of teachers either have no access to support at all or only receive support from visiting speech and language therapists which would not be readily available when needed.

Collaboration among teachers is also low - only 20% indicated that they plan AAC use with colleagues, while 37% stated that they do not collaborate with colleagues in relation to powered AAC at all. This highlights the need for collegial support structures which are known to support consistent implementation.

Assessment and Evaluation

Only 54% of teachers use the powered AAC devices available to them on a daily basis and only 5% noted that powered AAC is included in whole school policy. Concerningly, a large number of teachers also reported that the use of powered AAC was not assessed within their schools with as many as 89% saying it is not assessed or evaluated.

Qualitative Data on the Barriers in Using AAC in Classrooms

When asked about barriers, 85% of teachers identified challenges in using AAC. Teachers were then given the opportunity to elaborate on their answers using a text box. The responses were analysed and coded thematically

and reduced to the themes which were then mapped onto the domains of CFIR (Table 1). Qualitative data reflects responses from 212 participants. Participants who did not respond to this question either felt that there were no barriers or chose not to answer this question. Key identified barriers included:

Lack of training, knowledge, and support

Many teachers felt unprepared to use powered AAC, with one describing the lack of training as “a disservice to the children.” Teachers also cited a lack of knowledge and motivation as a reason for limited AAC adoption.

Lack of resources

Teachers reported insufficient technology, equipment, and staffing to support AAC use. Issues included poor internet, broken or inadequate devices, limited chargers and battery life, and a lack of Special Needs Assistants (SNAs) to provide one-on-one support. One teacher noted that “staff need to be beside the student to hear the response,” highlighting the need for additional classroom support.

Lack of time

Many teachers cited time constraints as a barrier, finding it difficult to integrate AAC into a busy classroom. Some referred to the devices “time-consuming,” while others struggled to allocate time for modelling and familiarization.

Lack of funding

Several respondents highlighted the high cost of AAC devices, with concerns that investment may be wasted if students “do not take to it” or if teachers lack adequate support to implement it properly.

Engagement with parents and home

Some teachers reported limited engagement from parents, including “unwillingness” to charge devices, limited modelling at home, or fears that AAC use might hinder verbal communication. In some cases, both parents and schools appeared reluctant to take responsibility, with one teacher stating, “It is not the school’s responsibility.” These findings suggest a need for both parental and teacher education, as well as better collaboration between parents and teachers to ensure effective AAC use both at home and in school.

Needs assessment

Most concerningly, some respondents perceived children themselves as ‘barriers’, citing lack of interest, cognitive ability, or self-regulation challenges. Others reported that AAC use “upsets other children” or “creates arguments” in the classroom. These perspectives may reflect attitudinal barriers within schools and a lack of appropriate needs assessment, and they call for an urgent need for additional training and support for teachers in this area.

In the Consolidated Framework for Implementation Research (CFIR) which conceptually guided this research, implementation barriers related to the ‘innovation recipients’ (children) and ‘teaming’ and ‘engagement’ (with parents) are categorised under the ‘Implementation process’ domain. This means that poor implementation of AAC may be influenced not just by a lack of available resources and support within the schools, but also by a lack of effective structures and processes such as collaboration, appropriate needs assessment, and evaluation. These overall contextual factors influencing implementation of powered AAC as found in this research are mapped onto the domains of CFIR in Table 1.

Table 1: Overall research themes mapped onto the domains of the Consolidated Framework of Implementation Research (CFIR).

Quantitative data	Qualitative data	CFIR Domain
Availability Funding (inconsistent, discretionary)	Lack of funding	‘Financing’ (Outer Setting) ‘Available resources’ (Inner Setting)
	Lack of resources including devices and personnel	‘Financing’ (Outer Setting) ‘Available resources’ (Inner Setting)
Teachers’ attitudes (perceived usefulness, reported confidence)		‘Motivation’ (Individuals) ‘Capability’ (Individuals)
Training (unavailable or once off, inconsistent quality)	Lack of training and knowledge	‘Access to knowledge and information’ (Inner Setting)

Table 1: Overall research themes mapped onto the domains of the Consolidated Framework of Implementation Research (CFIR). (Continued)

Quantitative data	Qualitative data	CFIR Domain
<i>In school support (limited support from principal and colleagues, inconsistent support from SLT)</i>	<i>Lack of supports</i>	'Relational connections' (Inner Setting) & 'Communications' (Inner Setting)
	<i>Lack of time</i>	'Available resources' (Inner Setting) 'Structural characteristics' (Inner Setting)
<i>Assessment (not ongoing)</i>	<i>Children; self-regulation in class, cognitive ability, lack of interest</i>	'Assessing needs' (Implementation Process)
	<i>Cooperation with parents and home</i>	'Teaming and Engagement' (Implementation Process) 'Partnerships and Connections' (Outer Setting)
<i>Evaluation (not ongoing)</i>		'Reflecting and evaluating' (Implementation Process)
<i>Planning (inconsistent)</i>		'Planning' (Implementation Process)

DISCUSSION

Our study highlights persistent barriers to the effective use of powered AAC in Irish special education, including inconsistent availability, insufficient funding, and inadequate training, issues that align with international findings (Alzrayer, 2024; Andzik et al., 2019; Da Fonte et al., 2022; Norrie et al., 2021). While previous international research have emphasised the need for increased AAC training (Da Fonte et al., 2022; Fernández-Batanero et al., 2022; Judge et al., 2017; Lamond & Cunningham, 2019; Young et al., 2023), our findings stress the importance of establishing school-wide supports, beyond individual training, that will offer ongoing collaborative and structured implementation support for powered AAC implementation in Irish schools. Our research thus adds to the international literature that recognises *contextual* support for implementation of powered AAC in schools (e.g., Norrie et al., 2021).

These findings need to be interpreted with caution given potential nonresponse bias. The survey was reliant on principals forwarding it to staff and was also voluntary, therefore the teachers who responded might have been more engaged with AAC. In practice, this means that the barriers to the implementation of powered AAC may be even greater than reported in our findings. On the other hand, our findings may include responses from teachers who did not teach learners using powered AAC in some responses. Despite these limitations, overall, the findings show a broad picture of the current state of the implementation of powered AAC in Irish special education contexts on which we previously lacked evidence. Applying the CFIR framework has provided insight into the broader contextual factors shaping AAC adoption in schools, reinforcing the need for a systemic and contextual approach to training, funding and support. By drawing our attention to implementation influencing processes, such as collaboration, planning, needs assessment, and evaluation, the CFIR framework can help guide targeted interventions that lead to greater and more effective use of powered AAC in Irish classrooms.

CONCLUSION

The findings show inconsistent availability of powered AAC, insufficient and fragmented funding, inadequate training and implementation support, and, importantly, poor implementation processes, all of which impede equitable and effective use of powered AAC in classrooms. These challenges resonate with international findings, highlighting persisting and unresolved issues in the equitable implementation of AAC. To address these issues, our research emphasises the necessity of a planned, systematic, collaborative, and supported approach to powered AAC implementation in Irish schools. This includes adequate funding, ongoing professional development, collaborative planning, and robust evaluation processes. While the decision on the *adoption* of AAC may not depend on individual teachers and/or factors at the school level, as in practice this decision is made in collaboration with parents and/or guardians, and often with a professional recommendation, *how* the AAC is implemented in schools

makes a key difference to its effectiveness. The application of Implementation Science tools, for example the Consolidated Framework of Implementation Research (CFIR), as utilised by us in relation to powered AAC for the first time internationally, has a potential to offer a structured method to assess the multifaceted challenges of AAC implementation and subsequently guide our tailored and contextualised responses. This study thus goes beyond documenting the extent of the inequity in relation to access to powered AAC by directing us towards some concrete solutions which Implementation Science and the thinking with 'implementation' in mind can offer.

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RECONCEPTUALISING WORK EXPERIENCE AS AN ACTIVITY FOR ALL LEARNERS

This article discusses findings from recent Irish research which focused on the experiences of key stakeholders involved in transition preparation and transition planning for students leaving special schools in the Republic of Ireland. Employing a mixed-method study, the voices and perspectives of a number of stakeholders (students, parents, teachers and principals) were harnessed. The Mosaic approach (Clark & Moss, 2001) was used to specifically situate the students as the expert in their own lives and aimed to capture their experience of preparation for transition through mapping their vision for life post-school.

A key finding was the unequal access to work experience for students with special educational needs and disabilities (SEND), within and across special school settings. As Ireland has one of the lowest disability employment rates in the EU, supporting students with SEND to develop employment skills is essential to address this. This paper proposes that work experience be reconceptualised as a key employment preparation activity that should be accessible to all students with SEND, irrespective of the curricula they are accessing.

Keywords: Transition; work experience; human rights; social inclusion; employment

DR. LEANNE CONNOLLY is an Assistant Professor in Inclusive & Special Education in the Institute of Education, Dublin City University (DCU). She is the Chair of the Graduate Diploma in Inclusive & Special Education (GDISE) and a former special school teacher. DR. GERALDINE SCANLON is a former Associate Professor in the School of Human Development, DCU and DR. DEIRDRE CORBY is a former Associate Professor in the School of Nursing, Psychotherapy and Community Health, DCU.

Corresponding author: leanne.connolly@dcu.ie

ORCID: 0000-0002-7623-583X

INTRODUCTION

Similarly to the often-marginalised students with special educational needs and disabilities (SEND), special schools occupy a unique dual-identity between primary and post-primary schools. They are officially recognised as primary schools under the Rules for National Schools (Department of Education, 1965) yet support students from 4-18 years of age (National Council for Special Education [NCSE], 2011). Increasing numbers of students are transferring from mainstream primary to special schools at the post-primary age (McConkey et al., 2016), with data from the Department of Education (DE) demonstrating that 52% of students attending special schools were of post-primary age in 2023/2024 school year (DE, 2025).

For many years, the historical designation of special schools as primary schools resulted in the curriculum being taught by primary-qualified teachers. Resulting barriers to entry for teachers with post-primary qualifications lead to a “scarcity of teachers with relevant knowledge for the delivery of post-primary programmes in some special schools” (Ware et al., 2009, p. 189). This historical designation continues to impact upon special schools today, with principals in recent Irish research indicating that they could not offer appropriate post-primary curricula due “to a lack of specialist teachers” (McCoy et al., 2025, p.71). These limitations of a predominantly primary-trained teaching population resulted in special schools experiencing high levels of autonomy regarding the curricular programmes on offer at post-primary level (Ware et al., 2009).

An additional issue arising from the designation of special schools as primary schools is the “anomaly that students in special schools are at present only entitled to statutory education to the age of eighteen, whereas this limit does not apply to students in mainstream schools” (Department of Education & Youth [DEY], 2025, p.95). Highlighted as a rights-based issue in the recent review of the Education for Persons with Special Educational Needs (EPSEN) Act (2004), current exemptions to Rule 64 of the Rules for National Schools (DE, 1965), permitting an additional year of schooling beyond 18, are only considered under specified criteria, including a requirement to access curricula at a minimum of level three on the National Framework of Qualifications.

With recent progressive developments in curricula and certification for students at varying qualification levels, Ireland’s education system has made some progress in facilitating access to second level education for students with SEND (Connolly, 2023). Special schools now offer a range of post-primary specific curricula leading to certification

from levels one to five on the National Framework of Qualifications (NFQ), including Quality and Qualifications Ireland (QQI) programmes and Leaving Certificate Applied (LCA). Given recent advances in the provision of curricula for students with intellectual disabilities at level 1 and level 2 of the NFQ at Junior and Senior Cycle, the rationale for the exemption at level three achievement does not reflect the current educational landscape at post-primary curricular level.

Despite recent progress for special schools, further disparities exist between the post-primary curricula on offer in mainstream and special schools. In 2024, the DEY reported that over 60,500 students in more than 700 post-primary schools were accessing the Transition Year (TY) Programme (DEY, 2024), which aims to foster personal growth, leadership, civic and community engagement, and career exploration. A core feature of the TY Programme is work experience, enabling students to “explore diverse future pathways in a guided and coordinated manner, gaining first-hand workplace experience, and developing career-related competencies” (DE, 2024a, p.11).

Work experience is frequently cited in the literature as a practical and essential support for students with SEND transitioning into the workplace and for the development of employability skills (Scanlon and Doyle, 2021). Despite this, work experience is not universally established or accessible in special schools in Ireland as the TY programme is not available to special schools (O’Brien et al., 2011) and work experience is only embedded in certain curricula, such as QQI level 3 and Leaving Certificate Applied.

Research continues to demonstrate low participation rates in employment for people with SEND, with Ireland ranked as having the lowest disability employment rates in the EU (European Disability Forum, 2023), with people with intellectual disabilities experiencing even more barriers (National Disability Authority, 2025). Without access to core career exploration and development of employability skills through a universally accessible work experience programme, students with SEND in special schools will be continually disadvantaged. This paper reports on the role of work experience in supporting post-school transition and realising students’ rights under the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) (2006).

Conceptual Framework

This research was contextualised within the theoretical and conceptual frameworks of human rights and social participation (Figure 1.). Underpinned by the UNCRPD (2006), the right to education (Article 24 (5)), employment (Article 27) and to enjoy full and equal participation in society (Article 1) were central. Supported by the Simplican et al. (2015) ecological model of social networks and community participation, this research understood disability as a product of social, individual and environmental factors.

In aiming to employ a combination of tools to “construct a composite picture or ‘mosaic’ of children’s lives” (Clark, 2011, p.117), the Mosaic approach is a “multi-method, polyvocal approach” which combines a variety of perspectives using both traditional and participatory tools, which are brought together “create with children an image of their worlds” (Moss in Clark, 2017, p.9). Finally, the Kohler et al. (2016) Taxonomy for Transition Programming 2.0 was employed as a transition framework to promote successful post-school outcomes for young people with SEND.

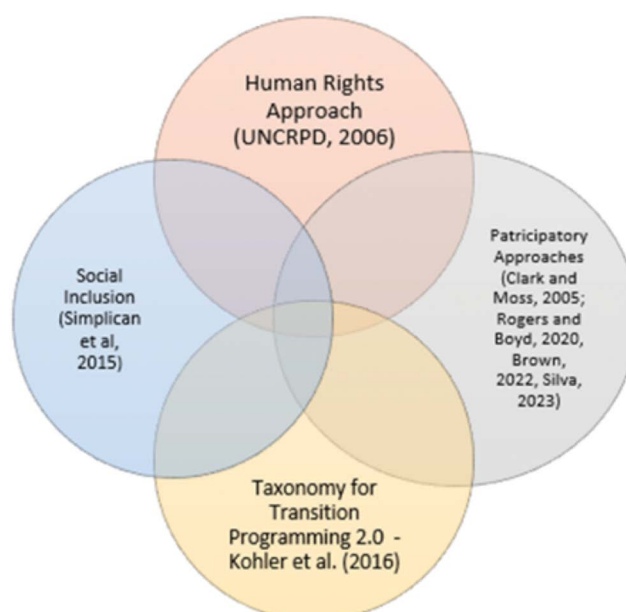


Figure 1. Conceptual Framework

METHODOLOGY

The overarching research questions underpinning this study were:

- A) What are the views and experiences of students, parents, teachers, and principals in Irish Special schools of transition preparation and transition planning?
- B) How can the teacher support the development of autonomous postschool choices?

This research aimed to capture the views of teachers and principals from a broad national perspective through an online survey, then sought to explore these views in more detail with a smaller number of participants. It also aimed to broaden and facilitate a range of participant voices that are less often included in research, by capturing experiences of students and their parents in transition preparation and transition planning and by exploring the questions examined in the survey in more detail. To address the research aims and questions and aligning with the theoretical and conceptual frameworks of human rights and social participation, the mixed methods participatory-social justice design framed this study (Creswell & Plano Clark, 2017).

PHASE ONE

Phase one was a predominantly quantitative online survey of principals and teachers in special schools teaching learners aged 15 years and above and was gathered in May - June 2022. This captured a national perspective on transition preparation & transition planning practices.

PRINCIPALS

The survey was issued to 122 special schools in Ireland with an overall response rate of 33 principals (27%), representing schools with nine different special educational needs designations. One third of responses were from schools with a designation for Autism and Complex Needs as observed in Table 1. The responding schools were predominantly urban based (81.8%) (n=27).

Table 1: Principal's Responses - School Designation

School Designation	Response rate (n=33)
Autism & Complex Needs	33.3% (n=11)
Mild General Learning Disabilities	18.2% (n=6)
Moderate General Learning Disabilities	15.2% (n=5)
Severe/Profound General Learning Disabilities	15.2% (n=5)
Other:	18.2% (n=6)

TEACHERS

There was an overall response rate of 43 teachers representing eight types of special schools.

Just over a quarter of responses (27.3%) (n=12) were from schools for students with Mild General Learning Disability (MGLD) as identified in Table 2. Most of the schools were based in an urban area (90.2%) (n=37).

Table 2: Teachers' Responses - School Designation

School Designation	Response rate (n=44)
Mild General Learning Disabilities	27.3% (n=12)
Autism & Complex Needs	20.5% (n=9)
Moderate General Learning Disabilities	18.2% (n=8)
Community Special Schools	11.4% (n=5)
High Support Units	4.5% (n=2)
Other	7.7% (n=3)
Missing response	11.4% (n=5)

PHASE TWO

School Recruitment

Following Phase One, a small number of schools expressed their interest by email in being involved in further phases. In June 2023, one school was contacted to enquire if they would be interested in progressing to Phase Two of the research. Following a presentation to all staff, Board of Management approval was granted in late June 2023.

Participant Recruitment

Phase Two of this study included data generation with six groups of participants across students, parents and teachers. A link teacher in the school was provided with the relevant plain language statement and informed consent forms for parents and teachers. Following receipt of parent and teacher consent forms, a visit to the school was scheduled to meet the relevant students to explain the research and seek participation.

An 'Ethics as Process' approach (Cutcliffe & Ramcharan, 2002) was adopted which ensured that all participants were provided with ongoing opportunities to negotiate assent. Student recruitment included accessible plain language statements, aided by an animated video overview of the project. Following parental consent, student assent was provided and visual aids were available to students during each data collection session. Upon ethical approval from the university ethics committee (DCU REC/2023/150), data were generated over 30 hours across eleven days from late 2023 to early 2024.

Two student focus groups were conducted in order to capture student perspectives from different transition timepoints, a school leaver focus group (n=3) and students with two school years remaining (n=3). A focus group was held with the Senior Cycle class teachers (n=4) within the school to provide a broader school context.

The Mosaic approach included gathering the perspectives of three stakeholder groups – students, parents and teachers. A criterion for participation in this phase of the research was that collective assent to participate was required. That is, assent/consent must have been provided by the student; their teacher; and their parent. Four students, their parent/s (n=5), and their class teachers (n=3) agreed to participate in the Mosaic approach.

School Characteristics

The research site for Phase two was a special school in the Republic of Ireland. The school was a large, urban, co-educational Catholic special school which catered for students with an intellectual disability that fell within a designated intelligence quotient (IQ) range from the age of 4 - 18 years. The school served students residing both in the immediate community and students that travelled up to ninety minutes from surrounding rural areas. The school offered a range of curricula including the Junior Cycle level three, Junior Certificate Schools Programme (JCSP) at Junior Cycle. It offered level two and three of the Quality & Qualifications Ireland (QQI) programmes, and the Leaving Certificate Applied Programme (LCA) to senior cycle students.

FINDINGS

Phase One

Supporting earlier findings from Ware et al. (2009), the responding schools offered a wide range of post-primary curricula. The results indicated that 71.9% (n=23) of schools (n=32) offered the Junior Cycle Level One Learning Programme, 65.6% (n=21) offered the Level Two Learning Programme and 43.8% (n=14) provided a school-based curricula. Only three schools indicated that they offered QQI programmes and two schools offered Leaving Certificate Applied.

Just over half of principals indicated that a school-based transition programme was established (51.7%) (n=15) with only 34.5% (n=10) of principals reporting that work experience was available to their students. Two additional schools identified that work experience was facilitated within the school setting.

Principals expressed the need for "additional dedicated staff to support work placements and travel training" (Principal #6, Moderate GLD School), "to facilitate work experience placements" and "enough staff and resources to support students on trips out, attending events and experiencing the outside world" (Principal #11, Moderate GLD School).

A principal of a Mild GLD School indicated that:

"We can't organise work experience as students would need a lot of support and teachers are working on QQI programmes etc. Added to that our students now tend to have more than just a Mild General Learning disability or a Moderate Learning Disability, so their needs vary a lot when we think of them transitioning to work or training"

centres. Walk [PEER] and other agencies seem to be developing programmes which would be of value to our students." (Principal #20, Mild GLD School)

Teachers described that students in their school settings aspire of being employed yet generally do not have knowledge of their rights to do so under the UNCRPD (2006). Teachers also described the challenges they encounter when supporting students in identifying a work experience setting, particularly with regards to barriers caused by insurance concerns:

"Before the Covid 19 Pandemic, students attended work experience placements as part of the programme. Over the years I have built up a network of contacts with some local businesses who take students on work experience. Work experience is a brilliant introduction to the community and for helping the student to think about their own independence and sense of self beyond the setting of the school. I find there are huge challenges getting placements with employers and this is due to insurance reasons, there being no such structure provided by the education authorities and in many cases small traders are not in a position to put in place the type of public liability insurance required." (Teacher #5)

PHASE TWO:

Opportunities:

Work experience was seen as being advantageous to the students who were given an opportunity to engage with it, as noted by Teacher D, who stated that "I suppose in QQI, with different levels, so the level three students are more, I suppose they are at an advantage in that they cover work experience" (Teacher D).

For students who had undertaken it, they outlined how it positively impacted upon them. Kit, a school leaver, spoke about the many work experiences that he had engaged with since Junior Cycle and stated that they acted as a support in deciding on a post-school path, "because it makes your mind up to see what you want to do" (Kit, School Leaver). He spoke about how he felt valued during one particular work experience in a nursing home and that he would choose it again in the future:

"[A care home], because its literally like being inside a school, you feel like you are an SNA inside a school, helping the older people and you are making conversations with them and it's just really nice to see them... I'd say, I'd say I'd go back to [care home] again because it's really nice because you are helping everyone the whole time. We have art, horticulture, the old women love horticulture, they loved talking about their flowers, you know like, they love the art, they loved the painting, like they can paint whatever they want. They use their own head like, ya. We just have a laugh there you know." (Kit, School Leaver)

Many students and teachers provided examples of how the work experience opened doors for potential part time employment. For example, Will, a Pre-School Leaver, indicated that he "actually really enjoyed" his placement in a Hyundai Dealership. While the mechanic element of the role was not aligned with his interests, he found a role within the work placement that aligned with his strengths of being organised:

"From my work experience I had to work as a mechanic and do some filing also... I preferred the filing for sure, it's more cleaner, it's not as dirty to do, and you can sit down or stand up to do it..." (Will, Pre-School Leaver)

Teacher F provided an example of a student that had successfully gained part time employment directly from their work experience, explaining:

"...like one of the students in my class, you know, he got a job, his work placement in a cafe, and then he ended up getting weekend work out of it so it can be really successful for them." (Teacher F, Focus Group Teacher)

Parents also spoke about how it could help their child to "get into all these places, and get a feel for them, might help her make her decision" about a post-school pathway (Lisa's mother). Ben's mother supported this stating that if he had an opportunity to access a specific type of work experience that "it would also tell us if he was cut out for doing the course or not" (Ben's mother). She added that as long as it was aligned with his interests, it would be very valuable to him.

Tim had engaged in a work experience in the weeks prior to data generation and his mother described what a positive and affirming experience it was for him stating that "he's had work experience, and to be honest, I think it was great for him, because it gives him that bit of independence." She further explained that he did such a thorough job at the cleaning tasks he was given, that the existing employees were spoken to by the owner about their cleaning standards. She added that this gave Tim "confidence", and she told him "you've done this right, and you've shown up the other people. I think that that really stuck with him" (Tim's mother).

Tim also spoke very positively about that work experience and his sense of achievement stating the “best thing was, they couldn’t get over. They couldn’t get over how, how I got the whole place clean for them” and that “if I pick another work experience, I’d go to the same place” (Tim, Mosaic Participating Student). He also indicated that he would be open to a part time job in that setting.

Tim’s teacher spoke about the importance for Tim, that the work experience was aligned with his strengths and it was a realistic post-school option that could be further explored, stating “they were working him hard, but I think that was, I think she [Tim’s mother] liked the idea of that, because it was just, it was realistic. You know what I mean.” (Tim’s teacher)

Tim’s teacher spoke about how for some students who access work experience, it might not be as valuable to them if it isn’t aligned with their interests stating that “I think the challenge, then, is with work experience is getting them something that’s actually relevant, you know, because if they do go on to source it themselves, they’re just taking the first thing that they can get” (Tim’s teacher). This was reiterated by teachers, parents and students when discussing the potential value of work experience as a transition preparation activity.

BARRIERS

A challenge presented by the current practice in the Phase Two school, is that access to work experience is determined based on the curriculum the student is accessing. Therefore, students undertaking LCA access work experience through the Vocational Preparation and Guidance module, but the students in QQI only access it if the teacher has chosen to include a relevant work experience module for the whole class, typically at level three. This has resulted in some students engaging in multiple work experiences by the time they graduate and for others, they may never have engaged in one. This issue was highlighted by two of the students in the School Leaver Focus Group. Kit, an LCA student, had accessed approximately five work experiences, while Sam, a QQI student have never accessed one:

“But there is a problem there that the LCA’s get to do it, but we never get to do work experience... You see, if, if, if I can get, if I can get the work experience, because like my mother really wants me to do, I think it’s better for me.” (Sam, School Leaver)

The teachers confirmed these comments when this conversation between Sam and Kit had been relayed to them during the Focus Group, with Teacher D stating that:

“And that goes back to the, to the levels and what [Lisa’ teacher] said about having it written in, that no matter what your level, you get to experience it. Because, I suppose Kit came through the QQI setup, and onto LCA he has got three, three years of work, experience... and I suppose Sam then coming in at his level of ability, never got to experience the work experience module and I suppose it was a thing that was kind of here, that if we’re doing the work experience module, you go on work experience. If we’re not, you don’t.” (Teacher D, Focus Group Teacher)

Lisa’s father, a self-employed business owner, spoke about the barriers to employment and work experience for people with disabilities from an employer perspective:

“It’s going to be hard to find people that do that [part time work]. We’re self-employed and the biggest problem with small companies is insurance, they are going to go ‘no way’. I know, I know how hard it is, so, the risk is too big... But the problem is, then you’re looking at smaller companies. And now we’re hitting insurance again, because I, we’d be the same. Somebody came to me with a child with special needs or whatever, and said, ‘Would you take them on?’ I’d have to say I’d love to, but I can’t, insurance. My insurance would go through the roof, or if anything happens or anything happens to that person while they are working for me, it’s just it’s a, it’s a massive risk for a small company.” (Lisa’s father)

Teacher E also cited this barrier when he recalled previous school practices regarding work experience, stating that companies used to reach out to the school annually to source students who would work with them:

“Like I remember years ago, when I first came into QQI, or FETAC when it was like, we had people ringing that have had people on work experience here before, and even car valets saying ‘Can you send more? Do you have anyone who can come down this year?’, and it was easy and then it became harder to get work.” (Teacher E, Focus Group teacher)

Students also noted the challenge of sourcing a work experience, for example, for Lisa, who was yet to access work experience stating that “it’s very hard to get places to go, it’s a place that you like to go” (Lisa, Mosaic Participating Student).

DISCUSSION

Progress has been made in the consideration of work experience within post-primary curricula, aligning with government policy to “seek to support all individuals including those who are marginalised or have disabilities to access person-centred opportunities such as work-shadowing or work-experience” (Government of Ireland, 2023, p.5). Building on the foundation of learning units “preparing for work” and “being part of a community” at Junior Cycle L1L2, the new Senior Cycle L1L2 Programme Statement (DE, 2024b) outlines that:

“Work experience is an important aspect of Senior Cycle education as it supports many students on their progression pathways after Senior Cycle. Work experience is encouraged for students but is most beneficial when it is appropriate and meaningful for the student’s needs, interests and ambitions.” (p.14)

This statement provides schools with a solid foundation upon which to establish their own work experience practices that are suitable for their cohort of students, supported by members of their school and wider community. While it may be a central feature of transition preparation in some schools (McCoy et al., 2025), it was noted in Phase One of this study that only 35% of principals and 21% of teachers who responded to the survey indicated that it was embedded within their school.

BARRIERS

In the Phase Two school, work experience was facilitated but only for those students accessing QQI level 3 or LCA, therefore it is not accessible to all students. This demonstrates the unequal opportunities being afforded to students, even within the same school. Teachers in Phase Two cited the pressure within their school culture to achieve certification for students was a barrier to accessing work experience. Even for students who accessed work experience, the teacher’s role was minimal, citing lack of time and opportunity to visit potential workplace settings, build relationships and connections with local businesses.

Parental social capital (Simplican et al., 2015) is viewed as a major contributing factor in the success or failure of accessing work experience. While the responsibility for organising a work experience typically fell on the parents for the students in this study, teachers saw low parental motivation, lack of personal resources and contacts as barriers to successful work experience outcomes. As a result, teachers provided some additional support to a small number of students in sourcing work experiences if their parents were unwilling or unable. However, this results in unequal access to skill development opportunities which support students to enter into and retain employment (Article 27, UNCRPD, 2006) and enjoy full participation in society (Article 1, UNCRPD, 2006).

INEQUALITY OF OPPORTUNITY

This study demonstrated that the participating students all shared an aspiration to be employed, however, they experienced varying levels of preparation to achieve this aspiration through work experience within the one school setting. Students, parents and teachers noted their dissatisfaction with this current practice which was embedded in their school culture. They provided multiple examples of the benefits of work experience from gaining independence, self-advocacy skills and some gaining part-time employment as a result. However, without sufficient guidelines or policies in place to support a more inclusive system of work experience for all students, teachers in the Phase Two school failed to see a way forward.

Students too cited the inequality of opportunity available to them and felt aggrieved by the selectivity of access to work experience, something that was not unique to this study (Davies and Beamish, 2009). Some students that had attended the school for many years described examples of historical practice of work experience being facilitated within the school setting, for example, working alongside a school caretaker and longed for such an opportunity. However, in-school work experiences were no longer facilitated.

VALUE OF WORK EXPERIENCE

Teachers, students and parents unanimously agreed that for those that accessed it, work experience was most valuable when aligned with the students’ interest areas and were critical of its value when it is sourced for reasons of convenience rather than preference. While it is positive that work experience has been noted as an important practice in the recent Senior Cycle Programme Statement (DE, 2024b), guidance or practical support have not been provided to schools on how best to facilitate this nor is there any current evidence that this will be advanced or developed in the very near future.

Current indications from the DEY suggest that schools will have the autonomy to choose to offer the Senior Cycle Programme at level one and level two. While this autonomy may be welcomed, it may further exacerbate the variation in practice within and between special schools. This may result in students receiving different levels of preparation for life beyond school and impact negatively upon their ability to access their rights to further education and employment, as well as participation in society.

Limitations

This article reports on one aspect of the findings from a PhD research study. The low response rate to Phase One and single site for Phase Two must be noted as limitations. While findings from the one single site cannot be generalised, they did illustrate a strong similarity and consistency between the findings from schools partaking in Phase One. Additionally, while a single site was used for Phase Two, the methodological triangulation of the voice of students, teachers and parents ensured a broad voice and geographic characteristics.

Future research should expand of the transition preparation practice of work experience and Transition Year accessibility for students in special and mainstream post-primary schools. Research could also expand on existing Irish research (Scanlon & Doyle, 2018; 2026) to examine employer attitudes to facilitating work experience for students with SEND in Ireland.

CONCLUSION

Special schools require support to ensure equitable access to work experience for all students with SEND. Work experience was one aspect in which the participants in Phase Two expressed the need for a more coherent approach to be taken by schools to ensure that equitable opportunities were afforded to *all* students, irrespective of the type and level of curricula they were accessing.

One of the outcomes of this research has been the development of a set of practical work experience guidelines and accompanying website for special schools and special classes in mainstream schools to support the equal access to work experience for *all* students (Appendix 1 (see pages 53 and 54). The purpose of these guidelines is to encourage schools to consider how work experience might best align with students identified areas of strength, interests and priority learning goals. The guidelines should also be a support to students, their parents and to hosts of work experience in understanding the purpose, remit and learning opportunities that it can provide.

The document includes some policy and legislative background and context to support schools in understanding Ireland's obligations under Article 27 of the UNCRPD (2006) along with current national policy commitments. It provides guidance on situating work experience within the context of Senior Cycle curricula, best practice guidelines, supports for recruiting host settings along with a range of templates for student profiling, goal setting for work experience, reflection on work experience and sample letters to host settings for Student Showcase/Recruitment Fairs.

This research demonstrated that while students and their parents hold high aspirations for life post-school, schools continue to face significant challenges in implementing effective transition planning practices including facilitating equality of access to work experience, without adequate policy guidance, legislation and resources. Given Ireland's commitments to the implementation of the UNCRPD (2006), it is necessary to support all students to develop relevant skills so they can transition successfully into employment.

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Guidelines for supporting work experience for students with special educational needs and disabilities

For special schools and mainstream post-primary schools



**Dr. Leanne Connolly
Dr. Geraldine Scanlon
Dr. Deirdre Corby**

Dublin City University

DCU

Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University



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