Title:

Exploring the Impact of Educating Students about Autism in a Secondary School

Student Name:

Elaine O'Keeffe

A thesis submitted to the Department of Educational Psychology, Inclusive and Special Education, Mary Immaculate College, in partial fulfilment of the requirements for the Degree of Professional Doctorate in Educational and Child Psychology (DECPsy)

Supervised by:

Dr Keeley White, Dr Laura Ambrose & Maria Dervan

Submitted to Mary Immaculate College, April, 2023

Word Count: 31, 231

Abstract

Aims: This research aims to further our understanding of the impacts of educating secondary school students about autism. Of note, AsIAm's Autism Awareness Workshop is not evidence-based. This study is not evaluating or recommending the programme, only exploring student's experiences of the programme in one school. The key research questions are outlined below.

1. What is the impact of AsIAm's autism awareness workshop on student's knowledge, attitudes and behavioural intentions towards autistic students?
2. What are students' perspectives on taking part in the autism awareness workshop?
3. What are students' perceptions of inclusion in school?

Methodology: A pre-post, within-between groups mixed methods design was employed to explore the impacts of the autism awareness workshop as an intervention strategy within one mainstream secondary school. A total of 57 students in 1st and 2nd year were assigned to control and experimental groups. The experimental group attended AsIAm's autism awareness workshop in their school. The control group received a waitlist intervention. The perceptions of students were accessed via pre- and post- intervention questionnaires. These results were analysed using two-way mixed ANOVAs. Semi-structured interviews were conducted with four autistic students and four non-autistic peers to gain a deeper insight into students' perspectives and experiences. Thematic analysis was utilised to analyse the qualitative data.

Results: The themes included, peer dynamics, impacts of the autism awareness workshop, feedback on the workshop and student's perceptions of inclusion. Findings indicated the workshop had a positive influence on student's knowledge, attitudes and behavioural intentions towards autistic individuals and increased students' sense of inclusion in school.

Conclusion: This thesis addresses a gap in the research by adopting a mixed-methods design in exploring the impacts of educating students about autism. The voices of autistic students and their peers are listened to so their valuable experiences can be understood.

A Note on the Language Used in this Paper:

Debate exists around the language used when referring to autism. When beginning this doctoral journey three years ago, I originally used person-first language, such as "people with autism". However, the more I learned about the neurodiversity, my choice of language changed when referring to autism. The language used in the current paper uses identity-first language, such as "autistic people", as this aligns with the strengths-based approach of neurodiversity and respects the majority of autistic individual's preferences (Kenny et al., 2016). For reader clarity, identity-first language is used throughout this paper, although, I learned from the autistic participants in this study that each of them used different terminology in how they referred to autism. Thus, in my future practice as an educational psychologist, out of respect to the young people I will be working with, I will ask them if they have a preferred term that they would like me to use when talking about autism.

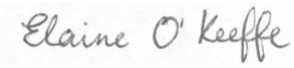
When referring to the participants who attended this mainstream secondary school and did not have autism diagnoses, it was challenging to find a term to represent these students appropriately. Many studies refer to this cohort of students as 'neuro-typical', however, this term was not representative of this cohort of participants, because although they did not have diagnoses of autism, some of these students were neurodiverse , such as those with diagnoses of dyslexia and Attention Deficit Hyperactivity Disorder (ADHD). For this reason, to describe the participants who attended this secondary school who were not autistic, the umbrella term 'peers of autistic students' or is used throughout this paper. Further distinction was needed in this paper when discussing the relationships between two autistic students and the relationships between an autistic student and their peers who are not autistic, thus, the terms 'autistic peers' and 'non-autistic peers' are used as it was necessary to give the reader further clarity.

The term 'secondary school' refers to the school setting in this study. In the Irish context, secondary school is generally attended between the ages of twelve and eighteen.

Declaration

I hereby declare that this thesis is entirely my own work and has not been submitted for any other awards at this or at any other academic establishment. Where use has been made of the work of other people, it has been fully acknowledged and referenced.

Name: Elaine O'Keeffe

Signature: 

Date: 14th July 2022

Acknowledgements

I would like to express sincere gratitude to the young people that gave generously of their time to take part in this research. It was a privilege to have the opportunity to listen to your perspectives and experiences in school. I would also like to thank their lovely teacher for welcoming me into their school to conduct the research.

I would like to thank my wonderful research supervisors for their support, encouragement, and valuable feedback throughout the research process. I have been so fortunate to learn from the mentorship of Dr Keeley White, Dr Laura Ambrose and Maria Dervan throughout the doctoral journey. I wish to extend my thanks to the DECPsy Team in Mary Immaculate College for the tremendous learning that you have facilitated over the last three years.

To my family and friends, thank for being there for me through it all. Brian, thank you for all of your love and support, and for organising the rejuvenating getaways along the way. To my amazing parents, I cannot thank you enough for your encouragement, kindness and belief in me. The loving home, the warm fires and the delicious dinners have meant the world to me, and I will always cherish all you do and all you have done for me.

Table of Contents

List of Tables

List of Figures

Abbreviations

ACL	Adjective Checklist
APA	American Psychological Association
ASD	Autism Spectrum Disorder
BPS	British Psychological Society
DEIS	Delivering Equality of Opportunity in Schools
DoE	Department of Education
DSM-5	Diagnostic and Statistical Manual of Mental Disorders Fifth Edition
EP	Educational Psychologist
EPSEN	Education for Persons with Special Education Needs
GOI	Government of Ireland
HSE	Health Service Executive
KOA	Knowledge of Autism
MIREC	Mary Immaculate College Research Ethics Committee
NCSE	National Council for special Education
PEERS	Programme for the Education and Enrichment of Relational Skills
PIQ	Perceptions of Inclusion Questionnaire
SAQ	Shared Activities Questionnaire
SEN	Special Educational Needs
SETAM	Special Education Teaching Allocation Model
SNA	Special Needs Assistant
UNESCO	United Nations Educational, Scientific and Cultural Organization
WoE	Weight of Evidence

Chapter 1: Introduction

1.1. Overview of the Current Study

This research sought to explore the impacts of educating secondary school students about autism. The current research took place in an Irish mainstream secondary school with two autism classes and involved 1st and 2nd year students. Through the implementation of a mixed-methods approach, the research explored the impacts of an autism awareness workshop which involved 57 secondary school students. The voices of 4 autistic students and 4 of their peers emerged through the semi-structured interviews in this study, as they shared their perspectives on the impacts of the workshop in relation to their understanding of autism, peers' attitudes and behavioural intentions towards autistic students, as well as the students' perspectives of inclusion in school. As the study sought to analyse the impact of the autism awareness workshop and explore student's insights, this research adopted a mixed methods approach. A mixed methods approach is used to integrate elements of both qualitative and quantitative research (Almalki, 2016), that enables a greater depth of understanding to be formulated than if just one approach was selected (Creswell & Clark, 2011). Quantitative findings indicated that the autism awareness workshop had a positive influence on the knowledge, attitudes and behavioural intentions of secondary school students, towards autistic individuals, as well as increasing students' sense of inclusion in school. Semi-structured interviews enabled the research to capture the students' perspectives and experiences following the autism awareness workshop in their school. Using thematic analysis, central themes and subthemes were identified. The central themes related to the impacts of the autism awareness workshop on students' knowledge of autism, their attitudes and behavioural intentions towards autistic students, their perceptions of inclusion in school and peer dynamics. The thesis concludes with an extensive reflection on the implications of the findings on future research and practice in educational psychology.

1.2. Reflexivity Statement

With numerous years' experience working as a teacher in the Irish education system, I have been fortunate to work with many autistic children and young people on their educational journeys. I am currently undertaking a Professional Doctorate in Educational and Child Psychology in Mary Immaculate College. This course has given me the opportunity to engage in professional placements where I gained in-depth experience working with autistic young people, their teachers and families, and also working at a systems level in schools. I became interested in understanding the experiences and perspectives of autistic young people in school, and how valuable their insights can be when implementing supports and interventions within a school system. Recognising the valuable role peers play in creating an inclusive school environment for autistic young people, I became interested in promoting acceptance of autistic young people amongst students. Thus, my area of interest for the doctoral thesis was sparked.

Chapter 2: Review Paper

2.1 Introduction

Autism is a complex condition that a person is born with, though there are no bio markers for autism. Autism is a neurodevelopmental condition, meaning it impacts the way a person communicates, interacts with and understands other people and the world (AsIAm, 2022). It is also characterised by repetitive interests, behaviours and activities (Diagnostic and Statistical Manual of Mental Disorders Fifth Edition [DSM-5], American Psychiatric Association [APA], 2013). Autism can be described as a "spectrum", meaning it can impact different people, to differing degrees, in different ways and at different times and situations (AsIAm, 2022). The prevalence rate of autism diagnoses amongst school age individuals in Ireland is estimated to be 1.5 % (National Council for Special Education [NCSE], 2016). With the introduction of national and international publications such as the Salamanca Statement (The United Nations Educational, Scientific and Cultural Organization [UNESCO], 1994), the Education for Persons with Special Educational Needs Act [EPSEN Act] (2004) and the International Policy Guidelines on Inclusive Education (UNESCO, 2009), the last three decades have seen a significant shift towards inclusive education for all learners with Special Educational Needs (SEN), including autistic students.

In parallel, there has been profound transformation in Ireland's education system, with the Education for Persons with Special Needs Act providing students with SEN with a legislative right to receive an inclusive education (Government of Ireland [GOI], 2004). Of note, current tensions exist regarding the EPSEN Act as it was never fully enacted as a legislative right due to fiscal constraints and it is currently undergoing significant review (Shelvin & Banks, 2021). There have also been great efforts made to support the needs of autistic students in Ireland (NCSE, 2019). National reports, policies and evaluations have outlined guidelines regarding educational practice to meet the needs of autistic students. For

example, The Report of the Task Force on Autism recommended greater access to professional development for all staff involved in educating autistic students and for schools to develop a whole-school ethos to supporting autistic learners (Department of Education [DoE], 2001). The Evaluation of Autism Spectrum Disorder Provision highlighted the need for functional inclusion to be improved and for teachers to access autism-specific training and build their skills and understanding of how to appropriately support autistic students (DoE Inspectorate, 2006). The Evaluation of Autism Provision in Ireland recognised the valuable role school leadership play in facilitating effective provisions for autistic students and recommended the development of professional learning to support leadership (Daly et al., 2016). The NCSE Evaluation of Special Classes in Irish Schools recognised the need for enhanced professional learning and collaboration between teachers in supporting the needs of autistic students (Banks et al., 2016). The Evaluation of Educational Provision for Learners with ASD in Special Classes Attached to Mainstream Schools, highlighted the importance of consistently delivering effective teaching to support the needs autistic students and developing an inclusive school culture (DoE, 2020). The combination of both international and national policies and guidelines have led to an increased number of autistic students being educated alongside their peers in mainstream schools. The NCSE reported that in 2013, 99% of students with SEN are receiving their education in mainstream Irish schools, some of which have specialised classes attached to the school. Roberts and Webster (2022) reflect that it is now likely for there to be at least one autistic young person in every mainstream class.

2. 2 Context

2.2.1 An Inclusive School Environment

Throughout international educational policy there has been a great focus on a needs-based approach and a right to inclusion (Lindsay, 2006). It is widely accepted that simply placing a young person with SEN in a mainstream classroom is not inclusion, it is integration

(Thomas, 2013). To be fully included in a school, the EPSEN Act states that appropriate supports must be put in place and the learner's needs must be catered for effectively in an inclusive mainstream setting (GOI, 2004). The DoE circular 0013/2017 provides a new allocation model, giving schools autonomy and flexibility in supporting the inclusion of all student's needs (DoE, 2017). The Inclusive Education Framework describes an inclusive school environment as a place that is supported through whole school understanding and appreciation of differences (NCSE, 2011). Similarly, Villa (2005) perceives that an inclusive school environment is about embracing all learners, providing each child with a sense of belonging and appreciating that diversity and learning together enriches everyone. Indeed, the desire to belong is a fundamental need of all human beings and is a critical aspect of one's emotional wellbeing (Hagerty et al., 1996; Baumeister & Leary, 1995). The school environment is truly inclusive when schools make a conscious effort to educate teachers and students about individual differences and celebrates the diversity in the school community (Villa, 2005). Under circular 0013/2017, schools have the autonomy to create an inclusive school community for all students (DoE, 2017). Ainscow and Booth (1998) have argued that full inclusion should encompass social, emotional and academic inclusion, as well as acceptance from both teachers and peers. For the purpose of this specific research project, inclusion of autistic students is defined as the accommodation of an individual's needs by school staff, promotion of acceptance and understanding of autism within the entire school community and fostering the individual's sense of belonging in school and connection with others. This aligns with the Saturation Model of inclusive education, in which autistic students can receive education alongside neurotypical peers, while also allowing for individual supports and flexible provisions that may include benefits from withdrawal work or dual placement in a specialist setting (Morewood et al., 2011). Other models of inclusion were disregarded, such as that described in the EPSEN Act, as they only focus on the location in which an autistic

students receive inclusive education and overlook the very important area of student wellbeing, school culture and the school community (GOI, 2004).

Academic inclusion, emotional inclusion and social inclusion are important factors in a learner's experience in school (Gibb et al., 2007). Academic inclusion refers to a learner's ability to access the curriculum and includes their own perception of their learning ability (Prince & Hadwin, 2013; Elbaum & Vaughn, 2003). Emotional inclusion and social inclusion are closely related constructs (Szumski & Karwowski, 2017). Emotional inclusion represents the young person's sense of well-being in the school environment and social inclusion refers to their sense of connectedness with others in school (Stiefel et al., 2017; Scwab et al., 2013; Elbuam & Vaughn, 2003).

National reports have placed great emphasis on improving the physical integration and academic inclusion of autistic students, through professional learning for teachers (DoE, 2001; DoE Inspectorate, 2006; Daly et al., 2016; Banks et al., 2016; DoE Inspectorate, 2020). However, parents report that one of their main motives for their children with SEN to be educated in a mainstream school is to foster participation, belonging and social learning with peers (Wong et al., 2015; O'Connor, 2007; Elkins et al., 2003; Scheepstra et al., 1999). Indeed, academic achievement and social inclusion are not exclusive factors. A large body of research has found that feeling a sense of social connectedness and belonging in school, is positively correlated with a student's academic engagement and attainment (Korpershoek et al., 2020; Reynolds et al., 2017; Pittman et al., 2007). Hence, supporting a student's social inclusion and sense of belonging supports their learning and academic inclusion.

As educational research and policies recommend more inclusive practices in schools, such as improving autism-specific training for teachers and creating a whole school inclusive culture (DoE, 2020), it is essential that the perspectives of autistic young people and their families are listened to (Hebron & Humphrey, 2014). It has been highlighted that the voices of

young people with autism can become invisible, as research tends to be conducted on them rather than alongside them (Milton, 2012; Humphrey & Parkinson, 2006). Educational research papers debate whether mainstream education is an inclusive structure for autistic students (Anderson, 2020; Banks & McCoy, 2018; Mesibov & Shea, 1996). However, it is important to gather perspectives outside of the policy makers and researchers. Indeed, there is a move towards participatory research in the field of autism, where the voices of autistic children are listened to, and due weight is given to their perspectives (Fletcher-Watson et al., 2019; Crane et al., 2021). Research that has listened to autistic young people have found that inclusion in school is less about the location and more about the sense of belonging in the school community and the relationships a young person has with their teachers and peers (Goodall, 2020). Morewood and colleagues (2011), emphasise the importance of creating inclusive school environments by focusing on the social environment, not just the learning environment. As previously mentioned, great emphasis is currently being placed on improving teacher's understanding of autism through professional learning. However, until 2022 the Irish policy and reports about inclusion for autistic students, had not addressed ways to facilitate the desires of autistic young people to be socially accepted and included by the whole school community (DoE, 2020; NCSE, 2019; Banks et al., 2016; Daly et al., 2016; DoE Inspectorate, 2006; DoE, 2001). The recent publication of the Autism Good Practice Guidance for Schools is the first Irish guideline which promotes the social inclusion of autistic students by educating staff and peers about autism (DoE, 2022).

2.2.2 Social Inclusion and Peer Relationships

Social inclusion can be particularly challenging aspect of the school environment for autistic students (Browning et al., 2009; Bellini 2006;). Autistic individuals have differences with social communication and often find it challenging to engage with and relate to peers (Karoff et al., 2017). Some of the areas of need for autistic students include, social-emotional

reciprocity, understanding non-verbal communication, interpreting nuances in social interactions, as well as understanding, developing and maintaining relationships (DSM-5, APA, 2013). Recent research has highlighted that students can experience difficulty interpreting the perspectives and social expressions of autistic individuals, and this is associated with more negative perceptions of autistic individuals (Alkhaldi et al., 2019; Heasman & Gillespie, 2018). This mutual and bi-directional misunderstanding and disconnection between autistic individuals and their peers is known as the double-empathy problem and can contribute to a myriad of negative consequences for autistic individuals (Milton, 2012).

Studies have highlighted that autistic students can find it challenging to form friendships and are more likely to be bullied than other students (Marino et al., 2016; Hebron & Humphrey, 2014; Petrina et al., 2014; Sreckovic et al., 2014; ; Locke et al., 2010). Moreover, autistic students who have experienced victimization, reported having physical injuries, emotional trauma and have felt unsafe in school (Zablotsky et al., 2013). Autistic students who have been victimised in school also experience negative impacts on their self-esteem, mental health and relationships (Reid & Batten, 2006). In addition, peer victimisation has been flagged as a risk factor of self-harm and suicide for autistic young people (Serges & Rawana, 2014). Given the correlation between a lack of belonging and increased mental health difficulties (Baumeister & Leary, 1995), this emphasises the need to support autistic students' sense of acceptance, inclusion and connectedness in school.

Autism forms part of an identity for many autistic individuals (Kapp et al., 2013). The minority stress model has been used to understand the ways in which some autistic people may experience increased social stress due to stigmatization from others (Jaarsma & Welin 2012). The minority stress model represents a novel way of considering the experiences of autistic people. A recent study found that exposure to victimisation, discrimination, expectation of rejection, internalised stigma and masking can significantly predict poorer mental health and

heightened psychological distress in autistic individuals (Botha & Frost, 2020). Botha and Frost (2020) argue that this stress burden, which impacts the wellbeing and mental health of autistic individuals could potentially be a preventable factor.

This highlights the grave importance and urgency of intervening in schools to protect autistic young people from experiencing these negative outcomes. The peers of autistic students play a significant role in forming the inclusive school environment through peer relationships and social inclusion (Mavropoulou et al., 2020). However, double empathy theory suggests that both autistic students and their peers experience bi-directional difficulties in understanding and communicating with one another (Milton, 2012). This lack of insight, which can impact autistic individuals and their peers when trying to socially understand and connect with one another (Milton, 2012). As highlighted through the double empathy problem and further reinforced through research, students can form negative attitudes towards autistic students because they do not understand the behaviours of their autistic classmates (Sasson et al., 2017; Milton, 2012). This lack of understanding can lead to increased stigmatisation and isolation for autistic students, as well as reducing peers' intentions to socially interact with autistic young people (Sasson et al., 2017; Ling et al., 2010).

Additionally, autistic students can be excluded by their peers, and autistic students report feeling distressed by this perceived rejection (Dean et al., 2014; Ochs et al., 2001). The social differences autistic students experience, combined with the lack of peer knowledge and understanding of autism could unintentionally create negative social experiences for autistic young people (Goodall, 2020; Humphrey & Symes, 2011). This highlights the discrepancy between aims of inclusive policy and the reality of social exclusion amongst autistic students and their classmates. These findings stress the urgent need to accommodate greater inclusion amongst autistic young people and their peers.

2.2.3 Interventions for Students

Social skills interventions have been designed to try to improve autistic young people's social skills, with the intention that this may lead to the development of friendships (Bond et al., 2016; Reichow et al., 2012). Typically, social skills training and peer mediated interventions focus on improving only autistic students social and emotional skills (Bellini et al., 2007). One such intervention that has effectively increased peer interactions and improved the development and maintenance of social skills over time is the Programme for the Education and Enrichment of Relational Skills (PEERS) (Mandelberg et al., 2014). A criticism of social skills programmes is that post-intervention, they do not focus on the inclusion of autistic students with their peers (Bond et al., 2016). Additionally, research into social skill interventions provides minimal information on autistic individual's development of friendships with peers following the intervention and some studies suggest that difficulties in developing and maintaining friendships persist, even when an autistic individual improves their social skills (Finke, 2016; Calder et al., 2013). In a meta-analysis of social skill interventions for autistic individuals, which included 23 studies, authors reported that none of the studies meaningfully measured friendship reciprocity (Petrina et al., 2014).

A further criticism of social skills interventions is that they unethically stigmatise authentic behaviours of autistic individuals, as autistic students are learning to conform to neuro-typical social expectations (Wilkenfeld & McCarthy, 2020; Bottema-Beutel et al., 2018; Milton, 2016). As a result, autistic students are taught to mask their authentic autistic selves, which can hinder their sense of belonging because people do not understand them or their supressed true selves (Pearson et al., 2023; Miller et al., 2021). This masking of naturally autistic behaviours can be straining for autistic individuals (Hull et al., 2017) and elevate their levels of stress and anxiety (Cage & Troxell-Whitman, 2019). In contrast to neuro-affirmative practices, social skill interventions tend to focus on minimising autistic individual's overtly non-typical behaviours and fitting into a neurotypical world (Gates et al., 2017).

Furthermore, a major criticism of social skill interventions is that they do not address the stigma and negative perceptions of autism that their peers can hold (Reichow et al., 2012). The focus of many social skills interventions is often on the social 'deficits' of autistic students, but this does not address the bidirectional nature of peer interactions between autistic and their peers (Chien et al., 2021). Double empathy theory highlights that autistic individuals are not solely responsible for the barriers that can be experienced in social interactions, as mutual misunderstanding and social disconnection between autistic individuals and their peers can contribute to an interpersonal mismatch (Milton 2012). Thus, this can impact autistic individuals and their peers when trying to connect with one another (Milton, 2012).

2.2.4 The Neuro-affirmative Approach

Neurodiversity refers to a broad range of natural variance that occurs in human neurodevelopment and recognises autistic individuals as neurodiverse (Pellicano & den Houting, 2022). The neurodiversity paradigm centres around acceptance of diversity in the development of the human brain and rejects the outlook that divergence from 'typical' brain development is a deficit-based issue that needs to be corrected (Walker, 2012). There has also been a move towards describing autistic people from a strengths-based approach, as well as supporting their needs (Mandy et al., 2015a). For example, autistic individuals can display the full range of language abilities (DSM-5, APA, 2013), with many autistic people having a fluent language (Meilleur et al., 2015). Many autistic individuals poses personal qualities such as honesty and loyalty and have specific cognitive strengths that relate to their autism, which can include pattern recognition, memory, focus, creativity and unique perspectives (Cope & Remington, 2022). Neuro-affirmative standards of wellbeing emphasise the importance of taking the autism-specific values, needs and goals of each individual into account (Lam et al., 2021). Autistic adults have highlighted the importance of others' knowledge and acceptance of autism and developing a positive autistic identity as factors that support their wellbeing

(McConachie et al., 2020). Similarly, in the school setting, autistic adolescents have placed value on their peers being more aware of autism to support them feeling accepted and included in school (Goodall, 2020).

Rather than trying to change the autistic individual, the neurodiversity paradigm promotes the acceptance of autism as an integral aspect of an autistic individual's identity (Pellicano & den Houting, 2022). Fondelli and Rober, conducted interviews with neurotypical teenagers to understand their perceptions of autism (2017). One participant in a focus group recognised the importance of valuing a peer's autistic identity, stating that, 'he also has a right to be who he is' (Fondelli & Rober, 2017, p.708). In addition, having a positive sense of autistic identity and the more accepted an autistic person feels by others, is correlated to better mental health outcomes for autistic individuals (Cage et al., 2018; De Paz et al., 2018). Neurodiversity aligns with the social model of disability, whereby the environment should be adapted to effectively meet an individual's unique characteristics rather than changing the individual to fit into an environment that does not meet their needs (Oliver, 1996). Neurodiversity affirming practices recognise developmental differences from a right-based and strengths-based perspective, whereby adaptations are made to support and affirm an individual's neuro-diverse identity (Kapp et al., 2013). Neurodiversity affirming practices can be embedded in schools by de-stigmatizing autism and accommodating the views of the autistic community (Izuno-Garcia et al., 2023). For example, autistic students have suggested the social environment can be enhanced in school by increasing peers' understanding of autism (Goodall, 2020). With the introduction of the Special Education Teaching Allocation Model (SETAM), schools now have the autonomy and flexibility to create an inclusive school environment for all learners (DoE, 2017)

2.2.5 Listening to Autistic Students

An individual's sense of belonging is defined as their experience of psychological involvement as an integral part of a community or a relationship and is captured through their experiences of feeling accepted and needed as well as the feeling that their identity is valued and they fit into the community (Hagarty et al., 1992). Research conducted by Goodall (2018; 2020) found that autistic adolescents value a sense of belonging in the school community and their relationships their teachers and peers. Goodall (2020) interviewed 12 autistic adolescents, who outlined the following factors as negatively impacting their inclusion; a lack of understanding of autism from teachers and peers, not feeling valued and not free to express themselves in school. Autistic adolescents have expressed a desire to develop social relationships (Muller et al., 2008; Daniel & Billingsley, 2010). In a study by Sedgewick et al. (2016), interviews with autistic adolescents revealed that autistic females, can feel excluded in some of their friendships and ignored by female peers. Autistic adolescents have reported that gaining a positive understanding of autism legitimises their differences, supporting their sense of self and their self-identity as an autistic person (Mogensen & Mason, 2015). Crompton and colleagues interviewed autistic adults who reflected on the types of autistic peer support they would have liked to have experienced in secondary school. Numerous participants recalled that autism was perceived negatively in school or rarely spoken about, describing autism as 'the elephant in the room' (2022, p.6). Participants suggested it would have been beneficial for students and teachers to speak about autism in a positive manner because they reported other students had little understanding of autism and 'there needs to be more understanding of what it is like for autistic people' (Crompton et al., 2022, p.10).

Autistic adolescents have articulated the positive impacts of learning about autism from a strengths-based perspective, such as validating their self-concept (Mogensen & Mason, 2015) and they have also expressed a desire for their peers to have a better understanding of autism (Goodall, 2018). In addition, interviews conducted with typically developing peers

indicated that having a better understanding of autism could reduce the exclusion of autistic peers and support their inclusion (Fondelli & Rober, 2017). Listening to the voices of autistic students in relation to school interventions about autism, is highly valuable as it helps researchers, school leaders, teachers and school communities to understand their social experiences and how they would like supports to be improved upon. This viewpoint of 'nothing about us without us' is further represented as a central tenant of disability rights and neurodiversity activity (Charlton, 1998). The Autism Good Practice Guidance for Schools states that to foster the social inclusion of autistic students and reduce the risk of bullying, schools should adopt 'approaches that raise awareness of autism and develop mutual understanding and support between students with autism and their peers' (DoE, 2022, p. 85). Some of the approaches recommended to promote the acceptance and understanding of autism amongst peers include autism awareness events, peer mentoring programmes and shared interest lunchtime clubs (DoE, 2022).

2.3 Rationale

2.3.1 Autism Awareness for Students

The Saturation Model for effective inclusion of autistic students provides a framework for a whole-school approach (Morewood et al., 2011). This model outlines five key principles that schools can develop across to ensure that the whole school community can work together to support the inclusion of autistic students. The five principles include, a key figure who can champion autism across the school, an autism friendly school environment, flexible supports for staff and autistic students, continuous professional development for staff and educating peers about autism. This study focuses on the fifth principle of best practice in the Saturation Model, which stresses the importance of extending an understanding of autism to peers of autistic students, to create meaningful inclusion across all levels of the school community (Morewood et al., 2011). This is further supported by the Autism Good Practice Guidelines for

Schools (DoE, 2022), which recommends that schools can promote the social inclusion of autistic adolescents is by educating all students about autism through autism awareness interventions. Researchers have emphasised the need for classmates to better understand and accept their autistic peers (Meyer & Ostrosky, 2014) and the need for more autism awareness trainings for neurotypical peers (Winchell et al., 2018).

Carter et al. (2014) found that interventions targeting peers' knowledge and perceptions of autism are key in promoting positive relationships between autistic children and their peers. Fondelli and Rober (2017) conducted interviews with neurotypical adolescents, to explore their understanding of autism. The young people explained that students 'don't really understand (autism)', and don't know how to interpret an autistic person's behaviours, which the young people thought could be contributing to autistic individuals experiencing bullying (p.707). The young people in the focus groups also suggested that others might have more sympathy and be more open minded towards autistic individuals if autism was explained, as this could create a better understanding of why autistic individuals may act differently (Fondelli & Rober, 2017). Research has also found that when students learn about autism, peers had more positive descriptions of autism (Campbell et al., 2004).

Broadly in the literature, the main constructs used to analyse peers' perceptions towards autistic students include knowledge, behavioural intentions and attitude. Knowledge refers to what peers understand about autism and any misconceptions they may have (Campbell, 2007). Behavioural intentions measure the degree to which peers like to interact with autistic students in everyday situations. Attitude focuses on prejudices and internal biases peers may have towards autistic students (Campbell, 2007). Campbell and Barger (2014) suggest that stigma is underpinned by these three constructs: knowledge, behavioural intentions, and cognitive attitudes. The process of de-stigmatising disabilities has been likened to reframing of social perceptions of the disability, whereby firstly individuals recognise the disability exits, then they

learn more about the strengths, differences and needs of a disability, and this awareness leads to understanding, which in turn supports acceptance of a person with a disability (Williams et al., 2021).

A range of studies have looked at the impacts of peers' understanding, attitudes and behavioural intentions in relation to autistic individuals. Research in the university setting has found that positive peer attitudes towards autistic individuals predicts willingness of peers to interact with autistic people (Underhill et al., 2019; Gardiner & Iarocci, 2013). Freitag and Dunsmuir's study reported that peer's behavioural intentions towards a hypothetical autistic classmate were predictive of real-life interactions with autistic classmates (2015). Children's interactions with autistic peers were operationalised using a socio-metric roster method, whereby the children rated how much they spend with each of their classmates and this method has been reported to be strongly correlated with independent observations of interactions between peers in the classroom and in the school yard (Roberts & Smith, 1999). Thus, measures of behavioural intentions may support our understanding of potential social interactions amongst autistic students and their peers.

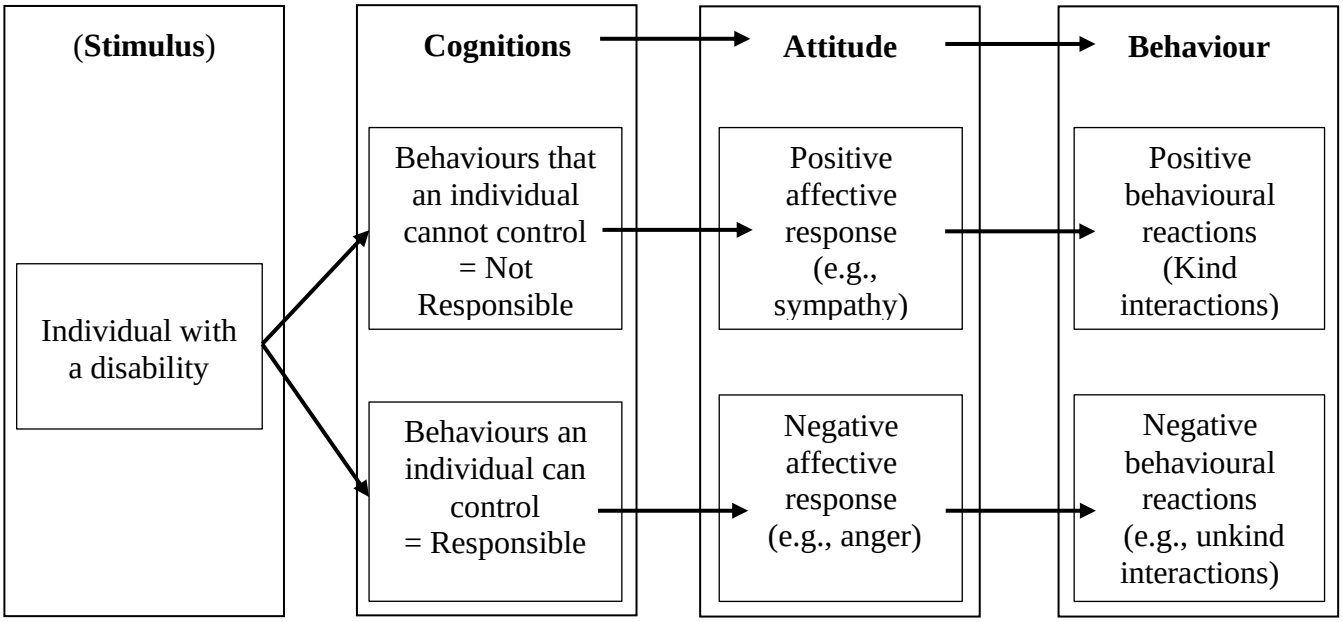
2.3.2 Attribution Theory and Peer's Attitudes

Humphrey (2008) theorised that educating peers about autism may support them to have a better understanding of autism, which could impact their attitudes towards autistic individuals and in turn, improve their willingness to socially interact with autistic peers. Attribution theory is based on the premise that a person's emotional reactions and motive to act in a situation is based on their need to understand the causes of events (Dijker & Koomen, 2003). When a person perceives that another individual does or does not have control over their own behaviour, this perception impacts their attitude and behavioural interactions towards that individual (Weiner, 2006). Thus, cognitions affect feelings, which then impact behavioural intentions towards an individual (Corrigan et al., 2003).

In the context of autism, attribution theory suggests that this change in attitudes may occur when peers learn about the experiences of autistic individuals and the impact the school environment can have on an autistic person's behaviours (Weiner & Graham, 1984). For example, learning about the causes of an autistic person's behaviours, such as sensory difficulties, may help a classmate to understand that an autistic individual displaying certain behaviours (e.g., covering their ears), has less control over their responses to sensory stimuli (e.g., loud noises) than previously assumed. This theory also suggests that information about a diagnosis and its corresponding characteristics may promote more positive responses in others, as they may believe it to be the most socially desirable way of responding (Mogavero & Hsu, 2018). Numerous studies have applied the construct of attribution theory to understand people's attitudes and behavioural interactions towards an individual with a disability (Chan et al., 2005; Silton & Fogel, 2012). This has led researchers to hypothesise that when peers believe an individual's behaviour is related to a disability and not fully in the individual's control, peers display more sympathy and willingness to provide social support to that individual (Campbell et al., 2004; Swaim &Morgan, 2001). Ling and colleagues applied attribution to teachers' behavioural intentions towards autistic students and found that the more a teacher understood autism, they had reduced anger and increased sympathy towards autistic students and they were also less likely punish an autistic student for their behaviours, indicating a reduction in negative behavioural reactions (2010). Figure 1, as illustrated by Corrigan (2000) and Weiner et al. (1988) depicts the construct of attribution theory.

Figure 1

An Illustration of attribution Theory in Relation to a Person with a Disability.



2.3.3 The Focus of Autism Awareness Research to Date

Several studies have investigated the impact of raising peers' awareness and understanding of autism, predominantly focusing on pre-school (Balaz et al., 2020; Morris et al., 2020) primary school (Campbell et al., 2019; Steanik et al., 2019; Scheil et al., 2017) and university levels (Gillespie-Lynch et al., 2015; Matthews & Goldberg, 2015). Morris and colleagues conducted a study in an Irish pre-school, analysing an autism de-stigmatising programme called 'Understanding our Peers with Pablo', designed for the early year's education setting (Morris et al., 2020). Results from this study showed increases in knowledge and positive attitudes towards an unfamiliar autistic peer in the intervention group. These results were maintained at a three month follow up. Authors also noted that behavioural intentions decreased over three months.

In the primary school setting, research on the Kit for Kids peer education autism programme (Campbell et al., 2019), reported the experimental group had greater knowledge of autism than the control group following the intervention, although attitudes towards autistic

individuals were similar between control and experimental groups. In a study analysing college students' attitudes towards an autistic peer, when the label of autism was included in the vignette, participants had more positive behavioural and cognitive attitudes towards the autistic individual, although affective attitudes did not change (Matthers & Goldberg, 2015). As illustrated above, much research has taken place at pre-school, primary school and third-level education with regards to educating peers about autism. This paper therefore focuses on the less explored area of secondary schools, as it is an important stage of the education system that has yet to be reviewed comprehensively.

2.3.4 A Need to Support Autistic Students in Secondary Schools

Furthermore, in a review of inclusion of autistic students in Irish schools, the NCSE found several areas in which secondary schools should improve their supports for autistic students (2016b). For example, this review found that primary schools had good to very good formal and informal processes for monitoring children's progress across a range of holistic competencies, such as academic, social, emotional and personal targets. However, in secondary schools, most data collected was related to student's academic performance and targets were rarely set for non-academic competencies, which the NCSE deemed as not acceptable (2016b). In general, secondary schools tend to place more emphasis on academic achievement than primary schools (Zeedyk et al., 2003). The secondary school environment places more social, emotional and academic demands on learners, as they must adapt from one familiar group of classmates to a variety of teachers, classes and new peers (Coffey, 2013). Research by Deckers and colleagues (2017) examined peer-related loneliness from childhood to adolescence in autistic individuals and their peers. They found that only when autistic individuals reached adolescence, they experienced elevated levels of loneliness, when compared to same-age peers. The human desire to belong, becomes stronger during adolescence for autistic young people, as well as adolescent clinical control groups and non-clinical control groups (Laursen & Hartl,

2013). A study involving young people with disabilities found that autistic adolescents were reported to be least likely to meet friends outside of school or get invited to a peer's social event (Wagner et al., 2004).

Educators and parents have expressed concern regarding the lack of opportunities for autistic young people to develop friendships with their school peers (Boyd & Shaw, 2010; Bauminger et al., 2003). In addition, parent reports and clinical observations emphasise that secondary school can be particularly difficult for autistic young people (Mandy et al., 2016; Tobin et al., 2012). Adolescence can be a significantly challenging stage for autistic young people as there is greater emphasis and complexity when it comes to peer relations (Carter et al., 2014). This highlights the need to promote and foster social inclusion for autistic young people in secondary school. In addition, the majority of these studies focus on the views of parents and teachers, this emphasises the need to capture the perspectives of autistic and their peers in terms of peer relations and inclusion in secondary school.

Reviews of autism awareness interventions have been carried out across broad contexts and with studies including participants from 8 years to 55 years of age (Cremin et al., 2021; Lochner, 2019). Autism awareness interventions conducted in secondary schools have yet to be analysed and for these reasons, it is important that a systematic literature review be carried out. The purpose of this review is to examine the impact of autism awareness interventions on peers' knowledge of autism, attitudes and behavioural intentions towards autistic students. With the broad variance in the delivery of these interventions there is a need to critique the internal and external validity of published studies. Interventions that aim to reduce peer stigma and improve peers' attitudes towards autistic students could be hugely beneficial to autistic students by fostering an inclusive and accepting school environment for these students. This review can inform a whole-school approach to the social inclusion of autistic students.

2.3.5 Review Question

What impact do Autism Awareness Interventions have on Secondary School Students' knowledge of autism, and on their attitudes and behavioural intentions towards autistic individuals?

2.4 Methods

2.4.1 Search Strategy

Studies relevant to the research question were identified thorough searches on the databases; ERIC, Academic Search Complete, APA PsycINFO and Web of Science as they cover research ranging from education, psychology and applied social studies. To ensure all articles that were related to educating students about autism were identified, the key search terms, outlined in Table 1 were inputted into these databases. 287 studies were recognised through database searches.

Table 1

Search Terms for Databases

Participants		Intervention		Outcome
student OR class* OR peer OR friend* of teen* OR adolescent* AND "high school" OR "middle school" OR education OR "second level" OR "secondary school"	AND	ASD OR "autism spectrum disorder" OR autism OR asperger* AND Intervention OR program* OR course OR awareness OR training OR lesson* OR workshop OR educat*	AND	knowledge OR "cognitive attitude" OR "intentional behav*" OR understanding OR attitude OR acceptance OR perception OR awareness

2.4.2 Inclusion and Exclusion Criteria

The inclusion criteria and exclusion criteria are outlined in Table 2, with rationale for each. This was used to screen the studies identified through database searching. After duplicates were removed, the titles of 205 studies were screened for relevance by reading titles. Out of these studies, 135 records were excluded, following the exclusion criteria (Appendix

A). The abstracts of the remaining 52 papers were screened using the inclusion and exclusion criteria. Excluded studies are listed in Appendix A, with rationale for their exclusion. The remaining 10 articles were read in full and assessed for eligibility, four of which were excluded after full review, as they did not meet the inclusion criteria. See Appendix A for reasons for exclusion. 6 studies met the inclusion criteria and were included in this review (Appendix B). Figure 2 illustrates the study selection process.

Table 2

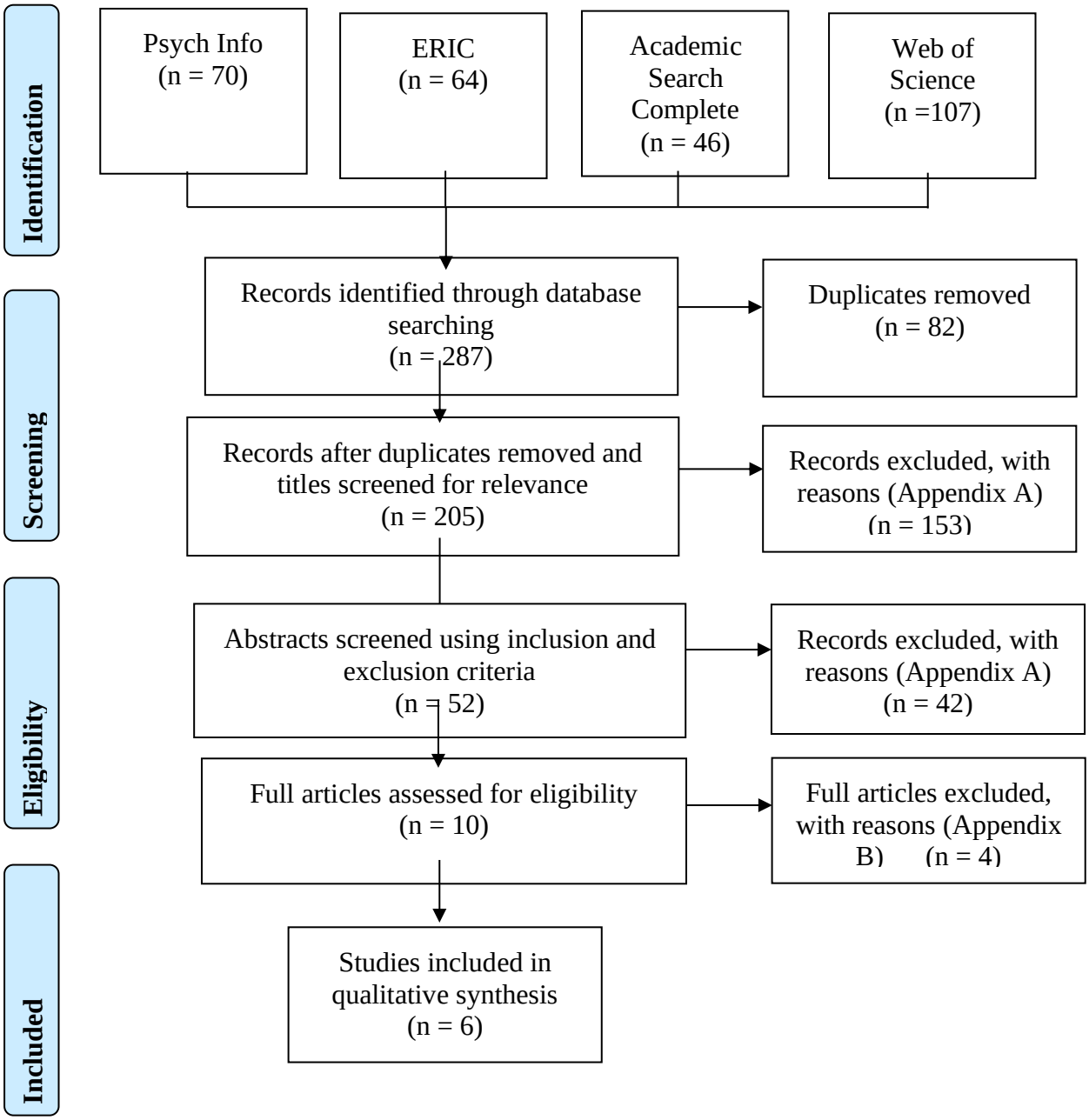
Inclusion Criteria, Exclusion Criteria and Rationale for Screening Studies

	Exclusion	Inclusion	Rationale
1. Publication Type	Research that was not published in a peer reviewed journal.	Research must be published in a peer reviewed journal.	Studies published in peer reviewed journals must pass certain research standards and therefore maintain the academic rigour of this systematic literature review.
2. Study Type	Systematic review, scoping review, meta-analysis, qualitative, PRISMA review.	Research must be empirical in nature and collect primary data to analyse the impacts of the intervention.	The analysis of primary data ensures the findings are original and the impacts of the interventions can be evaluated as rigorously as possible.
3. Participants	Children in pre-school, kindergarten, primary school, elementary school, individuals in third level education, university, adults or those who are not in education.	Studies that measured the impact of the interventions on students in second level education including, middle school, high school and secondary school. All second level students were included, this includes participants who had a diagnosis of autism and participants who did not have a diagnosis of autism.	This review focused on studies that targeted students in second level education as a systematic literature review has not been conducted with this age group to date. All students in second level education were included, therefore students with a diagnosis of autism and students without a diagnosis of autism were included.
4. Outcome Measures	Studies that did not explore the impact of the intervention on student's knowledge of autism or attitudes or behavioural intentions	Studies that explored the impact of the intervention on at least one of these three constructs;	Understanding student's attitudes towards autistic individuals is a key area of interest for this review. Attitude is comprised of three components, affective attitude, behavioural intention and

		towards autistic individuals or hypothetical autistic individuals.	attitude, knowledge and behavioural intentions.	knowledge (Hume & Campbell, 2019). Studies on autism awareness interventions have varied in their findings. When multiple components of attitude is measured it gives a more reliable outcome overall (Hume & Campbell, 2019). For this reason these key constructs are included in the review criteria.
5.	Language	Research papers that were not published in English.	Research papers that were published in English.	The researcher can only read and critique studies published in English.
6.	Intervention Type	Studies that have an autism awareness intervention targeted at parents, teachers, families, siblings.	Studies that had an autism awareness intervention that targeted peers of autistic students in secondary school.	Required to evaluate the impact of the autism awareness intervention on students in the educational setting.

Figure 2

Study Selection Process



2.4.3 Literature Review & Synthesis of Findings

Table 3

Mapping the Field: An Overview of the Studies Included in this Review

Researchers	Sample	Study Design	Type of Intervention	Type of Information	Measures	Main Findings
Campbell, 2007 United States of America	233 students From 1 school	Experimental design with a pre-post assessment only for Knowledge of Autism (there was no control group and no follow up test)	A once off intervention which used a video and a pamphlet. The videos included male and female child actors playing the role of a child with autism. The child actors did not have a diagnosis of autism.	Combined: explanatory and descriptive Or descriptive only	Shared Activities Questionnaire (SAQ) – Measuring Behavioural Intentions Adjective Checklist (ACL)- Measuring Cognitive Attitude Perceived Responsibility Questionnaire (PRQ) Similarity Rating Form (SRF) Knowledge of Autism Questionnaire – Measuring how much students know about autism.	Students with prior awareness of autism had more favourable behavioural intentions towards autistic students compared to students who had not heard of autism. Students' knowledge of autism was significantly increased after the intervention. Students who received descriptive information had more negative attitudes towards autistic students while students who received a combination of explanatory and descriptive information had more positive attitudes towards autistic students.
Fleva, 2014 Greece	179 students from 1 school	Experimental design with a control group (there was no pre-test and no follow up test)	A once off intervention which used vignettes and a PowerPoint with audio	Combined: directive, explanatory and descriptive	Shared Activities Questionnaire (SAQ) – Measuring Behavioural Intentions Adjective Checklist (ACL)- Measuring Cognitive Attitude	Students had a more positive attitude towards typically developing students than autistic students. Students were more willing to engage in activities with typically developing students than autistic students.
Fleva, 2015 Greece	416 students from 2 schools	Experimental design with a control group (there was no pre-test and no follow up test)	A once off intervention which used vignettes and a PowerPoint with audio	Combined: directive, explanatory and descriptive	Shared Activities Questionnaire (SAQ) – Measuring Behavioural Intentions Asperger Syndrome Questionnaire (ASQ)- Measuring general attitude	Students in the experimental group had greater behavioural intentions towards autistic students than students in the control group. There was no significant impact on attitude.

Researchers	Sample	Study Design	Type of Intervention	Type of Information	Measures	Main Findings
Ranson and Byrne, 2014 Australia	273 students All female participants from one school	Experimental pre-post design with a control group (there was no follow up test)	A 6 week curriculum programme during 50 minute classes. This also included online homework tasks. 1 session included an autistic guest speaker and videos of autistic students.	Combined: directive, explanatory and descriptive	Autism Awareness Survey - Measuring how much students know about autism. Adjective Checklist (ACL) Shared Activities Questionnaire Revised (SAQ-R) Perceived Responsibility Questionnaire –Revised (PRQ-R) – measuring how much control peers perceive hypothetical autistic students have over their behaviours. Similarity Rating Form – Revised (SRF-R)- measuring perceived similarity between peers and hypothetical autistic students.	The experimental group: Increased their knowledge of autism and could recognise strategies they could use to effectively interact with students with autistic students. Had a significant positive impact on attitudes towards autistic students in post testing, however, this also occurred in the control group. Increased behavioural intentions across time for the experimental group, compared to the control group.
Staniland and Byrne, 2013 Australia	395 students All male participants from one school	Experimental pre-post design, with a follow up assessment and a control group	A 6 week curriculum programme during 50 minute classes. This also included online homework tasks. 1 session included an autistic guest speaker and videos of autistic students.	Combined: directive, explanatory and descriptive	Autism Awareness Survey Adjective Checklist (ACL)- Measuring Cognitive Attitude Shared Activities Questionnaire Revised (SAQ-R) Perceived Responsibility Questionnaire – Revised (PRQ-R) – measuring how much control peers perceive hypothetical autistic students have over their behaviours. Similarity Rating Form – Revised (SRF-R)- measuring perceived similarity between peers and hypothetical autistic students.	The experimental group: Increased their knowledge of autism and could recognise strategies they could use to effectively interact with students with autistic students. Had a significant positive impact on attitudes towards autistic students. Had no significant impact on student's behavioural intentions towards an autistic student.

Tonnsen and Hahn, 2016 United States of America	83 students from four different schools	Experimental design with a control group (there was no pre-test and no follow up test)	A once off intervention which included a blog and a video. The videos included male and female child actors playing the role of a child with autism. The child actors did have a diagnosis of autism.	Combined: explanatory and descriptive Or explanatory only	Adjective Checklist (ACL)- Measuring Cognitive Attitude CATCH- Children's Attitudes Towards Children with Handicaps Scale –measuring general attitude	Students had more positive attitudes towards autistic students who were socially accepted by others.

2.4.4 Critical Appraisal of the Reviewed Studies

This review utilised Gough's (2007) Weight of Evidence (WoE) Framework to conceptually and methodologically appraise and critique the articles that were eligible for inclusion through WoE A, B, C and D. WoE A analyses the quality of the methodology in each study by using a coding protocol. WoE B examines how appropriate each study design is in answering this review question. WoE C analyses how relevant the focus of each study is to this review question. WoE D combines the mean score of the WoE A, B and C, to produce an overall rating which corresponds to the extent to which each study addresses this review question. The overall WoE D is shown in Table 4. All coding criteria for WoE A,B, C is outlined in Appendices C, D and E.

The Gersten et al. (2005) protocol was selected for coding the WoE A because it applies to experimental group designs in educational settings. Each of the six studies being reviewed in this paper fitted this criteria, hence, this coding protocol was deemed suitable. The quality of the methodology in each study was evaluated through essential and desirable quality indicators (Appendix C). The criteria descriptions in the Gersten et al. (2005) protocol were implemented to analyse of the quality of each study. A full outline of the original and adapted coding protocols are included in Appendix B. The scores of each criteria were combined to give a final WoE A score of either Low = 1, Medium = 2 or High = 3. Appendix C includes an example of how the coding protocol for the WoE A was applied to the Ranson and Byrne paper (2014).

The appropriateness of the methodology (WoE B) and relevance of the characteristics of each study (WoE C), to this review question were also assessed. The WoE B critically appraised the design of each study (Appendix D). The WoE C was evaluated according to the intervention delivery, the schools that participated and the outcomes that were measured (Appendix E includes justification for specific coding criteria for the WoE C). The WoE D was

calculated by averaging WoE A, B and C. An overview of all of the Weight of Evidence scores can be seen in Table 4. The overall WoE D ratings are categorised as follows: Low = <1.4, Medium = 1.5-2.4, High = >2.5.

Table 4

An Overview of the Weight of Evidence (WoE) Ratings

Study	WoE A	WoE B	WoE C	WoE D
Campbell (2007)	1	1	2	1.3 (Low)
Fleva (2014)	1	1	2	1.3 (Low)
Fleva, (2015)	2	2	2.3	2.1 (Medium)
Ranson and Byrne (2014)	3	3	2.3	2.8 (High)
Staniland and Byrne (2013)	3	3	2.3	2.8 (High)
Tonnsen and Hahn (2016)	2	2	2	2 (Medium)

2.4.5 Characteristics of Studies Included

2.4.5.1 Participants. This review critically appraised six studies conducted internationally between 2007 and 2016 (Table 4). Two studies were conducted in Greece (Fleva 2015; Fleva, 2014), two studies were conducted in the United States of America (Tonnsen & Hahn, 2016; Campbell, 2007) and two studies were conducted in Australia (Ranson & Byrne, 2014; Staniland & Byrne, 2013). Together, these studies are comprised of 1,599 participants. All studies, but two, had a similar proportion of male and female participants and receive a higher rating for the WoE A. Research by Ranson and Byrne (2014), included only female participants, while the study conducted by Staniland and Byrne (2013) involved only male participants. As these studies targeted just one gender, they were not representative of the general whole school population and this impacted their WoE A ratings. Four of the studies were conducted in just one school (Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne,

2013; Campbell, 2007). The type of school can attract a limited demographic of students, which makes the findings less generalisable. The studies conducted by Ranson and Byrne (2014) and Staniland and Byrne (2013) were conducted in one Catholic school that reported having a strong ethos of social justice and all participants were reported to be from a middle class background. This illustrates that having just one school involved in a study is not representative of general school populations and for this reason these studies received a lower WoE C rating. The quality criteria in this systematic literature review, places value on representing a variety of student demographics as this is an important factor in demonstrating the effectiveness of educational interventions (Raudenbush, 2007). Thus, Fleva (2015) received a medium WoE C rating for involving two schools. Tonnsen and Hahn (2016) received a higher WoE C rating as their research represented a diverse population of students from Public Schools, Private Schools, Chartered Schools and Home-Schools.

2.4.5.2 Research Design. All six studies implemented an experimental design, as illustrated in Table 3. Campbell (2007) used pre-post testing for one of their questionnaires, while three studies implemented a control group (Tonnsen & Hahn, 2016; Fleva, 2015; Fleva 2014). These four studies received a medium WoE A rating, as these methods of testing demonstrate good validity (Borovicka et al., 2012). These four studies would have received a higher WoE A rating if they had included both pre and post testing as well as a control group, as this would be regarded as a better quality methodology. Ranson and Byrne (2014) and Staniland and Byrne (2013) and received high WoE A score as they demonstrated more rigorous testing, by implementing pre-post testing, control groups and follow up testing. All studies implemented randomisation at class level in order for the intervention to be carried out during normal class times.

2.4.5.3 Intervention. The interventions were delivered through a variety of methods. Both Ranson and Byrne (2014) and Staniland and Byrne (2013) implemented the

interventions during 50 minute classes across six weeks, alongside online homework tasks. An autistic guest speaker attended one of the six sessions and videos of autistic students were also presented. These were the longest interventions in length. Both Campbell (2007) and Tonnsen and Hahn (2016) the intervention was delivered through videos of male and female child actors playing the role of a child with autism. Campbell (2007) employed child actors who did not have a diagnosis of autism, while Tonnsen and Hahn (2016) did use an actor with a diagnosis of autism. Fleva (2014) and Fleva (2015) delivered the intervention through a PowerPoint presentation and by using vignettes which described autistic students. Four of the studies were once off interventions, in which participants did not physically meet an autistic individual (Tonnsen & Hahn, 2016; Fleva, 2015; Fleva 2014; Campbell, 2007).In contrast, participants did come into contact with an autistic person during the interventions of Staniland and Byrne (2013) and Ranson and Byrne (2014). Research shows that each of these methods can be effective, but no specific intervention method is significantly more effective than another (Cremin et al, 2021). For this reason, the intervention method did impact the WoE weighting.

One aspect of the intervention that has been shown to significantly impact the effectiveness of the intervention is the type of information that is shared with students. There are four distinctive methods of delivering information: description, explanation, directive or a combination of at least two of these types of information (Gillespie-Lynch et al., 2017). Descriptive information focuses on identifying similarities between autistic students and their peers. Explanatory information outlines what autism is and how it can impact a person. Explanatory information also provides insights into traits of autistic students and how some autistic individuals cannot control some behaviours. Directive information suggests good practices and helpful tips for interacting with autistic students. When an intervention merges all of these approaches to delivering information (explanatory, descriptive and/ or directive information) this is known as a combination of information (Campbell, 2006). Research has

found that a combination of explanatory and descriptive and directional information, is more effective than any type of message on its own (Campbell et al., 2004). Therefore, the four studies which included a combination of all three types of information received higher WoE C ratings (Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013). Tonnsen and Hahn (2016) and Campbell (2007) and used a combination two types of information (descriptive and explanatory) and received a medium WoE C rating, as this has been shown to be less effective than combining all three types of information (Campbell et al., 2004).

2.4.5.4 Measures. A variety of measures were utilised to measure knowledge, behavioural intention and attitudes. Five studies implemented the Shared Activities Questionnaire (SAQ) (Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). The SAQ is a self-report scale, that evaluates a persons' intentional behaviour in engaging in social, academic and recreational activities with a hypothetical autistic student. The SAQ has demonstrated excellent validity and reliability (Cronbach's alpha = .92), which added to the WoE A scores to theses five studies. Tonnsen and Hahn (2016) measured students' general attitudes towards autistic children using the Children's Attitudes Towards Children with Handicaps Scale (CATCH), which is a 40 question self-report scale. The CATCH has good validity and reliability, with a Cronbach's alpha of .86 (Vignes, 2008), and supported Tonnsen and Hahns WoE A rating.

Five studies also employed the Adjectives Checklist (ACL) to measure a students' cognitive attitude by counting the number of negative and positive adjectives a student associates with a hypothetical autistic person (Tonnsen & Hahn, 2016; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). The ACL has a high Cronbach's alpha (0.91), which demonstrates a good internal consistency and construct validity (Siperstein, 1980). Three studies measured students' knowledge of autism. One study administered the Knowledge of Autism Questionnaire (Campbell, 2007), while two studies implemented the

Autism Awareness Survey (Ranson & Byrne, 2014; Staniland & Byrne, 2013;). Both of these questionnaires on knowledge are self-developed by the authors, and the reliability of these measures is not reported, which negatively impacted the WoE A of these studies.

All six studies implemented multiple measures to assess attitudes, knowledge and behavioural intentions, therefore, each study scored highly in this sub-section of the WoE A. Each study acknowledged that self-report measures may lead to a social desirability bias. Tonnsen and Hahn (2016), was the only study to attempt to account for this social desirability bias, by including questions about how 'others' perceive autistic students. For this reason Tonnsen and Hahn (2016) scored the highest in this sub-section of the WoE A. Some studies used other measures that were not related to the focus of this study. None of the studies reported on the impacts of autism awareness interventions on autistic students in these schools.

2.4.5.5 Outcomes. This review was primarily interested in assessing data on attitudes, behavioural intentions and knowledge. All six studies measured students' attitudes and behavioural intentions towards a hypothetical autistic person. Three studies also measured students' knowledge of autism (Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007;) and received a high WoE C rating. Two studies measured attitude and behavioural intentions, but did not measure students' knowledge of autism and received a medium WoE C rating (Fleva, 2015; Fleva 2014). One study (Tonnsen & Hahn, 2016) only measured attitude, thus receiving a low WoE C rating.

2.4.5.6 Findings. Table 5 summarises the findings of each study and their significance, in relation to attitude, knowledge and behavioural intentions. The effect size of each finding is also outlined, using eta squared or partial eta squared, where relevant. All six studies reported the statistical significance of the findings using p values. Five studies calculated the effect sizes of the findings and received a high WoE A rating (Tonnsen & Hahn, 2016; Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013). Three of

these studies calculated the effect size using eta squared (Tonnsen & Hahn, 2016; Fleva, 2015; Fleva, 2014). Two of the studies calculated effect sizes using partial eta squared (Ranson & Byrne, 2014; Staniland & Byrne, 2013). Campbell (2007) did not calculate effect sizes and received a low WoE A rating, as effect sizes take the number of participants into account, when calculating clinical relevance of the findings.

All studies that measured students' knowledge of autism, found a statistically significant increase in students' understanding of autism ((Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). Six studies measured students' attitudes towards hypothetical autistic classmates and five of these studies reported students' had a more positive attitude towards hypothetical peers with autism after the intervention (Tonnsen & Hahn, 2016; Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). Fleva (2015), did not find any significant effects in attitudes towards autistic students. This may be due to limitation of the Asperger's Syndrome Questionnaire, which was a self-developed tool to measure attitudes (Fleva, 2015). Outcomes were more varied regarding behavioural intentions. Two studies found no significant effect in behavioural intentions (Ranson & Byrne, 2014; Staniland & Byrne, 2013). In contrast, three studies reported that students had more favourable intentions to engage with hypothetical autistic peers after the intervention (Fleva, 2015; Fleva, 2014; Campbell, 2007).

Table 5

Findings and Effect Sizes

Study and Effect Size	Attitude	Knowledge	Behavioural Intention
Campbell, 2007	More positive ($p < .001$)	Increased ($p < .05$)	More favourable ($p = .001$)
Effect size not reported	-	-	-
Fleva, 2014	More positive ($p = .001$)	Not measured	More favourable ($p = .001$)
Effect size: η2	$\eta 2 = .19$	-	$\eta 2 = .15$
Fleva, 2015	No significant effect ($p = .9$)	Not measured	More favourable ($p = .05$)
Effect size: η2	-	-	$\eta 2 = .009$
Ranson and Byrne, 2014	More positive ($p = .05$)	Increased ($p < .001$)	No significant effect ($p = .44$)
Effect size: η2	$\eta p2 = .07$	$\eta p2 = .13$	-
Staniland and Byrne, 2013	More positive ($p = .01$)	Increased. ($p < .001$)	No significant effect ($p = .37$)
Effect size: η2	$\eta p2 = .17$	$\eta p2 = .29$	-
Tonnsen and Hahn, 2016	More positive ($p= .009$)	Not measured	Not measured
Effect size: η2	$\eta 2 = .1$	-	-

Note. Eta squared and partial eta squared are generally assigned the labels of small if $\eta 2= 0.01$, medium if $\eta 2= 0.09$ and large if $\eta 2 = 0.25$.

2.5 Conclusions and Implications

2.5.1 Summary of the Review

This systematic review analyses the evidence base of research on autism awareness interventions in second level education. More specifically, it evaluates the interventions' effectiveness in improving students' knowledge of autism, as well as their attitudes and

intentional behaviour towards autistic students. Considerable variations in intervention methods, quality and measures, contributes to the difficulty in drawing overall conclusions. Notably, only six studies met the inclusion criteria, which highlights the need for more high quality research on autism awareness interventions for secondary school students.

All studies reviewed consistently found that autism awareness interventions effectively improve at least one of the outcomes of knowledge, attitude or intentional behaviour. In addition, all studies that measured knowledge, found that students understanding of autism improved after the intervention (Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). The majority of studies found that students' attitudes towards hypothetical peers with autism also increased, though the effect size was small. There were more mixed findings in relation to behavioural intentions. Only three studies reported that peers displayed more willingness to interact with autistic students after the intervention. Although each of the interventions in this review varied in length and frequency, improvements in outcomes were found in each of the studies, which suggests that even once off autism awareness interventions may be sufficient to bring about some positive impacts on peers' knowledge of autism and their attitudes and behavioural intentions towards autistic individuals. Ultimately, autism awareness interventions are designed to increase students understanding and acceptance of students with autism in schools. As the construct attitude is comprised of three dimensions, affective attitude, behavioural intention and knowledge, Hume and Campbell (2019) consider the outcomes of each of these dimensions to be paramount in evaluating the success of such an intervention. In addition, when multiple dimensions of attitude are measured it gives a more reliable outcome overall (Hume & Campbell, 2019).

Each of the interventions were delivered using a combination of types of information (descriptive, directive and explanatory). Campbell (2007) found interventions that incorporated a combination of information led to students having more positive attitudes than students who

just received descriptive information alone. This is consistent with the research, which states that a combination of descriptive, directive and explanatory information is the most effective approach in changing students' knowledge of autism and their attitudes and behavioural intentions towards autistic students (Gillespie-Lynch et al., 2017). A variety of methods of delivering the autism awareness interventions were adopted in a number of these studies (video, blog, pamphlet, in-person workshop, guest speakers, online homework, class curriculum) and interventions ranged in length (from 1 to 6 sessions). Despite the differences in intervention designs, each of the studies incorporated a combination of information. Hence, a deduction from these findings is that a combination of information, enables the student to build understanding (explanatory), recognise similarities (descriptive) and gain confidence in interactions (directive) with autistic students.

2.5.2 Limitations

There are a number of limitations to the studies in this systematic literature review. Firstly, the quality of studies were very mixed. Only two of the studies had an experimental design that included both a control group and pre-intervention and post-intervention testing (Ranson & Byrne, 2014; Staniland & Byrne, 2013). Secondly, there is a paucity of studies which include follow up analysis of the intervention. Only one study conducted a follow up survey to assess whether these initial improvements were maintained. None of the studies included follow up interviews with students, to gain a more in-depth understanding of how the autism awareness intervention impacted students. Thirdly, and most importantly, none of the studies listened to the voice of the autistic students, to get a better understanding of how autism awareness interventions might impact autistic students and their experiences of school (Birnschein et al., 2021).

2.5.3 Areas for Further Research

There is a need for more rigorous research to be carried out in autism awareness interventions in secondary schools, which includes a high quality experimental design with control groups, as well as pre-intervention and post-intervention testing. Researchers have expressed the need to understand how students can benefit from autism awareness trainings (Winchell et al., 2018; Rossetti, 2011). To achieve this, a mixed method approach may be considered in future research, whereby follow up interviews are conducted with students. One study conducted by Liow and colleagues (2019), did not meet the inclusion criteria (as it was not published in a peer reviewed journal). This study adopted a mixed-methods approach to investigate the impact of an autism awareness intervention in a school. This study included interviews with neurotypical adolescents after they participated in a neurodiversity awareness intervention, to see what aspects of the intervention they liked, however little other information from these interviews was included in the research paper. In addition, no information on the interview structure, questions or data analysis were reported which hinders the quality of the methodology (Liow et al., 2019). Further research could improve on this by using semi-structured interviews with both autistic and their peers and by using a structured model of qualitative analysis for the interviews. This would enable researchers to gain further insights into the impacts the intervention may have on autistic students and their peers in their day to day lives in school.

Furthermore, for studies to measure the impact of autism awareness interventions, it is paramount that autistic students are included in future research as their voices are critical to understanding their experiences (Milton, 2012; Humphrey & Parkinson, 2006;). This could be achieved in future research by conducting interviews with autistic students to explore their thoughts on educating their peers about autism and exploring the impacts of such an intervention from their perspectives. While the goal of these interventions is to make schools a more inclusive environment and foster greater acceptance of autistic students, it is

counterintuitive that the voices of autistic students have not been represented in the research thus far. Examining autistic student's perspectives of autism awareness interventions in schools is particularly important as it relates directly to their school experience. In line with the United Nations Convention on the Rights of the Child (UNCRC, 1989), it is essential that the views of young people are taken into account in all matters that affect them. Further research is needed to gain a greater understanding of how autism awareness interventions impact autistic students and to determine if interventions effect their interactions with peers in school.

2.5.4 Implications for Practice

The Wellbeing Policy and Framework for Practice, was published in Ireland in 2018 (DoE). This document emphasises the importance of creating a whole school environment in which the wellbeing of all students is nurtured. As stated in the Autism Good Practice Guidance for Schools 'a focus on wellbeing is particularly important for students with autism, as they have a heightened vulnerability to mental health difficulties which can impact on their participation in learning and in everyday activities' (DoE, 2022, p. 31). Educational Psychologists (EPs) are uniquely positioned to build schools' capacity to create a more inclusive environment for students with SEN, such as autistic students. EPs are 'applied scientists, working across the social contexts of the child, the school and society' (Passenger, 2013, p. 21). Within the scientist-practitioner model, EPs can support schools to develop a more autism friendly environment, by implementing evidenced-based autism awareness interventions for all students in their schools. In the Irish context, the NCSE place a significant emphasis on creating inclusive environments for autistic students. This is demonstrated by the NCSE's research 'An Evaluation of Education Provision for Students with Autism Spectrum Disorder in Ireland' (2016a) and policy guidelines 'Supporting Students with Autism Spectrum Disorder in Schools' (2016b). These policy guidelines document the importance of improving staff training in good autism practices in schools to support the inclusion of autistic students.

However, many of the approaches recommended in these guidelines refer to the academic inclusion of autistic students.

As aforementioned, the social and emotional inclusion of autistic students is also of great significance (Gibb et al., 2007; Ainscow & Booth, 1998) and highly valued by parents (Wong et al., 2015; O'Connor, 2007) as well as autistic students (Goodall, 2020; Daniel & Billingsley, 2010). It is the role of the EP, schools and teachers to ensure that autistic students are being included academically, emotionally and socially. Great focus is currently being placed on improving teachers' understanding of autism in Irish schools (DoE, 2020; NCSE, 2016). As educational research and policies recommend more inclusive practices in schools, it is essential that the educational perspectives of autistic young people and their families are listened to (Hebron & Humphrey, 2014). Building on the foundation of good teacher training in autism, it is important to respond to autistic learners requests to increase their peers' understanding of autism in order to create meaningful whole school inclusion (Goodall, 2020; Meyer & Ostrosky, 2014; Morewood et al., 2011). The recent publication of the Autism Good Practice Guidelines for Schools, has responded to the requests of autistic individuals (DoE, 2022). It recommends that schools enhance the social inclusion of autistic students by increasing autism awareness amongst teachers and students (DoE, 2022). This provides school leaders with ideas to enhance a school's vision for inclusion across the whole school community.

Chapter 3: Empirical Paper

3.1 Introduction

3.1.1 Inclusion of Autistic Students in an Irish Context

In the Irish education system, there has been a great focus on the inclusion of autistic learners in mainstream schools and numerous reports and evaluations have been implemented to support their needs (DoE, 2020; Banks et al., 2016; Daly et al., 2016). These evaluations have generated recommendations to enhance the provisions and supports for autistic students in terms of their learning needs in schools. For example, the NCSE's Evaluation of Autism Provision in Ireland' outline the importance of tailoring the structure and content of lessons to the needs of autistic learners to enable them to access the teaching and learning in school (Daly et al., 2016). It also recommends that teachers, special needs assistants and bus escorts should receive training in autism, to ensure school staff can understand how to support the autistic young people in the school environment (Daly et al., 2016). These reports predominantly focus on the inclusion with regards to accessing the curriculum, supports in the learning environment and involvement in the mainstream setting (Daly et al., 2016; NCSE, 2011). However, the DoE emphasises the importance of fostering a holistic learning environment, which includes engagement in learning and nurtures students' wellbeing (The Wellbeing Policy and Framework for Practice 2018-23 [DoE], 2018). Focusing on wellbeing is particularly important for autistic students as they have an increased vulnerability to mental health difficulties, which can negatively impact their participation in learning and daily activities (DoE, 2022).

The Autism Good Practice Guidance for Schools is a unique document because it recognises the need to support autistic students holistically in the school environment (DoE, 2022). It provides an in-depth toolkit for schools to support autistic students' wellbeing, learning and participation in education, using both whole-school approaches and individualised supports (DoE, 2022). It has identified 8 key principles to support whole school inclusive

practice for autistic students which include, ethos, awareness, collaboration, identification, supports, environment, curriculum and evidence (DoE, 2022). The principle of "awareness", highlights that best practice for supporting the inclusive provision for autistic students, involves promoting awareness and understanding of the strengths and needs of autistic students across the "entire" school community, including both school staff and students (DoE, 2022, p.37*).* The Autism Good Practice Guidance for Schools is Ireland's first document to promote that both school staff and students should be involved in promoting whole-school social inclusion for autistic students (DoE, 2022). It recommends that to foster social inclusion for autistic students and reduce the risks of bullying, schools should implement 'approaches that raise awareness of autism and develop mutual understanding and support between students with autism and their peers' (DoE, 2022, p. 85). They recommend promoting understanding and acceptance of autism amongst students through autism awareness events, lunchtime clubs and peer mentoring programmes.

3.1.2 An Inclusive School Environment

The Inclusive Education Framework describes inclusion as an ongoing process of responding to the diverse needs of all learners (NCSE, 2011). The framework promotes an inclusive whole-school approach as it allows all students to experience the greatest level of inclusion (NCSE, 2011). It sets out that schools can foster a whole-school inclusion by creating understanding and appreciation of difference amongst the school community (NCSE, 2011). Similarly, Villa (2005) describes an inclusive school environment as one that embraces all learners, provides each child with a sense of belonging and appreciates that diversity and learning together enriches everyone. There are many components to inclusion such as, accessing the learning in school, one's feeling of belonging in the school community and enjoying this experience. Ainscow and Sandill (2010) have argued that full inclusion should encompass social, emotional, and academic inclusion, as well as acceptance from both teachers

and peers. For the purpose of this research project, the definition of inclusion aligns with that of Gibb and colleagues (2007) and is described in the context of autistic students. Inclusion encompasses the accommodation of an individual's needs amongst school staff, promotion of acceptance and understanding of autism within the entire school community and fostering the individual's sense of belonging in school and connection with others (Gibb et al., 2007).

Academic inclusion, social inclusion and emotional inclusion are important factors in a learner's experience in school (Gibb et al., 2007). Academic inclusion refers to a learner's ability to access the curriculum and includes their own perception of their learning ability (Prince & Hadwin, 2013; Elbaum & Vaughn, 2003). Emotional inclusion and social inclusion are closely related constructs (Szumski & Karwowski, 2017). Emotional inclusion represents the young person's sense of well-being in the school environment and social inclusion refers to their sense of connectedness with others in school (Stiefel et al., 2017; Scwab et al., 2013; Elbuam & Vaughn, 2003). A large body of research has found that feeling a sense of social connectedness and belonging in school, is positively correlated with a student's academic engagement and attainment (Korpershoek et al., 2020; Reynolds et al., 2017; Pittman et al., 2007). Hence, supporting a student's social inclusion and sense of belonging supports their learning and academic inclusion.

3.1.3 Social Inclusion and Peer Relationships

In interviews with autistic adolescents, they articulated inclusion is less about the location (i.e., mainstream or special education) and more about the sense of belonging in school and their relationships with teachers and peers (Goodall, 2020). Social inclusion can be particularly challenging aspect of the school environment for autistic students (Bellini 2006; Browning et al., 2009). Studies have highlighted that autistic students can find it challenging to form friendships and are more likely to be bullied than other students (Marino et al., 2016; Hebron & Humphrey, 2014; Petrina et al., 2014; Sreckovic et al., 2014; Locke et al., 2010).

However, autistic individuals are not solely responsible for the barriers that can be experienced in social interactions, as mutual misunderstanding and social disconnection between autistic individuals and their peers can contribute to an interpersonal mismatch (Milton 2012). This is known as the 'double empathy problem', whereby both parties experience a lack of insight, which can impact autistic individuals and their peers when trying to socially understand and connect with one another (Milton, 2012). Student's difficulties interpreting the perspectives of autistic individuals, is associated with more negative perceptions of autistic individuals (Alkhaldi et al., 2019; Heasman & Gillespie, 2018).

This double empathy problem and lack of mutual understanding between autistic students and their peers and can hinder autistic student's sense of belonging and acceptance in school (Miles et al., 2019). Research has indicated that autistic students who experienced victimization in school also experienced negative impacts on their self-esteem, mental health and relationships (Reid & Batten, 2006). In addition, peer victimisation has been flagged as a risk factor of self-harm and suicide for autistic young people (Serges & Rawana, 2014).

In an effort to be accepted by others, some autistic individuals try and 'fit into' a neurotypical world and conform to mainstream social norms and minimise naturally autistic behaviours (Gates et al., 2017). This is known as 'masking' and can elevate autistic individual's levels of stress and anxiety and does not solve the double empathy problem, as it does not address the negative perceptions of autism which some students may hold (Cage & Troxell-Whitman, 2019; Hull et al., 2017; Whitehouse et al., 2009). As recommended in the Autism Good Practice Guidelines for Schools (DoE, 2022), one potential way in which schools can promote the social inclusion of autistic young people is by educating all students about autism through autism awareness interventions.

3.1.4 Educating Students about Autism

Researchers have emphasised the need for classmates to better understand and accept their autistic peers (Meyer & Ostrosky, 2014) and the need to provide more autism awareness trainings for neurotypical peers (Winchell et al., 2018). The Saturation Model of Inclusion stresses the importance of extending an understanding of autism to peers of autistic learners, to create meaningful inclusion in a school community (Morewood et al., 2011). Fondelli and Rober (2017) conducted interviews with neurotypically developing secondary school students, who expressed they 'don't really understand (autism)', and suggested that if autism was explained to them, this could create a better understanding for why autistic individuals may act differently (p.707). Carter et al. (2014) found that interventions that target peers' knowledge and perceptions of autism are key in promoting positive relationships between autistic children and their peers. A systematic literature review was conducted to analyse the evidence base of research on autism awareness interventions in second level education. All studies reviewed consistently found that autism awareness interventions effectively improve at least one of the outcomes of knowledge, attitude or intentional behaviour (Tonnsen & Hahn, 2016; Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). In addition, all studies that measured knowledge, found that students understanding of autism improved after the intervention (Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). However, this review highlighted many limitations to this body of research, which are discussed below.

3.1.5 The relevance of this Study for Autistic Youth

A limited body of research into autism awareness interventions exists in the context of secondary schools. Secondary school can be particularly challenging stage for autistic adolescents as there is greater emphasis and complexity when it comes to peer relations (Mandy et al., 2016; Carter et al., 2014). Research has highlighted that in adolescence, autistic

individuals experience significantly elevated levels of loneliness and an increased need for belonging (Deckers et al., 2017; Laursen & Hartl, 2013).

As illustrated in the systematic literature review, studies are largely quantitative in nature. Whilst quantitative studies provide authentic data, they are somewhat void of students' voices and interpretations surrounding the observed effects (Shah & Pabel, 2020; Symons, 2006). Combining findings from quantitative data with qualitative data enables elaboration, and enhancement of the results, compared to conducting quantitative research alone (Creswell, 2013; Greene et al., 1989). Not only are autistic students best placed and uniquely positioned to provide feedback on an intervention that teaches their peers about autism, but they also have the right to be included in research that directly impacts them (Milton, 2012). When reporting findings on student populations, their voices and opinions add great value and greater understanding of their experiences in educational settings (Halloran et al., 2014; Gonyea & Gangi, 2012). This is in line with the United Nations Convention on the Rights of the Child (UNCRC), which states that the views of young people must be considered on every matter that affects them (1989). Humphrey and Parkinson (2006) substantiate this view, emphasising the importance of including the voices of autistic students regarding an educational intervention that directly impacts their school experiences. In accordance with this, qualitatively capturing autistic students' and their peers' first-hand experiences of the autism awareness intervention, has the potential to add meaningful value and understanding.

3.1.6 Theoretical Framework

A theoretical framework provides a structure that guides research by basing explanations of phenomena on a formal theory that is well-established and coherent (Lederman & Lederman, 2015). A researcher's selection of a theoretical framework reflects their beliefs and influences the design of the study and the research approach (Lysaght, 2011). In line with Lovitts (2005), the theoretical framework chosen for this research is appropriate, well

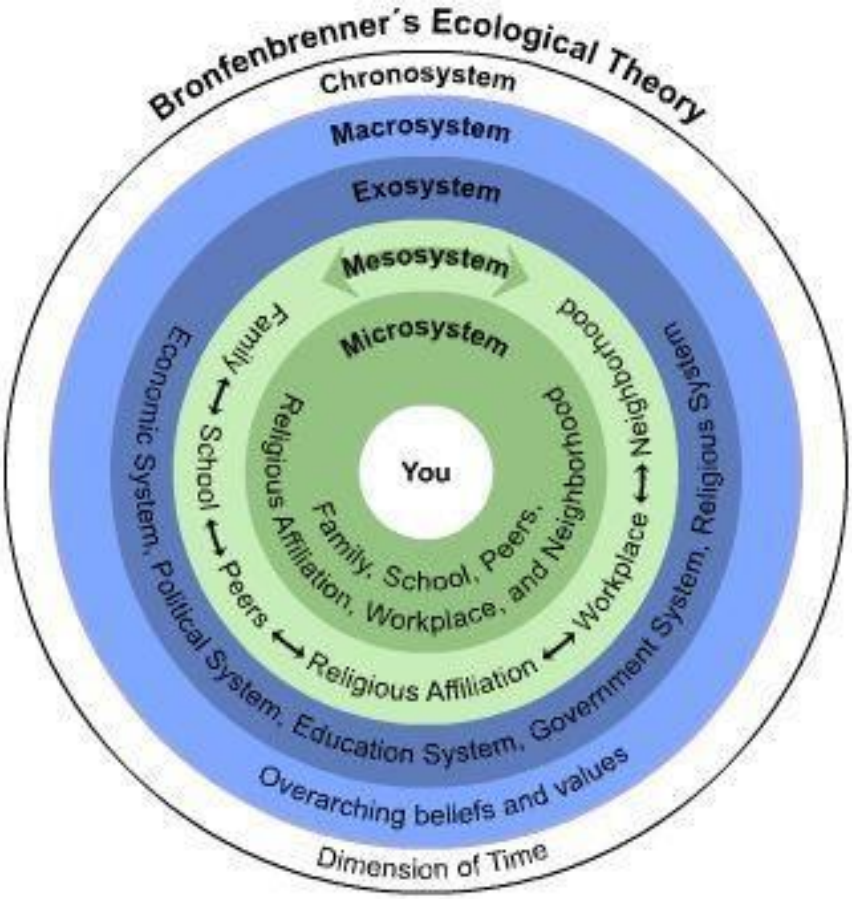
understood and meaningful to the context of the research questions (Lovitts, 2005). The current study adopts an ecological approach which posits there is a continuous interaction between an individual and their environment (Bronfenbrenner, 2006).

Bronfenbrenner ecological system's theory (1979) has been selected as the most appropriate framework to situate the research within as the study revolves around the beliefs and values of autistic individuals, their peers, their school and the education system. This theory has been widely implemented across psychological and educational research to analyse the layers of systems that influence an individual. For example, this framework was applied to the Growing up in Ireland research, to understand a range of factors in a child's family and community can impact on their development (Greene et al., 2010).

Bronfenbrenner's ecological systems theory states there are reciprocal interactions within the layers of an individual's ecological environment, which include the microsystem, mesosystem, exosystem, macrosystem and chronosystem (2006) (Figure 3). These systemic layers are interconnected and bi-directional meaning that interactions within each system and between each system influence an individual's development (Odom et al., 2004). Bronfenbrenner posits a person's development is comprised of their relationship to the evolving ecological environment and the individual's progressive capacity to discover, alter or restructure its properties (2006). In the context of the current research project, student's understanding of autism could be impacted by a range of factors in their ecological environment, such as their familiarity with autistic individuals, their personal and family values, their friendship groups, school culture around inclusion and diversity. As well as the implementation of the Irish Government's policy and practice guidelines in their school as it pertains to inclusion, autistic students and wellbeing and their awareness of movements in society, such as neurodiversity and accepting difference.

Figure 3

Bronfenbrenner's Ecological Systems Theory (2006)



3.1.7 Rationale for the Current Study

Studies have highlighted the potential benefits of educating peers about autism (Tonnsen & Hahn, 2016; Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). In addition, best practice guidance in Ireland and international research, such as the Saturation Model, have emphasised the importance of educating students about autism in schools as part of a whole school approach to fostering an inclusive school environment for autistic students (DoE, 2022; Morewood et al., 2011). The present research sought to explore the impacts of AsIAm's Autism Awareness Workshop, which aims to educate peers about autism. The implementation of an autism awareness workshop impacts autistic students' and their peers' experiences in school. Therefore, it was important to capture the voices of both autistic students and their peers in this research, to understand their

perspectives of the intervention and their experiences of inclusion in school. In order to answer the research questions, the research adopted a mixed methods approach to integrate elements of both qualitative and quantitative research (Almalki, 2016).

3.1.8 Outline of the Current Study

The current research took place in an Irish mainstream secondary school with two autism classes. An autism awareness workshop was delivered to these students by the Training Manager/Education Officer in AsIAm. This individual has a Bachelor of Education, experience working as a primary school teacher and oversees the delivery of all of AsIAm's training programmes for teachers, students and parents. AsIAm is Ireland's national autism charity and offers supports around autism for children, young people, families, school staff, businesses, and communities. The content of the autism awareness workshop was designed by autistic and non-autistic individuals working in AsIAm, to educate secondary school students about autism.

The content of the Autism Awareness Workshop was displayed using a PowerPoint presentation, which consisted of text, visuals and videos. The workshop began by eliciting what students already knew about autism by engaging in a quiz. A statement about autism was displayed on the screen and students responded with true or false answers. During this quiz, common misconceptions about autism were discussed and explained by the facilitator. For example, one statement read, "Autism is a learning disability"- which the correct answer was false. This facilitator explained to students what autism is and how it can impact students in the school environment. To explain sensory differences some autistic students may experience, the facilitator described examples of different ways in which the five senses can be impacted in the school environment. For example, in the lecture room where the workshop was being held, the facilitator drew the student's attention to the hum of the projector, and how this noise can be very distracting or overwhelming to some autistic students who may be sensitive to sound and may make it difficult for some individuals to focus on what their teacher is saying.

Communication preferences were also discussed and helpful tips to use when interacting with an autistic person were explained. This section covered information processing time, body language and social cues. A pair activity was engaged in to help the students to understand the frustrations some autistic students may experience (such as non-speaking autistic individuals), when others cannot understand what they are communicating. In this activity pairs had to take turns communicating different sentences to each other e.g. “It’s cold, I need my coat”, without speaking. Videos were shown in which autistic adults talked about their experiences in school, the things the enjoyed and the things they found hard. Videos were also played from AsIAm’s YouTube channel entitled, “I Like Options Too” and “Don’t Judge Me”. The strengths of autistic people were also highlighted. Towards the end of the workshop, inclusive language was discussed and the ways in which the students can make their school n inclusive community.

3.1.9 Aims of the Present Study

This research examined pre- and post- intervention data on students’ understanding of autism, attitudes, and behavioural intentions towards autistic individuals as well as their perceptions of inclusion in school. A mixed methods approach was employed to generate a more comprehensive understanding into the impacts of autism awareness interventions on student in secondary schools. In line with Milton (2012), the voices of autistic students and their peers were represented throughout the data collection process. This research aimed to uncover the voices of autistic students and their peers, by utilising semi-structured interviews to explore their perspectives and experiences following their participation in the autism awareness workshop. From the systematic literature review, the following research questions emerged:

Research Questions

1. What is the impact of AsIAm's autism awareness workshop on student's knowledge, attitudes and behavioural intentions towards autistic students?
2. What are students' perspectives of the autism awareness workshop?
3. What are students' perceptions of inclusion in school?

3.2 Methods

3.2.1 School Setting

This research was set in a mainstream secondary school in Ireland, that had two autism classes. The school has a population of approximately 400 students, with approximately sixty students in each year. There are nine autistic students enrolled in the mainstream classes in the school and twelve autistic students enrolled in the autism classes, who each spend different proportions of their school day in the mainstream classes and the autism classes depending on their individual needs. In the school, the classrooms were spread across three floors, with the autism classes on the basement level and the mainstream classes were on the ground level and the first floor. Conducting the research in this specific school setting effects the generalisability of the study, thus the findings relate only to the student's experiences in this school.

3.2.2 Ethical Considerations

Ethical approval for this research project was by the Mary Immaculate College Research Ethics Committee (MIREC) on the 23rd of February 2022 (See Appendix F). Informed parent/guardian consent was sought for their young person's participation in the research. The assent of the young people was sought prior to the quantitative data collection (questionnaires) using digitally displayed information and consent forms. Mindful of potential differences in reading abilities, students had the option to click on an icon to listen to the information sheet being read out to them through their headphones. At the end of the questionnaire, participants indicated whether or not they would like to participate in follow-up interviews with the researcher (See Appendix G). Four autistic students volunteered to engage

in the semi-structured interviews and four peers of autistic students who volunteered were selected at random to participate. Prior to the interviews, these students were asked by a teacher if they would still like to engage in the individual interviews. At the beginning of the interviews the researcher explained the interview and data collection process, engaged in the informed assent process and the participants signed a consent form. During the interviews students were informed they had the opportunity to use a 'take a break' and/or 'stop' card at any point. A pseudonym was assigned to each participant to ensure confidentiality. All information sheets and consent and assent forms can be seen in Appendix H.

3.2.3 Recruitment

AsIAm advertised the opportunity for a mainstream secondary school to participate in the Autism awareness Workshop and this research project (Appendix I). Eleven schools expressed an interest in participating by emailing AsIAm. One school was selected at random to participate in the research by the researcher by using a random number generator. The school emailed a link to online consent form and information sheets to parents of all 1st and 2nd year students. Participants with parental consent were sent a link to the online information sheet and consent forms by the school. Overall, 64 students were recruited. However, due to students being absent or choosing not to participate in the research, 57 participated in the research. This sample size, although relatively small, is appropriate for the context of educational interventions and suitable in mixed-methods research (Clarke & Braun, 2021; Miles et al., 2014).

The experimental group comprised of 29 1st year students. The control group comprised of 28 2nd year. Of the 57 students that participated in the research, four were autistic, three of whom were enrolled in the mainstream classes, and one was enrolled in the autism class on a full-time basis. The remaining 53 students who participated in the research were peers of autistic students, To minimise disruption to their school timetable, 1st and 2nd year students

were kept separate during this research project, resulting in the year groups being in separate experimental and control groups. Participants who gave assent to take part in the research completed the online pre-intervention survey.

3.2.4 Mixed Methods Approach

A mixed methods approach is used to to best answer the research questions in this study (Almalki, 2016; Teddlie & Tashakkori, 2009), enabling a greater depth of understanding to be formulated than if just one approach was selected (Creswell & Plano Clark, 2011). Complementarity of information provides opportunities for elaboration, and enhancement of the results from quantitative and qualitative data (Almalki, 2016). Using sequential mixed-method research, allows initial stages to inform the subsequent stages (Creswell, 2013). A sequential mixed method design is commonly used in educational psychology research and enabled this research project to collect quantitative data as the basis on which to build and understand qualitative data (Almalki, 2016). A key benefit of a mixed methods approach is using quantitative and qualitative methods in conjunction, allows for a more comprehensive understanding of the research questions (Mertens, 2011).

3.2.5 Procedure

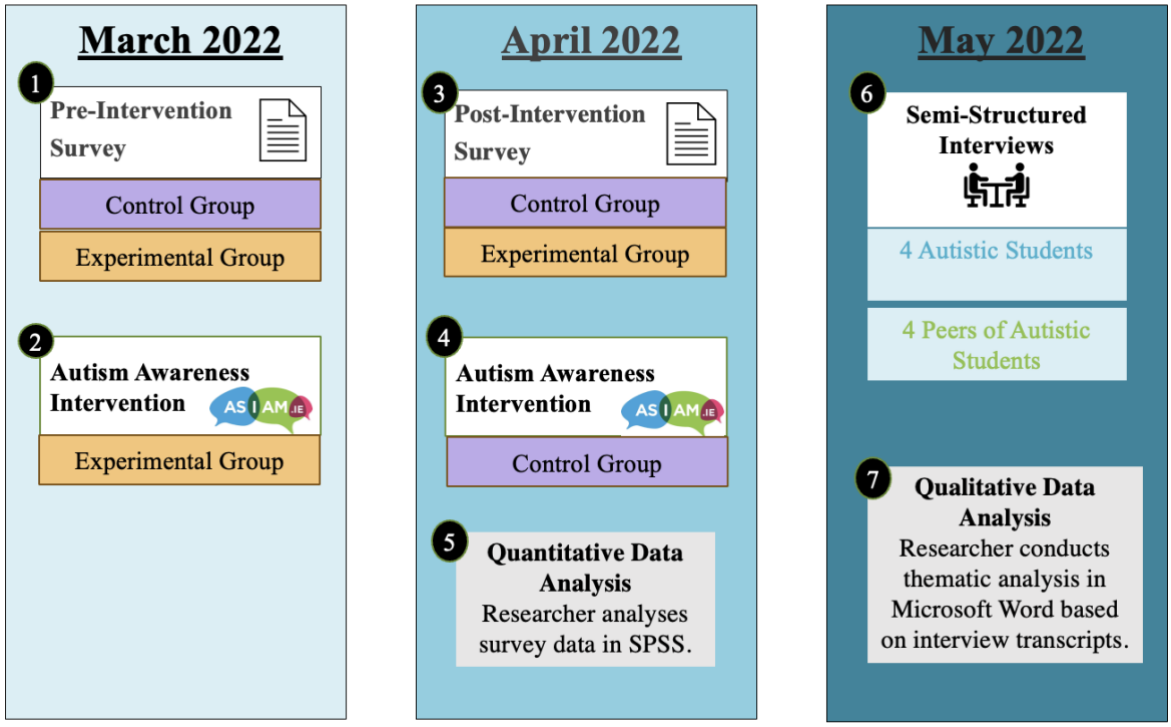
Consenting students in the experimental and control groups were allocated one class period to complete the pre-intervention questionnaire in the computer room in the school. The experimental group attended the one-hour autism awareness workshop. The week after the intervention, all participants completed the post-intervention survey (Appendix G). If students were absent for the post-intervention survey, active attempts were made by a teacher in the school to give these students the opportunity to complete this survey.

At the end of the questionnaire, students expressed if they would be interested in participating in follow-up interviews with the researcher. Four autistic students expressed an interest in the interviews. Four volunteering peers of autistic students were then selected for

the interviews, using a random number generator, in order to have an equal number of participants in the interviews. Individual semi-structured interviews with students took place 6 weeks after the initial intervention, to understand the impact of the intervention overtime. The in-person interviews lasted approximately forty minutes for each participant. The control group received the waitlist autism awareness workshop from AsIAm's Education Officer, a month after the experimental group. The timeline for data collection and analysis illustrated in Figure 4.

Figure 4

Illustration of the Timeline for Data Collection and Data Analysis



3.2.6 Measures

Four measures were combined into one questionnaire to measure students' knowledge of autism, their attitudes and behavioural intentions towards autistic students. Students completed the same questionnaires pre- and post- intervention. The measures below were selected because they were most appropriate for the age of the participants (Campbell, 2008). To accommodate potential literacy differences, students had the option to listen to the

questions being read to them using an embedded speaker function in Microsoft Forms, and the school provided students with headphones (Appendix G).

3.2.6.1 The Knowledge of Autism Questionnaire. The Knowledge of Autism Questionnaire (KOA) is designed to measure students' knowledge of autism and their ability to identify misinformation about autism. It was designed by Campbell and Barger (2010) and is a 10-item scale. The scale gives participants 10 statements and participants are required to select whether the statement is true or false (e.g., True or False: 'Autism does not affect a person's brain'). The statements pertain to different aspects of autism, including the characteristics, communication, aetiology, transitions different ways autism may impact a student in school. The internal consistency for the KOA questionnaire is reported to be low, with a Cronbach's alpha of .47, which authors attribute to the small number of items and dichotomous scoring (Campbell & Barger, 2010). This questionnaire was completed by participants to measure their understanding of autism, before and after attending the autism awareness intervention.

3.2.6.2 The Adjective Checklist. The Adjective Checklist (ACL) measures the cognitive attitude a person holds towards young people with a disability (Siperstein 1980; Siperstein & Bak, 1977) and has been applied to measure adolescent's attitudes towards autistic individuals in the school context (Ranson & Byrne, 2014). The ACL contains a list of 32 adjectives, 16 of which are positive (e.g., honest) and 16 of which are negative (e.g., lazy). Participants were asked to select all the adjectives that describe autistic students and could pick as many as they liked. For each participant, the total number of negative adjectives they selected was subtracted from the total number of positive adjectives the selected, and the number 20 was added to this figure. This yields a total score for the ACL measure. Previous studies have found the ACL to demonstrate moderate to high internal consistency with Cronbach's alphas ranging from .79 to .91 (Ranson & Byrne, 2014; Swain & Morgan, 2001;

Siperstein 1980). The ACL also has construct validity, as indicated by significant Pearson correlations with behavioural intention measures (.46 – Shared Activities Questionnaire, .67 - Activity Preference List, .76 – Foley Scale; Siperstein, 2006). This questionnaire was completed by participants in this study, to measure their attitudes towards autistic students before and after attending the autism awareness intervention.

3.2.6.3 The Shared Activities Questionnaire- Revised. The Shared Activity Questionnaire was originally developed to measure the willingness of children to engage in different activities with autistic children (Morgan et al., 1996). The Shared Activities Questionnaire- Revised (SAQ-R) was revised to make it more suited to adolescents (Campbell, 2008). It consists of 24 items which measure a young person's intentions to interact with an autistic peer across three domains. This includes a general social domain (e.g., "sit next to them in class", an academic domain (e.g., "do homework with them at home after school") and a recreational domain (e.g., "Go to the cinema with them."). The SAQ-R has demonstrated high internal consistency (Cronbach's alphas of .92 - .94; Campbell, 2007). This questionnaire was completed by participants in this study, to understand their willingness to interact with autistic students before and after attending the autism awareness intervention.

3.2.6.4 The Perception of Inclusion Questionnaire. The Perceptions of Inclusion Questionnaire (PIQ) is designed to measure the three dimensions of inclusion in school, which are social inclusion, emotional inclusion and academic self-concept and was developed by Venetz and colleagues (Venetz et al., 2015; Venetz et al 2014). The PIQ consist of 12 items on a 4-point Likert scale ranging from, "not at all true" to "certainly true". Four questions correspond to each of the three constructs: academic self-concept, social inclusion and emotional inclusion. The PIQ demonstrates a high Cronbach's alpha of .8 and above (Venetz et al., 2014). This questionnaire was completed by participants in this study, to

understand their perceptions of inclusion in their school before and after attending the autism awareness intervention.

3.2.7 Piloting the Questionnaires

Piloting questionnaires is recommended to check for issues with clarity, usability, validity and readability (Cohen et al., 2007). The questionnaires were piloted by 6 young people in 1st and 2nd year and their data was included in the research. The questionnaires were revised to reflect some considerations that arose from the piloting process. For example, some of the questionnaires were adapted to include person first language i.e., autistic person instead of person with autism. Additionally, one questionnaire referred to an amusement park which was in another country. This was changed to an Irish amusement park to keep align with the Irish context. The reliability of the questionnaires was measured using Cronbach's Alpha and values above .7 are considered to be acceptable (Pallant, 2010). The Cronbach Alpha for each of the questionnaires was as follows; the Adjective Checklist was .779, the Shared Activities Questionnaire was .97, the Perception of Inclusion Questionnaire was .885 and the Knowledge of Autism Questionnaire was .530. Similar to the other studies that have used the Knowledge of Autism Questionnaire, this study also has a Cronbach's Alpha that was below the acceptable range of 0.7 (Campbell, 2007). For measures with a small number of items, it is sometimes difficult to obtain a decent Cronbach's Alpha (Pallant, 2013). An international literature review of autism knowledge assessment measures has highlighted the scarcity of measures with robust psychometric properties that are appropriate for the use with young people (Harrison the al., 2017). This is a limitation of the current study, however, it was important to include a measure of knowledge as this is a key dimension when understanding students understanding of autism (Hume & Campbell, 2019).

3.2.8 Semi-Structured Interviews

Interviews enable researchers to collect rich qualitative data, thus a deeper level of understanding of one's perspective can be formed (Hamilton & Corbett-Whitter, 2012). Semi-structured interviews were selected as an appropriate methodology, to allow for more in-depth discussions to take place with a small number of participants, following the autism awareness workshop (Hamilton & Corbett-Whittier, 2012). This method fosters opportunities for participants to express their views and insights into individual perspectives and experiences in a less restrictive format than quantitative data alone (Bryman, 2015; Krueger & Casey, 2014; Howitt, 2013; Kitzinger, 2005). Interview questions and general topics for discussion were prepared in advance, informed by the literature review and information gathered in the pre- and post- questionnaires (Galletta, 2013). This method facilitates the use of additional probes to be used flexibly during the interviews (Howitt, 2013). The semi-structured interviews are designed to yield a more complete picture than quantitative data alone (Galletta, 2013).

One-to-one semi-structured interviews were employed so the researcher could accommodate the needs of each of the participants, being mindful of potential communication or emotional demands they may experience (Preece, 2002). A visual timer was used during the interview and pass, break and stop cards were available for participants to use as needed. Participatory methods following approaches used by Goodall (2018), were adopted to enable participants to express their perspectives and experiences through appropriate, accessible and hands-on activities explained below (Lundy & McEvoy, 2012).

These interview activities form Goodall (2018) were adapted and applied to the current study to understand autistic students' experiences in school, their perceptions of inclusion and their perspectives of the autism awareness workshop. The Beans and Cups Activity Statements was used to guide conversation. Goodall (2018) used 17 statements, but for this research, the most suitable 9 statements were used by the researcher. Participants chose 'true', 'not true' or 'unsure' in response to 6 statements by placing a bean in one of three cups. These options were

visually supported with thumbs up, thumbs down and a question mark. Another activity which was adapted from Goodall (2018) included the Diamond Ranking Activity. This enabled students to rank the supportive aspects of school and also rank their potential worries about school. Statements are ranked from 1 (most important) to 9 (least important) and students ranked the items on the diamond as they related to their personal experiences. This activity was used to guide further discussions. Students also completed the Good Classmate Activity, where they could draw, write or verbally describe what an ideal classmate might be like. Additional questions were asked about their perspectives of inclusion and for their feedback on the autism awareness intervention. Further details on the interview schedule and pictures of the activities can be found in Appendix J.

3.3 Data Analysis

3.3.1 Quantitative Data

Participant's responses form the online survey were input into SPSS to analyse the quantitative data. All of the data was screened for normality of distribution. Each of the dependant variables met reasonably normal distribution, except for the Knowledge of Autism measure. The data for the Knowledge of Autism was negatively skewed, thus violating one of the assumptions of normality required for a two-way mixed ANOVA. However, there was no non-parametric equivalent analysis that could be conducted on SPSS (Pallant, 2013). Given the robustness of the ANOVA, it was decided to continue analysis with the two-way mixed ANOVA. If an interaction effect was found for any of the measures, follow-up analyses were undertaken, using one-way ANOVAs. They determined if there were any differences between the conditions at each time point and differences within the conditions at each time point (Field, 2013).

3.3.2 Qualitative Data Analysis

Following the semi-structured interviews, the qualitative interview data was transcribed by the author, into a Microsoft Word document for each participant (Figure 4 above illustrates the data collection and analysis timeline). Using the comment function in Microsoft word, the researcher coded and analysed each interview. Qualitative data analysis is an ongoing and emergent process that becomes more intensive as the research proceeds (Clarke & Braun, 2021; Mertens, 2019). Thematic analysis is a strategy that enables researchers to systematically identify and interpret patterns across data sets (Clarke & Braun, 2021; Braun & Clarke, 2013). Through Clarke and Braun's six key phases of data analysis, the researcher moves back and forth between the stages is a recursive manner (2021). This approach is not tied to a specific epistemological stance or theoretical framework (Braun & Clarke, 2006). Inductive thematic analysis was selected as an appropriate form of analysis as it works well in mixed methods research, allowing flexibility and for the themes to emerge from the data (Clarke & Braun, 2006).

Once the qualitative data was collected and transcribed, the researcher followed the 6 key phases of Clarke and Braun's thematic analysis (Table 6). In phase one, the interview transcripts were read and re-read to become familiar with the data of each participant. Early impressions were noted during this process. In phase two, inductive coding was implemented, which allowed the essence of the data to be generated in a bottom-up approach (Braun & Clarke, 2006). A sample coded transcript can be found in Appendix K. The data was then grouped according to meaning and coded into smaller and more comprehensible sections in a codebook, which evolved throughout the 6 stages. An excerpt of the codebook can be found in Appendix L. The data was analysed in accordance with the research questions. Phase three consisted of examining the codes and arranging them into themes that were emerging. These themes described a specific aspect about the data and related back to the research questions. The themes were categorised inductively, under the headings peer dynamics, feedback on the

workshop, impacts of the workshop and inclusion. During phase four, the themes were inspected to ensure they were coherent with the research questions and that they were true to and derived from the data. The fifth phase was centred around refining the final iteration of the themes to reflect the essence of each theme (Clarke & Braun, 2021). Phase six tied all the phases together by writing up the findings of the thematic analysis.

Table 6

Thematic Analysis Process (Braun & Clarke, 2006)

Six Phases of Thematic Analysis
Phase 1: Familiarisation with the Data The researcher immerses themselves in the data through processes of reading and re-reading, listening, and re-listening to the audio-recording and commenting their initial observations.
Phase 2: Coding The researcher generates concise labels known as codes, that identify important features of the data as it relates to the research questions. The research questions guide the analytic process and ensure codes encapsulate the sematic and conceptual aspects of the data. This phase ends by compiling the codes and data extracts.
Phase 3: Searching for Themes A theme is defined as a meaningful and coherent collection of data that forms a pattern and relates to the research questions. During this phase the researcher actively constructed the themes that emerge from the data. This phase is complete when all the coded data is compiled in accordance with the relevant theme.
Phase 4: Reviewing Themes The researcher ensures that the themes are coherent in relation to the coded extracts and in terms of the entire data set. The researcher reflects on the completeness of themes, and whether they tell a compelling story about the data. The nature of each of the themes can be described as well as the relationship between the collection of themes.
Phase 5: Defining the Themes The researcher constructs a detailed analysis for each of the themes, pinpoints the nature of each theme and writes a brief and informative name for the themes.
Phase 6: Writing Up During this phase the researcher weaves together data extracts and analytic narrative to present a coherent and persuasive story to the reader about the data, while contextualising it in the relevant literature.

3.3.3 Merging of Data Sets

By using a mixed methodology, this enabled the quantitative and qualitative data sets to become connected and interwoven to optimise the strengths of each approach and reduce the limitations inherent in each approach (Creswell & Plano Clark, 2011). This research combined the data by analysing the quantitative data first and using this information to inform the semi-structured interviews. In this study, the pre- and post- questionnaires and the semi-structured interviews were merged. The results section reports the quantitative and qualitative data separately. While these findings are intertwined in the discussion section.

3.4 Results

3.4.1 Quantitative Data Results

Pre- and Post- intervention data was collected from 57 participants in the control and experimental groups. The results below give an outline of the descriptive statistics and analyse the impact on the autism awareness workshop across each of the following measures: knowledge of autism, attitudes and behavioural intentions towards autistic individuals and perceptions of inclusion.

3.4.1.1 Descriptive Statistics. A total of 57 participants completed the pre- and post- intervention questionnaires and attended the autism awareness workshop. Participants ranged in age from 12 to 14, with a mean age of 13.3 years (54% males and 46% females). 28 participants were in 1st year and 29 participants were in 2nd year. 97% of participants reported they had heard of autism prior to the study.

3.4.1.2 Intervention Effects on Dependant Variables. The means and standard deviations of scores on the KOA, ACL, SAQ-R and PIQ at pre-intervention and post-intervention are presented in Table 7. The p value was deemed statistically significant at $p<0.05$ (Greenland et al., 2016). There were no significant differences between the control and experimental groups at pre-test for knowledge of autism $F(1, 55) = 1.529$, $p=.222$, attitudes

towards autistic students $F(1, 55) = .009$, $p=.923$, behavioural intentions towards autistic students $F(1, 55) = .206$, $p=.652$, and for perceptions of inclusion $F(1, 55) = .094$, $p=.716$.

Table 7

Means and Standard Deviations of dependant Variable Scores

Name of Test	**Knowledge of Autism (KOA)**		**Attitude Checklist (ACL)**		**Shared Activity Questionnaire-Revised (SAQ-R)**		**Perception of Inclusion Questionnaire (PIQ)**	
Construct Measured	**Knowledge of autism**		**Attitudes towards autistic individuals**		**Behavioural intentions towards autistic student**		**Perception of inclusion**	
	Exp.	Control	Exp.	Control	Exp.	Control	Exp.	Control
Mean Time 1	7.4	7.9	25.5	25.6	96.4	98.6	35.4	34.8
Mean Time 2	8.1	7.7	27.4	25.1	103.5	97.8	37.36	33.6
SD Time 1	1.32	1.33	5.21	4.22	19.08	18.6	6.6	6.48
SD Time 2	1.23	1.51	4.68	4.51	15.72	18.58	6.9	7.19

Note. Exp. = Experimental Group.

3.4.1.3 Knowledge of Autism. The two-way mixed ANOVA showed a statistically significant interaction between the intervention and time on knowledge of autism, $F(1, 55) = 4.160$, $p=.046$, partial $\eta 2 = .07$. Follow-up one-way ANOVAs revealed statistically significant differences across time for the experimental group, $F(1, 27) = 4.293$, $p=.048$, but not for the control group, $F(1, 28) = .356$, $p=.556$.

3.4.1.4 Attitude Checklist. The two-way mixed ANOVA showed a statistically significant interaction between the intervention and time on attitudes towards autistic individuals, $F(1, 55) = 5.38$, $p=.024$, partial $\eta^2 = .089$. Follow-up one-way ANOVAs revealed statistically significant differences across time for the intervention group, $F(1, 27) = 5.085$, $p=.032$, but not for the control group, $F(1, 28) = .654$, $p=.425$.

3.4.1.5 Shared Activities Questionnaire. The two-way mixed ANOVA showed a statistically significant interaction between the intervention and time on behavioural

intentions, $F(1, 55) = 5.724$, $p=.02$, partial $\eta^2 = .094$. Follow-up one-way ANOVAs revealed statistically significant differences across time for the intervention group, $F(1, 27) = 5.802$, $p=.023$, but not for the control group, $F(1, 28) = .257$, $p=.616$.

3.4.1.6 Perceptions of Inclusion. The two-way mixed ANOVA showed a statistically significant interaction between the intervention and time on perceptions of inclusion, $F(1, 55) = 5.08$, $p=.028$, partial $\eta^2 = .085$. Follow-up one-way ANOVAs revealed there was no statistically significant differences across time for the intervention group, $F(1, 27) = 2.864$, $p=.102$, nor for the control group, $F(1, 28) = 2.221$, $p=.147$.

3.4.2 Qualitative Results

The qualitative data was derived from semi-structured interviews with 4 autistic students and 4 peers of autistic students. Demographic information about these participants is included in Table 8. For clarity in the results section, quotes from autistic students are in blue font and quotes from peers of autistic students are in green font. Pseudonyms are used for each of the participants in the semi-structured interviews, as shown in the table below.

Table 8

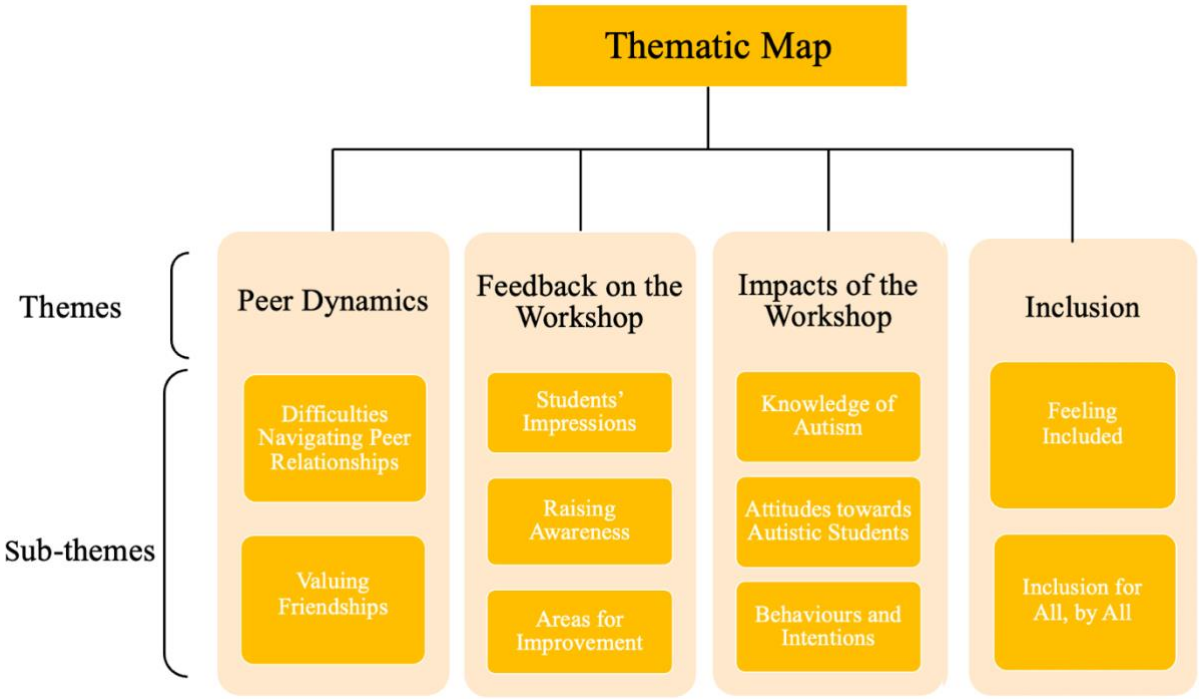
Demographics of Participants in the Interviews

Pseudonym	Autistic Student or Peer of Autistic Student	Year	Enrolment	Familiarity with Autistic People
Tom	Autistic young person	1st Year	Mainstream	Has autistic friends and classmates
Dave	Autistic young person	1st Year	Mainstream	Has autistic friends and classmates
Tara	Autistic young person	1st Year	Mainstream	Has autistic friends, classmates and brother
Liam	Autistic young person	2nd Year	Special Class	Has autistic friends and classmates
Rita	Peer	2nd Year	Mainstream	Has an autistic friend outside of school and an autistic classmate enrolled in special class.
Sarah	Peer	2nd Year	Mainstream	Has an autistic cousin and an autistic classmate enrolled in special class.
Noah	Peer	1st Year	Mainstream	Has autistic friends and classmates.
Lisa	Peer	1st Year	Mainstream	Has autistic friends and classmates.

The findings from the qualitative data analysis are outlined in this section. A large proportion of the illustrative data from the autistic students was elicited through the use of the Beans and Cups Activity, the Diamond Ranking Activity, the Good Classmate Activity and follow-up probes based on these activities (Appendix J). The themes and subthemes are presented in the thematic map in Figure 5 and discussed below.

Figure 5

Thematic Map



3.4.2.1 Peer Dynamics.

This theme is centred around the autistic students' experiences with their peers and friends in school. Their relationships with peers were further conceptualised into the subthemes, Difficulty Navigating Peer Relationships and Valuing Friendships. Under these sub-themes, the worries and challenging aspects of peer relations are discussed by autistic students, as well as the benefits and happiness they have found in their peer relationships and friendships in school. By understanding the peer dynamics these autistic students experience, it is intended that this sets the scene and contextualises the subsequent themes for the reader.

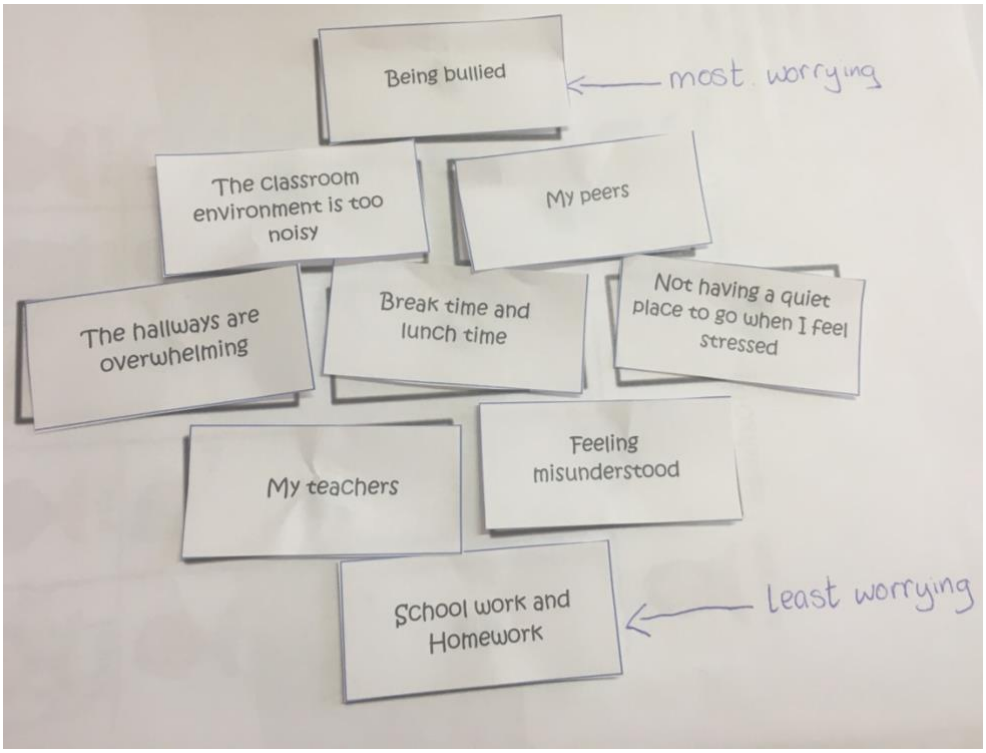
3.4.2.1.1 Difficulties Navigating Peer Relationships. The autistic students interviewed described some of the challenges they experienced regarding their peers. They described how complex it can be to form and maintain relationships with their peers.

> *"Social activity and kind of groups of people, even individuals in general can be very difficult to handle, and understand, like, what they think of me. […] It's very difficult to be able to like, keep friendships, make friendships, handle other people, and, like, the way they act."* (Tom – autistic young person).

In the Diamond Ranking Activity, three out of the four autistic students ranked their peers in their top 3 sources of worry in school. This is illustrated in Dave's Diamond Ranking Activity below (Figure 6), where he ranked his peers as his 3rd biggest worry in school, and being bullied by his peers in school is his greatest source of worry.

Figure 6

Dave's Diamond Ranking Activity for School Worries



Not only did autistic students find it difficult to understand their peers, but they also reported feeling misunderstood by their peers. The difficulty in understanding one another seemed bi-directional.

"Feeling misunderstood, it's like looking at a one way mirror because you're looking at someone you're trying to communicate with them, but all their seeing is something else. […] It's trying to breakthrough that solid ice barrier between the person and you, but you just can't. It's so difficult and so frustrating and it's just very annoying" (Tara- autistic young person). This autistic student described how she experiences the double empathy problem and the lack of understanding as a physical barrier that hinders communication, making it difficult to interact effectively with peers and causes frustration.

For autistic students, the way their peers treated them was a source of worry. For some autistic students this was because of negative social experiences they had encountered. *"There's one or two people in my class who would be quite unnecessarily mean to me"* (Tom – autistic young person). For others they had fear of being rejected or bullied by their peers. One student, when asked if he had experienced bullying in school he replied,

"Not yet, but I'm worried that it will happen" (Dave – autistic young person). The misunderstanding that autistic students face, combined with their negative social experiences and fears of rejection, can hinder their relationships with peers.

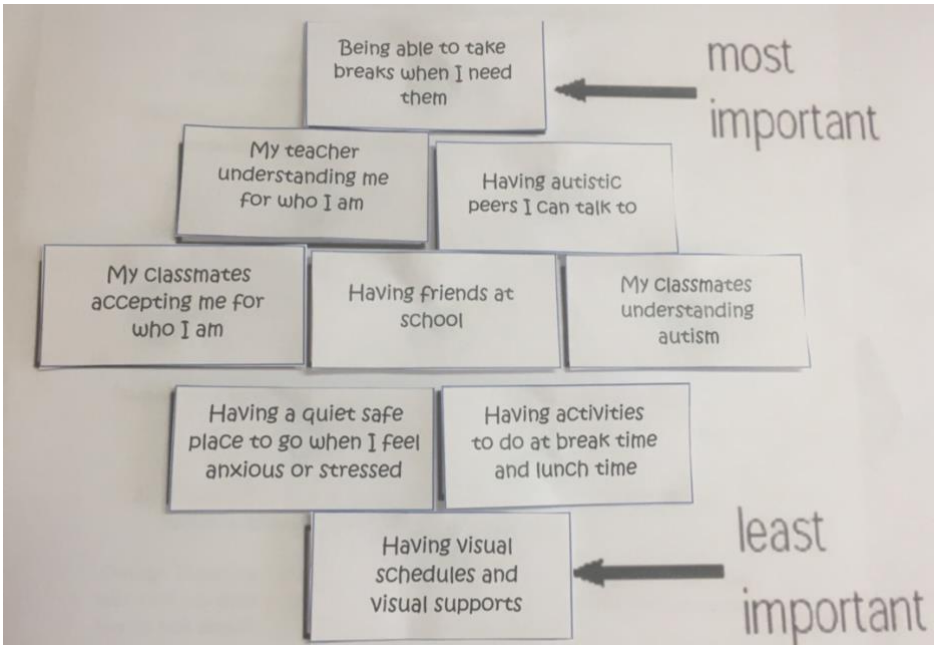
3.4.2.1.2 Valuing Friendships. Even though peer relationships were described as challenging, autistic students valued the support they received from their friends in school. *"Well my friends, they helped me feel supported because, if I'm feeling upset or a little angry, we normally chat it out and enjoy lunch"* (Tara – autistic young person). When they have difficulties, their friends act as a source of comfort for them. Their friends include them in group activities in school and help them when needed with schoolwork "*Well, friends can help*

you in many ways like they can help you with your studies and choose you for like basketball or something" (Dave- autistic young person).

It was not just non-autistic peers that autistic students formed positive relationships with, other autistic students were also a great source of companionship. Three out of the four autistic students rated 'having autistic peers I can talk to' in their top 4 supports in school. This is illustrated below in Tom's Diamond Ranking Activity, where he ranked having autistic peers to talk to as his 3rd most important support in school (Figure 7).

Figure 7

Tom's Diamond Ranking Activity for School Supports



For one student that spends his whole school day in the autism class, he described how this is his first time he has been able to form friendships with his peers, and he feels he has a lot in common with his autistic friends. *"It is kind of good when they're [friends are] autistic, like they've a little bit better, kind of understanding a little bit of a more similar experience"* (Liam- autistic young person). Meeting other autistic students offered opportunities for connection and they could relate with one another and feel understood. *"She's really fun. She gets me"* (Tara – autistic young person). She also described how meeting another autistic girl

helped her feel validated. *"It helps me to know that I'm not alone*" (Tara – autistic young person).

Although only one student interviewed was enrolled in the autism class, each of the autistic students described how they enjoyed meeting other autistic peers in the autism class. *"In this school it has a place [autism class] where all the people who have the ability [autism]… go where they can be understood and heard from"* (Dave – autistic young person). In the autism class the students seemed to feel understood, listened to and valued.

3.4.2.2 Feedback on the Autism Awareness Workshop.

In this theme, the autistic students and their peers gave positive feedback and constructive criticism on the autism awareness workshop they attended. They also discussed the implications of raising awareness about autism in their school. The subthemes include, Impressions of the Workshop, Raising Awareness about Autism in School and Elements of Autism Awareness that could be Improved. In this section the findings and data illustrations of autistic students and their peers are weaved together.

3.4.2.2.1 Impressions of the Workshop. When reflecting on the autism awareness workshop, each of the autistic young people and their peers interviewed, identified benefits of having the autism awareness workshop in their school. Liam noted liked that the workshop raised awareness about the autism spectrum in general, and that the workshop did not refer to any individual students in the school. *"I think it's beneficial…it's such a spectrum, it's not like they are learning about me in particular. They are more learning about something that exists so, it's not a problem"* (Liam – autistic young person). The students also liked the positive perspective of autism that is portrayed in the workshop and that the workshop facilitator *"used positive language"* (Tom – autistic young person). This sentiment was also expressed by a number of peers who attended the workshop, "*they didn't use the workshop to show how*

unfortunate it is to have autism, or anything like that … I think they used it in a good way to show that autism is not supposed to be something that's negative" (Lisa- peer).

Students acknowledged how the length of the 1-hour workshop was very appropriate "*it was good for other students because it was relatively short for the topic"* (Tom –autistic young person). The workshop had a variety of activities for students to participate in, which helped them become actively engaged and sustain their attention during the workshop. "*I think it was good the way that was it was laid out and like how we did activities, so we didn't get bored*." (Sarah – peer). There was one activity in particular that stood out to the students as enjoyable which was the *"true or false game"* (Rita – peer), noting "*it was actually very informative and we really liked … the quiz, that was fun."* (Noah – peer). Most of the peers found the workshop to be "*really educating*" (Sarah – peer).

3.4.2.2.2 Raising Awareness about Autism in School. Each of the autistic students thought it was important for their peers to learn about autism in school. Many of the autistic students believed that this would help peers to better informed and thus less judgemental towards autistic classmates and understand they all have a lot in common peers.

> *"If people understand something, they'll be able to make a much more informed decisions, and I hope most people when informed about autism could make the judgment that is that autistic people, like myself are very similar like to other people, but there's only a few difficulties. Like overall, autism is mostly just difficulties with social abilities" (*Tom -autistic young person*).*

Being seen and "*treated as a normal person*" (Liam – autistic young person), and not stigmatised by their diagnosis, was echoed by each of the autistic students. "*It could like help more people in understanding how this ability is not a disability, but rather an ability you have… accepting them, even though they have this ability, they're still the same person as themselves" (Dave – autistic young person).* Another student emphasised the importance of

fostering an accepting school environment for autistic students, because autism is not something they can change, but attitudes towards autistic people can change. *"I think it's good that more schools are promoting awareness and acceptance because you can't really change someone with autism….You can't change who they are. The only thing you can't do is accept them for who they are"* (Tara – autistic young person).

Each of the peers also thought it was good that they got the opportunity to learn about autism in school. One student felt that many autistic students could have previously experienced being judged by others for acting differently. *"Probably a lot of autistic students have delt with certain views they didn't need to when they were feeling overwhelmed"* (Lisa – peer). She emphasised the importance of supporting students to engage with autistic classmates so they could be respected by their peers. *"Students could learn how to interreact with autistic people and they would be treated just like anybody else, with respect*" (Lisa – peer).

3.4.2.2.3 Elements of Autism Awareness that could be Improved. Students had some ideas on improving the workshop. Many of the autistic students and their peers thought it would be beneficial for more students in their school could attend the autism awareness workshop. "*I wish people would learn more about autism*" (Tara- autistic young person). Some of the peers also noted it would be beneficial to learn about autism first-hand from an autistic individual to understand their personal point of view. "*Bring in some people with autism and for them to talk about their experiences*" (Noah- peer). Or alternatively, to listen to the perspective of a relative of an autistic young person, as they would also be able to share valuable insights. *"Someone that knows someone that has it [autism] because they're educated [about autism], but like an outsider's point of view."* (Sarah- peer).

One student on the autism spectrum felt the workshop talked about autism from an identity first language too much of the time. She explained that she prefers to use person first language and she would have liked this perspective to be reflected in the workshop. *"There*

was one problem with the presentation. Some people don't like to be referred to as autistic people. Sometimes they want to be put first instead of the special needs like people with autism, not autistic people" (Tara).

When looking at autism awareness in their own school, two students suggested they would like to *"have an autism awareness day"* (Sarah- peer) in school, where students could celebrate autism and create fun activities for autistic students and their peers to engage in together.

Some autistic students, expressed areas of caution when raising awareness about autism in the school context. Two of the autistic young people expressed concerns about bullying. One feared that some students could use information about autistic people to bully them more.

> *"There could be quite a lot of students that just used it as a way to know how to kind of bully students easier because they knew certain things that might be weak spots of theirs [...].That's just how a lot of people are"* (Tom- autistic young person).

Although none of the autistic students in this study reported any negative interactions with peers since the workshop, it is still an important factor to consider. Another autistic student highlighted that schools should not use an autism awareness workshop to stop bullying, bullying is a very serious issue that should be dealt with by the school. *"If the child is a bully, going to an autism workshop is not really going to change them from being a bully. Like because like there's other issues that are causing that"* (Liam – autistic young person).

While the autistic students in this study were all happy for their peers to learn about autism, two students identified that might not be the case for all autistic students and that some autistic students might fear they could be treated differently or be embarrassed that their peers are learning about autism. *"They might have felt a bit pressured, knowing that other people might think that they have autism and they might think that they might get treated differently for it"* (Lisa- peer).

Of note, many of the students felt that this school was very inclusive and the students were mostly very kind. One autistic student highlighted that perhaps not every school would have the same positive response to educating students about autism. "*Luckily, like this school seems oddly, generally kind, but that's not going to apply to every school. It's not going to apply to every school community"* (Liam- autistic young person).

3.4.2.3 Impacts of the Workshop

This theme encapsulates the affects of the autism awareness workshop from the perspectives of autistic students and their peers. The subthemes in this section include Knowledge of Autism, Attitudes towards Autistic Students and Behaviours and Intentions. For clarity, peers perspectives of the impacts of the workshop and autistic students' perspectives of the impacts of the workshop are discussed in separate paragraphs under each of the subthemes. This is intended to aid the readers understanding of the views of autistic students as a collective and the views of their peers as a collective.

3.4.2.3.1 Knowledge of Autism: Peers' Perspectives. Each of the peers identified new information they learned about autism during the workshop. They felt the workshop broadened their understanding of how each autistic person is unique. " *I learned a lot of stuff I didn't know. I didn't know that like there's lots of different like, autistic variables"* (Sarah – peer).

Some peers of autistic students were aware that their perception of autism had changed since the workshop. One participant described how she thought it was a learning disability before the workshop, whereas now she no longer has this misconception. "*I see it [autism] a bit differently now, not more like a learning disability, but more like, autistic people just see the world differently."* (Rita – peer).

Learning about the autism spectrum, provided students with an understanding of diverse autistic individuals are. "*I realised that I kind of knew briefly that there was a spectrum,*

but it's a much bigger spectrum than I kind of anticipated" (Noah- peer). The peers reflected that the workshop gave them the opportunity to step into the shoes of an autistic student and better understand their school experience. *"I kind of got to see like on the inside, what someone with autism might think."* (Lisa – peer). Many of the peers gained a greater understanding of how some autistic individuals process sensory information. *"Sensory processing, some autistic people see things differently than we do and they can be more sensitive to like noise and sound and sight"* (Rita – peer). Another peer recognised that they could adapt their volume when talking if was the environment was too noisy.

> *"There might be a bit too much noise. Like I'm a very loud person when I talk to my friends, and that's probably not the right thing to do (smiles), but I realize that just kind of change the way I talk a bit and that can help"* (Noah- peer).

Most peers felt they were more informed on how to help autistic students, due to their new understanding the sensory differences that autistic individuals experience.

3.4.2.3.2 Knowledge of Autism: Perspectives of Autistic Students. The autistic students shared what they perceived their peers had learned in the workshop. One individual thought the workshop enabled his peers to have a better understanding of autistic students. *"Neurotypical people within the school, would have kind of understood their neurodivergent classmates better"* (Tom – autistic young person). Following the workshop, another autistic student noticed one of her classmates no longer held a misconception that only boys were autistic. She recalled what her classmate said after the workshop. *"I got someone who said that, 'Oh yeah, I thought autism was just for boys, but girls can have it too'"*(Tara – autistic young person).

Interestingly, each of the autistic young people who attended the workshop also found that they learned more about autism. *"I learned more about how other people are like me and how they experience autism and their abilities"* (Dave – autistic young person). This autistic

student described the sense of connection he felt that there are others like him and he could recognise some similarities between his experiences and that of other autistic individuals. The autistic students who attended the workshop expressed they learned more accurate information about autism in general, and they were also able to relate some of the information to their individual experiences. One autistic student, who had a number of diagnoses, described how she learned about a misconception she had about autism in the true or false game. *"I did learn a few points … A learning disability was false. I didn't know that. I thought it was a learning disability because I have dyslexia and dyspraxia all in one"* (Tara – autistic young person). Having multiple diagnoses, the autism awareness workshop helped her to understand which of her characteristics were associated with autism.

The autism awareness workshop seemed to give autistic students the opportunity to "*understand yourself better"* (Tom -autistic young person). They articulated how the workshop promoted a positive sense of self. *"I learned that I can accept my ability no matter what it is"* (Dave – autistic young person).

3.4.2.3.3 Attitudes towards Autistic Students: Perspectives of Autistic Students.

Most of the autistic students interviewed noticed some changes in their peers' attitudes towards them since the workshop. The autistic students described how a few of their classmates were now more aware and considerate of their needs.

> "*A few people would have taken it on board and then would have understood me better in the long ways and being much nicer - not **much** nicer - but a bit nicer to me. Kind of like understanding of my needs and being a bit more able to help"* (Tom – autistic young person).

This young person had a sense that a small number of his classmates have been slightly kinder to him and seemed more willing to help him since the workshop. One autistic young person explained that she had a fight with someone in her class a few months ago, and since the

workshop she noticed this person was not ignoring her any more. *"They started talking to me more after the workshop. […] I think they understood more about how autism isn't just one type of autism."* (Tara – autistic young person).

Tara noticed a change in one classmates' attitude towards her since the workshop, Tom noticed a small change in a few of his classmates attitudes, while Dave felt like all of his classmates attitudes had changed since the workshop. Dave described how he felt fully accepted by his classmates now and that they do not make fun of autism because they are more aware of how it can impact people now. *"Now they accept everything about me … they don't treat it like a joke, they take it real serious"* (Dave – autistic young person). He was conscious that others can find it difficult to understand what he is trying to say. However, since the workshop he felt that students value what he has to say and are more patient and understanding when he speaks. "*They now care about what I have to say and how I say it, and they don't care if I screw up, it doesn't matter because they know what I'm trying to say"* (Dave – autistic young person). He described feeling less pressure now if his speech was not as clear as he hoped, because his peers listened more attentively to what he is trying to communicate.

In contrast to Tara, Tom and Dave, each of whom spend most to all of their school day in the mainstream classes, Liam had not noticed any change in his peers' attitudes towards autism. Around the time the research was being conducted, Liam was spending the whole school day in the autism class. He wondered if he may not have noticed changes in his peers' attitudes due to his limited interaction with students in the mainstream classes. "*I don't think it changed anything for me. Again, I've had such little interaction"* (Liam – autistic young person).

3.4.2.3.4 Attitudes Towards Autistic Students: Peers' Perspectives. All of the peers, identified some changes in their own attitudes towards autistic peers. They described how this change in perspective helped them to understand the reasons why autistic peers may

feel overwhelmed in the school environment. Due to a better understanding of autism, they felt less judgemental and more respectful towards autistic peers.

> "*Like you'd know more about them, you wouldn't like just judge them … I wouldn't just like look at them and be like, 'oh that's someone with autism'. I'd look at them and be like, I don't know. I'd see them from a different point of view. I wouldn't just see them as like autism. Like if you get to know them … they're actually like so nice"* (Sarah – peer).

This student described how the workshop taught her that if you know someone is autistic, this doesn't mean you know them, she was more interested in getting to know the individual and their personality.

The peers felt that they were more accepting of autistic people and more accepting of differences in general, since the workshop. "*They understand that everyone is different in certain ways, after doing the workshop"* (Noah – peer).

Each of the peers expressed feeling more empathetic towards autistic students after the workshop and they were better able to *"respect other people more, yeah and like understand what they [autistic students] are going through"* (Rita- peer). Following the workshop, peers expressed feeling compassion for autistic students, particularly if they were experiencing a difficult time in school.

> *"If someone who is autistic is having a meltdown, I could try help them in a way, because of the workshop. Or just like be able to comfort them if they have a meltdown or … a sensory overload, I could help them or like comfort them"* (Lisa – peer).

Understanding some of the reasons an autistic person may feel overwhelmed in school, sparked a caring role in some of the peers.

3.4.2.3.5 Behaviours and Intentions: Autistic Student's Perspectives. Three out of the four autistic students noticed some changes in their peers' behaviours towards them.

Some of the autistic students described slight positive changes in the way their peers acted towards them. The students drew a connection between some peers' understanding of autism, and the changes in their behaviours. Some of autistic students noticed their peers interacted with them and spoke to them in more considerate and respectful ways. "Through their actions and words they would have a better grasp of what it's like for me and they would be able to […] be more respectful and polite towards me, without upsetting me as much" (Tom-autistic young person). This suggests the autistic students perceived their peers gained a deeper understanding of what school can be like for autistic individuals and were more mindful of things they could do support their autistic peers.

One of the autistic students felt his peers sometimes had difficulty understanding what he is trying to communicate. Since the workshop he felt his peers were making more of an effort to listen to him. "*They understand what I'm trying to say, and sometimes it might get through, but other times it can't"* (Dave – autistic young person).

Half of the autistic students perceived a change in some of their peers' behaviours towards them. One autistic student noticed a change in the way one peer interacted with her, a peer with whom she previously had a fight with, and had been avoiding for a few weeks prior to the workshop. Since the workshop, their interactions have increased. "*The guy I had a fight with, he is OK now. He kind of talks to me more*" (Tara – autistic young person).

Two of the autistic students felt that their peers were more open and comfortable to talk about autism since the workshop. It was no longer a topic that was avoided, but the school environment had become an inviting setting for students to talk about autism with more curiosity, and the autistic students welcomed this. "*They weren't really talkative about it [autism], but now they all are"* (Dave – autistic young person).

Notably, the autistic students felt their friends had always been inclusive of them and the autism awareness workshop did not change their friends interactions. *"My friends don't treat me any differently"* (Tara – autistic young person).

3.4.2.3.6 Behaviours and Intentions: Peers' Perspectives. In contrast to the autistic students perceptions around behavioural changes, none of the peers that were interviewed believed their interactions with autistic classmates changed since the workshop. "I haven't seen anything personally am, that's changed. … I'm just more conscious now. I don't think in my actions or anything has changed" (Noah – peer). While the peers recognised changes in the way they thought about autism, they did not notice any changes in their actions towards autistic students.

One student noted she engaged in very brief greetings with autistic students, but she did not try to initiate further interactions with autistic students since the workshop. "*I'd say hi to them in the corridor, but like I wouldn't really talk to them"* (Sarah – peer).

Although none of the peers felt their interactions with autistic students changed, three of the students spoke about an increased intention to interact with autistic students, if an appropriate scenario was to arise. Two students spoke about providing help to autistic students if they needed something. *"If the opportunity was to arise in like, they needed anything, then like, I could give it to them"* (Noah – peer). Another peer spoke about how she would like to engage in mutually enjoyable, joint activities with an autistic peer. "*Something that they like, something fun, like outside or something. I'd do something outside like football"* (Sarah – peer). In all hypothetical scenarios, the peers appeared to be waiting for someone else to initiate the interaction.

3.4.2.4 Inclusion.

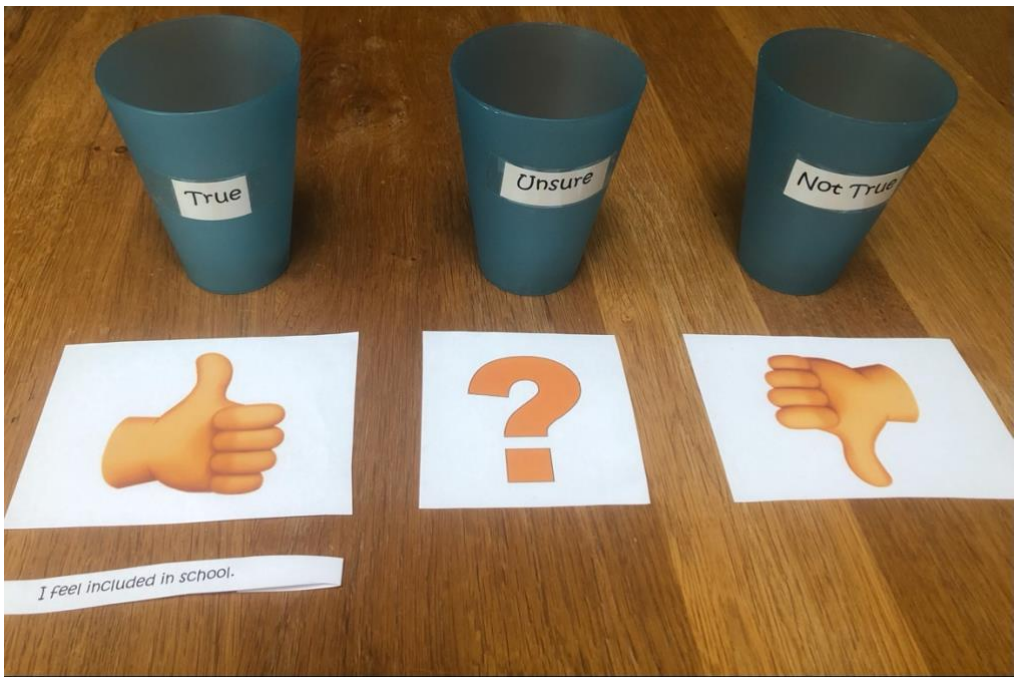
The final theme, inclusion encompasses what inclusion means and what helps autistic students feel included in school. It also describes whole school inclusion from the

perspectives of autistic students and their peers. These findings are outlined in the subthemes Feeling Included and Inclusion for All, by All.

3.4.2.4.1 Feeling Included. All of the autistic students described inclusion as a feeling. In the Beans and Cups activity each of the autistic students responded that the following statement was true for them, 'I feel included in school', as illustrated in Figure 8.

Figure 8

Photo of Three Autistic Student's Response to Inclusion Statement in the Beans and Cups Activity



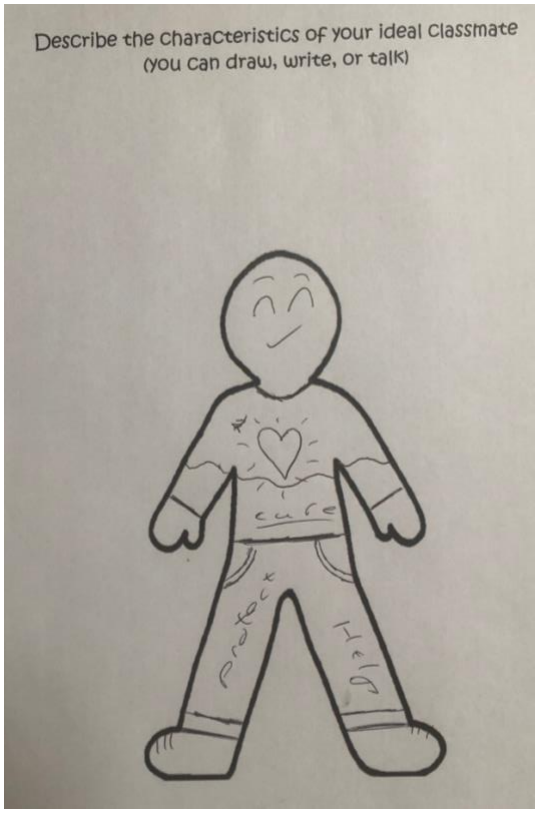
Each of them associated this feeling of inclusion with the way their peers treated them and interacted with them. They explained when their peers were kind to them and did not bully them, this helped them to feel included. *"Well, it's [feeling included is] probably from, like the people in my class are quite nice and never try to exclude, like bullying and stuff".* (Tom – autistic young person).

When describing their ideal classmates, it was similar to their descriptions of inclusion. For example, Dave (an autistic student) described his drawing (see Figure 9) of an ideal classmate as someone cared about him, *"The heart symbols care".* Other characteristics of his

ideal classmate included helping and protecting him by standing up against bullying. *"If anyone gets bullied, they [the ideal classmate] would tell the teacher and try to help to stop the bullying".*

Figure 9

Autistic Student's Drawing of an Ideal Classmate



Similarly, the autistic students described inclusion as, not being bullied, being treated respectfully, as humans, and feeling accepted and involved in group activities. *"Treating me like everyone else and … taking the needs and differences into consideration. That's kind of like saying, but still treating you like human beings."* (Liam- autistic young person).

3.4.2.4.2 Inclusion for All, by All. The peers described inclusion as ensuring all students in the school were actively involved and accepted in the school regardless of anyone's individual differences. *"Inclusion means including everybody, regardless of race, gender, and sexual preference and special needs or anything."* (Noah- peer). Not only did students see the value in including autistic students but they emphasised the importance of extending inclusion

to all students in their school. The autistic students recognised how supportive it is for them, that their classmates understand who they are. They also saw merit in all students in the school, themselves included, having a broad understanding of differences in abilities and identities. "*That would help because some students, they don't just have one special need, they have multiple*" (Tara- autistic young person). For this student, who had a number of diagnoses, she believed it would be beneficial for peers to learn more about other additional needs too.

The students noted the whole school community had a role in inclusion, such as "*the principal and all the teachers, my classmates*." (Sarah - peer). Fostering inclusion is not a once off event, but a continual process that is embedded in the day to day lives of students. Each of the students expressed a belief that their school was an inclusive school for all students. That said, all the students expressed the autism awareness workshop added to the inclusive atmosphere in the school. One autistic student described how increasing students' knowledge about autism can remove the stigma that people may have associated with autism. *"Promoting autism acceptance and knowledge of it would be good to help people kind of … remove negative connotations around it and treat other people like neurotypical students."* (Tom- autistic young person). Being understood and treated respectfully were central to feeling included. Peers of autistic students felt the workshop helped them respect autistic students now that they understand them more. *"It would help me be like more aware of all of them. It would help me respect other people more, yeah and like understand what they are going through"* (Rita - peer). In addition, the peers of autistic students perceived the positive changes in their attitudes towards autistic students, helped autistic students feel validated and included in school. *"The benefits of that are autistic people are feeling more appreciated and acknowledged and feel more included. And I think that would be the best for everyone else"* (Lisa – peer). Interestingly, this peer believed that supporting a cohort of students to feel appreciated and included in school, had a positive impact on all of the students in the school community.

3.5 Discussion

3.5.1 Research Question 1: What is the impact of AsIAm's autism awareness workshop on student's knowledge, attitudes, and behavioural intentions towards autistic students?

This study explored the effectiveness of a 1-hour autism awareness workshop on improving the knowledge, attitudes, behavioural intentions of secondary school students towards autistic individuals. Following the autism awareness workshop, students in the experimental condition had significantly more knowledge of autism in comparison to students in the control group. The autism awareness workshop had a significant positive effect on students' attitudes, behavioural intentions, and knowledge of autism. The positive outcomes of this research are consistent with positive outcomes found in other autism awareness interventions in secondary schools, indicating some efficacy for interventions that educate students about autism in school (Tonnsen & Hahn, 2016; Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007).

In the current study, students who participated in the follow-up interviews, consistently reported an increase in their knowledge of autism, their attitudes towards autistic students and increased intentions to socially interact with autistic individuals after the workshop. The peers of autistic students felt less judgemental and more compassion towards their autistic peers and they had a greater understanding of what school can be like for autistic students and clarified their misconceptions about autism. This is consistent with research from Jones and colleagues (2021), who found when adults were educated about autism, they had improved attitudes towards autistic adults and it increased their intentions to socially interact with autistic adults, as well as decreasing misconceptions and stigma around autism.

Similarly, many of the autistic students noticed positive changes in their peers' knowledge of autism and their peers' attitudes towards them. All except for one autistic

individual who attended the autism class and had not attended any classes in the mainstream classrooms since the autism awareness intervention. In turn, the autistic students who noticed positive changes in their peers understanding of autism and attitudes towards them, reported feeling more understood and accepted and valued by their peers. This is consistent with the findings of Miles and colleagues (2019), who found when autistic females felt understood and their peers respected their differences, they reported this helped them feel valued and supported their sense of belonging in school.

While the questionnaires measured attitudes and behavioural intentions towards "hypothetical" autistic students, the participants in the interviews spoke about changes in their attitudes and behavioural intentions in relation to actual autistic students in their year group and classes. This suggests that the new insights students gained in the autism awareness intervention had real life implications in relation to their attitudes and behavioural intentions towards their actual autistic peers. This finding is in contrast to a previous autism awareness study in a secondary school, which found peers' attitudes improved towards hypothetical autistic individuals, but not towards their actual autistic peers (Fleva, 2015).

Studies have indicated that following an autism awareness intervention, peers' intentions to interact with autistic students improved significantly (Fleva, 2014; Fleva 2015; Ranson & Byrne, 2014; Staniland & Byrne, 2013). The current study was consistent with these findings. However, in one study where follow up testing took place in the following school term, these observed improvements in behavioural intentions were not maintained (Ranson & Byrne, 2014). In contrast to this, the follow-up interviews in the current study indicated that peers of autistic students expressed increased intentions to interact with their autistic peers.

However, when it came to actual changes in behaviours towards autistic classmates, the peers reported no changes in behaviours. Interestingly, most of the autistic young people interviewed reported they noticed small changes in the way their peers interacted towards them,

while the one did not. The discrepancy in findings between peers' perceptions of change in their real-life interactions with autistic students and autistic students' perceptions of the same, suggests the interview sample was not representative of the entire population. Nonetheless, these differences indicate that behavioural intentions and actual behaviours may not be directly associated in relation to the secondary school population in this study. This contrasts with a study in a preschool setting, which indicated that increases in children's behavioural intentions towards autistic pupils was strongly correlated to increases in their real-life interactions with autistic classmates (Freitag & Dunsmuir, 2015).

Researchers have suggested that changes in behavioural intentions could be dependent on meaningful changes in attitudes (Ajzen's Theory of Planned Behaviour, 1991; Staniland & Byrne, 2013). However, there is also a substantial difference in age between pre-school children in Freitag and Dunsmuir's study (2015) and the secondary school students in the current research. Studies have suggested that adolescents' behaviours towards peers with additional needs could be more difficult to change than pre-school children, as adolescents' perceptions of others could be more established through many more years of exposure to cultural influences and life experiences (Balaz et al., 2020). Thus, young children's behaviours towards peers with additional needs, could potentially be more malleable to change through an awareness intervention (Guralnick et al., 2007; Hong et al., 2014). This may suggest that as well as engaging in an autism awareness intervention, secondary school students may need increased support from school staff to support them in increasing inclusive interactions between them and their autistic peers.

Of the autistic students who did notice actual changes in their peers' behaviours, some reported their peers took more care to listen to what they had to say, and they were slightly kinder to them. In research conducted by Miles and colleagues (2019), autistic adolescents who felt listened to by their peers and experienced reciprocal kindness and respect from theirs,

fostered their sense of belonging in school. In addition, two autistic students reported that since the workshop, autism was discussed openly amongst peers, and they liked that these conversations were becoming more normalised in school. This contrasts to autistic adults in a study, who reflected that autism was perceived negatively when they were in secondary school and they described it as 'the elephant in the room' (Crompton et al., 2022, p.6). In accordance with the current study, enabling open discourse about topics such as neurodiversity and autism, destigmatises these conversations and empowers neurodivergent individuals (Kapp, 2019).

3.5.2 Research Question 2: What are students' perspectives of the autism awareness workshop?

The autistic students and their peers were happy to have the opportunity to learn about autism in school through the autism awareness workshop, describing it as enjoyable and educational. This aligns with numerous studies which highlighted autistic students' longing for their peers to learn about autism so peers could understand their autistic classmates (Goodall, 2020; Crompton et al., 2022; Cunningham, 2020). The students believed that the 1-hour workshop provided the students with an appropriate amount of information about autism. Many autism awareness interventions vary in length, ranging from 1 to 6 session programmes (Tonnsen & Hahn, 2016; Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). Similar to other relatively short interventions, this workshop substantiates the findings that even brief interventions that educate students about autism can have positive impacts on peers (Tonnsen & Hahn, 2016; Fleva, 2015; Fleva, 2014; Campbell, 2007).

A number of students appreciated the neuro-affirmative approach that was used when talking about autism, which included the strengths and differences experienced by autistic students. Many of the peers of autistic students described how they viewed autism through a new lens, which helped them to understand how some autistic students experience school. This new perspective of autism, instilled peers' understanding, compassion, and respect towards

autistic individuals. This is consistent with Harris (2018), who posits that for others to truly understand an autistic individual's experience, it involves stepping into their shoes and this can alter one's beliefs and elicit empathy in others. These findings suggest educating students about autism may help to alleviate the double empathy problem, as described by Milton (2012), by enabling students to have a greater understanding of autistic students' experiences in school and hence bridge part of the double empathy gap.

Interestingly, the neuro-affirmative perspective was received well by autistic students also. The neurodiversity paradigm centres around acceptance and celebration of diversity in the human brain and rejects the outlook that divergence from 'typical' brain development is a deficit-based issue that needs to be corrected (Walker, 2012). Autistic students gained a greater understanding of autism, they felt validated, and the workshop added to their positive sense of self. In addition, one autistic student mentioned how the workshop helped him feel like he was not alone. Studies with autistic adults have highlighted that when other people portray a strengths-based, accepting and understanding outlook towards autism, it supports autistic individuals to develop a positive autistic identity and fosters their wellbeing (McConachie et al., 2020).

Autistic individuals can be vulnerable to mental health difficulties, and a positive sense of autistic identity combined with feeling accepted by others is corelated with better mental health outcomes for autistic individuals (De Paz et al., 2018; Cage et al., 2018). In addition, feelings of social connectedness, value and belonging, can act as protective factors against mental health difficulties, further substantiating the importance of promoting this in schools (Allen et al., 2023; Kidger et al., 2012). The neuro-affirmative autism awareness workshop seemed to support most of the autistic participants to feel understood, valued and accepted by their peers. Furthermore, promoting autism positively in the school community supports autistic students to establish a more positive identity (Cunningham, 2020).

3.5.2.1 Improving the Workshop. Peers of autistic students expressed an interest in listening to the personal experiences of an autistic individual or someone who is a relative of an autistic person. The autism awareness intervention included online video clips of autistic adults speaking about their personal experiences. However, in the interviews, students indicated it would be beneficial to have in-person autistic guest speakers or their relatives as they valued learning about personal stories from autistic individuals. In recent research, teachers reported that listening to autistic individual's personal experiences in school was highly emotive and inspiring for teachers who attended an autism-friendly schools programme (Fitzgerald et al., 2023). The teachers found the online video clips of autistic individuals' experiences in school very impactful (Fitzgerald et al., 2023), while in contrast, some of the peers in the current study expressed that they would have preferred in person accounts of an autistic individuals' school experience rather than online videos.

One autistic student noted that she prefers person-first language and the autism awareness workshop used primarily identity-first language. Incorporating both person-first and identity-first language could be more representative of the preferences of more individuals on the autism spectrum. There is much debate as to whether to use identity first language or person first language when talking about autism (Botha et al., 2021; Bury et al., 2020). The research into the language preferences of the autism community, have found that there is no unanimous consensus of which language is preferred. This research was similar with students using a range of language when referring to themselves, including "autistic", "neurodiverse", "I have autism" and "my ability". These diverse range of preferences, are consistent with variations found in the literature and stress the importance of asking each individual how they would like to be referred to (Kenny et al., 2016; Kapp et al., 2013; Bury et a., 2020).

3.5.2.2 Cautionary Advice. When promoting autism across a whole school community, school should be conscious of individual perspectives of autistic students. Autistic

students, some autistic students may feel self-conscious for their classmates to learn about autism. This emphasises the importance for schools to check with autistic students if they would like their classmates to learn about autism and whether or not they would like to attend a workshop with their peers. This aligns with the Autism Good Practice Guidance for Schools, which states schools should engage in a collaborative process that includes the views of autistic students and parents when selecting interventions (DoE, 2022). While each of the autistic students in this research were aware of their diagnosis, this may not be the case for all autistic students. Developing collaborative systems to capture the voices of autistic students and their parents and harness it for real changes within school practice is an important aspect of the School Self-Evaluation Process (Fleming, 2019; DoE Inspectorate, 2016).

Some of the autistic students in this research discussed negative social interactions they had encountered from peers which included mean comments and feeling ignored, while none of these participants described it as bullying, all of them expressed a fear of being bullied. This is similar to findings of other studies, the autistic students reported feeling ignored by their peers and had difficulty managing relational conflicts rather than experiencing direct bullying (Miles et al., 2019; Dean et al., 2014). This fear of being bullied is a legitimate fear as according to the research, autistic students experience being bullied to varying degrees, and more extensively than neuro-typical peers (Goodall & McKenzie, 2019; Cook et al., 2018). One autistic student in the current study cautioned that an autism awareness intervention should not be implemented with the aim of stopping bullying. Bullying is a very sensitive and serious matter that schools should follow their bullying policy to address. This is similar to an autistic student who was being bullied in another study and expressed he would not like his peers to learn about autism for fear the bullies would use his triggers to target, potentially exasperating the bullying (Haegele & Maher, 2022). This caution was also shared by the autistic students in the current study who felt educating peers about autism should not intended as a ‘quick-fix’ to

stop bullying that may be occurring in a school. While a few autistic students in this study had experienced some negative interactions with peers during their educational journeys, none of them reported any negative encounters with peers following the workshop. Of note, students in this school perceived their school had an inclusive environment.

3.5.3 Research Question 3: What are students' perceptions of inclusion in school?

The Perception of Inclusion Questionnaire, measured students' perceptions of their own academic, social and emotional inclusion, giving a total score for their overall perception of inclusion in school. Interestingly, students who attended the autism awareness workshop had significantly higher perceptions of inclusion after the workshop, compared to students in the control group. Results indicated there was a significant interaction effect on students' self-reported feelings of inclusion in school between the control and experimental groups.

Additionally, in the interviews, autistic students reported feeling more understood by their peers and the peers felt they were more accepting of autistic classmates. Moreover, both autistic students and their peers felt the autism awareness intervention added to the inclusive environment in the school. This aligns with the literature on belonging, which posits that feeling understood, accepted and valued by others, supports one's sense of belonging (Gere & MacDonald, 2010; Baumeister & Leary, 1995; Hagarty et al., 1992). Students' sense of belonging is a central component of accepting and inclusive school environments (McNamara et al., 2018). This supports the findings of Goodall (2018), in which autistic students described relationships with peers and sense of belonging to be important components of feeling included in the school community.

All students interviewed, recognised the value in learning about autism, as it gave peers better understanding and more empathy towards autistic students. This is similar to the suggestions of students in another study, who suggested if they got a chance to learn about autism, they could be more aware of how autism impacts people and have more sympathy

towards autistic peers (Fondelli & Rober, 2017). Most of the autistic students also described how they felt more accepted by their peers following the autism awareness workshop. This is consistent with autistic adults who contributed to the Autism Friendly Schools Initiative, reflecting that their feelings of peer acceptance or non-acceptance significantly impacted their experiences of inclusion in school (Fitzgerald et al., 2023).

Numerous studies have alluded to autistic individual's desire for their school peers to understand them better and to learn about autism (Crompton et al., 2022; Cunningham, 2020; Goodall, 2020). However, unlike the current study, none of the autistic adults or autistic adolescents had experienced being in a school where their peers learned about autism. The current study offers a unique perspective as it interviewed autistic students to learn about their experiences in school after their peers had been educated about autism. Many of the autistic students and their peers described many positive outcomes they experienced following the autism awareness intervention, including feeling more understood and accepted by peers, and peers felt more empathetic and less judgemental towards autistic students. While the autistic individuals in the studies referenced above, perceived their school experiences would have been improved if their peers had a greater understanding of autism, the current study strengthens the rationale for educating peers about autism as it captures the real-life positive outcomes that the autistic students experienced following the implementation of an autism awareness workshop. This further substantiates the recommendation of the Autism Good Practice Guidance for Schools, to educate students about autism to promote the inclusion and acceptance of autistic students amongst the whole school community (DoE, 2022).

Students perceived their school to be inclusive prior to the autism awareness intervention. It is important to take this inclusive context into account when with regards to the findings of this study and will be discussed further in the limitations. One student believed that

the autism awareness workshop was well suited to this school in particular, because of the inclusive culture that already existed. Considering this context, the autism awareness intervention appears to have added to the already inclusive environment that existed in the school and extended the schools ethos of accepting differences to autistic students. This aligns with the NCSE (2015) recommendation that a range of interventions should be implemented to support the inclusion of autistic students across a continuum and fostering a positive whole-school culture is central to inclusive school practice (Long, 2018; Ainscow & Sandill, 2010).

However, one student articulated that to translate students' learning from the workshop into their actions, schools need to embed acceptance and inclusion amongst students in their day-to-day activities. This suggests that inclusion of all is not achieved by a single intervention, but instead by ongoing promotion and actions that compound to over-time, create an inclusive school community. Azorin and Ainscow agree that creating an inclusive school culture does not happen overnight, it is a journey schools go on and involves evaluation, reflection, collaboration, and continuous enhancement (2020). While the autism awareness workshop added to the inclusive culture in the school, it also highlighted the students' desire to not only learn about and accept student's difference, but to be inclusive in their actions, and through inclusive activities in school.

Using the SETAM model, schools now have the autonomy and flexibility to weave a range of appropriate interventions into schools to promote the inclusion of autistic students across the school community (DoE, 2017).

Inclusion for all, by all was a prevalent theme throughout the interviews. The students in this study recognised the wider implications this intervention had. They noted, although it was based on accepting the differences of autistic students, they believed it supported them to be more accepting of students' differences in general, hence supporting the inclusion of many. This aligns with Hargreaves and Braun (2012) perspective that implementing an initiative at a

systemic level in a school, is important for some students and is good for all students. Both autistic students and their peers saw value in promoting the inclusion of all students in the school regardless of their differences in race, culture, sexual orientation, additional needs or identity. Accepting differences seems to be a message that is promoted in this school, through the implantation of different initiatives. When students received information about specific differences associated with autism, this appeared to help them understand and accept not only differences in autistic students, but differences in students in general. This perspective was similar to that of teacher's who were implementing an autism-friendly systemic initiative in their school, who found it had a wider impact on diversity and inclusion for many more students. A teacher in the study commented," *you're focusing on autism, but it has the knock on of being effective, of developing overall, fully into a school culture"* (Fitzgerald et al., 2023, p.94).

3.5.4 *An Ecological Perspective on the Impacts of the Autism Awareness Workshop*

Bronfenbrenner's ecological systems model (1979) provided a suitable framework to analyse, interpret and contextualise the perspectives and experiences of autistic students and their peers who attended the autism awareness workshop in this study. The research was situated at the interface between the students (microsystem), their school (mesosystem) and AsIAm, the autism charity in Ireland who created and delivered the autism awareness workshop (exosystem). The autistic young person is at the centre of the ecosystem, with their peers in the microsystem. The school experiences for the autistic young person are largely influenced by interactions between individuals and situations in their immediate environment (Odem et al., 2004). While factors in the wider environment are less impactful, but are contextually significant (Bronfenbrenner, 1979).

The micro-system was individual to each of the autistic students. They each came from different families, had different social relationships and friendships. What was common to the

autistic students was they each attended the same school and lived in the same geographical location. Their school decided to sign up for this research project, whereby autistic students and their peers in 1st and 2nd year attended the autism awareness workshop that was delivered by AsIAm, with the aim to support the acceptance and understanding of autistic students amongst their peers. The knowledge and understanding gained by the students from the autism awareness workshop, were intended to be a form of intervention in the microsystem. The improvements in peers' empathy, understanding, acceptance, and compassion had a direct and positive impact on the microsystem and the autistic student.

The mesosystem comprises of the interrelationships between the individuals and events in the microsystem, such as the teachers in the school, peers of autistic students and the facilitator of the autism awareness workshop. The research indicated that the peer-facilitator interaction had a significant impact on peers' attitudes towards autistic peers and their understanding of autistic students' experiences in school.

The exosystem contains variables that do not involve the young person, but can directly impact the autistic young person, their peers and teachers. This includes media awareness of autism, funding the school receives to support students with additional needs, interventions provided in schools and health systems, policies and circulars that impact schools at a systemic level, such as the SETAM, SEN, Wellbeing and Inclusion policies (DoE, 2017; 2018). Students noted that the positive impacts of the inclusive culture in this school.

The macrosystem encompasses broader societal beliefs, attitudes and culture. These variables have influenced individual's core beliefs about difference, special needs, neurodiversity and autism. Society's attitudes towards autism and inclusion, which impacts legislation, policy, resource allocation, understanding and acceptance.

The chronosystem refers to the impact of change across time on the young person. Autism is a life-long condition that impacts individuals in different ways, to differing degrees

and in different situations across the lifespan. In addition, the needs of an autistic individual can change and vary as they are supported to cope in familiar situations and encounter new experiences. This study offers a snapshot into the ways in which schools can foster autistic students' need for the social and emotional inclusion amongst their classmates and sense of belonging and acceptance in secondary school. Hence, there is a need for additional supports to be developed to meet these needs, as an autistic young person develops into an autistic adult.

3.6 Conclusion

The current study addressed an identified gap in the literature by exploring the impact of educating secondary school students about autism. Adopting a mixed-methods design, the study sought to give voice to an often-overlooked population in the research, autistic young people, in addition to their peers in school. This enabled the research to capture the students' perspectives and experiences following the autism awareness workshop in their school. Using thematic analysis, central themes and subthemes were identified. The themes related to peer dynamics, the impacts of the autism awareness workshop, feedback on the workshop, and their perceptions of inclusion in school. This study addresses a gap in the literature, however, also has limitations. They will be addressed in detail in the critical review paper, which will provide an extensive reflection on the implications of the findings on practice in educational psychology and on future research.

Chapter 4: Critical Review

4.1 Overview

This chapter provides a critical reflection on the research process. It begins by outlining the epistemological stance the researcher adopted and the implications this had on the methodology. The research's strengths and limitations will be critically appraised. Critical consideration of the research's distinctive contribution to educational psychology practice and research will also be outlined.

4.2 Research Paradigm

A paradigm is similar to the researcher's worldview and supported by philosophical assumptions which guide one's thoughts and actions (Mertens, 2010). The paradigm in which research is set requires meaningful consideration as it leads to methodological implications within the research process and influences the way a study is conducted (Kivunja & Kuyini, 2017). In the present study, the researcher's core belief system aligns with the constructivist paradigm. Within the constructivist paradigm, individuals have an active role in constructing their own beliefs of the world, and a definitive worldview is not reflected (Braun & Clarke, 2013; Mertens, 2010). According to this perspective, personal experiences and interactions with others underpin an individual's active creation of knowledge and understanding and researchers should try to understand participants lived social world (Braun & Clarke, 2013; Mertens, 2010). In this study, the research questions which sought to explore the impact of an autism awareness workshop on secondary school students, were grounded in a constructivist approach. It gathered detailed insights of autistic students' and their peers' perspectives and experiences of the impacts of the workshop, within a situated social context. When using the constructivist paradigm in a mixed methods research design, it allows the researcher to gain a more complete understanding of participant's experiences and perspectives and explores the complex interactions between participants and their social context (Berger & Luckmann,

1966). In line with Lincoln and Guba (2005), the four elements of a paradigm that are essential include ontology, epistemology, methodology and axiology.

4.2.1 Ontology

Ontology relates to beliefs about the nature of reality. The constructivist paradigm posits reality is constructed by individuals through their lived experiences, perceptions and interactions (Berger & Luckmann, 1966). This suggests reality is not a fixed construct, rather it is continuously reconstructed by individuals, where numerous mental constructions are understood, even if some are conflicting (Mertens, 2010). Such a position aligns with the views of the researcher, that an adolescent's understanding of autism is not fixed, but is socially constructed through interactions with autistic people and experiences they may have learning about autism. This ontological position allowed the explorative research to elicit participants socially constructed realities, ensuring participant's perspectives were articulated in relation to individual's experiences (Smith et al., 2009).

4.2.2 Epistemology

Epistemology refers to the relationship between the researcher and the research area. Constructivism maintains the researcher and the participants experience influences through engaging with each other (Mertens, 2010). Hence, the researcher becomes involved in the production of the results. As such, researcher reflexivity is essential because the beliefs a researcher holds could impact the findings that are produced (Braun & Clarke, 2013). Bracketing was utilised by the researcher to support reflective practice (Watts, 2014). The researcher used a research diary to set aside personal assumptions in relation to the research area. For example, the researcher set aside their personal philosophy towards inclusion and the dissonance as to whether autism classes are enablers of inclusion or segregation in mainstream schools (McKeon, 2021; Banks & McCoy, 2017). Setting aside the researchers own assumptions ensures potential areas for inquiry were not avoided in the interviews (Braun &

Clarke, 2013). The interviews with the young people were very insightful and the researcher's dedication to personal reflexivity was highlighted, as the findings challenged the researchers' previous assumptions around inclusion. The researcher gained a new understanding around inclusion with regards to peers. Inclusion is centred around autistic students' relationships with non-autistic peers and their autistic peers. They are all part of the school community and they all play a valuable role in autistic students' feelings of inclusion and belonging (See extract of the researcher's reflections in Appendix M).

4.2.3 Methodology

Methodology is concerned with the techniques used to conduct research. Although qualitative research is commonly associated with the constructivist paradigm, mixed methods that combines quantitative and qualitative approaches also aligns with the constructivist paradigm as it can produce a more comprehensive outlook of the research area (Creswell & Plano Clark, 2007). The constructivist paradigm posits knowledge is a social construct, so it is important that the researcher builds a good rapport with the participant in interviews (Mertens, 2010). Taking into consideration, the differences in communication that autistic individuals can experience, the semi-structured interviews were designed to incorporate a mixture of interview approaches, rather than relying on predominantly verbal communication and eye-contact as this could limit the opportunity to establish rapport between the young person and the researcher (Tyrell & Woods, 2020; Fayette & Bond, 2018) As such, the interview incorporated alternative methods of collecting information, including sorting card activities, tactile response activities that did not require verbal responses and opportunities to choose to express themselves through drawing, writing and/or talking. These multi-modal response activities reduced verbal demands and pressure to maintain eye-contact, thus enabling participants to feel comfortable during the interviews and aiding to build rapport (Tesfaye et al., 2019), in accordance with the constructivist methodology.

4.2.4 Axiology

Axiology is concerned with beliefs surrounding values and ethics in research. Within the constructivist paradigm, emphasis is placed on the significance of an individual's personal values and beliefs in influencing their worldview (Schwandt, 2001). Thus, an individual's values and beliefs play a central role in determining the way in which they interpret their experiences and construct their knowledge. Trustworthiness and authenticity are key factors of constructivist axiology to ensure participants perspectives are represented fairly (Mertens, 2010). The comprehensive thematic analysis adopted in this research encompassed a balanced representation of the perspectives of autistic students and their peers in relation to their perspectives on the impacts of the autism awareness workshop, and lack thereof in some cases. This study incorporated data collection, analysis and merging qualitative and quantitative data to address the research questions.

4.3 Limitations of the Current Research

This was a small-scale study, which corresponds to numerous limitations that will be discussed. A mixed-methods between-within design was adopted to facilitate the time constrains and the single-researcher aspect. As such, the results of this study cannot be generalised across other student populations who have participated in AsIAm's autism awareness workshop. The findings in this study relate only to the experiences of the students who participated in this research.

The small sample size is a limitation of the study (N=57), as it may not be representative of the broader population of secondary school students as only 1st and 2nd year students participated in the research. The sample of participants were drawn from one secondary school, which further hinders the relevance of the findings to a wider demographic. However, it is important to note that the aim of this research is not to gather information that could be generalised to all school contexts, but rather to garner an in-depth understanding of a specific

situation, which is listening to the perspectives of autistic students and their peers, regarding an autism awareness workshop in their school. All participants lived in the same geographical area as they attended the same school. Therefore, the sample of this study is not representative of all secondary schools or all secondary school students.

Additionally, an advertisement was placed online about the research project, by AsIAm, an autism charity in Ireland. Schools then expressed an interest in participating in the research. Although one school was randomly selected to participate in the research, it could be argued that schools that express an interest in an autism awareness intervention may potentially have an interest in promoting acceptance and understanding of autism in their school. Indeed, perhaps in the school in this study, the lead teacher's willingness to participate in the research project was influenced by their awareness of the inclusive practices embedded in their school.

Similarly, as participants were all from the same school, they may all share the same school inclusive ethos. Of note, many of the students in the interviews expressed that the students in this school were generally very kind and inclusive, prior to the research. However, these inferences cannot be confirmed as the study did not include a systematic analysis of the school's context with regards to inclusive school culture. In the directions for future research section below, a number of strategies are identified that could support future studies to gain an understanding of the culture of inclusion in the schools being researched. Semi-structured interviews with members of a senior management team could also provide rich insights into the inclusive nature of a secondary school as research has indicated correlations between school leaders and systemic inclusive attitudes in a school (Banks & McCoy, 2017). These contextual insights could support future researchers to understand the impact of the autism awareness intervention relative to the inclusive landscape of schools.

There were limitations to some of the measures used in this study. Two of the questionnaires used in the data collection were in relation to hypothetical autistic students

rather than targeting actual autistic students in their class (Adjective Checklist and the Shared Activities Questionnaire). This limits the applicability of the findings of these measures in relation attitudes and behavioural intentions towards actual autistic peers. However, during the interview peers of autistic students discussed their perceptions of changes in attitudes and behavioural intentions towards actual autistic peers. In general, the findings in the interviews were congruent with the questionnaire findings, which indicates that the intervention had a positive impact on student's attitudes and behavioural intentions towards their autistic peers. Further limitations lie with the Knowledge of Autism Questionnaire. Similar to the other studies that have used the Knowledge of Autism Questionnaire, this study also had a Cronbach's Alpha that was below the acceptable range of 0.7 (Campbell, 2007). A systematic literature review into questionnaires that measure individual's understanding of autism have found there is a lack of high-quality measures appropriate for the use with young people (Harrison the al., 2017). This is a limitation of the current study, hence it would be beneficial for future research to develop a higher-quality measure, as increasing student's knowledge of autism is a key aim in programmes that educate students about autism (Hume & Campbell, 2019; Ranson & Byrne, 2014). Furthermore, the results Knowledge of Autism Questionnaire were negatively skewed, thus violating one of the assumptions of normality required for a two-way mixed ANOVA. However, there was no non-parametric equivalent analysis that could be conducted on SPSS. Given the robustness of the ANOVA, it was decided to continue analysis with the two-way mixed ANOVA. However, the results of this measure should be interpreted with caution.

This research collected pre- and post- intervention quantitative data using questionnaires. Although 6-week follow-up data was collected through semi-structured interviews, it would have been beneficial to have additional data collection at 3-month and/or 6 month follow-ups to gauge and potential longer-term impacts of the autism awareness

workshop. This would be helpful to decipher if the short-term impacts of the workshop were maintained overtime or not.

The autistic students appeared very comfortable in the interviews and engaged very well in the interview. Some of the other students that participated in the interviews presented as a little bit nervous at the beginning. One nervous participant asked if a friend could join her for the interview. As this was not in the research design in the approved ethics application, the research design could not be deviated from. The researcher explained informed consent to the participant again and informed her that if for any reason she would not like to engage in the interview, that she did not have to participate in the research. This participant was happy to participate in the individual semi-structured interview, however, it raised the point that focus groups could have been a better methodology of eliciting information from peers of autistic students. The participant interaction and group dynamics can be a powerful way to understand concepts such as social relations and being in the presence of familiar people can promote the involvement of the participants (Krueger, 2014).

4.4 Strengths of the Current Research

The current study contributed to the current body of literature on the impacts of educating secondary school students about autism, listening to the voices of autistic students and their peers in this regard. In addition, this adds to the literature on the importance of promoting acceptance and inclusion of autistic students amongst the school community. This research highlights that this autism awareness workshop has increased autistic students and their peers' understanding of autism, as well as improving peers' attitudes and behavioural intentions towards autistic students.

The central reason for utilising a mixed methods design was to respond to the need for both depth and breadth when understanding of the impacts of the autism awareness workshop from the perspectives and experiences of autistic students and their peers. Given that the

literature in this field was limited, a need was recognised to collect quantitative findings to add to the small body of literature in secondary schools, as well as the crucial need to begin an in-depth understanding of the perspectives of autistic students and their peers pertaining to their experiences of learning about autism in school through qualitative approaches. The mixed methods approach enabled rich information to be gathered from both questionnaires and semi-structured interviews. For this reason, a mixed-methods design was selected as the most appropriate approach to address the research questions. Having a sufficient rationale for employing a mixed-methods design is an important component in the quality criterion of a research design (Hong et al., 2018). In addition, the congruence between qualitative and quantitative data, strengthened the reliability of the findings of this research.

This research is unique in the Irish context. In light of the increasing emphasis being placed on promoting whole school inclusion in the Irish schools, which involves supporting understanding and acceptance of autism amongst school students (DoE, 2022). As such, this research could be considered as a helpful resource in informing the implementation of the autism awareness workshop in secondary schools. Furthermore, the autism awareness workshop is time efficient and reduces the pressure on teachers to know how to deliver the workshop, as it is delivered by a member of AsIAm, Ireland's Autism Charity. As the same person delivers this intervention to each school, this ensures it is delivered with fidelity. However, it is important to note this also limits the number of students and schools this intervention can be delivered to. The cost of the intervention could also be a barrier to schools accessing the intervention.

4.5 Unique Contribution of this Research

This study offers a contemporary insight into the perspectives of autistic young people and their peers who attended an autism awareness workshop in their secondary school. Other research projects on this topic collected quantitative data from peers of autistic students

(Tonnsen & Hahn, 2016; Fleva 2015; Fleva, 2014; Ranson & Byrne, 2014; Staniland & Byrne, 2013; Campbell, 2007). Given that great value is currently being placed on listening to the voices of young people, in matters that relate to their education, it is crucial that autistic students and their peers are given the opportunity to share their perspectives to understand the impacts of such interventions in a real-life context.

The current research garnered rich insights from the young people at the heart of the intervention. In particular, this research gives voice to autistic young people and their peers currently attending secondary school. This research validates and empowers autistic young people by acknowledging their perspectives, experiences, fears and concerns, as it pertains to peer relations and the impacts of their peers learning about autism.

This study identified that autistic students thought it very positive that their peers got the opportunity to learn about autism because they felt more understood, and they felt it reduced stereotypes and stigma students may have held about autism. Similarly, the peers of autistic students were glad to have the opportunity to learn about autism because it helped them to gain a better understanding of autism and they had more empathy towards their autistic peers, feeling less judgemental and more accepting.

This study is the first to offer autistic students the option to attend an autism awareness intervention in their school. Autistic students found that their knowledge about autism increased, they reported they understood themselves better after the intervention and that it felt good to know there are others like who have similar experiences to them. For the autistic students who attended this workshop, there was a sense of validation, potentially because the autism awareness workshop was delivered using a neuro-affirmative approach. Such a strengths-based and understanding outlook towards autism, supports autistic individuals to develop a positive autistic identity, feel accepted and is corelated with better mental health outcomes for autistic individuals (McConachie et al., 2020; Cage et al., 2018; De Paz et al.,

2018). This indicates that the workshop was not only beneficial for peers, but it also enhanced autistic student's understanding of autism and strengthened their sense of self.

This research highlighted that an autistic person's sense of social and emotional inclusion is not limited to their interactions with their non-autistic peers. In the interviews, the autistic students recognised that their relationships and interactions with autistic peers and non-autistic peers contributed to their sense of belonging in school, by supporting them to feel included, understood, accepted and validated. The autism class seemed to be a central hub where autistic students met up in this school. Each of the autistic students discussed how easy it is to relate their autistic friends. One autistic young person who, spent all his school day in the autism class reported feeling included and welcome in the school and he enjoyed spending the day with his autistic friends "the lads", in the autism class. The autism class was highlighted as a valuable part of the school system for supporting students' emotional needs as well as building a sense of connection and community for the autistic students in this school.

This research identified that students believed the whole school community had a role in promoting acceptance and inclusion for autistic students. They noted it is imperative that teachers included autistic students as part of their job, and peers also play and important role in including autistic students as they spend a great deal of time together during the school day and outside of school. While learning about autism was seen as valuable by both autistic students and their peers, they also recognised the importance of learning more about the additional needs and identities of people in their school community to create inclusion for all. The guidelines for using the SETAM policy provide school with the autonomy and flexibility to create an inclusive school environment for all students (DoE, 2022).

During the semi-structured interviews, strategies such as the beans and cups, diamond ranking and good classmate activities were utilised to conceptualise inclusion from the perspectives of autistic students. They described inclusion from peers as being treated with

basic human respect, being understood on a personal level, not being bullied, being mindful of their differences and engaging with them during activities. While the autism awareness workshop supported some of these concepts of inclusion, it did not appear to significantly impact on students' real-life levels of engagement with autistic students. While the autism awareness workshop highlighted increases in student's desire to interact with autistic students, actual changes were not consistently reported. Of note, students did report that the workshop supported students to feel comfortable and open talking about autism in school and it became more normalised in the school environment. One student articulated that while talks help them to concepts such as autism better, there still needs to be a focus on inclusion in the day-to-day activities in their school life.

4.6 Implications and Recommendations for Policy and Practice

4.6.1 Systemic Ethos of Inclusion

- EPs are uniquely positioned to support schools at a systemic level, which can include building school's capacity to adopt a whole school approach to promote inclusion for all (DoE & National Educational Psychology Service [NEPS], 2007). This research emphasises the significance of fostering a whole-school inclusive ethos to minimise negative biases associated with difference and support understanding and acceptance of diversity. Educating students about autism was a positive experience for both autistic students and their peers as they all reported having a better understanding of autism following the intervention. Informing schools about this autism awareness workshop is one way in which EPs can support schools in creating an inclusive school culture, particularly for autistic students.
- Autistic students noted that inclusion starts with the teachers. EPs play a role in building schools and teachers' capacity to support autistic students. Ensuring teachers are educated about autism was highlighted as an important foundation to ensure autistic

students are supported appropriately in the classroom and to foster an inclusive school culture within the classroom and school. Based on the findings of this study, EPs can support teachers to understand the needs of autistic students and how teachers can accommodate not only their academic inclusion, but also the social and emotional inclusion of autistic students in school.

- In line with Ireland's Vision for Change Policy, initiatives that educate people about vulnerable population are important in reducing discrimination and stigma (Department of Health and Children, 2006). The autism awareness workshop aligns with the goals of this policy as it created openness to talk about autism in school and fostered greater compassion and understanding amongst students. Students in this study appreciated the positive language that was used when explaining autism. EPs can educate teachers about the neuro-affirmative language they can use when talking about autism from a strengths-based perspective in the classroom.

4.6.2 Student's Recommendations for Implementing the Autism Awareness Workshop

- It is important to note that AsIAm's Autism Awareness Workshop is not evidence-based. This study is not evaluating or recommending this workshop, as this is a small-scale study, therefore the results are not generalisable and relate only to the school in which the research was conducted. It is important to highlight potential governance issues that may be associated with rolling out this programme and the potential ethical implications that need to be considered around the delivery of such a programme. For example, there could be ethical implications for students who have not been told they are autistic, unidentified students who are autistic and autistic students who may be experiencing bullying in school. This research only explores student's experiences of the Autism Awareness Workshop in one specific school setting, thus, the following

suggestions were made by the students who attended the workshop and participated in the research.

- Schools should check with autistic students if they would like their classmates to learn about autism and whether or not autistic individuals would like to attend a workshop with their peers. The autistic students in this study were aware of their autism diagnosis, however, if a young person was not aware of their diagnosis, schools should take care with such situations. Consultation with parents regarding this would also be beneficial.
- Autistic students also cautioned that an autism awareness intervention should not be implemented with the aim of stopping bullying. Bullying is a very sensitive and serious matter that schools should follow their bullying policy to address.
- Students liked the neuro-affirmative approach it adopted when talking about autism, as it explained differences some autistic people experience and explored the strengths autistic individuals can have. However, incorporating both person-first and identity-first language could be more representative of the preferences of individuals on the autism spectrum.
- The students indicated it would be beneficial to have an in-person autistic guest speakers or their relatives at the Autism Awareness Workshop (rather than online video clips of autistic adults), as peers valued learning about and understanding personal stories from autistic individuals.

4.6.3 Supporting an Inclusive Culture Amongst Peers

- The autism awareness workshop supported students to gain a greater understanding of autism, have more positive attitudes and less judgement towards autistic peers and increased their intentions in interacting with autistic peers. This workshop was created by AsIAm, an autism charity in Ireland. EPs could guide schools to link with

organisations in the community with specialist knowledge, that could support the school to foster an inclusive culture.

- As students were more open to interacting with autistic peers following the workshop, this creates an opportunity for schools to intentionally plan shared activities between autistic students and their peers that support inclusion. Although peers had a better understanding of autism, they still expressed a hesitation in initiating more inclusive interactions with autistic students. This highlights the need for teachers to facilitate the initiation of inclusive interactions and explicitly support meaningful social experiences between autistic students and their peers. Under the new SETAM, schools now have the autonomy to allocate time for special education teachers to support the inclusion of students through meaningful social activities (DoE, 2017). EPs are uniquely positioned to guide schools in the embedding inclusive activities for autistic students and their peers into their school systems, such as shared interest lunchtime clubs, as outlined in the Autism Good Practice Guidance for Schools (DoE, 2022).

4.6.4 Supporting Companionship between Autistic Students

- Having time and space for autistic students to connect with one another also was highly valued by autistic students as it supported their feelings of belonging and understanding in school. EPs can support schools to create intentional opportunities for autistic students to engage in activities together. In this study, the autism class seemed to be a hub for autistic students to meet. Although only one of the autistic students interviewed was enrolled in the autism class, all of the autistic students had spent time connecting with other autistic students in that setting and they all regarded it as a positive space they enjoyed visiting. The DoE announced in a recent Oireachtas Report, that the number of new special classes opening in Irish secondary schools is due to double from 2023-2026, compared to the last three years (DoE, 2023). Of note, not all autistic

students are enrolled in autism classes, thus EPs could support schools to explore how autism classes could be used to support all autistic students in a school system, to get an opportunity to connect with one another, to support their feelings of inclusion, validation and sense of belonging.

- The Inclusion Policy and or SEN Policy in schools could include an explicit section on activities that are intentionally organised in the school to give autistic students the opportunities to experience successful social inclusion with their non-autistic peers and their autistic peers. This would ensure staff have a shared understanding of their responsibilities to support the inclusion of autistic students in the school, in line with best practice guidelines (NCSE, 2016). Additionally, under the SETAM policy, schools have been granted autonomy to create an inclusive school environment for all students and supporting the social and emotional inclusion of autistic students (DoE, 2017).

4.6.5 Listening to the Voices of Students

- According to the 2015-2020 National Strategy on Children and Young People's Participation in Decision Making, it is advocated that students are listened to in matters that impact their everyday lives, such as their educational experiences (Department of Children and Youth Affairs, 2015). In accordance with best practice, schools should consult with the young person as part of the process in creating a student support plan (DoE, 2010). Similarly, when EPs support a young person, it is a core professional competency to meaningfully include them in the decision-making process (British Psychological Society, 2019). EPs could use sorting activities, such as the ones used in this study to meaningfully elicit the young persons' voice and involve them in decision making. The diamond ranking, the bean and cup, good classmate activities and use of follow up probes, allowed for rich information to be elicited from the autistic students in this research and previous research (Goodall, 2018).

- Within the Irish landscape, EPs are encouraged to use their resources to empower key adults in the young person's life, such as the parents and teachers, rather than engaging in extensive 1-to-1 direct intervention with the young person (Health Service Executive [HSE], 2020). For example, in NEPS, psychologists are encouraged to work in a consultative model with the parents and teachers (DoE, 2007), while in the Child Network Disability Teams, psychologists are recommended to work with parents as they are the experts on the child (HSE, 2020). The current research findings highlight that the young person is indeed an expert on themselves. This emphasises the importance of the role of the EP to ensure the voice of the young person is central to their professional practice. The semi-structured interview activities could provide EPs with accessible ways of including the young person in information gathering, decision-making and ensuring they have a say in matters that impact their everyday life.

4.7 Directions for Future Research

- This research project had a small sample from the same geographical area, in one mainstream secondary school that had two autism classes. Future research of this autism awareness workshop could be extended to larger and more diverse samples. Such as, different geographical areas and different types of secondary schools (DEIS non-DEIS, urban, rural, with autism classes, without autism classes. This would provide an opportunity to explore the impact of the autism awareness workshop in a broader range of schools.
- The students interviewed in this study felt that there was an inclusive culture in their school prior to the research being conducted. While their descriptions of the inclusive culture in the school is helpful, these inferences cannot be confirmed as the study did not include a systematic analysis of the school's context with regards to inclusive school culture. This highlights the importance of understanding the impacts of the autism

awareness intervention in relation to a school's inclusive culture. Future research could include a systematic analysis of a school's inclusive ethos, practice and culture, through analysis of the Middletown Framework for Inclusion, the DoE Inspectorate or school self-evaluation reports (Daly et al., 2016; DoE Inspectorate, 2016). This could have facilitated richer insight into the context of the school in which the research findings could have been situated.

- The autism awareness intervention was delivered to 1st and 2nd year students as it was designed for the junior cycle cohort (1st – 3rd year). Future research could explore the impacts of the autism awareness workshop across differing year groups in secondary school.
- The students in this research agreed more students should learn about autism, but they had widely varying perspectives on the age this should be. Future research could explore if there is a most appropriate age for individuals in educational setting to learn about autism.
- Each of the students interviewed found it helpful to learn more about autism and expressed a desire to learn more about a range of additional needs and identities. Future research could compare the impact of an autism awareness workshop and a more universal intervention that promotes acceptance of all differences.

Chapter 5: Impact Statement

This research sought to explore the impacts of educating secondary school students about autism. Through the implementation of a mixed-methods approach, the research captured the impacts of an autism awareness workshop involving 57 secondary school students. The voices of four autistic students and 4 of their peers emerged through the semi-structured interviews, as they shared their perspectives on the impacts of the workshop in relation to their understanding of autism, peers' attitudes and behavioural intentions towards autistic students, as well as the students' perspectives of inclusion in school. This study also identifies cautions and limitations from the students' perspectives when it comes to delivering an autism awareness intervention in school. The accounts of the autistic students and their peers on educating students about autism can offer organisations, policy makers, EPs and schools with an insight into how to design and deliver programmes and information in a manner that promotes acceptance of autism and benefits autistic students and their peers. The findings and rich insights garnered from this research have implications across policy, practice and future research.

These findings contribute to the limited literature base on the impacts of autism awareness interventions in secondary schools. In addition, the research endeavoured to address the need to listen to the voices of autistic students on their perspectives of implementing an intervention in school that educates students about autism. This study also answered the call to gain an understanding of peers' attitudes and perspectives of autism in their school (Ryan, 2021). The originality of the research is another distinctive contribution to this field. This is the first study to examine the impact of an autism awareness intervention in a school, that includes qualitative and quantitative approaches and includes the voices of autistic students and their peers.

It is envisioned that the findings of this study can make an impact through dissemination in the field of Educational and Child Psychology. Preliminary findings of this research project were presented at the annual Psychological Society of Ireland Conference in 2022. It is envisioned the overall findings of this research project would be presented at the 2023 conference. The findings and insights will also be presented to Trainee Educational and Child Psychologists in Mary Immaculate College, and the Doctorate in Educational and Child Psychology Team in the 2023 Research Summer School. In addition, for EPs to support schools effectively, the findings and recommendations of the current study need to be shared with a wider audience. The researcher plans to submit the empirical paper in this thesis for publication in a peer-reviewed academic journal to enable greater impact from this thesis. The findings of this research will also be shared on the Teachers Research Exchange platform.

This research has come about at an opportune time in Ireland because the DoE recently published its first document recommending that students are educated about autism in school, to promote a culture of acceptance and understanding throughout the school community (DoE, 2022). This research provides complimentary and in-depth perspectives of autistic students and their peers in relation to learning about autism in secondary school. It is hoped that this research contributes to the promotion of acceptance of difference in schools.

References

Ainscow, M., & Booth, T. (Eds.). (2005). *From them to us: An international study of inclusion in education.* Routledge.

Ainscow, M., & Sandill, A. (2010). Developing inclusive education systems: The role of organisational cultures and leadership. *International Journal of Inclusive Education,* 14(4), 401-416.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Alkhaldi, R. S., Sheppard, E., & Mitchell, P. (2019). Is there a link between autistic people being perceived unfavorably and having a mind that is difficult to read? *Journal of Autism Development Disorder*, 49(10), 3973–3982.

Allen, K. A., Boyle, C., Wong, D., Johnson, R. G., & May, F. (2023). School belonging as an essential component of positive psychology in schools. In *Applied Positive School Psychology* (pp. 159-172). Routledge.

Almalki, S. (2016). Integrating Quantitative and Qualitative Data in Mixed Methods Research--Challenges and Benefits. *Journal of Education and Learning*, *5*(3), 288-296.

Anderson, L. (2020). Schooling for pupils with autism spectrum disorder: Parents' perspectives. *Journal of Autism and Developmental Disorders*, *50*(12), 4356-4366.

Azorín, C., & Ainscow, M. (2020). Guiding schools on their journey towards inclusion. *International Journal of Inclusive Education*, *24*(1), 58-76

Balaz, L., Byrne, M. K., & Miellet, S. (2020). "Understanding Our Peers": A Naturalistic Program to Facilitate Social Inclusion for Children with Autism in Mainstream Early Childhood Services. *International Journal of Disability, Development and Education*, 1-18.

Banks, J., & McCoy, S. (2017). An Irish solution…? Questioning the expansion of special classes in an era of inclusive education. *The Economic and Social Review*, *48*(4, Winter), 441-461.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*(3), 497.

Bauminger, N., Shulman, C., & Agam, G. (2003). Peer interaction and loneliness in high-functioning children with autism. *Journal of Autism and Developmental Disorders*, *33*(5), 489-507.

Bellini, S. (2006). "The Development of Social Anxiety in Adolescents with Autism Spectrum Disorders." *Focus on Autism and Other Developmental Disabilities* 21: 138–145.

Bellini, S., Peters, J. K., Benner, L., & Hopf, A. (2007). A meta-analysis of school-based social skills interventions for children with autism spectrum disorders. *Remedial and Special Education*, *28*(3), 153-162.

Birnschein, A. M., Paisley, C. A., & Tomeny, T. S. (2021). Enhancing social interactions for youth with autism spectrum disorder through training programs for typically developing peers: A systematic review. *Research in Autism Spectrum Disorders*, *84*, 101784.

Bond, C., Symes, W., Hebron, J., Humphrey, N., Morewood, G., & Woods, K. (2016). Educational interventions for children with ASD: A systematic literature review 2008–2013. *School Psychology International*, *37*(3), 303-320.

Borovicka, T., Jirina Jr, M., Kordik, P., & Jirina, M. (2012). Selecting representative data sets. *Advances in data mining knowledge discovery and applications*, 43-70.

Bottema-Beutel, K., Park, H., & Kim, S. Y. (2018). Commentary on social skills training curricula for individuals with ASD: Social interaction, authenticity, and stigma. *Journal of Autism and Developmental Disorders*, 48(3), 953–964.

Boyd, B. A., & Shaw, E. (2010). Autism in the classroom: A group of students changing in population and presentation. *Preventing School Failure: Alternative Education for Children and Youth*, *54*(4), 211-219.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Braun, V., & Clarke, V. (2013). Successful qualitative research: A practical guide for beginners. *Successful qualitative research*, 1-400.

Braund, H., & DeLuca, C. (2018). Elementary students as active agents in their learning: an empirical study of the connections between assessment practices and student metacognition. *The Australian Educational Researcher*, *45*, 65-85.

Bronfenbrenner, U. (1979). *The Ecology of Human Development*. Harvard University Press.

Bronfenbrenner, U., & Morris, P. A. (2006). *The Bioecological Model of Human Development.* In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (p. 793–828). John Wiley & Sons Inc.

Browning, J., Osborne, L. A., & Reed, P. (2009). Research section: A qualitative comparison of perceived stress and coping in adolescents with and without autistic spectrum disorders as they approach leaving school. *British Journal of Special Education*, *36*(1), 36-43.

Cage, E., & Troxell-Whitman, Z. (2019). Understanding the reasons, contexts and costs of camouflaging for autistic adults. *Journal of Autism and Developmental Disorders*, *49*(5), 1899-1911.

Cage, E., Di Monaco, J., & Newell, V. (2018). Experiences of autism acceptance and mental health in autistic adults. *Journal of Autism and Developmental Disorders*, **48**, 473–484.

Calder, L., Hill, V., & Pellicano, E. (2013). 'Sometimes I want to play by myself': Understanding what friendship means to children with autism in mainstream primary schools. *Autism*, *17*(3), 296-316.

Campbell, J. (2007). Middle school students' response to the self-introduction of a student with autism: Effects of perceived similarity, prior awareness, and educational message. *Remedial and Special Education*, 28, 163–173. doi: 10.1177/07419325070280030501

Campbell, J., & Barger, B. (2014). Peers' knowledge about and attitudes towards students with autism Spectrum disorders. In V. B. Patel, V. R. Preedy, & C. R. Martin (Eds.), *Comprehensive guide to autism* (pp. 247–261). New York, NY: Springer New York.

Campbell, J., Ferguson, J., Herzinger, C., Jackson, J., & Marino, C. (2004). Combined descriptive and explanatory information improves peers' perceptions of autism. *Research in Developmental Disabilities*, *25*, 321-339. doi: 10.1016/j.ridd.2004.01.005

Chan, F., McMahon, B. T., Cheing, G., Rosenthal, D. A., & Bezyak, J. (2005). Drivers of workplace discrimination against people with disabilities: The utility of attribution theory. *Work*, *25*(1), 77-88.

Charlton, J. I. (1998). *Nothing about us without us: Disability oppression and empowerment*. Univ of California Press.

Chien, Y. L., Tsai, W. C., Chen, W. H., Yang, C. L., Gau, S. S. F., Soong, W. T., ... & Chiu, Y. N. (2021). Effectiveness, durability, and clinical correlates of the PEERS social skills intervention in young adults with autism spectrum disorder: The first evidence outside North America. *Psychological Medicine*, *53*(3), 966-976.

Clarke, V., & Braun, V. (2021). Thematic analysis: A practical guide. *Thematic Analysis*. Sage Publications.

Coffey, A. (2013) Relationships: the key to successful transition from primary to secondary school? *Improving Schools* 16(3): 261–271.

Connelly, L. M. (2008). Pilot studies. *Medsurg nursing*, *17*(6), 411.

Cope, R., & Remington, A. (2022). The strengths and abilities of autistic people in the workplace. *Autism in Adulthood*, *4*(1), 22-31.

Corbett, J., & Slee, R. (2016). An international conversation on inclusive education. In *Inclusive education* (pp. 133-146). Routledge.

Corrigan, P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Science and Practice*, 7(1), 48-67.

Corrigan, P., Markowitz, F. E., Watson, A., Rowan, D., & Kubiak, M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of health and Social Behavior*, 162-179.

Crane, L., Sesterka, A., & den Houting, J. (2021). Inclusion and rigor in qualitative autism research: A response to Van Schalkwyk and Dewinter (2020). *Journal of Autism and Developmental Disorders*, *51*, 1802-1804.

Cremin, K., Healy, O., Spirtos, M., & Quinn, S. (2020). Autism Awareness Interventions for Children and Adolescents: a Scoping Review. *Journal of Developmental and Physical Disabilities,* 1-24.

Creswell, J. W. (2013). *Research Design (International Student Edition): Qualitative, Quantitative, and Mixed Methods Approaches*: Sage Publications

Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Sage publications.

Crompton, C. J., Hallett, S., Axbey, H., McAuliffe, C., & Cebula, K. (2022). 'Someone like-minded in a big place': Autistic young adults' attitudes towards autistic peer support in mainstream education. *Autism*, 13623613221081189.

Da Paz, N.S., Siegel, B., Coccia, M.A., & Epel, E.S. (2018). Acceptance or despair? Maternal adjustment to having a child diagnosed with autism. *Journal of Autism and Developmental Disorders*, **48**, 1971–1981.

Daly, P., Ring, E., Egan, M., Fitzgerald, J., Griffin, C., Long, S., McCarthy, E., Moloney, M., O'Brien, T., O'Byrne, A., O'Sullivan, S., Ryan, M., Wall, E., Madden, R. and Gibbons, S. (2016). *An Evaluation of Education Provision for Children with Autism in Ireland.* Trim: National Council for Special Education.

Daniel, L. S., & Billingsley, B. S. (2010). What boys with an autism spectrum disorder say about establishing and maintaining friendships. *Focus on Autism and Other Developmental Disabilities*, *25*(4), 220-229.

Dean, M., Kasari, C., Shih, W., Frankel, F., Whitney, R., Landa, R., ... & Harwood, R. (2014). The peer relationships of girls with ASD at school: comparison to boys and girls with and without ASD. *Journal of Child Psychology and Psychiatry*, *55*(11), 1218-1225.

Deckers, A., Muris, P., & Roelofs, J. (2017). Being on your own or feeling lonely? Loneliness and other social variables in youths with autism spectrum disorders. *Child Psychiatry & Human Development*, *48*(5), 828-839.

Department of Children and Youth Affairs. (2015). *National strategy on children and young people's participation in decision-making 2015–2020.* Dublin: Stationery Office.

Department of Education & Skills Inspectorate (2016). *School self-evaluation guidelines 2016-2020: Primary.* Dublin: Stationary Office.

Department of Education and Science (2001). *Educational Provision and Support for Persons with Autistic Spectrum Disorders: the Report of the Task Force on Autism.* Dublin: Stationary Office.

Department of Education and Science & National Educational Psychology Service (2007). *Special Educational Needs: A Continuum of Support*. Dublin: Stationary Office.

Department of Education and Skills (2017). *Circular 0013/2017: Circular to the Management Authorities of all Mainstream Primary Schools Special Education Teaching Allocation*. Dublin: Stationary Office.

Department of Education and Skills (2017). *Special Education Teaching Allocation.* Dublin: Stationery Office. Circulars Special Education (0014/2017 and 0013/2017).

Department of Education and Skills (2018). *Wellbeing Policy Statement and Framework for Practice*. Dublin: Stationary Office.

Department of Education and Skills (2018a). Leadership and Management in Post Primary Schools. Dublin: Stationary Office. *Circular Letter 0003/2018.*

Department of Education and Skills (2018). Leadership and Management in Primary Schools. Dublin: Stationary Office. *Circular Letter 0070/2018.*

Department of Education (2022). *Autism Good Practice Guidance for Schools.* Dublin: Stationary Office.

Department of Education (2023). *Oireachtas Report on Tuesday 7th of March, Answer to Question 399.* Dublin: Oireachtas. Available at: https://www.oireachtas.ie/en/debates/question/2023-03-07/399/#pq-answers-399.

Department of Education and Skills Inspectorate (2006). *An Evaluation of Educational Provision for Children with Autistic Spectrum Disorders.* Dublin: Stationary Office.

Department of Education and Skills Inspectorate (2016a). *Looking at Our Schools 2016: A Quality Framework for Post-Primary Schools.* Dublin: Stationary Office.

Department of Education and Skills Inspectorate (2016b). *Looking at Our Schools 2016: A Quality Framework for Primary Schools.* Dublin: Stationary Office.

Department of Education and Skills Inspectorate (2020). *Educational Provision for Students with Autism Spectrum Disorder in Special Classes Attached to Mainstream Schools in Ireland.* Dublin: Stationary Office.

Department of Health and Children (2006). *A Vision for Change. Report of the Expert Group on Mental Health Policy.* Stationery Office, Dublin.

Dijker, A. J., & Koomen, W. (2003). Extending Weiner's attribution-emotion model of stigmatization of ill persons. *Basic and applied social psychology*, *25*(1), 51-68.

Eisenhart, M. (1991). Conceptual frameworks for research circa 1991: Ideas from a cultural anthropologist; implications for mathematics education rese.

Elkins, J., Van Kraayenoord, C. E., & Jobling, A. (2003). Parents' attitudes to inclusion of their children with special needs. *Journal of Research in Special Educational Needs,* 3(2), 122–129.

Fayette, R., & Bond, C. (2018). A systematic literature review of qualitative research methods for eliciting the views of young people with ASD about their educational experiences. *European Journal of Special Needs Education*, *33*(3), 349-365.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. sage.

Finke, E. H. (2016). Friendship: Operationalizing the intangible to improve friendship-based outcomes for individuals with autism spectrum disorder. *American Journal of Speech-Language Pathology*, *25*(4), 654-663.

Fitzgerald, J., Ambrose, L., O Mhurchu,F., O'Keeffe, E. (in press). AsIAm autism friendly schools initiative, insights from participating schools: emerging findings from phase 1. *Good Practice Autism.*

Fleming. D. (2019). The Motivation for Student Voice in Irish Post-Primary Schools: a challenge in a challenging educational landscape, *ETBI Educational Journal,* 1 (1), 25-36.

Fletcher-Watson, S., Adams, J., Brook, K., Charman, T., Crane, L., Cusack, J., ... & Pellicano, E. (2019). Making the future together: Shaping autism research through meaningful participation. *Autism*, *23*(4), 943-953.

Fleva, E. (2014). Attitudes and behavioural intentions of typically developing adolescents towards a hypothetical peer with asperger syndrome. *World Journal of Education*, *4*, 54–65.

Fleva, E. (2015). Imagined contact improves intentions towards a hypothetical peer with asperger syndrome but not attitudes towards peers with asperger syndrome in general. *World Journal of Education*, *5*, 1–12.

Fondelli, T., & Rober, P. (2017). 'He also has the right to be who he is…'. An exploration of how young people socially represent autism. *International Journal of Inclusive Education*, *21*(7), 701-713.

Freitag, S., & Dunsmuir, S. (2015). The inclusion of children with ASD: Using the theory of planned behaviour as a theoretical framework to explore peer attitudes. *International Journal of Disability, Development and Education*, *62*(4), 405-421.

Gardiner, E., & Iarocci, G. (2014). Students with autism spectrum disorder in the university context: Peer acceptance predicts intention to volunteer. *Journal of autism and developmental disorders*, *44*(5), 1008-1017.

Gates, J. A., Kang, E., & Lerner, M. D. (2017). Efficacy of group social skills interventions for youth with autism spectrum disorder: A systematic review and meta-analysis. *Clinical Psychology Review*, *52*, 164-181.

Gere, J., & MacDonald, G. (2010). An update of the empirical case for the need to belong. *Journal of individual psychology*, *66*(1), 93-115.

Gernsbacher, M. A., & Yergeau, M. (2019). Empirical failures of the claim that autistic people lack a theory of mind. *Archives of scientific psychology*, *7*(1), 102.

Gersten, R., Fuchs, S., Compton, D., Coyne, M., Greenwood, C., & Innocenti, M. (2005). Quality indicators for group experimental and quasi-experimental research in special education. *Exceptional Children*, 71(2), 149–164.

Gibb, K., Tunbridge, D., Chua, A., & Frederickson, N. (2007). Pathways to inclusion: Moving from special school to mainstream. *Educational Psychology in Practice*, *23*(2), 109-127.

Gillespie-Lynch, K., Brooks, P. J., Someki, F., Obeid, R., Shane-Simpson, C., Kapp, S. K., Daou, N., & Smith, D. S. (2015). Changing college students' conceptions of autism: An online training to increase knowledge and decrease stigma. *Journal of Autism and Developmental Disorders,* 45(8), 2553–2566. https://doi.org/10.1007/s10803-015-2422-9.

Gonyea, N. E., & Gangi, J. M. (2012). Reining in student comments: a model for categorising and studying online student comments. *Assessment & Evaluation in Higher Education*, *37*(1), 45-55.

Goodall, C. (2020) Inclusion is a feeling, not a place: a qualitative study exploring autistic young people's conceptualisations of inclusion, *International Journal of Inclusive Education*, 24:12, 1285-1310, DOI: 10.1080/13603116.2018.1523475

Gough, D. (2007). Weight of evidence: a framework for the appraisal of the quality and relevance of evidence. *Research papers in education*, *22*(2), 213-228.

Government of Ireland (2004). *Education for Persons with Special Educational Needs (EPSEN) Act.* Dublin, Ireland: The Stationery Office.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Towards a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation and Policy Analysis*, *11*(3), 255-274. http://dx.doi.org/10.3102/01623737011003255

Greenland, S., Senn, S. J., Rothman, K. J., Carlin, J. B., Poole, C., Goodman, S. N., & Altman, D. G. (2016). Statistical tests, P values, confidence intervals, and power: a guide to misinterpretations. *European journal of epidemiology*, *31*, 337-350.

Guralnick, M. J., Neville, B., Hammond, M. A., & Connor, R. T. (2007). The friendships of young children with developmental delays: A longitudinal analysis. *Journal of Applied Developmental Psychology*, *28*(1), 64-79.

Haegele, J. A., & Maher, A. J. (2022). Male autistic youth experiences of belonging in integrated physical education. *Autism*, *26*(1), 51-61.

Hagerty, B. M., Lynch-Sauer, J., Patusky, K. L., Bouwsema, M., & Collier, P. (1992). Sense of 'belonging': A vital mental health concept. *Archives of Psychiatric Nursing*, *6*(3), 172-177.

Hagerty, B. M., Williams, R. A., Coyne, J. C., & Early, M. R. (1996). Sense of belonging and indicators of social and psychological functioning. *Archives of psychiatric nursing*, *10*(4), 235-244.

Hallorhan, P., Price, C., Tucker, B., & Davis, M. (2014). Notion of quality: student perceptions of what needs improvement. In *Higher Education Research and Development Society of Australasia Annual Conference 2014* (pp. 147-160). Higher Education Research and Development Society of Australasia.

Harris, A. (2018). Foreword in *Autism from the inside out: Signposts for parents, early childhood, primary, post-primary and special school settings*, xiii-xvi, edited by E. Ring, P. Daly, and E. Wall, Oxford: Peter Lang.

Health Service Executive (2020). *Progressing Towards Outcomes-Focused Family- Centred Practice – An Operational Framework.* Stationary Office: Dublin.

Heasman, B., & Gillespie, A. (2018). Perspective-taking is two-sided: Misunderstandings between people with Asperger's syndrome and their family members. *Autism,* 22(6), 740-750.

Hebron, J., Humphrey, N., & Oldfield, J. (2015). Vulnerability to bullying of children with autism spectrum conditions in mainstream education: A multi-informant qualitative exploration. *Journal of Research in Special Educational Needs.* https://doi.org/10.1111/1471-3802.12108.

Hirose, M., & Creswell, J. W. (2023). Applying core quality criteria of mixed methods research to an empirical study. *Journal of Mixed Methods Research*, *17*(1), 12-28.

Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., ... & Pluye, P. (2018). The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. *Education for information*, *34*(4), 285-291.

Hong, S. Y., Kwon, K. A., & Jeon, H. J. (2014). Children's attitudes towards peers with disabilities: Associations with personal and parental factors. *Infant and Child Development*, *23*(2), 170-193.

Hull, L., Petrides, K. V., Allison, C., Smith, P., Baron-Cohen, S., Lai, M. C., & Mandy, W. (2017). 'Putting on my best normal': Social camouflaging in adults with autism spectrum conditions. *Journal of Autism and Developmental Disorders,* 47(8), 2519–2534.

Hume, K., & Campbell, J. M. (2019). Peer Interventions for Students With Autism Spectrum Disorder in School Settings: Introduction to the Special Issue. *School Psychology Review*, 48(2), 115-122.

Humphrey, N., & Symes, W. (2011). Peer interaction patterns among adolescents with autistic spectrum disorders (ASDs) in mainstream school settings. *Autism,* 15(4), 397–419. https://doi.org/10.1177 /1362361310387804.

Humphrey, N., and G. Parkinson. (2006). "Research on Interventions for Children and Young People on the Autistic Spectrum: A Critical Perspective." Journal of Research in Special Educational Needs 6 (2): 76–86.

Izuno-Garcia, A. K., McNeel, M. M., & Fein, R. H. (2023). Neurodiversity in Promoting the Well-Being of Children on the Autism Spectrum. *Child Care in Practice*, *29*(1), 54-67.

Jones, D. R., DeBrabander, K. M., & Sasson, N. J. (2021). Effects of autism acceptance training on explicit and implicit biases toward autism. *Autism*, *25*(5), 1246-1261.

Kapp, S. (2019). How social deficit models exacerbate the medical model: Autism as case in point. *Autism Policy & Practice*, *2*(1), 3-28.

Kapp, S. K., Gillespie-Lynch, K., Sherman, L. E., & Hutman, T. (2013). Deficit, difference, or both? Autism and neurodiversity. *Developmental psychology*, *49*(1), 59.

Karoff, M., Tucker, A. R., Alvarez, T., & Kovacs, P. (2017). Infusing a peer-to-peer support program with adventure therapy for adolescent students with autism spectrum disorder. *Journal of Experiential Education*, *40*, 394-408. doi: 10.1177/1053825917727551

Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, *20*(4), 442-462.

Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The effect of the school environment on the emotional health of adolescents: a systematic review. *Pediatrics*, *129*(5), 925-949.

Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of higher education*, *6*(5), 26-41.

Korpershoek, H., Canrinus, E. T., Fokkens-Bruinsma, M., & de Boer, H. (2020). The relationships between school belonging and students' motivational, social-emotional, behavioural, and academic outcomes in secondary education: A meta-analytic review. *Research Papers in Education*, *35*(6), 641-680.

Krueger, R. A. (2014). *Focus groups: A practical guide for applied research*. Sage publications.

Lam, G.Y.H., Sabnis, S., Migueliz Valcarlos, M., & Wolgemuth, J.R. (2021). A critical review of academic literature constructing well-being in autistic adults. *Autism in Adulthood*, **3**, 61–71.

Laursen, B., & Hartl, A. C. (2013). Understanding loneliness during adolescence: Developmental changes that increase the risk of perceived social isolation. *Journal of Adolescence*, *36*(6), 1261-1268.

Lederman, N. G., & Lederman, J. S. (2015). What is a theoretical framework? A practical answer. *Journal of Science Teacher Education*, *26*(7), 593-597.

Lindsay, G. (2006). Rights, efficacy and inclusive education. In *Included or Excluded?* (pp. 45-52). Routledge.

Ling, C., Mak, W., & Cheng, J. (2010). Attribution model of stigma towards children with autism in Hong Kong. *Journal of Applied Research in Intellectual Disabilities*, 23(3), 237–249. https://doi.org/10.1111/j.1468-3148.2008.00456.x.

Liow, J. L., Pet, J. Y., & Wong, X. Z. (2019). *The effects of a school-based neurodiversity literacy program for knowledge, attitude, and behavioral intention among adolescents: a pilot single-arm trial* (Doctoral dissertation, UTAR).

Lochner, O. (2019). Exploring the Impact of Autism Awareness Interventions for General Education Students: A Meta-analysis. (2019). *Theses and Dissertations--Educational, School, and Counseling Psychology. 88.* https://uknowledge.uky.edu/edp_etds/88

Locke, J., Ishijima, E., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting. *Journal of Research in Special Educational Needs,* 10(2), 74–81. https://doi.org/10.1111/j.1471-3802.2010.01148.x.

Lovitts, B. E. (2005). How to grade a dissertation. *Academe*, *91*(6), 18-23.

Lundy, L. (2007). 'Voice'is not enough: conceptualising Article 12 of the United Nations Convention on the Rights of the Child. *British educational research journal*, *33*(6), 927-942.

Maiano, C., Normand, C.L., Salvas, M.C., Moullec, G., & Aime, A. (2016). Prevalence of school bullying among youth with autism spectrum disorders: A systematic review and meta-analysis. *Autism Research*, **9**, 601–615.

Mandelberg, J., Frankel, F., Cunningham, T., Gorospe, C., & Laugeson, E.A. (2014). Long-term outcomes of parent-assisted social skills intervention for high-functioning children with autism spectrum disorders. *Autism,* 18(3), 255-263.

Mandy W, Murin M and Skuse D (2015a) The cognitive profile in autism spectrum disorders. In: Leboyer M and Chaste P (eds) *Autism Spectrum Disorders: Phenotypes, Mechanisms, and Treatments.* Basel; New York: Karger, pp.34–45.

Mandy, W., Murin, M., Baykaner, O., Staunton, S., Cobb, R., Hellriegel, J., … & Skuse, D. (2016). Easing the transition to secondary education for children with autism spectrum disorder: An evaluation of the Systemic Transition in Education Programme for Autism Spectrum Disorder (STEP-ASD). *Autism*, **20**, 580–590.

Mavropoulou, S., Railey, K. S., & Campbell, J. M. (2020). Peers as influential agents of the inclusion of learners with autism. In *Inclusive Education: Global Issues and Controversies* (pp. 179-201). Brill.

McNamara, L., Lodewyk, K., & Franklin, N. (2018). Recess: a study of belongingness, affect, and victimization on the playground. *Children & Schools*, *40*(2), 114-121.

Meilleur, A. A. S., Jelenic, P., & Mottron, L. (2015). Prevalence of clinically and empirically defined talents and strengths in autism. *Journal of autism and developmental disorders*, *45*(5), 1354-1367.

Mertens, D. M. (2010). Publishing mixed methods research. *Journal of mixed methods research*, *5*(1), 3-6.

Mertens, D. M. (2019). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. Sage publications.

Mesibov, G. B., & Shea, V. (1996). Full inclusion and students with autism. *Journal of autism and developmental disorders*, *26*(3), 337-346.

Meyer, L. E., & Ostrosky, M. M. (2014). Measuring the friendships of young children with disabilities: A review of the literature. *Topics in Early Childhood Special Education*, *34*(3), 186-196.

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). Qualitative data analysis 3rd Edition: Source book of Bew Methods. *Baverly Hills: SAGE Publications Inc*.

Miles, O., Boyle, C., & Richards, A. (2019). The social experiences and sense of belonging in adolescent females with autism in mainstream school. *British Psychological Society.*

Miller, D., Rees, J., & Pearson, A. (2021). "Masking is life": Experiences of masking in autistic and nonautistic adults. *Autism in Adulthood*, *3*(4), 330-338.

Milton, D. E. (2012). On the ontological status of autism: the 'double empathy problem'. *Disability & Society*, *27*(6), 883-887.

Milton, D. E. (2016). Disposable dispositions: Reflections upon the work of Iris Marion Young in relation to the social oppression of autistic people. *Disability & Society,* 31(10), 1403–1407.

Mogavero, M. C., & Hsu, K. H. (2018). Autism spectrum disorder and harassment: An application of attribution theory. *International Journal of Criminology and Sociology*, *7*, 260-274.

Mogensen, L., & Mason, J. (2015). The meaning of a label for teenagers negotiating identity: Experiences with autism spectrum disorder. *Sociology of Health & Illness*, 37(2), 255-269.

Morewood, G. D., Humphrey, N., & Symes, W. (2011). Mainstreaming autism: making it work. *Good Autism Practice (GAP)*, *12*(2), 62-68.

Morris, S., O'Reilly, G., & Byrne, M. K. (2020). Understanding our peers with Pablo: Exploring the merit of an autism spectrum disorder de-stigmatisation programme targeting peers in Irish early education mainstream settings. *Journal of Autism and Developmental Disorders*, *50*(12), 4385-4400.

Müller, E., Schuler, A., & Yates, G. B. (2008). Social challenges and supports from the perspective of individuals with Asperger syndrome and other autism spectrum disabilities. *Autism*, *12*(2), 173-190.

National Council for Special Education (2015). *Supporting Students with Autism Spectrum Disorder in Schools.* NCSE Policy Advice Paper No.5. Trim: National Council for Special Education.

National Council for Special Education. (2013). *Choosing a school: A guide for parents and guardians of children and young people with special educational needs*. Retrieved from Meath.

National Council for Special Education. (2016a). *An Evaluation of Education Provision for Students with Autism Spectrum Disorder in Ireland.* Dublin: National Council for Special Education.

National Council for Special Education. (2016b). *Policy Advice on Supporting Students with Autism Spectrum Disorder in Schools.* Dublin: National Council for Special Education.

O'Connor, U. (2007). Parental concerns on inclusion: The Northern Ireland perspective. *International Journal of Inclusive Education,* 11(5–6), 535–550.

Ochs, E., Kremer-Sadlik, T., Solomon, O., & Sirota, K. G. (2001). Inclusion as social practice: Views of children with autism. *Social Development*, *10*(3), 399-419.

Odom, S. L., Vitztum, J., Wolery, R., Lieber, J., Sandall, S., Hanson, M. J., ... & Horn, E. (2004). Preschool inclusion in the United States: A review of research from an ecological systems perspective. *Journal of research in special educational needs*, *4*(1), 17-49.

Oliver, M. (1996). *Understanding disability: From theory to practice*. Chatham, UK: Mackays of Chatham.

Passenger, T. (2013). Introduction to educational psychology practice. A. Holliman (Ed.), *The Routledge International Companion to Educational Psychology.* London: Routledge. https://www.routledgehandbooks.com/doi/10.4324/9780203809402.ch3. doi:10.4324/9780203809402.ch3

Pearson, A., Rose, K., & Rees, J. (2023). 'I felt like I deserved it because I was autistic': Understanding the impact of interpersonal victimisation in the lives of autistic people. *Autism*, *27*(2), 500-511.

Pellicano, E., & den Houting, J. (2022). Annual Research Review: Shifting from 'normal science'to neurodiversity in autism science. *Journal of Child Psychology and Psychiatry*, *63*(4), 381-396.

Petrina, N., Carter, M., & Stephenson, J. (2014). The nature of friendship in children with autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, *8*(2), 111-126.

Pittman, L. D., & Richmond, A. (2007). Academic and psychological functioning in late adolescence: The importance of school belonging. *The Journal of Experimental Education*, *75*(4), 270-290.

Ranson, N., & Byrne, M. (2014). Promoting peer acceptance of females with higher-functioning autism in a mainstream education setting: A replication and extension of the effects of an autism anti-stigma program. *Journal of Autism and*

Raudenbush, S. (2007). Designing field trials of educational innovations. In B. Schneider & S. McDonald (Eds.), *Scale-up in education: Issues in practice* (pp. 23-40). Lanham, MD: Rowman OOC Littlefield.

Reichow, B., Steiner, A. M., & Volkmar, F. (2012). Social skills groups for people aged 6 to 21 with autism spectrum disorders (ASD). *Campbell Systematic Reviews*, *8*(1), 1-76.

Reid, B., & Batten, A. (2006). B is for Bullied. *London: National Autistic Society*.

Reynolds, K. J., Lee, E., Turner, I., Bromhead, D., & Subasic, E. (2017). How does school climate impact academic achievement? An examination of social identity processes. *School Psychology International*, *38*(1), 78-97.

Roberts, C. M., & Smith, P. R. (1999). Attitudes and behaviour of children toward peers with disabilities. *International Journal of Disability, Development and Education*, 46,3 5–50. doi:10.1080/103491299100713

Roberts, J., & Webster, A. (2022). Including students with autism in schools: a whole school approach to improve outcomes for students with autism. *International Journal of Inclusive Education*, *26*(7), 701-718.

Rossetti, Z. S. (2011). “That's how we do it”: Friendship work between high school students with and without autism or developmental disability. *Research and Practice for Persons with Severe Disabilities*, *36*(1-2), 23-33.

Ryan, E. (2021). How do children with Autism Spectrum Disorder (ASD) enrolled in special ASD classes in mainstream primary schools make sense of themselves and their educational experiences? Child, parent and teacher insights. *(Doctoral dissertation, Mary Immaculate College, Limerick, Ireland)*. Retrieved from https://dspace.mic.ul.ie/handle/10395/3032.

Sasson, N. J., Faso, D. J., Nugent, J., Lovell, S., Kennedy, D. P., & Grossman, R. B. (2017). Neurotypical peers are less willing to interact with those with autism based on thin slice judgments. *Scientific Reports*, 7, 40700. https://doi.org/10.1038/srep40700.

Scheil, K. A., Bowers-Campbell, J., & Campbell, J. M. (2017). An initial investigation of the Kit for Kids peer educational program. *Journal of Developmental and Physical Disabilities*, *29*(4), 643-662.

Sedgewick, F., Hill, V., Yates, R., Pickering, L., & Pellicano, E. (2016). Gender differences in the social motivation and friendship experiences of autistic and non-autistic adolescents. Journal of autism and developmental disorders, 46(4), 1297-1306.

Segers, M., & Rawana, J. (2014). What do we know about suicidality in autism spectrum disorders? A systematic review. *Autism Research*, *7*(4), 507-521.

Shah, M., & Pabel, A. (2020). Making the student voice count: Using qualitative student feedback to enhance the student experience. *Journal of Applied Research in Higher Education*, *12*(2), 194-209.

Shevlin, M., & Banks, J. (2021). Inclusion at a crossroads: Dismantling Ireland's system of special education. *Education Sciences*, *11*(4), 161.

Silton, N. R., & Fogel, J. (2012). Enhancing positive behavioral intentions of typical children towards children with autism. *Journal of Cognitive & Behavioral Psychotherapies*, *12*(2).

Siperstein, G. N. (1980). *Instruments for measuring children's attitudes toward the handicapped.* University of Massachusetts.

Staniland, J., & Byrne, M. (2013). The effects of a multi-component higher- functioning autism anti-stigma program on adolescent boys. *Journal of Autism and Developmental Disorders*, *43*, 2816-2829. doi:10.1007/s10803-013-1829-4/

Symons, R. (2006). In their own words: Finding out what students think about their university learning experience. *Synergy*, *23*, 34-35.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences:* SAGE Publications.

Tesfaye, R., Courchesne, V., Yusuf, A., Savion-Lemieux, T., Singh, I., Shikako-Thomas, K., ... & Elsabbagh, M. (2019). Assuming ability of youth with autism: Synthesis of methods capturing the first-person perspectives of children and youth with disabilities. *Autism*, *23*(8), 1882-1896.

Thomas, G. (2013). A review of thinking and research about inclusive education policy, with suggestions for a new kind of inclusive thinking. *British Educational Research Journal*, *39*(3), 473-490

Tobin, H., Staunton, S., Mandy, W., Skuse, D., Helligreil, J., Baykaner, O., ... & Murin, M. (2012). A qualitative examination of parental experiences of the transition to mainstream secondary school for children with an autism spectrum disorder. *Educational and Child Psychology*, *29*(1), 75.

Tonnsen, B., & Hahn, E. (2016). Middle school students' attitudes toward a peer with autism spectrum disorder: Effects of social acceptance and physical inclusion. *Focus on Autism and Other Developmental Disabilities*, *31*, 262–274.

Tyrrell, B., & Woods, K. (2020). Gathering the views of children and young people with ASD: a systematic literature review. *British Journal of Special Education*, *47*(3), 376-398.

Underhill, J. C., Ledford, V., & Adams, H. (2019). Autism stigma in communication classrooms: exploring peer attitudes and motivations toward interacting with atypical students. *Communication Education*, *68*(2), 175-192.

United Nations Educational, Scientific and Cultural Organization. (1994). *The Salamanca statement and framework for action on special needs education*.

United Nations Educational, Scientific and Cultural Organization. (2009). *Policy guidelines on inclusion in education.*

Villa, R., & Thousand, J. (Eds.). (2005). *Creating an inclusive school*. ASCD.

Wagner, M., Cadwallader, T.W., Garza, N., & Cameto, R. (2004). Social activities of youth with disabilities. *NLTS2 Data Brief, 3,* 1–4.

Walker, N. (2012). Throw away the master's tools: Liberating ourselves from the pathology paradigm. In The Autistic Self Advocacy Network (Ed.), *Loud hands: Autistic people, speaking* (pp. 225–237). Washington, DC: The Autistic Press.

Weiner, B. (2006). *Social motivation, justice, and the moral emotions: An attributional approach*. Psychology Press.

Weiner, B., Perry, R. P., & Magnusson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology,* 55(5), 738-748.

Weiner, B., & Graham, S. (1984). An attributional approach to emotional development. *Emotions, cognition, and behavior*, 167-191.

Whitehouse, A. J., Durkin, K., Jaquet, E., & Ziatas, K. (2009). Friendship, loneliness and depression in adolescents with Asperger's Syndrome. *Journal of adolescence*, *32*(2), 309-322.

Wilkenfeld, D. A., & McCarthy, A. M. (2020). Ethical concerns with applied behavior analysis for autism spectrum 'disorder'. *Kennedy Institute of Ethics Journal,* 30(1), 31–69.

Williams, G. L., Wharton, T., & Jagoe, C. (2021). Mutual (mis) understanding: Reframing autistic pragmatic "impairments" using relevance theory. *Frontiers in psychology*, *12*, 616664.

Winchell, B. N., Sreckovic, M. A., & Schultz, T. R. (2018). Preventing bullying and promoting friendship for autistic students: Looking back to move forward. *Education and Training in Autism and Developmental Disabilities*, *53*(3), 243-252.

Wong, M. E., Poon, K. K., Kaur, S., & Ng, Z. J. (2015). Parental perspectives and challenges in inclusive education in Singapore. Asia Pacific Journal of Education, 35(1), 85–97.

Zablotsky, B., Bradshaw, C. P., Anderson, C., & Law, P. A. (2013). The association between bullying and the psychological functioning of children with autism spectrum disorders. *Journal of Developmental & Behavioral Pediatrics*, *34*(1), 1-8.

Zeedyk MS, Gallacher J, Henderson M, et al. (2003) Negotiating the transition from primary to secondary school perceptions of pupils, parents and teachers. *School Psychology International* 24(1): 67–79.

Appendix A: Studies Excluded during Screening Process

Studies Excluded after Reading Full Article

	Reference	Reason for Exclusion
1.	Dean, M., Kasari, C., Shih, W., Frankel, F., Whitney, R., Landa, R., . . . Harwood, R. (2014). The peer relationships of girls with ASD at school: comparison to boys and girls with and without ASD. *Journal of Child Psychology and Psychiatry, 55*(11), 1218-1225. doi:10.1111/jcpp.12242	3. Participants are not in second level education
2.	Harrison, A., Paff, M., & Kaff, M. (2019). Examining the psychometric properties of the autism stigma and knowledge questionnaire (ASK-Q) in multiple contexts. *Research in Autism Spectrum Disorders, 57*, 28-34. doi:10.1016/j.rasd.2018.10.002	3. Participants are not in second level education
3.	Hume, K., & Campbell, J. (2019). Peer Interventions for Students With Autism Spectrum Disorder in School Settings: Introduction to the Special Issue. *School psychology review, 48*(2), 115-122. doi:10.17105/SPR-2018-0081.V48-2	2. Study did not collect primary data
4.	Scheil, K., Bowers-Campbell, J., & Campbell, J. (2017). An Initial Investigation of the Kit for Kids Peer Educational Program. *Journal of Developmental and Physical Disabilities, 29*(4), 643-662. doi:10.1007/s10882-017-9540-6	3. Participants are not in second level education

Studies Excluded by Screening the Title and Abstract

	References	Reason
1.	Accardo, A. L., & Finnegan, E. G. (2019). Teaching reading comprehension to learners with autism spectrum disorder: Discrepancies between teacher and research-recommended practices. *Autism, 23*(1), 236-246. doi:10.1177/1362361317730744	6. Not an autism awareness intervention
2.	Adams, D., Young, K., Simpson, K., & Keen, D. (2019). Parent descriptions of the presentation and management of anxiousness in children on the autism spectrum. *Autism, 23*(4), 980-992. doi:10.1177/1362361318794031	6. Not an autism awareness intervention
3.	Agarwal, R., Heron, L., Naseh, M., & Burke, S. L. Mentoring Students with Intellectual and Developmental Disabilities: Evaluation of Role-Specific Workshops for Mentors and Mentees. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04599-w	6. Not an autism awareness intervention
4.	Arnell, S., Jerlinder, K., & Lundqvist, L. O. Parents' perceptions and concerns about physical activity participation among adolescents with autism spectrum disorder. *Autism*. doi:10.1177/1362361320942092	3. Not a student population
5.	Ayub, A., Naeem, B., Ahmed, W. N., Srichand, S., Aziz, K., Abro, B., . . . Jehan, I. (2017). Knowledge and Perception Regarding Autism among Primary School Teachers: A Cross-sectional Survey from Pakistan, South Asia. *Indian Journal of Community Medicine, 42*(3), 177-179. doi:10.4103/ijcm.IJCM_121_16	3. Not a student population
6.	Baghdadli, A., Brisot, J., Henry, V., Michelon, C., Soussana, M., Rattaz, C., & Picot, M. C. (2013). Social skills improvement in children with high-functioning autism: a pilot randomized controlled trial. *European Child & Adolescent Psychiatry, 22*(7), 433-442. doi:10.1007/s00787-013-0388-8	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
7.	Baker, D. (2017). The Language Question: Considering Three Somali American Students With Autism. *Multiple Voices for Ethnically Diverse Exceptional Learners, 17*(1), 20-38.	6. Not an autism awareness intervention
8.	Baker, D., McCabe, H., Kelly, M., & Jiang, T. (2020). 100 years from now: comparing parental perspectives about supports for adults with autism in the USA and China. *Advances in Autism, 6*(3), 241-254. doi:10.1108/aia-10-2019-0034	6. Not an autism awareness intervention
9.	Bal, V. H., Fok, M., Lord, C., Smith, I. M., Mirenda, P., Szatmari, P., . . . Zaidman-Zait, A. (2020). Predictors of longer-term development of expressive language in two independent longitudinal cohorts of language-delayed preschoolers with Autism Spectrum Disorder. *Journal of Child Psychology and Psychiatry, 61*(7), 826-835.	3. Participants are not in second level education

	doi:10.1111/jcpp.13117	
10.	Barrett, B., Mosweu, I., Jones, C. R. G., Charman, T., Baird, G., Simonoff, E., . . . Byford, S. (2015). Comparing service use and costs among adolescents with autism spectrum disorders, special needs and typical development. *Autism, 19*(5), 562-569. doi:10.1177/1362361314536626	6. Not an autism awareness intervention
11.	Baumann, S. D., Ozcaliskan, S., & Adamson, L. B. (2019). Does autism affect gesturing during parent-child interactions in the early school years? *Research in Autism Spectrum Disorders, 67*. doi:10.1016/j.rasd.2019.101440	6. Not an autism awareness intervention
12.	Bauminger, N. (2002). The facilitation of social-emotional understanding and social interaction in high-functioning children with autism: Intervention outcomes. *Journal of Autism and Developmental Disorders, 32*(4), 283-298. doi:10.1023/a:1016378718278	6. Not an autism awareness intervention
13.	Bauminger-Zviely, N., Eden, S., Zancanaro, M., Weiss, P. L., & Gal, E. (2013). Increasing social engagement in children with high-functioning autism spectrum disorder using collaborative technologies in the school environment. *Autism, 17*(3), 317-339. doi:10.1177/1362361312472989	6. Not an autism awareness intervention
14.	Beamer, J. A., & Joonkoo, Y. (2014). Physical Educators' Beliefs and Self-Reported Behaviors Toward Including Students With Autism Spectrum Disorder. *Adapted Physical Activity Quarterly, 31*(4), 362-376. doi:10.1123/apaq.2014-0134	6. Not an autism awareness intervention
15.	Bellon-Harn, M. L., Smith, D. J., Dockens, A. L., Manchaiah, V., & Azios, J. H. (2018). Quantity, quality and readability of online informationfor college autistic students seeking student support services. *Reading Improvement, 55*(1), 7-14.	3. Participants are not in second level education
16.	Berry, J., Boschen, J., Nevin-Drummond, L., Hillier, F., Fairbrother, S., & Bond, C. (2007). Reviews. *Support for Learning, 22*(4), 210-213. doi:10.1111/j.1467-9604.2007.00474.x	2. Study did not collect primary data
17.	Beverly, B. L., & Mathews, L. A. Speech-Language Pathologist and Parent Perspectives on Speech-Language Pathology Services for Children With Autism Spectrum Disorders. *Focus on Autism and Other Developmental Disabilities*. doi:10.1177/1088357620954380	3. Not a student population
18.	Bitsika, V., & Sharpley, C. F. (2014). Understanding, Experiences, and Reactions to Bullying Experiences in Boys with an Autism Spectrum Disorder. *Journal of Developmental and Physical Disabilities, 26*(6), 747-761. doi:10.1007/s10882-014-9393-1	6. Not an autism awareness intervention
19.	Blacher, J., Howell, E., Lauderdale-Littin, S., Reed, F. D. D., & Laugesond, E. A. (2014). Autism spectrum disorder and the student teacher relationship: A comparison study with peers with intellectual disability and typical development. *Research in Autism Spectrum*	6. Not an autism awareness intervention

	Disorders, 8(3), 324-333. doi:10.1016/j.rasd.2013.12.008	
20.	Bloom, L. P. Professional Development for Enhancing Autism Spectrum Disorder Awareness in Preschool Professionals. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04562-9	3. Participants are not in second level education
21.	Bolourian, Y., Zeedyk, S. M., & Blacher, J. (2018). Autism and the University Experience: Narratives from Students with Neurodevelopmental Disorders. *Journal of Autism and Developmental Disorders, 48*(10), 3330-3343. doi:10.1007/s10803-018-3599-5	3. Participants are not in second level education
22.	Bottema-Beutel, K., Mullins, T. S., Harvey, M. N., Gustafson, J. R., & Carter, E. W. (2016). Avoiding the "brick wall of awkward": Perspectives of youth with autism spectrum disorder on social-focused intervention practices. *Autism, 20*(2), 196-206. doi:10.1177/1362361315574888	6. Not an autism awareness intervention
23.	Brown, K. E., & Mirenda, P. (2006). Contingency Mapping: Use of a Novel Visual Support Strategy as an Adjunct to Functional Equivalence Training. *Journal of Positive Behavior Interventions, 8*(3), 155-164. doi:10.1177/10983007060080030401	6. Not an autism awareness intervention
24.	Brown-Lavoie, S. M., Viecili, M. A., & Weiss, J. A. (2014). Sexual Knowledge and Victimization in Adults with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 44*(9), 2185-2196. doi:10.1007/s10803-014-2093-y	6. Not an autism awareness intervention
25.	Brum, C., Hall, L. J., Reutebuch, C., & Perkins, Y. (2019). Reading Comprehension Strategies for High School Students with Autism Spectrum Disorder. *TEACHING Exceptional Children, 52*(2), 88-97.	6. Not an autism awareness intervention
26.	Byrne, R., Duncan, A., Pickar, T., Burkhardt, S., Boyd, R. N., Neel, M. L., & Maitre, N. L. (2019). Comparing parent and provider priorities in discussions of early detection and intervention for infants with and at risk of cerebral palsy. *Child Care Health and Development, 45*(6), 799-807. doi:10.1111/cch.12707	3. Participants are not in second level education
27.	Campbell, J. M., & Barger, B. D. (2011). Middle School Students' Knowledge of Autism. *Journal of Autism and Developmental Disorders, 41*(6), 732-740. doi:10.1007/s10803-010-1092-x	6. Not experimental design
28.	Campbell, J. M., Caldwell, E. A., Railey, K. S., Lochner, O., Jacob, R., Kerwin, S., & Eckert, T. (2019). Educating Students About Autism Spectrum Disorder Using the Kit for Kids Curriculum: Effects on Knowledge and Attitudes. *School Psychology Review, 48*(2), 145-156. doi:10.17105/SPR-2017-0091.V48-2	3. Participants are not in second level education
29.	Cantio, C., Michel, T., & Bilenberg, N. (2015). PLAI - Psychiatric Live Animotion Intervention. *International Journal of Integrated Care (IJIC), 15*, 1-2.	6. Not an autism awareness intervention
30.	Cappadocia, M. C., Weiss, J. A., & Pepler, D. (2012). Bullying	6. Not an autism

	Experiences Among Children and Youth with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 42*(2), 266-277. doi:10.1007/s10803-011-1241-x	awareness intervention
31.	Carter, M., Stephenson, J., Clark, T., Costley, D., Martin, J., Williams, K., . . . Sweller, N. (2019). A comparison of two models of support for students with autism spectrum disorder in school and predictors of school success. *Research in Autism Spectrum Disorders, 68*. doi:10.1016/j.rasd.2019.101452	6. Not an autism awareness intervention
32.	Clark, E., Olympia, D. E., Jensen, J., Heathfield, L. T., & Jenson, W. R. (2004). Striving for autonomy in a contingency-governed world: Another challenge for individuals with developmental disabilities. *Psychology in the Schools, 41*(1), 143-153. doi:10.1002/pits.10146	6. Not an autism awareness intervention
33.	Clarke, C., Hill, V., & Charman, T. (2017). School based cognitive behavioural therapy targeting anxiety in children with autistic spectrum disorder: a quasi-experimental randomised controlled trail incorporating a mixed methods approach. *Journal of Autism and Developmental Disorders, 47*(12), 3883-3895. doi:10.1007/s10803-016-2801-x	6. Not an autism awareness intervention
34.	Coogle, C. G., Ottley, J. R., Storie, S., Rahn, N. L., & Burt, A. K. (2017). eCoaching to Enhance Special Educator Practice and Child Outcomes. *Infants & Young Children, 30*(1), 58-75. doi:10.1097/iyc.0000000000000082	6. Not an autism awareness intervention
35.	Cook, A., Ogden, J., & Winstone, N. The effect of school exposure and personal contact on attitudes towards bullying and autism in schools: A cohort study with a control group. *Autism*. doi:10.1177/1362361320937088	6. Not an autism awareness intervention
36.	Corona, L. L., Fox, S. A., Christodulu, K. V., & Worlock, J. A. (2016). Providing education on sexuality and relationships to adolescents with autism spectrum disorder and their parents. *Sexuality and Disability, 34*(2), 199-214. doi:10.1007/s11195-015-9424-6	3. Not a student population
37.	Craig, A. B., Brown, E. R., Upright, J., & DeRosier, M. E. (2016). Enhancing Children's Social Emotional Functioning Through Virtual Game-Based Delivery of Social Skills Training. *Journal of Child and Family Studies, 25*(3), 959-968. doi:10.1007/s10826-015-0274-8	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
38.	DaWalt, L. S., Taylor, J. L., Bishop, S., Hall, L. J., Steinbrenner, J. D., Kraemer, B., . . . Odom, S. L. Sex Differences in Social Participation of High School Students with Autism Spectrum Disorder. *Autism Research*. doi:10.1002/aur.2348	6. Not an autism awareness intervention
39.	de Boer, A., Pijl, S. J., Post, W., & Minnaert, A. (2013). Peer Acceptance and Friendships of Students with Disabilities in General Education: The Role of Child, Peer, and Classroom Variables. *Social*	6. Not an autism awareness intervention

	Development, 22(4), 831-844. doi:10.1111/j.1467-9507.2012.00670.x	
40.	DeCarlo, J., Bean, A., Lyle, S., & Cargill, L. P. M. (2019). The Relationship Between Operational Competency, Buy-In, and Augmentative and Alternative Communication Use in School-Age Children With Autism. *American Journal of Speech-Language Pathology, 28*(2), 469-484. doi:10.1044/2018_AJSLP-17-0175	6. Not an autism awareness intervention
41.	Dolan, B. K., Van Hecke, A. V., Carson, A. M., Karst, J. S., Stevens, S., Schohl, K. A., . . . Hummel, E. (2016). Brief Report: Assessment of Intervention Effects on In Vivo Peer Interactions in Adolescents with Autism Spectrum Disorder (ASD). *Journal of Autism and Developmental Disorders, 46*(6), 2251-2259. doi:10.1007/s10803-016-2738-0	6. Not an autism awareness intervention
42.	Dutt, A., Tan, M., Alagumalai, S., & Nair, R. (2019). Development and Validation of the Ability in Behavior Assessment and Interventions for Teachers Using Delphi Technique and Rasch Analysis. *Journal of Autism and Developmental Disorders, 49*(5), 1976-1987. doi:10.1007/s10803-019-03887-4	3. Not a student population
43.	Elbaum, B., & Celimli-Aksoy, S. (2017). Empirically Identified Subgroups of Children Served in Part C Early Intervention Programs. *Journal of Developmental and Behavioral Pediatrics, 38*(7), 510-520. doi:10.1097/dbp.0000000000000475	6. Not an autism awareness intervention
44.	Elias, R., Muskett, A. E., & White, S. W. (2019). Educator perspectives on the postsecondary transition difficulties of students with autism. *Autism, 23*(1), 260-264. doi:10.1177/1362361317726246	6. Not an autism awareness intervention
45.	Elias, R., & White, S. W. (2018). Autism Goes to College: Understanding the Needs of a Student Population on the Rise. *Journal of Autism and Developmental Disorders, 48*(3), 732-746. doi:10.1007/s10803-017-3075-7	3. Participants are not in second level education
46.	Emmons, C. L., & Zager, D. (2018). Increasing Collaboration Self-Efficacy to Improve Educational Programming for Students With Autism. *Focus on Autism and Other Developmental Disabilities, 33*(2), 120-128. doi:10.1177/1088357616686312	6. Not an autism awareness intervention
47.	Ezzamel, N., & Bond, C. (2017). The use of a peer-mediated intervention for a pupil with autism spectrum disorder: Pupil, peer and staff perceptions. *Educational & Child Psychology, 34*(2), 27-39.	6. Not an autism awareness intervention
48.	Fairchild, L. A., Powell, M. B., Gadke, D. L., Spencer, J. C., & Stratton, K. K. (2020). Increasing social engagement among college students with autism. *Advances in Autism, 6*(2), 83-93. doi:10.1108/aia-09-2019-0030	6. Not an autism awareness intervention
49.	Falla, D., & Ortega-Ruiz, R. (2019). Los Escolares Diagnosticados con Trastorno del Espectro Autista y Víctimas de Acoso Escolar: una	3. Participants are not in second level

	Revisión Sistemática. *Students diagnosed with autism spectrum disorder and victims of bullying: A systematic review., 25*(2), 77-90. doi:10.5093/psed2019a6	education
50.	Ferguson, E. F., Drapalik, K. N., Liang, J., Hua, K., Feerst, H., Mallory, A. B., & Vernon, T. W. Social Interaction Skill Intervention for Autistic Adults with Intellectual Disability and Limited Language: A Pilot of the SKILL Program. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04659-1	6. Not an autism awareness intervention
51.	Frankel, F. D., Gorospe, C. M., Chang, Y. C., & Sugar, C. A. (2011). Mothers' reports of play dates and observation of school playground behavior of children having high-functioning autism spectrum disorders. *Journal of Child Psychology and Psychiatry, 52*(5), 571-579. doi:10.1111/j.1469-7610.2010.02318.x	6. Not an autism awareness intervention
52.	Gadow, K. D., Chernoff, M., Williams, P. L., Brouwers, P., Morse, E., Heston, J., . . . Nachman, S. (2010). Co-Occuring Psychiatric Symptoms in Children Perinatally Infected With HIV and Peer Comparison Sample. *Journal of Developmental and Behavioral Pediatrics, 31*(2), 116-128. doi:10.1097/DBP.0b013e3181cdaa20	6. Not an autism awareness intervention
53.	Ganz, J. B., Heath, A. K., Davis, J. L., & Vannest, K. J. (2013). Effects of a self-monitoring device on socially relevant behaviors in adolescents with Asperger disorder: A pilot study. *Assistive Technology, 25*(3), 149-157. doi:10.1080/10400435.2012.732655	6. Not an autism awareness intervention
54.	Gelbar, N. W., Smith, I., & Reichow, B. (2014). Systematic Review of Articles Describing Experience and Supports of Individuals with Autism Enrolled in College and University Programs. *Journal of Autism and Developmental Disorders, 44*(10), 2593-2601. doi:10.1007/s10803-014-2135-5	3. Participants are not in second level education
55.	George, R., & Stokes, M. A. (2018). Sexual Orientation in Autism Spectrum Disorder. *Autism Research, 11*(1), 133-141. doi:10.1002/aur.1892	6. Not an autism awareness intervention
56.	Ghanouni, P., Jarus, T., Zwicker, J. G., Lucyshyn, J., Chauhan, S., & Moir, C. (2019). Perceived Barriers and Existing Challenges in Participation of Children with Autism Spectrum Disorders: "He Did Not Understand and No One Else Seemed to Understand Him". *Journal of Autism and Developmental Disorders, 49*(8), 3136-3145. doi:10.1007/s10803-019-04036-7	6. Not an autism awareness intervention
57.	Giannopoulou, I., Pasalari, E., Korkoliakou, P., & Douzenis, A. (2019). Raising Autism Awareness among Greek Teachers. *International Journal of Disability, Development & Education, 66*(1), 70-81. doi:10.1080/1034912X.2018.1462474	3. Not a student population
58.	Gilmore, S., Frederick, L. K., Santillan, L., & Locke, J. (2019). The games they play: Observations of children with autism spectrum disorder on the school playground. *Autism, 23*(6), 1343-1353.	6. Not an autism awareness intervention

	doi:10.1177/1362361318811987	
59.	Ginevra, M. C., Nota, L., & Stokes, M. A. (2016). The differential effects of Autism and Down's syndrome on sexual behavior. *Autism Research, 9*(1), 131-140. doi:10.1002/aur.1504	6. Not an autism awareness intervention
60.	Goedeke, S., Shepherd, D., Landon, J., & Taylor, S. (2019). How perceived support relates to child autism symptoms and care-related stress in parents caring for a child with autism. *Research in Autism Spectrum Disorders, 60*, 36-47. doi:10.1016/j.rasd.2019.01.005	3. Not a student population
61.	Gregor, S., Bruni, N., Grkinic, P., Schwartz, L., McDonald, A., Thille, P., . . . Jachyra, P. (2018). Parents' perspectives of physical activity participation among Canadian adolescents with Autism Spectrum Disorder. *Research in Autism Spectrum Disorders, 48*, 53-62. doi:10.1016/j.rasd.2018.01.007	3. Not a student population
62.	Griffin, W. B. (2019). Peer Perceptions of Students With Autism Spectrum Disorders. *Focus on Autism and Other Developmental Disabilities, 34*(3), 183-192. doi:10.1177/1088357618800035	6. Not an autism awareness intervention
63.	Hamad, C. D., Serna, R. W., Morrison, L., & Fleming, R. (2010). Extending the Reach of Early Intervention Training for Practitioners A Preliminary Investigation of an Online Curriculum for Teaching Behavioral Intervention Knowledge in Autism to Families and Service Providers. *Infants & Young Children, 23*(3), 195-208. doi:10.1097/IYC.0b013e3181e32d5e	6. Not an autism awareness intervention
64.	Haney, M. R. (2012). After School Care for Children on the Autism Spectrum. *Journal of Child and Family Studies, 21*(3), 466-473. doi:10.1007/s10826-011-9500-1	6. Not an autism awareness intervention
65.	Hassani, F., Sheikh, M., & Shahrbanian, S. The physical literacy and children with autism. *Early Child Development and Care*. doi:10.1080/03004430.2020.1766452	6. Not an autism awareness intervention
66.	Hedley, D., Cai, R., Uljarevic, M., Wilmot, M., Spoor, J. R., Richdale, A., & Dissanayake, C. (2018). Transition to work: Perspectives from the autism spectrum. *Autism, 22*(5), 528-541. doi:10.1177/1362361316687697	6. Not an autism awareness intervention
67.	Hilton, C. L., Ratcliff, K., Collins, D. M., Flanagan, J., & Hong, I. (2019). Flourishing in children with autism spectrum disorders. *Autism Research, 12*(6), 952-966. doi:10.1002/aur.2097	6. Not an autism awareness intervention
68.	Hilton, C. L., Ratcliff, K., & Hong, I. Participation Difficulties in Autism Spectrum Disorders and Intellectual Disabilities: Findings from the 2011 Survey of Pathway to Diagnosis and Services. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04591-4	6. Not an autism awareness intervention
69.	Holmes, L. G., Himle, M. B., & Strassberg, D. S. (2016). Parental romantic expectations and parent-child sexuality communication in autism spectrum disorders. *Autism, 20*(6), 687-699.	3. Not a student population

	doi:10.1177/1362361315602371	
70.	Hosford, S., & O'Sullivan, S. (2016). A climate for self-efficacy: the relationship between school climate and teacher efficacy for inclusion. *International Journal of Inclusive Education, 20*(6), 604-621. doi:10.1080/13603116.2015.1102339	6. Not an autism awareness intervention
71.	Hume, K., & Turner-Brown, L. (2018). Family Implemented TEACCH for Toddlers. In M. Siller & L. Morgan (Eds.), *Handbook of Parent-Implemented Interventions for Very Young Children with Autism* (pp. 321-337).	3. Participants are not in second level education
72.	Humphrey, N., & Lewis, S. (2008). 'Make me normal': The views and experiences of pupils on the autistic spectrum in mainstream secondary schools. *Autism, 12*(1), 23-46. doi:10.1177/1362361307085267	6. Not an autism awareness intervention
73.	Hurlbutt, K. S. (2011). Experiences of Parents Who Homeschool Their Children With Autism Spectrum Disorders. *Focus on Autism and Other Developmental Disabilities, 26*(4), 239-249. doi:10.1177/1088357611421170	3. Not a student population
74.	Iadarola, S., Hetherington, S., Clinton, C., Dean, M., Reisinger, E., Huynh, L., . . . Kasari, C. (2015). Services for children with autism spectrum disorder in three, large urban school districts: Perspectives of parents and educators. *Autism, 19*(6), 694-703. doi:10.1177/1362361314548078	3. Not a student population
75.	Iannuzzi, D., Rissmiller, P., Duty, S. M., Feeney, S., Sullivan, M., & Curtin, C. (2019). Addressing a Gap in Healthcare Access for Transition-Age Youth with Autism: A Pilot Educational Intervention for Family Nurse Practitioner Students. *Journal of Autism and Developmental Disorders, 49*(4), 1493-1504. doi:10.1007/s10803-018-3846-9	6. Not an autism awareness intervention
76.	International journal of inclusive education. (1997b). *INT J INCLUSIVE EDUC*.	6. Not an autism awareness intervention
77.	Istvan, E. M., Nevill, R. E., & Mazurek, M. O. (2020). Sensory over-responsivity, repetitive behavior, and emotional functioning in boys with and without autism spectrum disorder. *Research in Autism Spectrum Disorders, 75*. doi:10.1016/j.rasd.2020.101573	6. Not an autism awareness intervention
78.	Jackson, E. M., & Hanline, M. F. (2020). Using a Concept Map With RECALL to Increase the Comprehension of Science Texts for Children With Autism. *Focus on Autism and Other Developmental Disabilities, 35*(2), 90-100. doi:10.1177/1088357619889933	3. Participants are not in second level education
79.	Jagan, V., & Sathiyaseelan, A. (2016). Early intervention and diagnosis of autism. *Indian Journal of Health & Wellbeing, 7*(12), 1144-1148.	6. Not an autism awareness intervention
80.	Jamison, T., & Schuttler, J. (2017). Overview and Preliminary	4. Outcomes are not

	Evidence for a Social Skills and Self-Care Curriculum for Adolescent Females with Autism: The Girls Night Out Model. *Journal of Autism & Developmental Disorders, 47*(1), 110-125. doi:10.1007/s10803-016-2939-6	focused on attitude, knowledge or intentional behaviour
81.	Jarrold, W., Mundy, P., Gwaltney, M., Bailenson, J., Hatt, N., McIntyre, N., . . . Swain, L. (2013). Social Attention in a Virtual Public Speaking Task in Higher Functioning Children With Autism. *Autism Research, 6*(5), 393-410. doi:10.1002/aur.1302	3. Participants are not in second level education
82.	Jones, A., & Frederickson, N. (2010). Multi-Informant Predictors of Social Inclusion for Students with Autism Spectrum Disorders Attending Mainstream School. *Journal of Autism and Developmental Disorders, 40*(9), 1094-1103. doi:10.1007/s10803-010-0957-3	6. Not an autism awareness intervention
83.	Jones, E., Hanley, M., & Riby, D. (2020). Distraction, distress and diversity: Exploring the impact of sensory processing differences on learning and school life for pupils with autism spectrum disorders. *Research in Autism Spectrum Disorders, 72*. doi:10.1016/j.rasd.2020.101515	6. Not an autism awareness intervention
84.	Jones, V. (2007). 'I felt like I did something good'— the impact on mainstream pupils of a peer tutoring programme for children with autism. *British Journal of Special Education, 34*(1), 3-9. doi:10.1111/j.1467-8578.2007.00447.x	3. Participants are not in second level education
85.	Kaboski, J., Diehl, J., Beriont, J., Crowell, C., Villano, M., Wier, K., & Tang, K. (2015). Brief Report: A Pilot Summer Robotics Camp to Reduce Social Anxiety and Improve Social/Vocational Skills in Adolescents with ASD. *Journal of Autism and Developmental Disorders, 45*(12), 3862-3869. doi:10.1007/s10803-014-2153-3	6. Not an autism awareness intervention
86.	Kalyva, E. (2010). Teachers' perspectives of the sexuality of children with autism spectrum disorders. *Research in Autism Spectrum Disorders, 4*(3), 433-437. doi:10.1016/j.rasd.2009.10.014	3. Not a student population
87.	Kang, E., Santore, L., Rankin, J., & Lerner, M. (2020). Self-reported social skills importance ratings, not social skills themselves, predict sociometric status among youth with autism spectrum disorder. *Research in Autism Spectrum Disorders, 74*. doi:10.1016/j.rasd.2020.101552	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
88.	Kang, L., Palisano, R., Simeonsson, R., & Hwang, A. (2017). Measuring family-centred practices of professionals in early intervention services in Taiwan. *Child Care Health and Development, 43*(5), 709-717. doi:10.1111/cch.12463	3. Participants are not in second level education
89.	Karoff, M., Tucker, A., Alvarez, T., & Kovacs, P. (2017). Infusing a Peer-to-Peer Support Program With Adventure Therapy for Adolescent Students With Autism Spectrum Disorder. *Journal of Experiential Education, 40*(4), 394-408.	6. Not an autism awareness intervention

	doi:10.1177/1053825917727551	
90.	Karst, S., Van Hecke, A., Carson, M., Stevens, S., Schohl, K., & Dolan, B. (2015). Parent and Family Outcomes of PEERS: A Social Skills Intervention for Adolescents with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 45*(3), 752-765. doi:10.1007/s10803-014-2231-6	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
91.	Kasari, C., Freeman, N., Bauminger, N., & Alkin, C. (1999). Parental perspectives on inclusion: Effects of autism and Down syndrome. *Journal of Autism and Developmental Disorders, 29*(4), 297-305. doi:10.1023/a:1022159302571	6. Not an autism awareness intervention
92.	Katz, J., Knight, V., Mercer, S. H., & Skinner, S. Y. Effects of a Universal School-Based Mental Health Program on the Self-concept, Coping Skills, and Perceptions of Social Support of Students with Developmental Disabilities. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04472-w	6. Not an autism awareness intervention
93.	Kenny, L., Cribb, J., & Pellicano, E. (2019). Childhood Executive Function Predicts Later Autistic Features and Adaptive Behavior in Young Autistic People: a 12-Year Prospective Study. *Journal of Abnormal Child Psychology, 47*(6), 1089-1099. doi:10.1007/s10802-018-0493-8	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
94.	Keshav, U., Vahabzadeh, A., Abdus-Sabur, R., Huey, K., Salisbury, J. P., Liu, R., & Sahin, N. (2018). Longitudinal Socio-Emotional Learning Intervention for Autism via Smartglasses: Qualitative School Teacher Descriptions of Practicality, Usability, and Efficacy in General and Special Education Classroom Settings. *Education Sciences, 8*.	6. Not an autism awareness intervention
95.	Khemka, I., Hickson, L., & Mallory, S. B. (2016). Evaluation of a Decision-Making Curriculum for Teaching Adolescents with Disabilities to Resist Negative Peer Pressure. *Journal of Autism and Developmental Disorders, 46*(7), 2372-2384. doi:10.1007/s10803-016-2770-0	6. Not an autism awareness intervention
96.	Kirby, A. V. (2016). Parent Expectations Mediate Outcomes for Young Adults with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 46*(5), 1643-1655. doi:10.1007/s10803-015-2691-3	6. Not an autism awareness intervention
97.	Klebanoff, M., Rosenau, A., & Wood, J. (2019). The therapeutic alliance in cognitive-behavioral therapy for school-aged children with autism and clinical anxiety. *Autism, 23*(8), 2031-2042. doi:10.1177/1362361319841197	3. Participants are not in second level education
98.	Knott, F., Dunlop, W., & MacKay, T. (2006). Living with ASD. *Autism, 10*(6), 609-617. doi:10.1177/1362361306068510	6. Not an autism awareness intervention
99.	Koning, C., Magill-Evans, J., Volden, J., & Dick, B. (2013). Efficacy	4. Outcomes are not

	of cognitive behavior therapy-based social skills intervention for school-aged boys with autism spectrum disorders. *Research in Autism Spectrum Disorders, 7*(10), 1282-1290. doi:10.1016/j.rasd.2011.07.011	focused on attitude, knowledge or intentional behaviour
100.	Kouklari, E., Thompson, T., Monks, C., & Tsermentseli, S. (2017). Hot and Cool Executive Function and its Relation to Theory of Mind in Children with and without Autism Spectrum Disorder. *Journal of Cognition and Development, 18*(4), 399-418. doi:10.1080/15248372.2017.1339708	3. Participants are not in second level education
101.	Kratz, E., Stahmer, A., Ming, X., Marcus, S., Pellecchia, M., Locke, J., . . . Mandell, S. (2019). The Effect of Implementation Climate on Program Fidelity and Student Outcomes in Autism Support Classrooms. *Journal of Consulting & Clinical Psychology, 87*(3), 270-281. doi:10.1037/ccp0000368	6. Not an autism awareness intervention
102.	Kucharczyk, S., Reutebuch, K., Carter, E, Hedges, S., El Zein, F., Fan, H., & Gustafson, R. (2015). Addressing the Needs of Adolescents With Autism Spectrum Disorder: Considerations and Complexities for High School Interventions. *Exceptional Children, 81*(3), 329-349. doi:10.1177/0014402914563703	6. Not an autism awareness intervention
103.	Kuhlthau, K., Warfield, M.., Hurson, J., Delahaye, J., & Crossman, K. (2015). Pediatric provider's perspectives on the transition to adult health care for youth with autism spectrum disorder: Current strategies and promising new directions. *Autism, 19*(3), 262-271. doi:10.1177/1362361313518125	6. Not an autism awareness intervention
104.	Lam, H., Holden, E., Fitzpatrick, M., Mendez, L. R., & Berkman, K. (2020). "Different but connected": Participatory action research using Photovoice to explore well-being in autistic young adults. *Autism, 24*(5), 1246-1259. doi:10.1177/1362361319898961	6. Not an autism awareness intervention
105.	Lambert, R., Sugita, T., Yeh, C., Hunt, J. H., Brophy, S., Wallace, T. L., & Kuo, E. (2020). Documenting Increased Participation of a Student With Autism in the Standards for Mathematical Practice. *Journal of Educational Psychology, 112*(3), 494-513. doi:10.1037/edu0000425	6. Not an autism awareness intervention
106.	Lasgaard, M., Nielsen, A., Eriksen, M. E., & Goossens, L. (2010). Loneliness and Social Support in Adolescent Boys with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 40*(2), 218-226. doi:10.1007/s10803-009-0851-z	6. Not an autism awareness intervention
107.	Laugeson, E., Ellingsen, R., Sanderson, J., Tucci, L., & Bates, S. (2014). The ABC's of Teaching Social Skills to Adolescents with Autism Spectrum Disorder in the Classroom: The UCLA PEERS (R) Program. *Journal of Autism and Developmental Disorders, 44*(9), 2244-2256. doi:10.1007/s10803-014-2108-8	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
108.	Layden, S., Hendricks, D., Inge, K., Sima, A., Erickson, D.,	6. Not an autism

	Avellone, L., & Wehman, P. (2018). Providing online professional development for paraprofessionals serving those with ASD: Evaluating a statewide initiative. *Journal of Vocational Rehabilitation, 48*(2), 285-294. doi:10.3233/JVR-180932	awareness intervention
109.	Lee, V., Duku, E., Zwaigenbaum, L., Bennett, T., Szatmari, P., Elsabbagh, M., . . . Georgiades, S. Temperament influences the relationship between symptom severity and adaptive functioning in children with autism spectrum disorder. *Autism*. doi:10.1177/1362361320933048	6. Not an autism awareness intervention
110.	Li, B., Bos, M. G., Stockmann, L., & Rieffe, C. (2020). Emotional functioning and the development of internalizing and externalizing problems in young boys with and without autism spectrum disorder. *Autism, 24*(1), 200-210. doi:10.1177/1362361319874644	6. Not an autism awareness intervention
111.	Li, C., Wong, K., Sum, W., & Yu, W. (2019). Preservice Teachers' Mindfulness and Attitudes Toward Students With Autism Spectrum Disorder: The Role of Basic Psychological Needs Satisfaction. *Adapted Physical Activity Quarterly, 36*(1), 150-163. doi:10.1123/apaq.2018-0044	3. Not a student population
112.	Locke, J., Anderson, A., Frederick, L., & Kasari, C. (2018). Understanding Friendship Sex Heterophily and Relational Characteristics to Optimize the Selection of Peer Models for Children with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 48*(12), 4010-4018. doi:10.1007/s10803-018-3662-2	6. Not an autism awareness intervention
113.	Locke, J., Rotheram-Fuller, E., Harker, C., Kasari, C., & Mandell, D. S. (2019). Comparing a Practice-Based Model with a Research-Based Model of social skills interventions for children with autism in schools. *Research in Autism Spectrum Disorders, 62*, 10-17. doi:10.1016/j.rasd.2019.02.002	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
114.	Loring, W. A., Johnston, R., Gray, L., Goldman, S., & Malow, B. (2016). A brief behavioral intervention for insomnia in adolescents with autism spectrum disorders. *Clinical Practice in Pediatric Psychology, 4*(2), 112-124. doi:10.1037/cpp0000141	6. Not an autism awareness intervention
115.	Lushin, V., Marcus, S., Gaston, D., Beidas, R., Lamson, A., Goy, I., . . . Mandell, D. The role of staffing and classroom characteristics on preschool teachers' use of one-to-one intervention with children with autism. *Autism*. doi:10.1177/1362361320932726	3. Participants are not in second level education
116.	Mahoney, M. W. M. (2019). Peer-Mediated Instruction and Activity Schedules: Tools for Providing Academic Support for Autistic students. *TEACHING Exceptional Children, 51*(5), 350-360.	6. Not an autism awareness intervention
117.	Majoko, T. (2016). Inclusion of Children with Autism Spectrum Disorders: Listening and Hearing to Voices from the Grassroots. *Journal of Autism and Developmental Disorders, 46*(4), 1429-1440.	3. Participants are not in second level education

	doi:10.1007/s10803-015-2685-1	
118.	Mandelberg, J., Laugeson, E., Cunningham, T., Ellingsen, R., Bates, S., & Frankel, F. (2014). Long-Term Treatment Outcomes for Parent-Assisted Social Skills Training for Adolescents With Autism Spectrum Disorders: The UCLA PEERS Program. *Journal of Mental Health Research in Intellectual Disabilities, 7*(1), 45-73. doi:10.1080/19315864.2012.730600	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
119.	Maras, K., Gamble, T., & Brosnan, M. (2019). Supporting metacognitive monitoring in mathematics learning for young people with autism spectrum disorder: A classroom-based study. *Autism, 23*(1), 60-70. doi:10.1177/1362361317722028	6. Not an autism awareness intervention
120.	Markodimitraki, M., Ampartzaki, M., Kypriotaki, M., & Linardakis, M. (2017). Twin brothers with autism and their intra-pair interactions in a pre-school special education class. *Early Child Development and Care, 187*(12), 1938-1947. doi:10.1080/03004430.2016.1199375	3. Participants are not in second level education
121.	Matthews, N. L., Orr, B. C., Warriner, K., DeCarlo, M., Sorensen, M., Laflin, J., & Smith, C. J. (2018). Exploring the Effectiveness of a Peer-Mediated Model of the PEERS Curriculum: A Pilot Randomized Control Trial. *Journal of Autism and Developmental Disorders, 48*(7), 2458-2475. doi:10.1007/s10803-018-3504-2	6. Not an autism awareness intervention
122.	Mayes, S. D., & Calhoun, S. L. (2003). Ability profiles in children with autism - Influence of age and IQ. *Autism, 7*(1), 65-80. doi:10.1177/1362361303007001006	6. Not an autism awareness intervention
123.	McCauley, J. B., Zajic, M. C., Oswald, T. M., Swain-Lerro, L. E., McIntyre, N. C., Harris, M. A., . . . Solomon, M. (2018). Brief Report: Investigating Relations Between Self-Concept and Performance in Reading and Math for School-Aged Children and Adolescents with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 48*(5), 1825-1832. doi:10.1007/s10803-017-3403-y	6. Not an autism awareness intervention
124.	McCollum, M., LaVesser, P., & Berg, C. (2016). Participation in Daily Activities of Young Adults with High Functioning Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 46*(3), 987-997. doi:10.1007/s10803-015-2642-z	6. Not an autism awareness intervention
125.	McCrae, C. S., Chan, W. S., Curtis, A. F., Nair, N., Deroche, C. B., Munoz, M., . . . Mazurek, M. O. Telehealth cognitive behavioral therapy for insomnia in children with autism spectrum disorder: A pilot examining feasibility, satisfaction, and preliminary findings. *Autism*. doi:10.1177/1362361320949078	3. Participants are not in second level education
126.	McNeill, J. (2019). Social Validity and Teachers' Use of Evidence-Based Practices for Autism. *Journal of Autism and Developmental Disorders, 49*(11), 4585-4594. doi:10.1007/s10803-019-04190-y	3. Not a student population
127.	Mehzabin, P., & Stokes, M. A. (2011). Self-assessed sexuality in young adults with High-Functioning Autism. *Research in Autism*	6. Not an autism awareness

	Spectrum Disorders, 5(1), 614-621. doi:10.1016/j.rasd.2010.07.006	intervention
128.	Mills, C. J., Chapparo, C., & Hinitt, J. (2020). The impact of sensory activity schedule (SAS) intervention on classroom task performance in students with autism - a pilot randomised controlled trial. *Advances in Autism, 6*(3), 179-193. doi:10.1108/aia-05-2019-0015	6. Not an autism awareness intervention
129.	Mims, P. J., Hudson, M. E., & Browder, D. M. (2012). Using Read-Alouds of Grade-Level Biographies and Systematic Prompting to Promote Comprehension for Students With Moderate and Severe Developmental Disabilities. *Focus on Autism and Other Developmental Disabilities, 27*(2), 67-80. doi:10.1177/1088357612446859	6. Not an autism awareness intervention
130.	Miyachi, T., Nakai, A., Tani, I., Ohnishi, M., Nakajima, S., Tsuchiya, K. J., . . . Tsujii, M. (2014). Evaluation of Motor Coordination in Boys with High-Functioning Pervasive Developmental Disorder Using the Japanese Version of the Developmental Coordination Disorder Questionnaire. *Journal of Developmental and Physical Disabilities, 26*(4), 403-413. doi:10.1007/s10882-014-9377-1	6. Not an autism awareness intervention
131.	Monz, B. U., Houghton, R., Law, K., & Loss, G. (2019). Treatment patterns in children with autism in the United States. *Autism Research, 12*(3), 517-526. doi:10.1002/aur.2070	6. Not an autism awareness intervention
132.	Morris, S., O'Reilly, G., & Byrne, M. K. Understanding Our Peers with Pablo: Exploring the Merit of an Autism Spectrum Disorder De-stigmatisation Programme Targeting Peers in Irish Early Education Mainstream Settings. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04464-w	6. Not an autism awareness intervention
133.	Mpella, M., Evaggelinou, C., Koidou, E., & Tsigilis, N. (2018). The Effects of a Theatrical Play Programme on Social Skills Development for Young Children with Autism Spectrum Disorders. *Journal of Natural & Applied Sciences, 22*(3), 828-845.	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
134.	Muller, E., Naples, L. H., Cannon, L., Haffner, B., & Mullins, A. (2019). Using integrated arts programming to facilitate social and emotional learning in young children with social cognition challenges. *Early Child Development and Care, 189*(14), 2219-2232. doi:10.1080/03004430.2018.1445732	6. Not an autism awareness intervention
135.	Musyoka, M. M., Gentry, M. A., & Meek, D. R. (2017). Perceptions of Teachers' Preparedness to Teach Deaf and Hard of Hearing Students with Additional Disabilities: A Qualitative Case Study. *Journal of Developmental and Physical Disabilities, 29*(5), 827-848. doi:10.1007/s10882-017-9555-z	3. Not a student population
136.	Nagele, D. A., McCart, M., Hooper, S. R., DePompei, & Glang. (2018). A call for implementing preferred practices for brain injury screening in youth to improve transition. *NeuroRehabilitation, 42*(3),	6. Not an autism awareness intervention

289-298. doi:10.3233/NRE-172386

137.	Nah, Y. H. (2020). Pre-school teachers' perceptions of challenging behaviours of students with autism spectrum disorder within inclusive settings. *Advances in Autism, 6*(3), 205-214. doi:10.1108/aia-05-2019-0013	3. Not a student population
138.	Nally, A., Holloway, J., Lydon, H., & Healy, O. The Edmark (R) Reading Program: A Comparison of Computerized and Table Top Presentation in Reading Outcomes in Students with Autism Spectrum Disorder. *Journal of Developmental and Physical Disabilities*. doi:10.1007/s10882-020-09747-9	6. Not an autism awareness intervention
139.	Narzisi, A., Muratori, F., Calderoni, S., Fabbro, F., & Urgesi, C. (2013). Neuropsychological Profile in High Functioning Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 43*(8), 1895-1909. doi:10.1007/s10803-012-1736-0	6. Not an autism awareness intervention
140.	Noland, R. M., & Gabriels, R. L. (2004). Screening and identifying children with autism spectrum disorders in the public school system: The development of a model process. *Journal of Autism and Developmental Disorders, 34*(3), 265-277. doi:10.1023/b:jadd.0000029549.84385.44	3. Participants are not in second level education
141.	Odom, S. L. (2019). Peer-Based Interventions for Children and Youth With Autism Spectrum Disorder: History and Effects. *School Psychology Review, 48*(2), 170-176. doi:10.17105/SPR-2019-0019.V48-2	2. Study did not collect primary data
142.	Owen-Smith, A. A., Bent, S., Lynch, F. L., Coleman, K. J., Yau, V. M., Pearson, K. A., . . . Croen, L. A. (2015). Prevalence and predictors of complementary and alternative medicine use in a large insured sample of children with Autism Spectrum Disorders. *Research in Autism Spectrum Disorders, 17*, 40-51. doi:10.1016/j.rasd.2015.05.002	6. Not an autism awareness intervention
143.	Paquette-Smith, M., Weiss, J. A., Dergal, J., Lake, J., & Lunsky, Y. (2019). Predictors of health service use among adolescents and adults with autism and aggression. *Research in Autism Spectrum Disorders, 68*. doi:10.1016/j.rasd.2019.101418	6. Not an autism awareness intervention
144.	Park, H. J., & Chung, G. H. (2015). A Multifaceted Model of Changes and Adaptation among Korean Mothers of Children with Disabilities. *Journal of Child and Family Studies, 24*(4), 915-929. doi:10.1007/s10826-014-9902-y	6. Not an autism awareness intervention
145.	Pellecchia, M., Beidas, R. S., Lawson, G., Williams, N. J., Seidman, M., Kimberly, J. R., . . . Mandell, D. S. Does implementing a new intervention disrupt use of existing evidence-based autism interventions? *Autism*. doi:10.1177/1362361320919248	6. Not an autism awareness intervention
146.	Perryman, T., Ricks, L., & Cash-Baskett, L. (2020). Meaningful Transitions: Enhancing Clinician Roles in Transition Planning for	6. Not an autism awareness

	Adolescents With Autism Spectrum Disorders. *Language, Speech & Hearing Services in Schools, 51*(4), 899-913. doi:10.1044/2020_LSHSS-19-00048	intervention
147.	Pickard, K. E., & Ingersoll, B. R. (2016). Quality versus quantity: The role of socioeconomic status on parent-reported service knowledge, service use, unmet service needs, and barriers to service use. *Autism, 20*(1), 106-115. doi:10.1177/1362361315569745	6. Not an autism awareness intervention
148.	Platos, M., & Wojaczek, K. (2018). Broadening the Scope of Peer-Mediated Intervention for Individuals with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 48*(3), 747-750. doi:10.1007/s10803-017-3429-1	6. Not an autism awareness intervention
149.	Post, M., Haymes, L., Storey, K., Loughrey, T., & Campbell, C. (2014). Understanding Stalking Behaviors by Individuals with Autism Spectrum Disorders and Recommended Prevention Strategies for School Settings. *Journal of Autism and Developmental Disorders, 44*(11), 2698-2706. doi:10.1007/s10803-012-1712-8	6. Not an autism awareness intervention
150.	Pugliese, C. E., Ratto, A. B., Granader, Y., Dudley, K. M., Bowen, A., Baker, C., & Anthony, L. G. (2020). Feasibility and preliminary efficacy of a parent-mediated sexual education curriculum for youth with autism spectrum disorders. *Autism, 24*(1), 64-79. doi:10.1177/1362361319842978	6. Not an autism awareness intervention
151.	Rabin, S. J., Israel-Yaacov, S., Laugeson, E. A., Mor-Snir, I., & Golan, O. (2018). A randomized controlled trial evaluating the Hebrew adaptation of the PEERS (R) intervention: Behavioral and questionnaire-based outcomes. *Autism Research, 11*(8), 1187-1200. doi:10.1002/aur.1974	6. Not an autism awareness intervention
152.	Rabin, S. J., Laugeson, E. A., Mor-Snir, I., & Golan, O. An Israeli RCT of PEERS (R): Intervention Effectiveness and the Predictive Value of Parental Sensitivity. *Journal of Clinical Child and Adolescent Psychology*. doi:10.1080/15374416.2020.1796681	6. Not an autism awareness intervention
153.	Rance, G., Chisari, D., Saunders, K., & Rault, J. L. (2017). Reducing Listening-Related Stress in School-Aged Children with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 47*(7), 2010-2022. doi:10.1007/s10803-017-3114-4	6. Not an autism awareness intervention
154.	Ratliff-Black, M., & Therrien, W. Parent-Mediated Interventions for School-Age Children With ASD: A Meta-Analysis. *Focus on Autism and Other Developmental Disabilities*. doi:10.1177/1088357620956904	6. Not an autism awareness intervention
155.	Reutebuch, C. K., Roberts, G. J., Thompson, J. L., El Zein, F., Mize, M., Weinberg, A. N., . . . Rodriguez, K. (2019). Reading comprehension treatment development for high school students with autism spectrum disorder: Stakeholder considerations for feasibility. *Research in Autism Spectrum Disorders, 57*, 105-119.	6. Not an autism awareness intervention

	doi:10.1016/j.rasd.2018.10.009	
156.	Rex, C., Charlop, M. H., & Spector, V. (2018). Using Video Modeling as an Anti-bullying Intervention for Children with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 48*(8), 2701-2713. doi:10.1007/s10803-018-3527-8	6. Not an autism awareness intervention
157.	Rotheram-Fuller, E., Kasari, C., Chamberlain, B., & Locke, J. (2010). Social involvement of children with autism spectrum disorders in elementary school classrooms. *Journal of Child Psychology and Psychiatry, 51*(11), 1227-1234. doi:10.1111/j.1469-7610.2010.02289.x	3. Participants are not in second level education
158.	Roy, D., & Rivard, M. (2020). Challenging Social Situations for Students with Autism Spectrum Disorder Integrated Into Mainstream Classrooms in Quebec: The Specialists' Perspective. *Journal on Developmental Disabilities, 25*(1), 1-18.	6. Not an autism awareness intervention
159.	Ruble, L. A., Love, A. M. A., Wong, V. W., Grisham-Brown, J. L., & McGrew, J. H. (2020). Implementation fidelity and common elements of high quality teaching sequences for students with autism spectrum disorder in COMPASS. *Research in Autism Spectrum Disorders, 71*. doi:10.1016/j.rasd.2019.101493	6. Not an autism awareness intervention
160.	Sala, G., Hooley, M., Attwood, T., Mesibov, G. B., & Stokes, M. A. (2019). Autism and Intellectual Disability: A Systematic Review of Sexuality and Relationship Education. *Sexuality & Disability, 37*(3), 353-382. doi:10.1007/s11195-019-09577-4	2. Study did not collect primary data
161.	Sansi, A., Nalbant, S., & Ozer, D. Effects of an Inclusive Physical Activity Program on the Motor Skills, Social Skills and Attitudes of Students with and without Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04693-z	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
162.	Sasaki, Y., Yagihashi, T., Kasahara, M., Usami, M., Kono, T., & Okada, T. (2020). Clinical implications of a history of stealing on psychiatric disorders in children and adolescents. *PLoS ONE, 15*(8), 1-12. doi:10.1371/journal.pone.0237906	6. Not an autism awareness intervention
163.	Schafer, E. C., Gopal, K. V., Mathews, L., Thompson, S., Kaiser, K., McCullough, S., . . . Hutcheson, A. (2019). Effects of Auditory Training and Remote Microphone Technology on the Behavioral Performance of Children and Young Adults Who Have Autism Spectrum Disorder. *Journal of the American Academy of Audiology, 30*(5), 431-443. doi:10.3766/jaaa.18062	6. Not an autism awareness intervention
164.	Schleien, S. J., Mustonen, T., & Rynders, J. E. (1995). Participation of children with autism and non-disabled peers in a cooperatively structured community art programme. *Journal of Autism and Developmental Disorders, 25*(4), 397-413. doi:10.1007/bf02179375	6. Not an autism awareness intervention

165.	Schohl, K. A., Van Hecke, A. V., Carson, A. M., Dolan, B., Karst, J., & Stevens, S. (2014). A Replication and Extension of the PEERS Intervention: Examining Effects on Social Skills and Social Anxiety in Adolescents with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 44*(3), 532-545. doi:10.1007/s10803-013-1900-1	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
166.	Segall, M. J., & Campbell, J. M. (2012). Factors relating to education professionals' classroom practices for the inclusion of students with autism spectrum disorders. *Research in Autism Spectrum Disorders, 6*(3), 1156-1167. doi:10.1016/j.rasd.2012.02.007	6. Not an autism awareness intervention
167.	Shih, W., Patterson, S. Y., & Kasari, C. (2016). Developing an Adaptive Treatment Strategy for Peer-Related Social Skills for Children With Autism Spectrum Disorders. *Journal of Clinical Child and Adolescent Psychology, 45*(4), 469-479. doi:10.1080/15374416.2014.915549	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
168.	Shire, S. Y., Shih, W., Bracaglia, S., Kodjoe, M., & Kasari, C. Peer engagement in toddlers with autism: Community implementation of dyadic and individual Joint Attention, Symbolic Play, Engagement, and Regulation intervention. *Autism*. doi:10.1177/1362361320935689	3. Participants are not in second level education
169.	Shum, K. K. M., Cho, W. K., Lam, L. M. O., Laugeson, E. A., Wong, W. S., & Law, L. S. K. (2019). Learning How to Make Friends for Chinese Adolescents with Autism Spectrum Disorder: A Randomized Controlled Trial of the Hong Kong Chinese Version of the PEERS (R) Intervention. *Journal of Autism and Developmental Disorders, 49*(2), 527-541. doi:10.1007/s10803-018-3728-1	6. Not an autism awareness intervention
170.	Smith, E., Constantin, A., Johnson, H., & Brosnan, M. Digitally-Mediated Social Stories Support Children on the Autism Spectrum Adapting to a Change in a 'Real-World' Context. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-020-04558-5	6. Not an autism awareness intervention
171.	Smith, E., Toms, P., Constantin, A., Johnson, H., Harding, E., & Brosnan, M. (2020). Piloting a digitally-mediated social story intervention for autistic children led by teachers within naturalistic school settings. *Research in Autism Spectrum Disorders, 75*. doi:10.1016/j.rasd.2020.101533	3. Not a student population
172.	Sosnowy, C., Silverman, C., & Shattuck, P. (2018). Parents' and young adults' perspectives on transition outcomes for young adults with autism. *Autism, 22*(1), 29-39. doi:10.1177/1362361317699585	3. Not a student population
173.	Stephenson, J., Browne, L., Carter, M., Clark, T., Costley, D., Martin, J., . . . Sweller, N. (2020). Facilitators and barriers to inclusion of students with autism spectrum disorder: Parent, teacher, and principal perspectives. *Australasian Journal of Special and Inclusive*	6. Not an autism awareness intervention

Education. doi:10.1017/jsi.2020.12

174.	Stichter, J. P., Laffey, J., Galyen, K., & Herzog, M. (2014). iSocial: Delivering the Social Competence Intervention for Adolescents (SCI-A) in a 3D Virtual Learning Environment for Youth with High Functioning Autism. *Journal of Autism and Developmental Disorders, 44*(2), 417-430. doi:10.1007/s10803-013-1881-0	6. Not an autism awareness intervention
175.	Stichter, J. P., O'Connor, K. V., Herzog, M. J., Lierheimer, K., & McGhee, S. D. (2012). Social Competence Intervention for Elementary Students with Aspergers Syndrome and High Functioning Autism. *Journal of Autism and Developmental Disorders, 42*(3), 354-366. doi:10.1007/s10803-011-1249-2	3. Participants are not in second level education
176.	Szymanski, C. A., Brice, P. J., Lam, K. H., & Hotto, S. A. (2012). Deaf Children with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 42*(10), 2027-2037. doi:10.1007/s10803-012-1452-9	6. Not an autism awareness intervention
177.	Tucker, V., & Schwartz, I. (2013). Parents' Perspectives of Collaboration with School Professionals: Barriers and Facilitators to Successful Partnerships in Planning for Autistic students. *School Mental Health, 5*(1), 3-14. doi:10.1007/s12310-012-9102-0	3. Not a student population
178.	Van Hecke, A., Stevens, S., Carson, A., Karst, J., Dolan, B., Schohl, K., . . . Brockman, S. (2015). Measuring the Plasticity of Social Approach: A Randomized Controlled Trial of the Effects of the PEERS Intervention on EEG Asymmetry in Adolescents with Autism Spectrum Disorders. *Journal of Autism & Developmental Disorders, 45*(2), 316-335. doi:10.1007/s10803-013-1883-y	6. Not an autism awareness intervention
179.	Van Pelt, B., Idris, S., Jagersma, G., Duvekot, J., Maras, A., van der Ende, J., . . . Greaves-Lord, K. (2020). The ACCEPT-study: design of an RCT with an active treatment control condition to study the effectiveness of the Dutch version of PEERS® for adolescents with autism spectrum disorder. *BMC Psychiatry, 20*(1), 1-14. doi:10.1186/s12888-020-02650-9	6. Not an autism awareness intervention
180.	van Roekel, E., Scholte, R. H. J., & Didden, R. (2010). Bullying Among Adolescents With Autism Spectrum Disorders: Prevalence and Perception. *Journal of Autism and Developmental Disorders, 40*(1), 63-73. doi:10.1007/s10803-009-0832-2	6. Not an autism awareness intervention
181.	Vincent, J. (2019). It's the fear of the unknown: Transition from higher education for young autistic adults. *Autism, 23*(6), 1575-1585. doi:10.1177/1362361318822498	6. Not an autism awareness intervention
182.	Visser, K., Greaves-Lord, K., Tick, N. T., Verhulst, F. C., Maras, A., & van der Vegt, E. J. M. (2017). A randomized controlled trial to examine the effects of the Tackling Teenage psychosexual training program for adolescents with autism spectrum disorder. *Journal of Child Psychology and Psychiatry, 58*(7), 840-850.	6. Not an autism awareness intervention

	doi:10.1111/jcpp.12709	
183.	Warfield, M. E., Crossman, M. K., Delahaye, J., Weerd, E. D., & Kuhlthau, K. A. (2015). Physician Perspectives on Providing Primary Medical Care to Adults with Autism Spectrum Disorders (ASD). *Journal of Autism and Developmental Disorders, 45*(7), 2209-2217. doi:10.1007/s10803-015-2386-9	6. Not an autism awareness intervention
184.	Weiss, D., Cook, B., & Eren, R. (2020). Transdisciplinary Approach Practicum for Speech-Language Pathology and Special Education Graduate Students. *Journal of Autism and Developmental Disorders, 50*(10), 3661-3678. doi:10.1007/s10803-020-04413-7	6. Not an autism awareness intervention
185.	Weiss, J. A., Lai, J. K. Y., Lee, V., & Lunsky, Y. Predictors of Changes in Daily Activity inTransition-AgeAutistic Youth. *Autism Research*. doi:10.1002/aur.2371	6. Not an autism awareness intervention
186.	Westerveld, M. F., Paynter, J., O'Leary, K., & Trembath, D. (2018). Preschool predictors of reading ability in the first year of schooling in children with ASD. *Autism Research, 11*(10), 1332-1344. doi:10.1002/aur.1999	3. Participants are not in second level education
187.	White, S. E. (2014). Special Education Complaints Filed by Parents of Students With Autism Spectrum Disorders in the Midwestern United States. *Focus on Autism and Other Developmental Disabilities, 29*(2), 80-87. doi:10.1177/1088357613478830	3. Not a student population
188.	Wilczynski, S. M., Labrie, A., Baloski, A., Kaake, A., Marchi, N., & Zoder-Martell, K. (2017). Web-based teacher training and coaching feedback AND COACHING/FEEDBACK: A CASE STUDY. *Psychology in the Schools, 54*(4), 433-445. doi:10.1002/pits.22005	3. Not a student population
189.	Witmer, S. E., Nasamran, A., Parikh, P. J., Schmitt, H. A., & Clinton, M. C. (2015). Using Parents and Teachers to Monitor Progress Among Children With ASD: A Review of Intervention Research. *Focus on Autism and Other Developmental Disabilities, 30*(2), 67-85. doi:10.1177/1088357614525659	3. Not a student population
190.	Wyman, J., & Claro, A. (2020). The UCLA PEERS School-Based Program: Treatment Outcomes for Improving Social Functioning in Adolescents and Young Adults with Autism Spectrum Disorder and Those with Cognitive Deficits. *Journal of Autism and Developmental Disorders, 50*(6), 1907-1920. doi:10.1007/s10803-019-03943-z	6. Not an autism awareness intervention
191.	Yamada, T., Miura, Y., Oi, M., Akatsuka, N., Tanaka, K., Tsukidate, N., . . . Laugeson, E. A. (2020). Examining the Treatment Efficacy of PEERS in Japan: Improving Social Skills Among Adolescents with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders, 50*(3), 976-997. doi:10.1007/s10803-019-04325-1	4. Outcomes are not focused on attitude, knowledge or intentional behaviour
192.	Yoo, H., Bahn, G., Cho, I., Kim, E., Kim, H., Min, W., . . . Laugeson, A. (2014). A Randomized Controlled Trial of the Korean Version of the PEERS (R) Parent-Assisted Social Skills Training Program for	4. Outcomes are not focused on attitude, knowledge or

	Teens With ASD. *Autism Research, 7*(1), 145-161. doi:10.1002/aur.1354	intentional behaviour
193.	Zajaczkowska, M., & Abbot-Smith, K. (2020). "Sure I'll help-I've just been sitting around doing nothing at school all day": Cognitive flexibility and child irony interpretation. *Journal of Experimental Child Psychology, 199*. doi:10.1016/j.jecp.2020.104942	6. Not an autism awareness intervention
194.	Zajic, M. C., McIntyre, N., Swain-Lerro, L., Novotny, S., Oswald, T., & Mundy, P. (2018). Attention and written expression in school-age, high-functioning children with autism spectrum disorders. *Autism, 22*(3), 245-258. doi:10.1177/1362361316675121	6. Not an autism awareness intervention
195.	Zakas, T. L., Browder, D. M., Ahlgrim-Delzell, L., & Heafner, T. (2013). Teaching social studies content to students with autism using a graphic organizer intervention. *Research in Autism Spectrum Disorders, 7*(9), 1075-1086. doi:10.1016/j.rasd.2013.06.001	6. Not an autism awareness intervention

Appendix B: Studies that met the Inclusion Criteria

Studies Included in the Review

Reference
Campbell, J. (2007). Middle school students' response to the self-introduction of a student with autism: Effects of perceived similarity, prior awareness, and educational message. *Remedial and Special Education*, *28*, 163–173. doi: 10.1177/07419325070280030501
Fleva, E. (2014). Attitudes and behavioural intentions of typically developing adolescents towards a hypothetical peer with asperger syndrome. *World Journal of Education*, *4*, 54–65. doi: 10.5430/wje.v4n6p54
Fleva, E. (2015). Imagined contact improves intentions towards a hypothetical peer with asperger syndrome but not attitudes towards peers with asperger syndrome in general. *World Journal of Education*, *5*, 1–12. doi: 10.5430/wje.v5n1p1
Ranson, N., & Byrne, M. (2014). Promoting peer acceptance of females with higher-functioning autism in a mainstream education setting: A replication and extension of the effects of an autism anti-stigma program. *Journal of Autism and Developmental Disorders*, *44*, 2778-2796. doi:10.1007/s10803-014-2139-1
Staniland, J., & Byrne, M. (2013). The effects of a multi-component higher- functioning autism anti-stigma program on adolescent boys. *Journal of Autism and Developmental Disorders*, *43*, 2816-2829. doi:10.1007/s10803-013-1829-4/
Tonnsen, B., & Hahn, E. (2016). Middle school students' attitudes toward a peer with autism spectrum disorder: Effects of social acceptance and physical inclusion. *Focus on Autism and Other Developmental Disabilities*, *31*, 262–274.

Appendix C: Weight of Evidence A

Coding Protocol:

Gersten, R., Fuchs, L. S., Compton, D., Coyne, M., Greenwood, C., & Innocenti, M. S. (2005). Quality indicators for group experimental and quasi-experimental research in special education. *Exceptional Children*, 71(2), 149–164.

The Weight of Evidence scores are illustrated from the following study:

Ranson, N., & Byrne, M. (2014). Promoting peer acceptance of females with higher-functioning autism in a mainstream education setting: A replication and extension of the effects of an autism anti-stigma program. *Journal of Autism and Developmental Disorders*, *44*, 2778-2796. doi:10.1007/s10803-014-2139-1

ESSENTIAL QUALITY INDICATORS		
A. Quality indicators for description of participants:		**Criteria satisfied?**
Criteria 1.	Were appropriate procedures used to ensure participant groups were comparable across intervention conditions?	***Overall Quality Indicator Met for criteria 1?*** x Yes ☐ No ☐Partially met
Sub questions considered within ratings	Were participants randomly assigned to the two conditions?	x Yes ☐ No ☐ N/A ☐ Unknown/Unable to Code
	Were participants are matched on salient variables or a stratified assignment procedure is employed?	x Yes ☐ No ☐ N/A ☐ Unknown/Unable to Code
	Attrition rates between the intervention and the comparison group are not substantially different?	x Yes ☐ No ☐ N/A ☐ Unknown/Unable to Code
Criteria 2.	Were intervention administers comparable across conditions?	***Overall Quality Indicator Met for criteria 2?*** x Yes ☐ No ☐Partially met

	(e.g. did the same person administer all the interventions, or did the same person train the intervention administers?)	
B. Quality indicators for implementation of the intervention and description of comparison conditions		
<u>Criteria 3.</u>	Was the intervention clearly described and specified?	***Overall Quality Indicator Met for criteria 3?*** x Yes ☐ No ☐Partially met
	Was enough information provided about the intervention to allow for replication? *(e.g. conceptual underpinnings, detailed instructional procedures, intervention administrators actions and language, use of instructional material and what students are required to do and day)*?	x Yes ☐ No ☐ N/A ☐ Unknown/Unable to Code
Criteria 4.	Was the fidelity of the implementation described?	***Overall Quality Indicator Met for criteria 4?*** x Yes ☐ No ☐Partially met
Criteria 5.	Was the nature of the intervention provided in comparison conditions described?	***Overall Quality Indicator Met for criteria 5?*** x Yes ☐ No ☐Partially met
C. Quality indicators for outcome measures		
Criteria 6.	Were multiple measures used to provide an appropriate balance between measures closely aligned with the intervention and measures of generalised performance?	***Overall Quality Indicator Met for criteria 6?*** x Yes ☐ No ☐Partially met
Criteria 7.	Was evidence of reliability for outcome measures provided?	***Overall Quality Indicator Met for criteria 7?*** ☐ Yes x No ☐Partially met
Criteria 8.	Were outcomes for capturing the intervention's effect measured at the appropriate times?	***Overall Quality Indicator Met for criteria 8?*** x Yes ☐ No ☐Partially met
D. Quality indicators for data analysis		

Criteria 9.	Were the data analysis techniques appropriately linked to key research questions and hypotheses?	***Overall Quality Indicator Met for criteria 9?*** x Yes ☐ No ☐Partially met
Criteria 10.	Did the research report include not only inferential statistics but also effect size calculations?	***Overall Quality Indicator Met for criteria 10?*** x Yes ☐ No ☐Partially met
DESIRABLE QUALITY INDICATORS		
Criteria 11.	Was data available on attrition rates among intervention samples? Was severe overall attrition documented? If so, is attrition comparable across samples? Is overall attrition less than 30%?	***Overall Quality Indicator Met for criteria 11?*** x Yes ☐ No ☐Partially met
Criteria 12.	Did the study provide not only internal consistency reliability but also test- retest reliability and interrater reliability (when appropriate) for outcome measures?	***Overall Quality Indicator Met for criteria 12?*** ☐ Yes x No ☐Partially met
Sub questions considered within the rating	Were data collectors and/or scorers blind to study conditions and equally (un)familiar to examinees across study conditions?	☐ Yes x No ☐ N/A ☐ Unknown/Unable to Code
Criteria 13.	Were outcomes for capturing the intervention's effect measured beyond an immediate post-test?	***Overall Quality Indicator Met for criteria 13?*** x Yes ☐ No ☐Partially met
Criteria 14.	Was evidence of the criterion-related validity and construct validity of all the measures provided?	***Overall Quality Indicator Met for criteria 14?*** ☐ Yes x No ☐Partially met
Criteria 15.	Did the research team assess not only surface features of fidelity implementation (e.g. number of minutes allocated to the intervention or teacher/interventionist following procedures specified), but also examine quality of implementation?	***Overall Quality Indicator Met for criteria 15?*** ☐ Yes x No ☐Partially met
Criteria 16.	Was any documentation of the nature of instruction or series provided in comparison conditions?	***Overall Quality Indicator Met for criteria 16?*** x Yes

		☐ No ☐Partially met
Criteria 17.	Did the research report include actual audio or videotape excerpts that capture the nature of the intervention?	***Overall Quality Indicator Met for criteria 17?*** ☐ Yes x No ☐Partially met
Criteria 18.	Were results presented in a clear, coherent fashion?	***Overall Quality Indicator Met for criteria 18?*** x Yes ☐ No ☐Partially met

	1=Low Quality *(Less than 9 of the Essential Quality Indicators are met)*	**2=Acceptable Quality** *(At least 9 Essential Quality indicators are met and 1-3 Desirable Indicators)*	**3=High Quality** *(At least 9 Essential Quality indicators are met and 4+ Desirable Indicators)*	**Overall Evidence Rating** **(1-3)**
Number of Essential Quality Indicators Met (9/10)			3	3
Number of Desirable Quality Indicators Met (4/8)				

Appendix D: Weight of Evidence B

WOE B Rating and Criteria		
HIGH = 3 Experimental design with all of the following: - An appropriate control group that does not take part in an autism awareness intervention. - Measures of attitude, knowledge and/or behavioural intention are collected pre and post intervention, as well as a follow up measures and for the control condition.	**MEDIUM = 2** Experimental design with either: - A control group or - Pre and post measures of attitude, knowledge and/or behavioural intention are collected - No follow up measures collected	**LOW = 1** Single Case or Non-Experimental Designs as the effectiveness of an intervention can't be measured accurately. This may also include studies which have: -No pre intervention measures collected - No control groups - Small sample sizes, such as 1 class of students

Study	WOE B Rating given
Cambell, 2007	1 = LOW
Fleva, 2014	1 = LOW
Fleva, 2015	2 = LOW
Ranson and Byrne, 2014	3 = HIGH
Staniland and Byrne, 2013	3 = HIGH
Tonnsen and Hahn, 2016	2 = MEDIUM

Appendix E: Weight of Evidence C

Relevance of the focus of the study to the review question.

Criteria	WOE C Rating and Descriptor	Rationale
i) Intervention delivery.	**3= HIGH** The intervention uses a combination of descriptive and explanatory information and the paper states the same person delivers the intervention to each group. **2= MEDIUM** The intervention uses a combination information with one intervention group and uses either descriptive or explanatory information with another group. **1= LOW** The intervention uses either descriptive or explanatory information and different people deliver the intervention to different groups.	Studies have shown that a combination of explanatory, directive and descriptive information is the most effective method of delivery(Cremin et al., 2020). Therefore, studies with a combination of explanatory and descriptive information will receive higher ratings.
ii) Schools and population taking part in the research	**3= HIGH** At least 4 schools are involved in the research and data is collected from both male and female students. **2= MEDIUM** 2 to 3 schools are involved in the research. Study may include male and/or female students.	In order to increase the reliability and validity of the findings, studies should be carried out across more than 1 setting. The more schools that are taking part in the research, the more representative the study will be of the population (Borovicka et al., 2012). Hence the findings will be more generalisable. Therefore, studies that are carried out in multiple schools will receive higher ratings.

	1= LOW Only 1 school is involved in the research. Study may include males and/or female students.	
iii) Outcome measures	**3 = HIGH** All three outcomes are measured; affective attitude, behavioural intent and knowledge of autism. **2 = MEDIUM** At least two of the following outcomes are measured; affective attitude, behavioural intent and knowledge of autism. **1 = LOW** Only one of the following outcomes are measured; affective attitude, behavioural intent and knowledge of autism.	Attitude is comprised of three elements, affective attitude, behavioural intention and knowledge (Hume & Campbell, 2019). Studies on autism awareness interventions have varied in their findings. When multiple components of attitude is measured it gives a more reliable outcome overall. Therefore, studies that measure all three elements of attitude will receive higher ratings.

Study	**WOE C Rating**	**Averaged score to give WOE C final rating**
Cambell (2007)	i = 2 ii = 1 iii = 3	2
Fleva (2014)	i = 3 ii = 1 iii = 2	2
Fleva (2015)	i = 3 ii = 2 iii = 2	2.3
Ranson and Byrne (2014)	i = 3 ii = 1 iii = 3	2.3

Staniland and Byrne (2013)	i = 3 ii = 1 iii = 3	2.3
Tonnsen and Hahn (2016)	i = 2 ii = 3 iii = 1	2

WOE D Rating				
Study	**WOE A Rating**	**WOE B Rating**	**WOE C Rating**	**Averaged scores to give overall WOE D rating**
Cambell (2007)	A = 1	B = 1	C= 2	1.3
Fleva (2014)	A = 1	B = 1	C= 2	1.3
Fleva, (2015)	A = 2	B = 2	C= 2.3	2.1
Ranson and Byrne (2014)	A = 3	B = 3	C= 2.3	2.8
Staniland and Byrne (2013)	A = 3	B = 3	C= 2.3	2.8
Tonnsen and Hahn (2016)	A = 2	B = 2	C= 2	2

Appendix F: MIREC Ethics Approval Confirmation

MIREC-5, Created November 2021

MARY IMMACULATE COLLEGE
COLÁISTE MHUIRE GAN SMÁL

MIREC-5

Research Ethics Committee

MIREC Final Decision Form

APPLICATION NUMBER:	A21-060

1. PROJECT TITLE

Explaining the Impact of Educating All Learners About Autism in Secondary Schools

2. APPLICANT

Name:	Elaine O'Keeffe
Department / Centre / Other:	EPISE
Position:	Postgraduate Researcher

3. DECISION OF MIREC CHAIR (✓)

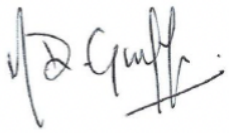
☐	Ethical clearance through MIREC is not required and therefore the applicant need take no further action in this regard.
✓	Ethical clearance is required and is hereby granted by the Chair without need for referral to the MIREC committee.
☐	Ethical clearance for a funding application or a similar purpose is granted by the Chair ***pro tem*** without need for referral to the MIREC committee. However, the applicant must subsequently seek ethical clearance from MIREC prior to embarking on any related project work involving human participants or their data.
☐	Ethical clearance is granted following review of the application by the MIREC committee.
☐	Ethical clearance is not granted following review of the application by the MIREC committee.

4. REASON(S) FOR DECISION

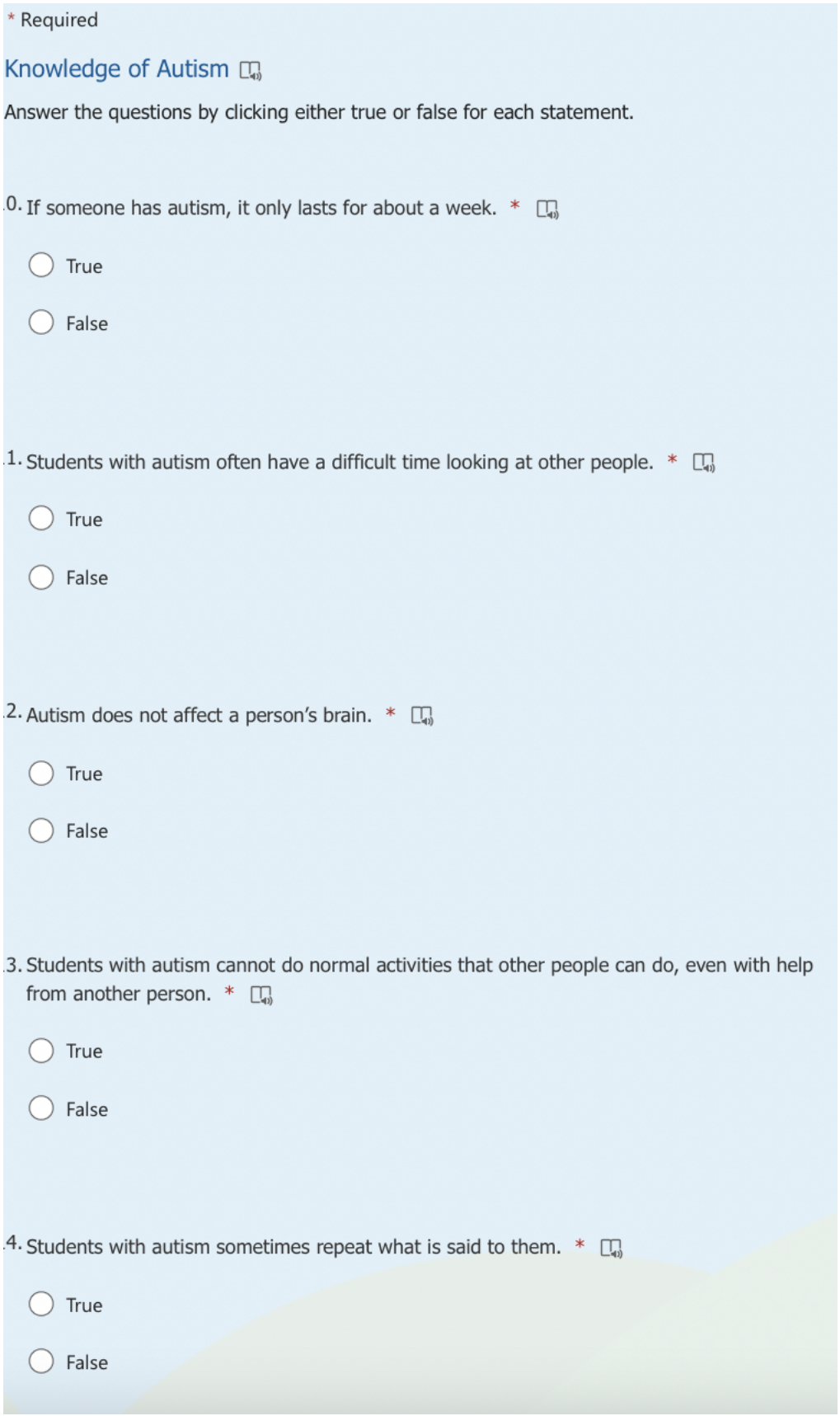
A21-060 – Elaine O'Keeffe PGR - Explaining the Impact of Educating All Learners About Autism in Secondary Schools

I have reviewed this application and I am satisfied that it meets MIREC requirements. It is, therefore, approved.

5. SIGNATURE OF MIREC CHAIR

Name (Print):	Dr Marie Griffin
Signature:	
Date:	22nd February 2022

Appendix G: Pre – and Post Intervention Questionnaire



* Required

Knowledge of Autism

Answer the questions by clicking either true or false for each statement.

10. If someone has autism, it only lasts for about a week. *

- True
- False

11. Students with autism often have a difficult time looking at other people. *

- True
- False

12. Autism does not affect a person's brain. *

- True
- False

13. Students with autism cannot do normal activities that other people can do, even with help from another person. *

- True
- False

14. Students with autism sometimes repeat what is said to them. *

- True
- False

5. Autistic students sometimes rock back and forth and wave their hands around. *

- ○ True
- ○ False

6. Some students with autism might have trouble talking or expressing themselves. *

- ○ True
- ○ False

7. Students with autism do not have difficulty changing activities and can easily move from one activity to another. *

- ○ True
- ○ False

8. Sometimes autistic students need extra help to learn how to read and write. *

- ○ True
- ○ False

9. You can catch autism by spending time with someone who has it, like you can catch a cold. *

- ○ True
- ○ False

Adjective Checklist

20. **Please tick any word you think that would describe someone who has autism. You can tick as many words as you like.** *

- [ ] Friendly
- [ ] Slow
- [ ] Lonely
- [ ] Nice
- [ ] Smart
- [ ] Unhappy
- [ ] Weak
- [ ] Honest
- [ ] Helpful
- [ ] Kind
- [ ] Cheerful
- [ ] Bright
- [ ] Ugly
- [ ] Ashamed
- [ ] Glad
- [ ] Healthy
- [ ] Happy
- [ ] Sad

- [ ] Alert
- [ ] Dumb
- [ ] Sloppy
- [ ] Attractive
- [ ] Neat
- [ ] Careless
- [ ] Selfish
- [ ] Dirty
- [ ] Greedy
- [ ] Careful
- [ ] Lazy
- [ ] Clever
- [ ] Foolish
- [ ] Bright

Shared Activities Questionnaire

Here is a list of things that you might do with a peer who has autism. **Select the answer that shows how you feel about doing each of these things with a peer who has autism.**

21. **Select the answer that shows how you feel about doing each of these things with a peer who has autism.** *

	No, Definitely not	Probably not	Maybe	Probably	Yes, Definitely
Ask them to come over to your house to hang out.	○	○	○	○	○
Have them in your class.	○	○	○	○	○
Sit next to them in class.	○	○	○	○	○
Work in the school library with them.	○	○	○	○	○
Share your things with them (i.e., games, books, pens, etc)	○	○	○	○	○

Work with them on class work.	○	○	○	○	○
Study for a test with them at school.	○	○	○	○	○
Invite them to your birthday party.	○	○	○	○	○
Ask them to go to an amusement park like Tayto Park.	○	○	○	○	○
Go out for dinner with them and their family.	○	○	○	○	○
Eat lunch next to them at school.	○	○	○	○	○
Walk together with them between classes at school.	○	○	○	○	○
Work with them in class on a group task.	○	○	○	○	○
Go shopping with them.	○	○	○	○	○
Ask them to join your group of friends.	○	○	○	○	○

Select the answer that shows how you feel about doing each of these things with a peer who has autism.

*

	No, Definitely not	Probably not	Maybe	Probably	Yes, Definitely
Do homework with them at home after school.	○	○	○	○	○
Go to the cinema with them.	○	○	○	○	○
Hang out with them during lunch at school (i.e. play games, sit and talk, etc.).	○	○	○	○	○
Pick them for your team in a game with other classmates.	○	○	○	○	○
Go to a sports match with them (i.e. Football matches, etc.).	○	○	○	○	○

Inclusion in School

5. How do you feel about school? Read every sentence carefully and select the answer that applies to you. *

	Not at all true	Somewh at not true	Somewh at true	Certainly true
I like going to school.	○	○	○	○
I have a lot of friends in my class.	○	○	○	○
I am a fast learner	○	○	○	○
I have no desire to go to school.	○	○	○	○
I get on very well with my classmate s.	○	○	○	○
I am able to solve very difficult exercises.	○	○	○	○

I like it in school.	○	○	○	○
I feel alone in my class.	○	○	○	○
I do well in my school work.	○	○	○	○
School is fun.	○	○	○	○
I have very good relationships with my classmates.	○	○	○	○
Many things in school are difficult for me.	○	○	○	○

Are you interested in participating in a 40 minute interview to discuss your experience in the upcoming Autism Awareness Workshop and inclusion in school?

This interview will be carried out during school time. The researcher, Elaine will be coming to your school to carry out interviews with students individually. Please indicate below if you would like to take part in a follow up interview. *

○ Yes, I would like to take part in a follow up interview.

○ No, I don't want to take part in the interview.

Appendix H: Information Letter and Consent/Assent Documents

Parent/Guardian Information Sheet

Study Title: *Exploring the Impact of Educating All Learners About Autism in Secondary School*

Who is conducting the study? The study is being conducted by a post-graduate researcher in Mary Immaculate College, Elaine O'Keeffe.

What is the study about? AsIAm is Ireland's National Autism Charity. The purpose of the research is to seek to capture the impact of AsIAm's Autism Awareness Workshop for Secondary School students. This initiative seeks to increase student's understanding of autism and foster autism-friendly schools. The research project aims to capture participants' perspectives of the *Autism Awareness Workshop*. Specifically, it aims to explore the impact of the workshop on participant's knowledge of autism, their attitudes and intentions to interact with people with autism. Following this, Phase 2 will involve interviews to investigate common themes identified in Phase 1.

Why is it important? This research will help people to understand the impact of educating students about autism and the best way to continue raising awareness about autism amongst school students in the future.

Who can participate? All 1st and 2nd years in your school have been invited to participate in the research.

What will I have to do? A link to an online consent form has been emailed to you by the school. If you are happy to give consent for your child to participate in this research you can type your child's name into the consent form and tick the consent box.

What does my child have to do? Your child will complete 2 surveys It is expected that each survey will not take longer than 20 minutes. In total your child's participation in Phase 1 should take 40 minutes. Your child's school have allocated time during the school day for participants to complete the two surveys in the computer room. At the end of Phase 1, participants have the option to volunteer for an interview with the researcher in Phase 2. These interviews will be completed in school during the school day and will take approximately 40 minutes.

Can my child withdraw from the study? Your child's participation is voluntary and they are under no obligation to participate. They can withdraw at any point before or during your participation in the study without providing any reason and without any consequences. If you wish to withdraw your child's data afterwards you can do so by contacting the researcher.

How will my child's information be used? This consent form will be stored in a secure password protected USB, accessible only by the research. It will be stored separately to the identification numbers so that your child's data remains anonymous. A unique identification number will be generated for all participants who consent to take part in the research. Your child will not be asked to provide their name or any other identifying information in the research. Your child's teacher will use the unique identification number to inform the researcher of participants who have and do not have special educational needs. For example participant 64 has Autism, participant 23 has other special educational needs, participant 10 does not have special educational needs. This information will never be connected to participants names, only their identification numbers and it will only be shared with the researcher. Participants who volunteer to take part in the interviews in Phase 2 will tick a box at the end of the survey. The researcher will inform the teacher of the participants who would like to take part in the interviews using their identification numbers. This ensures participant's names are never connected to their data. The researchers will have custody of data. The study will adhere to all relevant requirements in terms of data protection, GDPR, anonymity and confidentiality. The anonymised research data

and findings will be retained in a secure location for a minimum of three years after the submission of the research project, in line with Mary Immaculate College Research Management Retention Schedule. The information from this research will be used as part of a doctoral thesis, to inform future school interventions and for possible journal articles and conference proceedings.

Principal Investigator Contact Details: Elaine O'Keeffe 14157985@micstudent.mic.ul.ie

Research Supervisors Contact Details: Dr Laura Ambrose laura.ambrose@mic.ul.ie and Dr Keeley White keeley.white@mic.ul.ie.

This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC). If you have any concerns about this study and wish to contact an independent authority, you may contact: Mary Collins, MIREC Administrator, Mary Immaculate College, Limerick
Telephone: 061-204980 E-mail: mirec@mic.ul.ie

Parent/Guardian Informed Consent Form

Study Title: *Exploring the Impact of Educating All Learners About Autism in Secondary School*

1. I have read and understand the participant information sheet.
2. I understand what the project is about, and what the results will be used for.
3. I understand that I am agreeing for my child to participate in the research surveys.
4. I understand that I am agreeing for my child to participate in the research interviews if they wish to do so.
5. I understand that all the research will take part during the school day.
6. I am fully aware of all of the procedures involving my child, and of any risks and benefits associated with the
7. study.
8. I understand that my child's teacher will anonymously inform the researcher if my child has special educational needs and this information will only be connected to identification number and not their name.
9. I know that my child's participation is voluntary and that they can withdraw from the project at any stage without giving any reason.
10. I am aware that my child's results will be kept confidential.

Child's name: _____

Child's year group ☐ 1st Year ☐ 2nd Year

By ticking this box, I give informed consent to my child participating in the research ☐

Participant Information Sheet – (Phase 1 Surveys)

Study Title: *Exploring the Impact of Educating All Learners About Autism in Secondary School*

Who is conducting the study? The study is being conducted by a post-graduate researcher in Mary Immaculate College, Elaine O'Keeffe.

What is the study about? AsIAm is Ireland's National Autism Charity. The purpose of the research is to seek to capture the impact of AsIAm's Autism Awareness Workshop for Secondary School students. This initiative seeks to increase student's understanding of autism and foster autism-friendly schools. The research project aims to capture participants' perspectives of the *Autism Awareness Workshop*. Specifically in Phase 1, it aims to explore the impact of the workshop on participant's knowledge of autism, their attitudes and intentions to interact with people with autism. Following this, Phase 2 will involve interviews to investigate common themes identified in Phase 1.

Why is it important? This research will help people to understand the impact of educating students about autism and the best way to continue raising awareness about autism amongst school students in the future.

Who can participate? All 1st and 2nd years in your school have been invited to participate in the research.

What will I have to do? A link to the questionnaire will be emailed to you by your school, which will include informed consent. If you give consent to participate in the research you will be asked to complete the online survey on two occasions and return to the researchers electronically. You will also be asked to attend the Autism Awareness Workshop with participants in your year group.

How long will it take? It is expected that each survey will not take longer than 20 minutes. In total your participation in Phase 1 should take 40 minutes. Your school have allocated time during the school day for participants to complete the two surveys in the computer room.

How will my information be used? Your parent/guardian has typed your name on the parent/guardian consent form. This is to ensure that only students with parental/guardian consent are invited to take part in the research. A unique identification number has been generated for you **so** you will not be asked to provide your name or any other identifying information in the research. Your teacher will use the unique identification number to inform the researcher of participants who have and do not have special educational needs. For example participant 64 has Autism, participant 23 has other special educational needs, participant 10 does not have special educational needs. This information will never be connected to participants names, only their identification numbers and it will only be shared with the researcher. Participants who volunteer to take part in the interviews in Phase 2 will tick a box at the end of the survey. The researcher will inform the teacher of the participants who would like to take part in the interviews using their identification numbers. This ensures participant's names are never connected to their data. The researchers will have custody of data. The study will adhere to all relevant requirements in terms of data protection, GDPR, anonymity and confidentiality. The anonymised research data and findings will be retained in a secure location for a minimum of three years after the submission of the research project, in line with Mary Immaculate College Research Management Retention Schedule. The information from this research will be used as part of a doctoral thesis, to inform future school interventions and for possible journal articles and conference proceedings. Your participation is voluntary and you are under no obligation to participate. You can withdraw at any point before or during your participation in the study without providing any reason and without any consequences. If you wish to withdraw your data afterwards you can do so by contacting the researcher.

Principal Investigator Contact Details: Elaine O'Keeffe 14157985@micstudent.mic.ul.ie **Research Supervisors Contact Details:** Dr Laura Ambrose laura.ambrose@mic.ul.ie and Dr Keeley White keeley.white@mic.ul.ie. This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC). If you have any concerns about this study and wish to contact an independent authority, you may contact: Mary Collins, MIREC Administrator, Mary Immaculate College, Limerick. Telephone: 061-204980 E-mail: mirec@mic.ul.ie

Informed Assent Form (Phase 1 Surveys)

Study Title: *Exploring the Impact of Educating All Learners About Autism in Secondary School*

1. I have read and understand the participant information sheet.

2. I understand what the project is about, and what the results will be used for.

3. I understand that I am agreeing to participate in the Phase 1 by completing two surveys.

4. I am fully aware of all of the procedures involving myself, and of any risks and benefits associated with the study.

5. I understand that my teacher will anonymously inform the researcher if I have special educational needs and this information will only be connected to identification number and not my name.

6. I know that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason.

7. I am aware that my results will be kept confidential.

By ticking this box, I give informed consent to participating in the research ☐

Participant Information Sheet – (Phase 2 Interviews)

Study Title: *Exploring the Impact of Educating All Learners About Autism in Secondary School*

Who is conducting the study? The study is being conducted by a post-graduate researcher in Mary Immaculate College, Elaine O'Keeffe.

What is the study about? AsIAm is Ireland's National Autism Charity. The purpose of the research is to seek to capture the impact of AsIAm's Autism Awareness Workshop for Secondary School students. This initiative seeks to increase student's understanding of autism and foster autism-friendly schools. The research project aims to capture participants' perspectives of the *Autism Awareness Workshop*. Specifically it aims to explore the impact of the workshop on participant's knowledge of autism, their attitudes and intentions to interact with people with autism.

Why is it important? This research will help people to understand the impact of educating students about autism and the best way to continue raising awareness about autism amongst school students in the future.

Who can participate? All 1st and 2nd years in your school who attended the Autism Awareness Workshop have been invited to participate in the research.

What will I have to do? You will be asked to sign an informed consent form. You will be asked to participate in a semi- structured interview with the researcher in school during the school day.

How long will it take? It is expected the interview will not take longer than 40 minutes. Your school have allocated time during the school day for participants to participate in the interview with the researcher. The feedback session will take approximately 15 minutes.

Can I withdraw from the study? Your participation is voluntary and you are under no obligation to participate. You can withdraw at any point before or during your participation in the study without providing any reason and without any consequences If you wish to withdraw your data afterwards you can do so by contacting the researcher.

How will my information be used? Your interview will be recorded on the researcher's dictaphone, which will be stored in a locked filing cabinet, accessible only by the researcher. The transcription will be anonymised and pseudonyms (fake names) will be used when writing the research report. No identifying information (name, school etc.) will be included in the transcription or final research report. Your signed consent form will be stored separately to your interview transcription in order to maintain anonymity and confidentiality. The researchers will have custody of data. The study will adhere to all relevant requirements in terms of data protection, GDPR, anonymity and confidentiality. The anonymised research data and findings will be retained in a secure location for a minimum of three years after the submission of the research project, in line with Mary Immaculate College Research Management Retention Schedule. The information from this research will be used as part of a doctoral thesis, to inform future school interventions and for possible journal articles and conference proceedings.

Principal Investigator Contact Details: Elaine O'Keeffe 14157985@micstudent.mic.ul.ie
Research Supervisors Contact Details: Dr Laura Ambrose laura.ambrose@mic.ul.ie and Dr Keeley White keeley.white@mic.ul.ie.

This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC). If you have any concerns about this study and wish to contact an independent authority, you may contact: Mary Collins, MIREC Administrator, Mary Immaculate College, Limerick. Telephone: 061-204980 E-mail: mirec@mic.ul.ie

Informed Assent Form (Phase 2 Interviews)

Study Title: *Exploring the Impact of Educating All Learners About Autism in Secondary School*

1. I have read and understand the participant information sheet.

2. I understand what the project is about, and what the results will be used for.

3. I understand that I am agreeing to participate in the Phase 2 Interviews of this project.

4. I am fully aware of all of the procedures involving myself, and of any risks and benefits associated with the study.

5. I know that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason.

6. I am aware that my results will be kept confidential.

Signatures:

Participant: _____ Date: _____

Appendix I: Recruitment Advertisement for Schools

Research on Autism Awareness Workshop for Students

Would your school like to be involved in research on AsIAm's Autism Awareness Workshop for Students?

What is the Autism Awareness Workshop?
This is a 1 hour workshop delivered in school by xxx from AsIAm, educating students about Autism.

Study Title: *Exploring the Impact of Educating All Learners About Autism in Secondary School*

What is the study about? AsIAm is Ireland's National Autism Charity. The purpose of the research is to seek to capture the impact of AsIAm's Autism Awareness Workshop for secondary school students. This initiative seeks to increase student's understanding of autism and foster autism-friendly schools. The research project aims to capture participants' perspectives of the Autism Awareness Workshop. Specifically it aims to explore the impact of the workshop on participant's knowledge of autism, their attitudes and intentions to interact with people with autism. The research is being conducted by a Postgraduate Researcher in Mary Immaculate College, Elaine O'Keeffe.

Which students can participate in the research?
All students in 1st and 2nd year will be invited to participate in the research. Consent will be sought from parents and students before they participate.

What do the participants need to do?
Participants will be asked to complete a 20 minute survey before they attend the workshop. They will be asked to complete another 20 minute survey after they complete the workshop. Participants will then be invited to volunteer to participate in 40 minute interviews with the researcher to gain deeper insights into students' perceptions of inclusive school culture and what they learned from the workshop. The interviews and surveys will be completed during the school day.

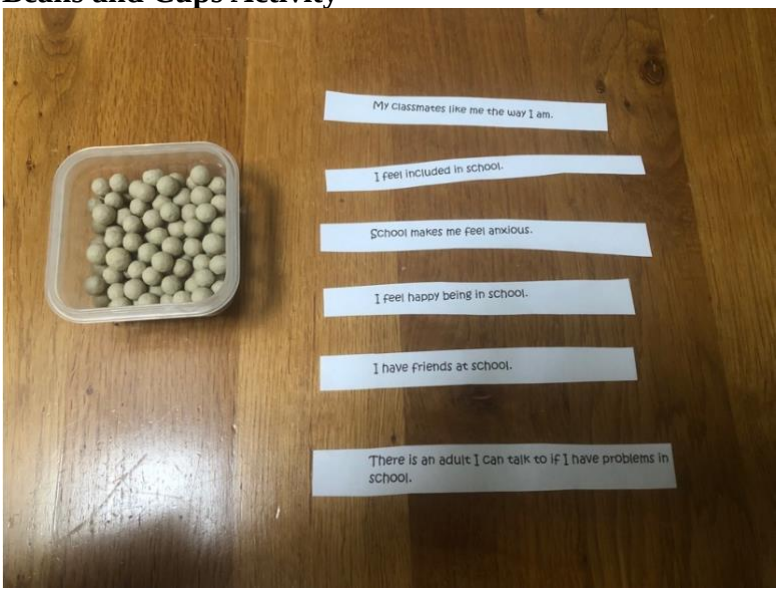
What do the school need to do?
Nominate a lead teacher to link in with the researcher. The researcher will send the lead teacher consent forms and information sheets to circulate to 1st and 2nd year students and their parents. The school must arrange a time for participants to complete the online surveys before and after the workshop.

If your school would like to participate please send an email to xxxxxx@asiam.ie. One school will be selected at random to participate in the research project. If you have any further questions about the research, you can contact the Principal Investigator, Elaine O'Keeffe, 14157985@micstudent.mic.ul.ie .

Appendix J: Autistic Student Semi-Structured Interview Guide

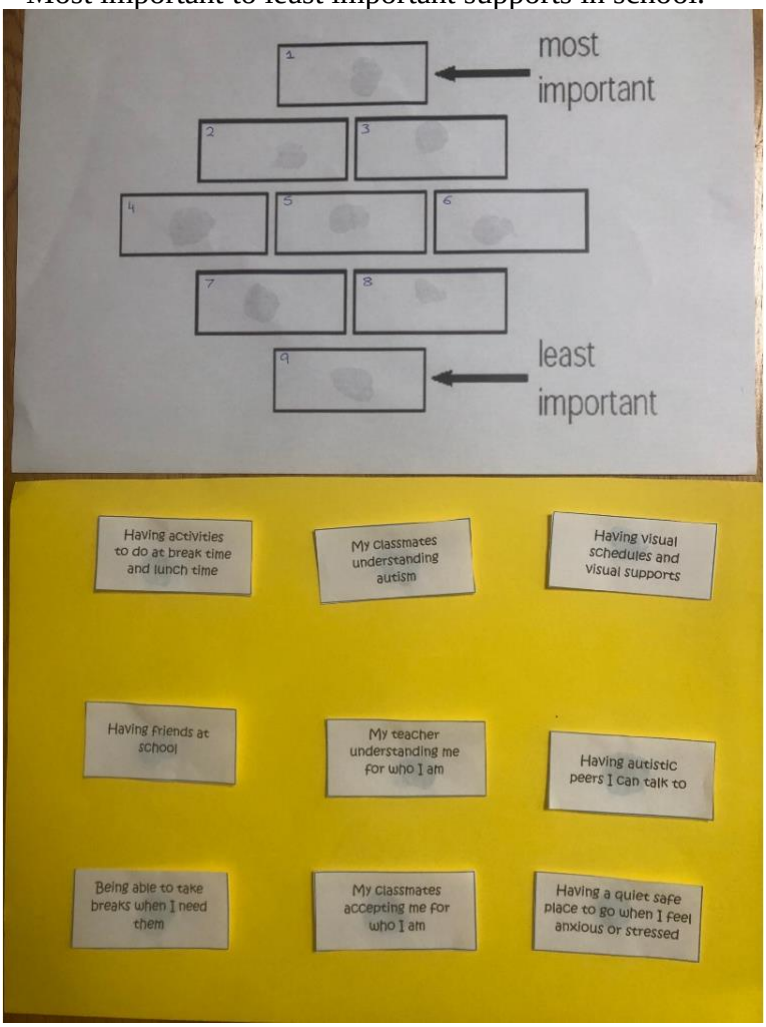
Introduction
Informed Consent – revisited.
Did you attend the Autism Awareness workshop?
Autistic person, a person with autism, a person on the autism spectrum

Beans and Cups Activity

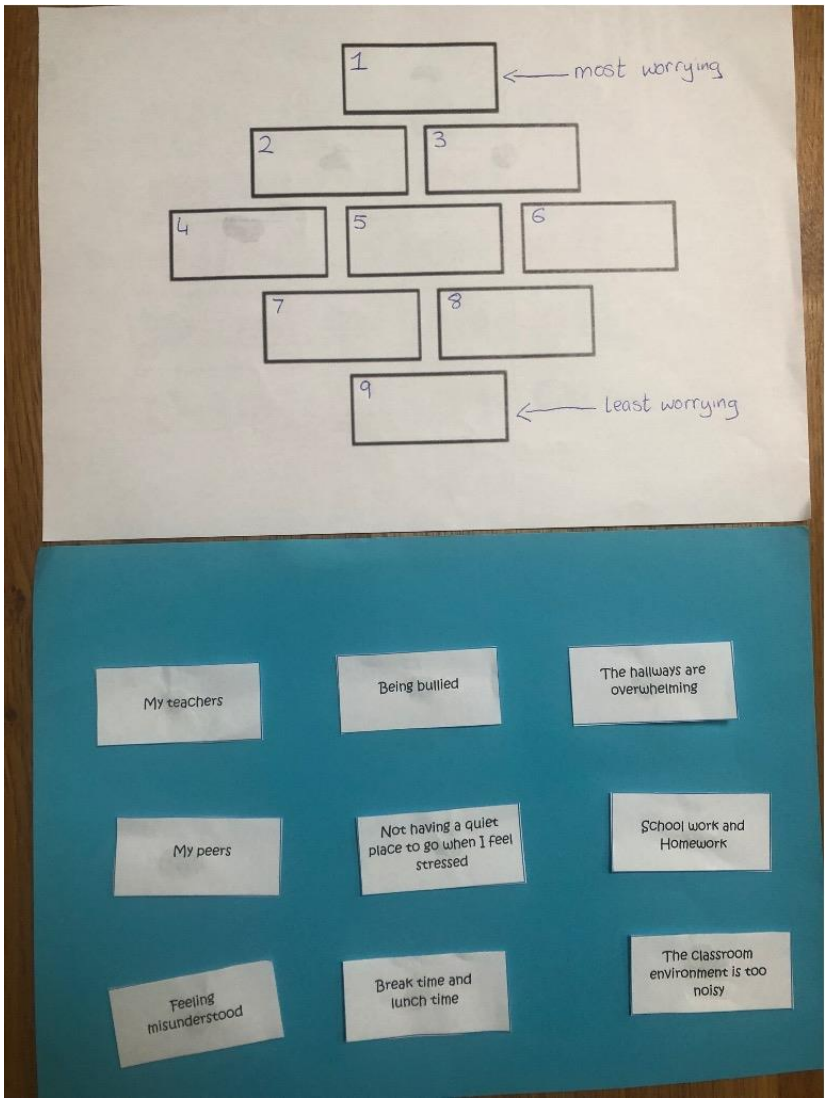


Diamond Ranking Activity

– Most important to least important supports in school.



– Most worrying to least worrying things about school.



Reflections on the Autism Awareness Workshop

What parts of the workshop did you like/dislike?

Did you learn anything in the autism awareness workshop?

How did you feel about other students learning about autism in your school?

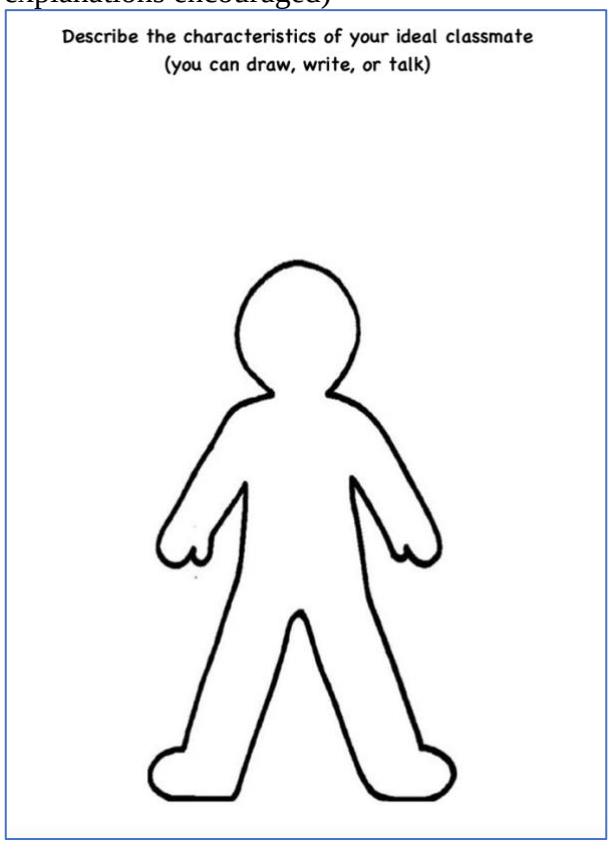
Do you think the autism awareness workshop impacted your peers' understanding of autism/ attitudes/ behaviours towards autistic peers?

Have you noticed any changes in the way other students interact with you since the workshop or not?

How can the Autism Awareness Workshop be improved?

Ideal Classmate Activity

Describe the characteristics of an ideal classmate? (add drawings and words to the outline- explanations encouraged)



Inclusion

Who has a role in school to help you feel included?
How can autism acceptance be promoted in schools?

Do you have any autistic peers? What is it like?

Are there other groups of students who you think could be included better in school?

Closing: Thank you for sharing your experiences with me. Do you have anything else that you want to ask, or is there anything I didn't ask you that you would like to talk about?

Appendix J: Peer of autistic Student Semi-Structured Interview Guide

Introduction

- Informed Consent – revisited.
- Tell me a little bit about your school?
- Do you know any autistic people? (family, friends, in school?)

Feedback on the Autism Awareness Workshop

- What did you think of the Autism Awareness Workshop?
- What parts of the workshop did you like/dislike?
- Why do you think students in your school learn about autism?
- Do you think students should learn about autism or not?
- How can the Autism Awareness Workshop be improved?
- What does autism mean to you?

Exploring the impacts of the Workshop

- What new information did you learn in the Autism Awareness Workshop?
- How has the workshop impacted you?
- Has the autism awareness workshop changed your understanding of autism or not?
- How has the autism awareness workshop changed your attitude towards autistic peers?
- Have you interacted with anyone with autism since the workshop?
- Did you interact differently than you would have before the workshop?
- Now that students in your school attended the workshop, how do you think it impacts autistic students in your school?
- Do you think students should learn about autism in school or not?

Inclusion

- Who has a role in school to help autistic students feel included?
- How can autism acceptance be promoted in schools?
- How can schools be more inclusive of autistic young people?
- What do you think whole school inclusion means.
- Are there other groups of students who you think could be included better in school?

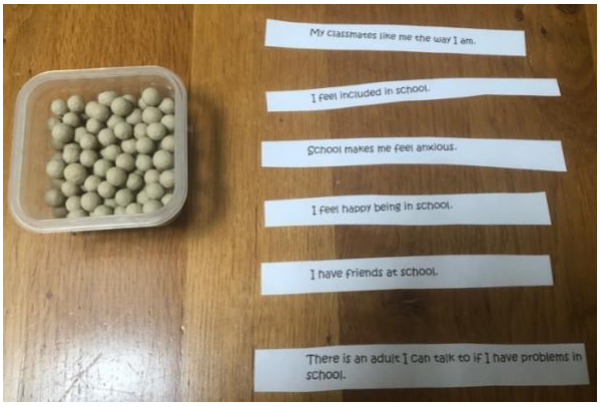
Closing

Thank you for sharing your experiences with me. Do you have anything else that you want to ask, or is there anything I didn't ask you that you would like to talk about?

Appendix K: Sample Transcript with Coding

Pseudonym of young person: Tara **Participant information:** This is a 1st year autistic student, who is enrolled in the mainstream classes in the secondary school. **Prior to transcription:** the interviewer introduced herself to the participant and the interviewer and participant engaged in the Informed assent process.

Beans and Cups Activity



Interviewer: So this our first activity and this is called the beans and cups activity. There are three cups. It, says true, not true and unsure. So I'm going to give you some statements and you can tell me in your opinion for you, is it true, not true or unsure?

Tara: OK.

Interviewer: And for each statement you can put one bean into the cup that you agree with. So our first one is ‘I have friends at school’.

Tara: (True)

Interviewer: Tell me about your friends.

Tara: So I have quite a few friends. Most of them are very kind. Some I get into fights with but not all the time. I don't have usual fights with them. Not that much, but a few of my friends are very nice.

Interviewer: Are they in your class?

Tara: Yes, most of them.

Interviewer: The next one is about your classmates. So ‘my classmates like me the way I am’.

Tara: (True)

Interviewer: Tell me more about them.

Tara: Lots of people like me, the way I am. Not many people judge me, based on who I am or what I do.

Interviewer: And how do you know your classmates like you?

Tara: They normally hang out with me. They enjoy my company. They give me compliments sometimes.

Interviewer: I see. This one says ‘there is an adult I can talk to if I ever have problems in school’.

Tara: (True).

Interviewer: What adults can you talk to?

Tara: I can talk to Miss X or Miss Y. There's always, Miss Y. I like Ms Y to talk to 'cause she normally has a solution for everything.

Interviewer: And what does it feel like to be able to talk to adults in your school?

Tara: It feels good to know that I can talk to someone without being like judged or them, concerning too much about the problem in a way that they won't listen to the rest of the problem. That's kind of what my parents do, they listen to the first part of the problem and then they get really concerned and then they don't listen to the rest of the problem.

Interviewer: OK, so you like to move on to problem solving.

Tara: Yeah

Interviewer: Can you problem solve with your friends?

Tara: yeah.

Interviewer: So the next one is, ‘I feel happy being in school’.

Tara: (True)

Interviewer: Tell me what makes you happy about school?

Tara: I'm happy to be in school because first of all, some classes are really fun and some teachers are really good. Some teachers, eh, they’re ok. Being with my friends. Lockers, I like the lockers and how I can have my own space in them. It's like having my own room, but like, locker form, but they're a bit small.

Interviewer: Yeah, and are the lockers in a classroom or in the hallways?

Tara: In the hallways. Sometimes it's hard to get to them. I have to be first to get there and to like, get all my stuff, yeah?

Interviewer: Tell me more.

Tara: So it's like there's 3 lockers in one column. And I'm on top, so if I if I get there first, I can get my books easily. But normally I have to wait for the other two people to get their books from down below. And then get my books.

Interviewer: Yeah, I see. So the next one is ‘I feel included in school’.

Tara: (True)

Interviewer: True, tell me more about this.

Tara: I feel included at school because it's not like anyone trying to... . They would normally explain stuff to me if I'm not getting it or if I'm doing something they’ll always feel like I should be included in everything.

Interviewer: And what kind of things do you feel included in?

Tara: I feel included in conversations at lunch. I feel included in class assignments. I feel included in chats with my friends. I feel included in lessons.

Interviewer: And what kind of good things do people do in your school to help you feel included?

Tara: Give me breaks. Help me asking for help, I have a big problem with asking for help. Giving me after work when I don't have enough. Or giving me help if I'm struggling in class?

Interviewer: Very good and what kind of things do students do in your school to help you feel supported or feel included.

Tara: Well, my friends, they helped me feel supported because, if I'm feeling upset or a little angry, we normally chat it out. And enjoy lunch while having chat.

Interviewer: And is there anything that's going on in school that you wish people would do?

Tara: I wish people would learn more about autism, because in the autism talk with Hannah and not many people were there like not a lot of people from first year were there. Some people, they kind of stereotype people with autism. As in mostly I got someone that who said that, Oh yeah, I thought autism was just for boys but girls can have it too so.

Interviewer: Yeah, that was really interesting. So about 30 people in first year went to the autism awareness talk. How many people do you think in your future should go?

Tara: I think like out of the 62 in first year, I think like 40 or 50 should have gone and so more could be more people could know about autism.

Interviewer: And what would the benefits or drawbacks would be?

Tara: Benefits would be, because not many people know I have a autism because I don't really share that much. So if I could come out with autism and not be judged by that, yeah.

Tara: So yeah.

Interviewer: That's a really good point. And why do you think the students in your school did learn about autism.

Tara: Some of them want to be more understanding. Some of them are good friends of people with autism. Some of them just wanted to get to know and then some of them just wanted to skip class.

Interviewer: Yeah, that happens, doesn't it. Do you think students should learn about autism?

Tara: Yes, I think it should be like a subject.

Interviewer: So you think it should be a continuous thing in school?

Tara: yeah.

Interviewer: How regular do you think it should be?

Tara: Twice a week, once a week. Learning about other things too like dyslexia, dyspraxia, different special needs.

Interviewer: Oh, how would that help?

Tara: That would help because some students, they don't just have one special need, they have multiple and not many people know about people with dyspraxia or people with dyslexia or people with autism or people with ADHD. So I would like like for an awareness at class for that.

Interviewer: That's a really cool idea, and who do you think should give the class?

Tara: I think, either Miss X or Miss Y or someone from the XXX (autism class), because they're mostly around people with special needs or even Miss Z. (X,Y and Z are pseudonyms for teachers named).

Interviewer: How would it help, say students with dyslexia or dyspraxia if other students in school learned about it?

Tara: It would help them to get less confused when people are talking about special needs. See, I know several people in our year with dyslexia and sometimes we have to explain to people who don't have dyslexia, about what dyslexia does and how it's not the same for everyone because they just stereotype it to one person they know.

Interviewer: Yes, ah. And here is our last statement for this activity. ‘School makes me feel anxious’.

Tara: Would unsure count as sometimes? (unsure)

Interviewer: Yeah, it's kind of like a sometimes. Tell me about that.

Tara: Sometimes because like there’s the older students and like they're walking around and they're like giants and I'm just like, why are they so tall? And it's like it's just nerve wracking

how you have to walk past them all the time and you're scared of how they might judge you if you walk past them wrongly, or weirdly.

Interviewer: Mm-hmm, and are you afraid that you might walk past them wrongly?

Tara: yeah.

Interviewer: And might be something to do with having autism or just being it a student in first year?

Tara: Being a student in first year. That's because one time when I was in the hallway with my friends, and then these third years walked past us and was like, ‘these corridor smells of first years’ and I was like huh? And yeah, I don't really get why older years don't like the first years.

Interviewer: Oh, it's a tricky one. OK, well I have some more questions. What does inclusion mean to you inclusion means?

Tara: Inclusion means, being included, being there as in physically, mentally, and everyone knows you are there in the conversation. So you're like saying stuff here include including or giving stuff to the conversation or giving stuff to the activity.

Interviewer: You're active in it?

Tara: Yeah.

Interviewer: And what does autism mean to you?

Tara: Autism, I think it means, it's something that I'm born with. I cannot change it. It's not so much as a disability as an advantage. Because sometimes autism can be a real advantage. Sometimes it can be a disadvantage, I've known from younger years. But the advantages are it's actually really good for problem solving for me and it can help me in maths because most of the time I'm ahead of my class by seven questions, so yeah. There's the advantages of thinking outside the box, my favorite, and being creative.

Interviewer: Wow, you like to do creative things?

Tara: So I like designing pictures. I like designing and clothes I like and taking pictures. Everything about pictures. I like to read.

Interviewer: You have so many strengths and what kind of disadvantages might there be sometimes?

Tara: Well overwhelming, Overwhelming feelings. The anxiety that comes with it. The stereotypes with them and if you come out, it's more likely that people will treat you differently than treat you the same as you were.

Interviewer: Tell me more about that.

Tara: I was more likely to be. My friends, I got lucky with my friends because I explained to them what autism was way before the talk [autism awareness workshop] and they understood and they treat me the exact same way. But then there's some people who wouldn't have treated me the exact same way as before when they learned I had autism. Some people in class maybe, and they didn't treat me the same as before.

Interviewer: So when they find out that you had autism.

Tara: They found out at the start of the year because someone said something really rude about autism and I was like, I stood up and said I have autism. And so yeah.

Interviewer: Very good and how do you think it changed the way they treated you?

Tara: They were a little more cautious around me. A little less talkative around me. Kind of stays away.

Interviewer: And since the Autism Awareness Workshop has their interactions with you, changed or not?

Tara: A few [peers]. We had a fight a few months ago. It ended not so good. But then a few weeks later it got kind of better.

Interviewer: How did it get better?

Tara: They started talking to me more after the workshop.

Interviewer: Why do you think that was?

Tara: I think they understood more about how autism isn't just one type of autism. It's multiple things in one.

Interviewer: And the fights you had was that before you had the workshop or afterward?

Tara: Before it.

Interviewer: So you had the fight, then you had the workshop? And now you think they're talking to you little bit more?

Tara: Yeah.

Interviewer: And what other reasons do you think this happened?

Tara: Because the fight has kind of ebbed out and it's kind of more chill in classroom now. It’s kind of more quiet and relaxed.

Interviewer: And was the fight about autism.

Tara: Am no, it was about another thing, but it was kind of related to my autism because I have a certain way of dealing with things and that way wasn’t so good.

Interviewer: Yeah, I know what you mean.

Interviewer: Tell me, how has autism impacted your school experience?

Tara: I think it impacted it really good, except in the fight. Sometimes there can be meltdowns if like something unexpected happens or something bad happens. It's sometimes difficult to deal with it, but then again, there are advantages.

Interviewer: And what advantages is that?

Tara: There's the advantages of like having a real good time in class and trying to problem solve in class and having more time to think about my own personal life after finishing lots of questions.

Tara: So yeah.

Interviewer: And what do you like to think about your personal life.

Tara: I like to think about what I’m going to do when I’m older? What am I going to do this weekend? Am I going to go over to my friend's house?

Interviewer: I see. And what would you like to do when you're older?

Tara: When I'm older I have several plans. I really want to be an actress, but I have a problem with clubs.

Interviewer: Oh yeah, what's your problem with clubs?

Tara: I just don't really like clubs. I find that they're very restricting in clubs because I've been to several clubs when I was younger and they were very strict and very restricting except for this one, club, scouts club, where you got to build whatever you wanted, wherever you wanted.

Interviewer: That sounds really cool and did you go that club for a few weeks?

Tara: Yes I did.

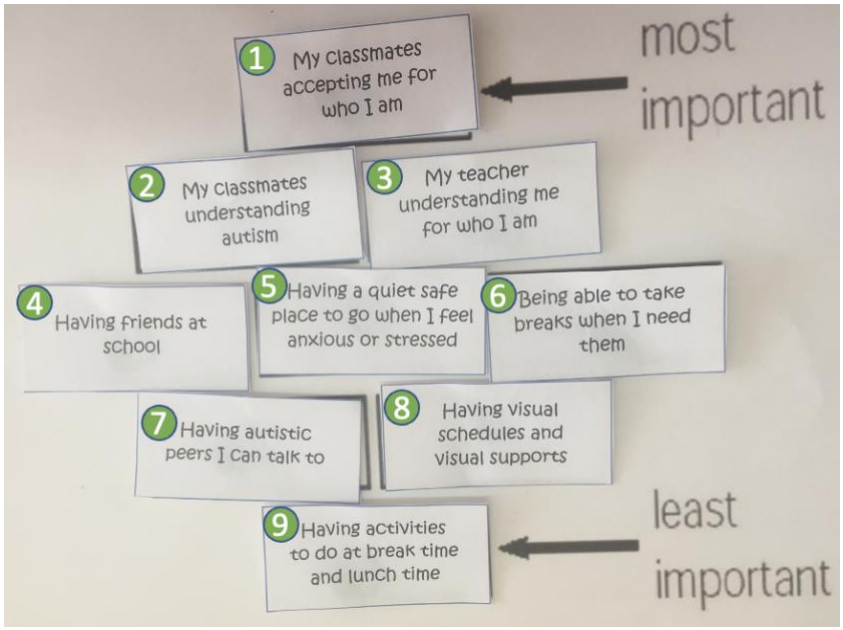
Interviewer: Well, this is the last part of this activity.

Diamond Ranking Activity:

Most Important (1) to Least Important (9) Supports for Me in School

Interviewer: I'm going to do another one now. So I have a diamond ranking activity and these are all statements. And you can tell me what ones are the most supportive for you and the ones that you don’t find as supportive. So number one is the most supportive and then two and three are supportive. These are kind of middle ones. And then these are the least important things. These are the ones that you really think are important supports, and then the least important to go down at the bottom. So there's blue tack on them so you can pick them up and stick them on wherever you think they should go?

Tara: Ok (*she completed the activity- as shown in the picture below).



Interviewer: Super, tell me about what you put as the most important?

Tara: My classmates accepting me for who I am because it's important to accept someone for who they are. If they're your friend, if they're family, if they're your relative because you can't change who they are no can? They can't even change it so.

Interviewer: And you said the next important one is this one [points to ‘My classmates understanding autism’]. Tell me about that.

Tara: Our classmates understanding about autism because there are quite a lot of autistic people in this school, and I think it's important to understand every type of culture, every type of thing in the world, because you might say something, I might be really negative about the type of person who they are, so it's good to understand people. I think accepting I'm understanding are nearly a mixture that goes really well together because accepting is one thing. I accept your apology, but I don't fully understand it. They're two different but very similar things, so yeah, but they go really well together.

Interviewer: OK, so if students have a better understanding of autism, how do you think that impacts their acceptance?

Tara: It's more likely they'll accept, who I am.

Interviewer: OK. Really interesting, and it's really important that your teachers understand you for who you are as well, tell me about that (referencing the sheet).

Tara: Well, if my friends and my classmates I need to understand me. Teachers also need to understand because they're the ones teaching me and they play a big role in my life, because school takes up most of life. And teachers are going to be there, they're another figurehead for most people. So yeah, they need to understand me for who I am.

Interviewer: You put having your peers understanding you is more important than having your teachers understand you. Can you tell me about that?

Tara: Because most of the time you will see peers outside of school and in school, but teachers not as likely. Sure, you'd meet the odd teacher outside of school. But not most of the time, whether you see most of your friends outside of school. And you'd see them more so it would be better for your peers to understand than teachers to understand.

Interviewer: Do you think students should learn about autism in school or not?

Tara: I think it would be beneficial because if teachers are doing it [learning about autism], then students should be doing it as well, because well, most students have friends, at least one friend with autism and that friend might feel excluded because of the of their autism, so I think it's important for at least one person out of every peer group to learn about autism.

Interviewer: That's really interesting. And let's see, 'having autistic peers I can talk to' is a support for you (referencing activity sheet). Have you many autistic peers you can talk to?

Tara: Well, there's someone in second year who, has a severe autism. She doesn't go to XXX (the autism class) like me, I'm in my base class. She's really fun. She gets me. She gets how not all of us are going to need more support. I don't need as much support as the others in some things, but then in some other things we need support. So yeah, she understands. And plus she's another girl, I don't really meet a lot of girls with autism.

Interviewer: So what's that like?

Tara: It's good because I only know one other girl with autism and she's a relative. So yeah, to meet another girl is really good.

Interviewer: How does that help you?

Tara: It helps me to know that I'm not alone because most of the time it's autistic boys and you know where they are there. Normally you can only see them, and it's most likely that

you'll be in a class with like one autistic boy, but not one autistic girl. And it makes me feel understood because she's a good friend. We are friends just this year. She kind of understands where I'm coming from in a point of view. Like, support is a big issue because some teachers, they give support but don't give it properly. Or some teachers don't give support or give support, but like very little of it.

Interviewer: And what way would you like teachers to support you more?

Tara: So like homework, there is a lot of writing homework. For some reason when it's more technology we use today. But then again, why can't it be oral homework? Because like you remember it more if you speak about it, because like I hold, remember a conversation I had at the start of. The year, but I don't from a class.

Interviewer: So you think you should be working to your strengths?

Tara: Yeah

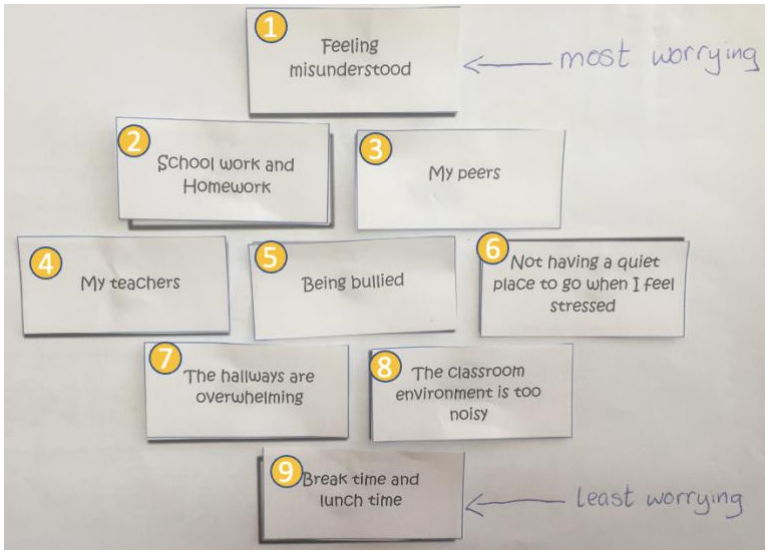
Interviewer: that's a really good point.

Diamond Ranking Activity:

Most Worrying (1) to Least Worrying (9) Aspects of School for Me

Interviewer: OK so I have another one for you now. Another diamond ranking activity. So this one is about things you worry about in school. So you can put the most worrying things up here and then work down to the least worrying things here. And there could be potential things to worry about.

Tara: (*she completed the activity as show in the picture below)



Interviewer: So tell me what did you say was the most worrying thing for you?

Tara: Feeling misunderstood, it's like looking at a one way mirror because you're looking at someone you're trying to communicate with them, but all their seeing is something else. They're just seeing their own reflection. It's very hard to communicate, if you feel misunderstood because you're feeling like you can't get that point across and it's trying to reach up out of the icy pond when the ice is too thick. It's so hard to get up for air. It's trying to breakthrough that solid ice barrier between the person and you, but you just can't. It's so difficult and so frustrating and it's just very annoying.

Interviewer: It's an amazing explanation. Have you any more to tell me about that?

Tara: And feeling misunderstood is like feeling that no one understands you and no one's getting the point you're trying to put across. So like if you say, 'let's go to the park, I think it's really good for us to get some air'. They might think, 'oh, they're just getting us to go to the park for a walk. Well, I don't like walks', when you're trying to get them out for a fun time or something to do, and the point isn't across when you're trying to explain something to them in your own words. So let's say I'm explaining a math question to one of my classmates, and they don't get it straight away. I keep trying to show them the point and they still don't understand. Then they interpreted it another way. Then I'm going to get the question wrong for them and then there's a feeling of guilt afterwards for getting the question wrong for them.

Interviewer: And does that happen you a lot in school that you feel misunderstood or not?

Tara: Am quite a few times some with teachers as well, some with peers.

Interviewer: Yeah? Tell me about it with your peers.

Tara: My peers, sometimes when I'm trying to get a point across or trying to relate to them, they might not interpret it the way and I did in my head.

Interviewer: And tell me about your teachers. How do you feel misunderstood their teachers?

Tara: I try and get another. I try and get a point across. So let's say I'm talking about poems and how I really enjoy it. And how the author is a bit eccentric. The poet is a bit eccentric and they might see that, as in like oh, you just like people who are crazy and that's not what I'm doing, I'm trying to relate to the author.

Interviewer: They can't see that connection that you're making. I see, tell me about homework and schoolwork.

Tara: Homework in school or I just really hate being late for anything. I really hate having assignments not done. So like this morning I had Irish now, but like interview. So then I had my Irish homework not finished yet, so I was speeding to get it done in PE, because we had no PE today and with Mr. XX is out. So I was writing it down real quick. I just hate being late for stuff.

Interviewer: I know, yeah. And what about your peers (referring to sheet). What do you worry about with them.

Tara: My peers, I worry that they won't accept me for who I am in the end, or if I do something they might not forgive me. Or if I say something wrong, they might like ignore me for a few days.

Interviewer: oh yeah, and has that happened before?

Tara: Yeah, not much though.

Interviewer: OK. I'm going to ask you a little bit about the Autism awareness workshop that you were at with Hannah. So what did you think of the autism awareness workshop?

Tara: I thought it was quite good. But there was one problem with the presentation. Some people don't like to be referred to as autistic people. Sometimes they want to be put 1st instead of the special needs like people with autism, not autistic people.

Interviewer: So, so there's lots of different ways people like the language and what way do you like the language?

Tara: I like to be known as (my first name *Tara), without the special need. Normally it's just a background for me, so like, let's say I'm not fully Irish, I wouldn't be known as *Tara who's not fully Irish, I'd be known as just *Tara

Interviewer: Yeah you just want to be known as yourself. And What would that mean to you?

Tara: It would mean that I'm not just seen as someone who has a special need and seen as myself as my own person, not someone who finds it difficult in stressful situations. Someone who is herself.

Interviewer: Very good and why would it be important for people to see you like that?

Tara: Because if they only saw the autism, they wouldn't get to know me for who I am. They wouldn't get to know me for my problems. Or wouldn't get to know me for who I am in joyful situations? It would be quite annoying.

Interviewer: You think they might have kind of negative impressions of autism is that it?

Tara: yeah.

Interviewer: And do you think your classmates' attitudes towards autism changed after the workshop or not?

Tara: Quite a bit of change.

Interviewer: Tell me more.

Tara: Most people, they ask questions about autism. So like whenever it comes up in a situation. They always come and ask someone with autism, 'Does this ever happen to you?' or 'Is this what all people with autism are like?'. Or something like that. And then sometimes it's me who they ask and I say, 'It's different for everyone because for me it might be this, but for someone else it's like this'.

Interviewer: And is that since the workshop you've been talking about it or not?

Tara: Yeah, since it.

Interviewer: How do you feel about that?

Tara: I feel, both that they can come to me and talk to me about it [autism], but they're not avoiding it [autism] while we're talking. And that they feel comfortable talking about it with me.

Interviewer: Do you think the workshop has changed the way your classmates interact with you or not?

Tara: I don't, not much, no. Except the guy I had a fight with. He is OK now. He kind of talks to me more, but my friends don't treat me any differently. I think they're acting like I'm one of them. I'm not seen for my autism. I'm not seen that I have problems in certain situations. I'm seen as *Tara. A good friend, a loyal friend. A good friend.

Interviewer: Very good and does the Autism Awareness Workshop support you to feel included or excluded in school?

Tara: I feel included in school. People come in and they talk about certain topics. And then, when I was younger, I had no.... . There was no people to come into the school and talk about these problems. When I was little in primary school, there was no-one to come and talk about that stuff. There was no talks about it (autism). There was nothing. My first primary school. They refused to teach my little brother because he had autism and he was nonverbal, so that's why I had to move school. So yeah, I had two primary schools. So my little brother he's still nonverbal. He's learning how to speak now and it’s a little better. But the problem was that I really didn't like my first primary school because of that. So I'm glad that there's someone who can come talk to people about it now.

Interviewer: Thanks for sharing that. And is that something that you think would be important to do in primary schools as well?

Tara: Yes, in primary schools. Because, it's the same with most situations about difficult topics. So like the LGBTQ plus community as well, I have little kids aren't taught about it. So they're taught the basics, that like all people are straight, there's no such thing as special needs, unless you have someone in your family with special. So that could be a problem because when I was little, no one understood what I was trying to talk about or how my little brother wasn't getting taught the way we were getting taught. So my friends found it difficult

to understand me in primary school and how my little brother is finding it difficult. I think his classmates should learn about autism as well. Most of them do have autism because he's in a special class now. But, when he was in junior infants and senior infants, in primary school in the first one, the principal didn't even know how to deal with somebody's autism. It's quite important to learn from a very young age about autism, because that sticks more with you. Because trying to teach the one and 6th year or trying to teach someone in college about autism is a little bit harder from when they're younger. Sure, younger people don't have the greatest concept of all, but it'll stick with them for their whole entire life because it was prevalent, there were little and they learn from then. whether in college or a secondary school, you're more stuck in your ways. You're more 'this is what I've known from when I was little'.

Interviewer: And do you think that you would have liked your classmates to learn about it or not, when you were in Primary school?

Tara: Yes

Interviewer: Tell me more about that so.

Tara: In primary school there was, in my second one, there was one boy in our class who had ADHD. And people didn't understand them as much as they should have. And they didn't really understand my brother or his friends as much as I would have liked them to have. I only figured out I had autism in 6th class, near the end of the year, so I didn't have much of an experience with them, because only like one of them found out that I had autism maybe at the end of the year, near graduation, so not many knew. So I didn't have as much problems as I did with secondary school. It's OK in secondary school with them, but I would have liked it to happen in Primary School.

Interviewer: What do you think about promoting awareness about autism in your school?

Tara: More students, I think, are learning about it. More students are learning to accept that other people are different or have autism. Because, my parents, they didn't really know about autism until my little brother came into the world and he found it difficult to speak. So did I when I was little because I had, my ear was enclosed, so yeah, that was a hearing problem. My little brother had a hearing problem and he's nonverbal, so he's trying really hard at the moment to try and speak. But I think it's good that more schools are promoting awareness and

acceptance because you can't really change someone with autism. Just the way you can't change someone who is happy all the time, bubbly all the time or is sad all the time. You can't change that. You can't change who they are. The only thing you can't do is accept them for who they are.

Interviewer: That's a really good point. And what benefits are there then?

Tara: The benefits of people understanding you more. There's these benefits of feeling that you've broken through the ice. You've broken through that one way mirror and to talk to people and they'll get you and they'll understand you more than they did before.

Interviewer: And are there any drawbacks to this?

Tara: Drawbacks, some students might interpret it the wrong way. I might know all this stuff, but still not like the idea or I still not understand. So yeah.

Interviewer: Did you learn any new information at the Autism awareness program or not?

Tara: I did learn a few points. I think it's on one of the pages, the true or false game. A learning disability was false. I didn't know that. I thought it was a learning disability because I have dyslexia and dyspraxia all in one and dyslexia is a learning disability so. I count autism as a learning disability because it helps me with most of my learning.

Interviewer: Yeah, or a learning ability. And how do you think they could improve the autism awareness workshop?

Tara: Come here more often to classes, CSPE, because we were learning about disability. So it only was one day out of the whole year. But in that class, we only learned about physical disabilities. We only looked at one or two celebrities with dyslexia or dyspraxia or autism. And then it was finished. That's all we learned.

Interviewer: So did you learn about somebody with autism?

Tara: Gretta Thunberg I think either has dyslexia or autism.

Ideal Classmate Activity

Interviewer: Autism, you’re right. And we have activity called my ideal classmate. So you can draw on this sheet or write or talk. How would you describe your ideal classmate?

Tara: I'll just talk. It would just be someone who is like kind and respectful.

Interviewer: Anything else?

Tara: No that's all.

Interviewer: And what does whole school inclusion mean to you?

Tara: Whole school inclusion. It means that the whole school is included in the activity, is active in the activity and aren't as sulking off or doing class while other people are doing it.

Interviewer: Are there other group of students in your school that you think students would like to learn more about or could be included more in school?

Tara: I think it would to be good to learn about different special needs or people from different countries and backgrounds and genders and autism.

Interviewer: How could we do that?

Tara: Promote them more in CSPE. Change the class from CSPE because I find that policy, or change religion class because I find religion isn't going to help you in life, unless you're trying to understand a new culture or because it is literally is a cultural class because in religion it's not all about Catholics, whether in about different Hinduism, Muslims. So yeah, I think it should be promoted in that class.

Interviewer: It has been a pleasure to talk to you today, thank you so much. Have you any questions for me?

Tara: No.

Interviewer: Is there anything I didn't ask you about that you wanted to talk about?

Tara: No.

Interviewer: Well in that case thank you so much for taking the time to talk to me today, I have learned so much from our conversation.

Appendix L: Excerpt of Codebook

Coding is on the right side of this page.

Pseudonyms of autistic students are highlighted in blue

Pseudonyms of peers are highlighted in green

Potential Themes	Data Illustrations
Impacts of the workshop Knowledge of Autism What autistic students learned What peers learned	*Tom* *more accurate, kind of more details about people overall, like myself with ASD.* *be able to understand yourself better.* *A lot of it was new information. Like new phrasing,* *Dave* *I learned that I can accept my ability no matter what it is.* *I learned more about how other people are like me and how they experience autism and their abilities.* *Tara* *I did learn a few points. …the true or false game. A learning disability was false. I didn't know that. I thought it was a learning disability because I have dyslexia and dyspraxia all in one* *Liam* *I think as long as people with autism are treated as normal people. I think it's fine having knowledge, I mean, it's good to know about it.* *Tom* *I'd say a good majority of them would have learned some new things I, myself included.* *neurotypical people within the school, would have kind of understood their neurodivergent classmates better.* *Dave* *They understand autism because they learned it … and they know that it's a real ability like every other abilities that are out there.* *Tara*

	Some people, they kind of stereotype people with autism. … I got someone that who said that, 'Oh yeah, I thought autism was just for boys but girls can have it too'. *Rita* *Like sensory processing.* *Some autistic people see things differently than we do and they can be more sensitive to like noise and sound and sight.* *autism isn't a learning disability. I thought, it was.* *I see a bit differently now. Not more like a learning disability, but more like autistic people just see the world differently.* *Sarah* *Like the knowledge. I felt like I learned a lot of stuff I didn't know* *I didn't know that like there's lots of different like autistic variables.* *Noah* *You might have to be conscious about certain things you say. You might not be able to use sarcasm the same, or joke in the same way you might with some of your friends. Like there might be a bit too much noise. Like I'm a very loud person when I talk to my friends, and that's probably not the right thing to do (smiles), but I realize that just kind of change the way I talk a bit and that can help.* *I realized that I kind of knew briefly that there was a spectrum, but it's a much bigger spectrum than I kind of anticipated* *Lisa* *If someone who is autistic is having a meltdown, I could try help them in a way, because of the workshop. Or just like be able to comfort them if they have a meltdown or something or if they had like a sensory overload I could help them or like comfort them.* *I kind of gained a bit more information and I kind of got to see like on the inside what someone with autism might think or is thinking.* *most of them are actually very intelligent., they're IQ is often average or above average.* *I think we should be aware that autism is something to do with the brain and it can impact how you interact with people*

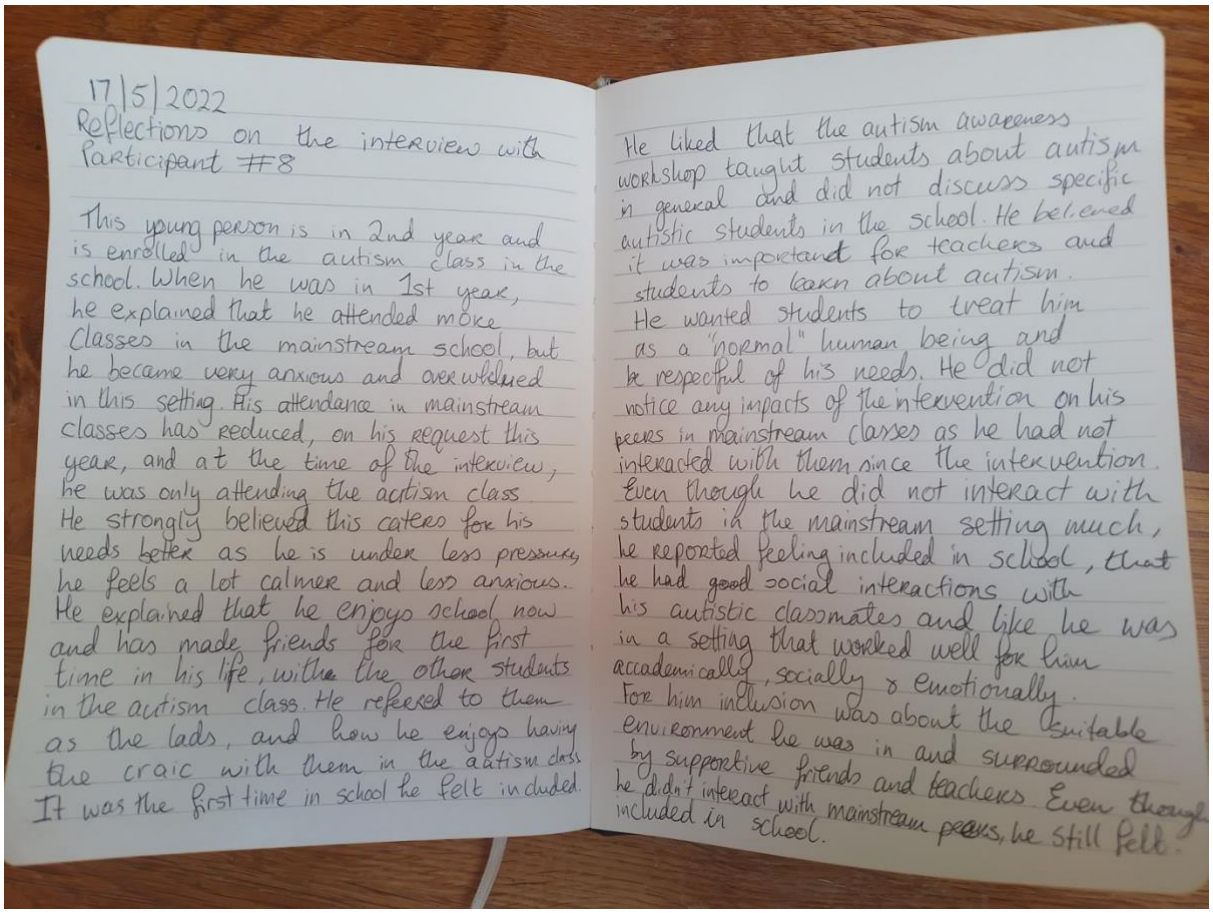
Behaviour Little to no behaviour changes Open conversations about autism No changes in friends interactions	*Rita* *You could ask them if they need anything.* *Sarah* *People like don't really talk to them or anything, so like just say like hi to them or whatever.* *something that they like, something fun, like outside or something. I'd do something outside like football* *Noah* *I can probably better take care of them if someone came to me with something and you know, asked for something, like a caretaker (SNA) might.* *I think that I interact with them, like mostly the same. But yeah, if the opportunity was to arise in like, they needed anything, then like, I could give it to them.* *If I was with a student with autism, I'd probably feel I mostly clear in what to do and not what to do in case something happened* *Tom* *Through their actions and words they would have a better grasp of what it's like for me and they would be able to like show respect better, or be more respectful and polite towards me without upsetting me as much, and other pupils in my class.* *A lot of it is quite small things, but when you add them all together, you have a bigger picture. There aren't really like moments where people done a specific big thing.* *there are a lot of small things in the way that people act towards me, but overall, could point towards an increase somewhat of their understanding.* *I mean there is a small amount of change in people's attitudes and behaviours towards me and fellow students.* *Dave* *They understand what I'm trying to say, and sometimes it might get through, but other times it can't.* *Uh, not really. They always. They're my friends and they play with me.* *, they've never been rude to autism, but they weren't really talkative about it (autism) but now they all are.* *Tara* *Most people, they ask questions about autism. So like whenever it comes up in a situation. They always come and ask someone with autism, 'Does this ever happen to you?' or 'Is this what all people with autism are like?'.*

Some Increased intentions to interact with autistic students	*Or something like that. And then sometimes it's me who they ask and I say, 'It's different for everyone because for me it might be this, but for someone else its like this'.* *I feel, both that they can come to me and talk to me about it, but they're not avoiding it while we're talking. And that they feel comfortable talking about it with me.* *not much, no. Except the guy I had a fight with. He is OK now. He kind of talks to me more, but my friends don't treat me any differently. I* *Liam* *I haven't really interacted. But , I haven't had an issue. I don't think it changed anything for me. Again, I've had such little interaction* *I think it's beneficial, but, like I haven't seen anyone act like I'm more or less included? They've always did (make me feel included), they're just like that? I think it is positive, but I don't feel any more or less included. I just feel like it is normal.* *Rita* *Not really. – [no change in her interactions towards autistic peers].* *Sarah* *I'd say hi to them in the corridor, but like I wouldn't really talk to them.* *I feel like that they're like. They're more friendly towards autistic students now. I think that like, they wouldn't just walk by them like, they'd say hi to them and all.* *Like if we'd see them in the corridor or something, they'd all give them high fives. Because there's this one guy that always puts up his hand for a high five.* *Noah* *Am they (my interactions) stayed mostly the same.* *I haven't seen anything personally am that's changed. ... I'm just more conscious now. I don't think in my actions or anything has changed, but if the opportunity were to present itself, I would.* *Lisa* *they don't really treat them badly, but they kind of just treat them as if they are any other person.* *they know what to do if someone had sensory overload and they're able to deal with it and how to help the person*

Attitudes towards autistic students Reduction in stigma Greater Compassion Feel respected by peers	*Tom* *there would have been a small increase in some people, maybe not nicer, but maybe like am, more understanding.* *A few people would have taken it on board and then would have understood me better in the long ways and being much nicer - not **much** nicer - but a bit nicer to me. Kind of like understanding of my needs and being a bit more able to help.* *Liam* *I don't really know. If the child is a bully, going to an autism workshop is not really going to change them from being a bully. Like 'cause like there's other issues that are causing that.* *Dave* *now they accept everything about me.* *They now care about what I have to say and how I say it and they don't care if I screw up, it doesn't matter because they know what I'm trying to say.* *they don't treat it like a joke, they take it real serious.* *Tara* *I think they're acting like I'm one of them. I'm not seen for my autism. I'm not seen that I have problems in certain situations. I'm seen as *Tara. A good friend, a loyal friend. A good friend.* *Rita* *They see autism a bit differently now and can like recognise when autistic people are like overwhelmed.* *talk taught about people felt like autistic people and how they see things differently.* *More people feel like we'll all be able to understand it.* *Sarah* *Like you'd know more about them, you wouldn't like just judge them you'd have to chat to get to know them before they like get to see them.* *I feel more for them, how they can't like express their feelings some of them. And like the way that they want to do stuff or something. Because some of them can't talk or anything.* *the workshop made me like look more, I don't know how to say it, but like see from their point of view.* *I'd say like you'd be more aware and more friendlier. I feel like, that you'd want to interact more because you got to see from their point of view. Like, what goes on in their mind and all.*

	I'd be more aware to like people with autism, that I wouldn't just like look at them and be like, 'oh that's someone with autism'. I'd look at them and be like, I don't know. I'd see them from a different point of view. I wouldn't just see them as like autism. Like if you get to know them, they're actually like really friendly. They're actually like so nice. *I can't just look at someone and judge them, like you have to actually know them and they're really nice people.* *Noah* *I was just thinking, you know, I don't really think there is anything I can do this, it might be better for like the caretakers (SNAs) to take care of them. I felt like if I talked to them, it might like upset them or something. But then afterwards (after the workshop) I realized that, you know, I can just talk to them normally, but it have to be conscious of a few things.* *I felt that I was more you know, open minded* *I think I can be more understanding of (autistic) people* *, I think it's gotten better.* *They probably just wouldn't be seen as weird and that way. So it could help people feel a lot more understanding and not just kind of judge them someone, when they see someone do something that was, I guess was out of the ordinary.* *I don't think it helps them [autistic students] directly, but it influences others and then it kind of comes back to them [autistic students] in that way. Because if something happens and like, let's say, for example, they're like really sensitive to noise, and then they had to like not be in the classroom for a while, people probably wouldn't judge them as much, or, you know at all, because they understand that everyone is different in certain ways, after doing the workshop* *after the workshop and I found that, if a situation appeared where someone is general, has something going on, I knew kind of how to handle that, and ask them what was going on and if I already knew they had autism, I could assume it was something autism related.* *if something happened again, I would not have a negative reaction.* *Lisa* *Like be able to talk to them, being more and more welcoming and more friendly to students with autism and like would include them more…* *I think it impacted them in a good way because they got an understanding of what autism is about?* *How to treat somebody with autism*

Appendix M: Researcher Journal



17/5/2022
Reflections on the interview with Participant #8

This young person is in 2nd year and is enrolled in the autism class in the school. When he was in 1st year, he explained that he attended more classes in the mainstream school, but he became very anxious and overwhelmed in this setting. His attendance in mainstream classes has reduced, on his request this year, and at the time of the interview, he was only attending the autism class. He strongly believed this caters for his needs better as he is under less pressure, he feels a lot calmer and less anxious. He explained that he enjoys school now and has made friends for the first time in his life, with the other students in the autism class. He referred to them as the lads, and how he enjoys having the craic with them in the autism class. It was the first time in school he felt included.

He liked that the autism awareness workshop taught students about autism in general and did not discuss specific autistic students in the school. He believed it was important for teachers and students to learn about autism. He wanted students to treat him as a "normal" human being and be respectful of his needs. He did not notice any impacts of the intervention on his peers in mainstream classes as he had not interacted with them since the intervention. Even though he did not interact with students in the mainstream setting much, he reported feeling included in school, that he had good social interactions with his autistic classmates and like he was in a setting that worked well for him accademically, socially & emotionally. For him inclusion was about the suitable environment he was in and surrounded by supportive friends and teachers. Even though he didn't interact with mainstream peers, he still felt included in school.