VOLUME ONE

HOW CAN THE STUDENT WELLBEING OF AUTISTIC CHILDREN BE PROMOTED IN MAINSTREAM PRIMARY SCHOOLS? A MIXED METHODS INVESTIGATION

by

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ABSTRACT

Almost three quarters of autistic children and young people (CYP) are educated in mainstream schools. These students are bullied more frequently and are less likely to be accepted by peers. Autistic students report that they face a number of challenges in mainstream schools. Previous research primarily focuses on autistic students attending secondary schools. In light of the difficulties autistic students face at school, the current study aimed to investigate student wellbeing in autistic children attending a mainstream primary school. A mixed methods approach was utilised. Questionnaire data was used to compare student wellbeing between autistic students and neurotypical students, and semi-structured interviews were used to gather the views of autistic students on what they felt promoted their student wellbeing in addition to any barriers that hindered their experience of wellbeing. Statistical analyses revealed that levels of student wellbeing were high and comparable across both groups of students, indicating that the school was supporting autistic children effectively. Autistic students reported that supportive and engaging practice, supportive peer relationships, access to resources and opportunities to be outside promoted their experiences of student wellbeing. However, they also identified several barriers to student wellbeing. Implications for EP practice and future research is considered.

DEDICATION

This thesis is dedicated to the memory of my wonderful grandma, Peggy Lee.

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ACRONYMS

APPGA – All Party Parliamentary Group on Autism

ASC – Autism Spectrum Condition

ASD – Autism Spectrum Disorder

CYP – Children and Young People

EP – Educational Psychologist

EPS – Educational Psychology Service

MCS – Millennium Cohort Study

NT - Neurotypical

SEN – Special Educational Needs

SENCo – Special Educational Needs Co-ordinator

TA – Thematic Analysis

TEP – Trainee Educational Psychologist

UNESCO – United Nations Educational, Scientific and Cultural Organisation

CHAPTER I

INTRODUCTION

1.1 Overview

I am a trainee educational psychologist (TEP), on placement for the duration of the second and third year of the Applied Educational and Child Psychology Doctorate in a city based Educational Psychology Service (EPS) in the West Midlands. This research is the first volume of a two volume thesis and constitutes a small scale, mixed methods study into student wellbeing in Key Stage 2 children with a diagnosis of autism spectrum condition (ASC).

1.2 Identity-first language vs. person-first language

Language has the power to shape and reflect people's perceptions of individual differences, including autism (Kenny et al., 2016).

Person-first language refers to the structural form of preceding a phrase referring to a disability with a noun referring to a person or persons (e.g. children with autism) (Gernsbacher, 2017). The rationale for the use of this approach is to minimise the extent to which disabled people are equated completely with their disability by referring to people first as individuals and then, if relevant, to their disabilities (Bailey, 1991; Blaska, 1993; Kenny et al., 2016). Person-first language has been found to be professionals' preferred phrasing when referring to individuals who have a diagnosis of autism (Kenny et al., 2016). However, the use of person-first language has been criticised on the grounds that it precludes the possibility of taking pride in one's identity, by violating the common principle that positive adjectives should precede nouns (e.g. a friendly person, gifted children) (Vaughan, 1993, 1997; Kenny et al., 2016). Furthermore, Gernsbacher (2017) highlighted that person-first language was originally formulated to be applied to everyone indiscriminately in an attempt to promote equality, yet the examination of in excess of 5 million books, 25 million abstracts and 150 million articles found that person-first language is used up to 700 times more

frequently to describe children who have specific disabilities than to describe children who do not have such disabilities. Moreover, person-first language was found to be used most frequently to describe children who have developmental disabilities (93% of writing about learning difficulties and 75% of writing about autism), in comparison to physical and sensory disabilities (32% for physical disability, 28% for blindness and 18% for deafness) (Gernsbacher, 2017). These findings suggest that despite the core tenet of person-first language being the promotion of equality, scholars may inadvertently be imparting bias that serves to further stigmatise particular disabilities, including autism (Jernigan, 2009; Andrews et al., 2013; Gernsbacher, 2017). Finally, with specific reference to autism, some activists have argued that person-first language is inappropriate on the grounds that a person cannot, and should not, be separated from his or her diagnosis of autism (Sinclair, 1999; McGeer, 2004; Grandin, 2006; Graby, 2012); thus, these activists argue in favour of identity-first language.

Identity-first language is a structural form that directly contrasts with person-first language in that the disability is used as an adjective preceding the noun denoting a person or persons (e.g. autistic children) (Gernsbacher, 2017). In this way, it arguably adheres to the general principle of placing positive pronouns in front of nouns and, therefore, does not insinuate that a disability is inherently negative (Brown, 2011; Halmari, 2011). In support of using identity-first language to describe individuals who have a diagnosis of autism, recent research findings suggest that the majority of autistic adults in the UK have a preference for identity-first language in comparison to person-first language (Kenny et al., 2016). Although, it is possible that these findings are not representative of the views of autistic people more generally, due to the sample of participants in this study: the majority of autistic participants were female and this is disproportionate when compared with the national population of autistic adults, and many autistic adults may have been excluded from participating in the research due to level of communication and computer skills needed in order to fill out the online survey (Kenny et al., 2016).

Gernsbacher (2017) argues that whether scholars choose to use person-first or identity-first language, this should be used consistently to refer to all participants in research rather than used to describe only those with a specific disability. Throughout this thesis, identity-first language is used to describe both autistic children and young people (CYP) and neurotypical (NT) CYP. This decision was taken with consideration given to the arguments discussed in this section and, more importantly, to the fact that the participants in the current study referred to their own diagnoses using identity-first language.

1.3 Background to the research

I am passionate about improving the educational experiences of autistic CYP. Previously, I worked as a research assistant and supported research into the difficulties faced by autistic children. Furthermore, in my capacity as a TEP, my experiences working with autistic CYP attending mainstream schools has further highlighted to me the challenges that this population faces in school, daily. Therefore, I decided to focus my doctoral research on investigating student wellbeing in autistic children. The research served two related purposes. Firstly, it aimed to compare levels of student wellbeing in children with a diagnosis of ASC to children who did not have a diagnosis, and were not on the pathway for a diagnosis of ASC or any other neurodevelopmental condition; this was done to determine whether autistic children experience lower levels of student wellbeing than NT children who were matched for age, gender, teaching group, and attainment. Secondly, it aimed to contextualise the quantitative findings by identifying the factors that autistic children feel are already supporting them to experience student wellbeing, any factors that these children feel is a barrier to their student wellbeing and any provision these children feel could be added in order to foster their student wellbeing further. It is hoped that the findings will have utility in supporting the development of enhanced practice of both staff in mainstream schools and educational psychologists (EPs), with the intention of improving student wellbeing in autistic CYP.

1.4 Justification for the research

The wellbeing of CYP is a current national priority and it has been demonstrated that students with better health and wellbeing are likely to demonstrate higher levels of academic achievement (Brooks, 2014). In *Transforming Children and Young People's Mental Health Provision: a Green Paper,* it is proposed that, from 2025, schools will have an increased role to play in promoting the mental health of CYP in the UK (Department for Health and Department for Education, 2017). Accordingly, research into the promotion of and barriers to student wellbeing is likely to be useful to schools in supporting them to achieve this goal.

Children with a diagnosis of Autism Spectrum Conditions (ASC) are a vulnerable group in relation to mental health and student wellbeing. The most recent national survey into mental health in CYP, commissioned by the government, emphasised the vulnerability of autistic children, stating that 30% of this population have another diagnosable mental health condition in comparison to 10% of the general population of children (Office for National Statistics, 2004). Furthermore, 25% of parents of autistic children reported that their children had tried to harm or kill themselves (Office for National Statistics, 2004). The survey also revealed 97% of autistic children were reported to have special educational needs (SEN) in comparison to 16% of other children, and that 27% of autistic children had been excluded from school at least once, with 23% of all autistic children having been excluded on multiple occasions (Office for National Statistics, 2004). It is estimated that 63% of autistic CYP have impairing levels of anxiety (Kerns, Comer and Zeman, 2014). More recent statistics highlight that, by 11 years of age, autistic children have significantly lower overall happiness scores than NT children (Dillenburger et al., 2015).

Despite the evidence that autistic children are likely to experience lower levels of wellbeing, there has been little research in this area to date. Meehan (2011) noted that prior to her study into the mental health and *emotional wellbeing* of adolescent autistic students, no studies had been conducted in the field of wellbeing in autistic students. More recently, Danker, Strnadová and

Cumming (2016) conducted a systematic review of studies into *student wellbeing* and noted that, to the best of their knowledge, no studies to date have investigated student wellbeing in CYP with a diagnosis of ASC.

The current research investigates student wellbeing in autistic children in a mainstream primary school, which represents a novel contribution to the field of research into student wellbeing and into wellbeing in autistic students.

1.5 Research questions

This study seeks to answer the following research questions:

i. Do autistic children report significantly fewer experiences of student wellbeing in mainstream primary schools than are reported by NT children?
ii. What factors do autistic children identify as promoting their experience of student wellbeing in mainstream primary schools?
iii. What factors do autistic children identify as barriers to their experience of student wellbeing in mainstream primary schools?
iv. What factors do autistic children feel would further promote their experience of student wellbeing in mainstream primary schools?

1.6 Overview of thesis

Chapter II presents a literature review of student wellbeing and current knowledge relating to student wellbeing in autistic CYP attending either primary or secondary schools, both in the UK and internationally. It provides an overview of the construct of student wellbeing and introduces the definition and conceptualisation of student wellbeing adopted throughout this current research. Following this, a case is made for autistic students in mainstream schools being a vulnerable population in relation to experiencing lower levels of student wellbeing. The literature review

concludes with research presenting the views of autistic students pertaining to their experiences in mainstream schools and frames this within the context of student wellbeing.

Chapter III details the methodology adopted in the current research and provides an explanation for the design of the study. It outlines the recruitment and sampling procedures and details the methods utilised, including the demographic information of participants, the data gathering procedures and the data analysis techniques.

Chapter IV details the findings of the research.

Chapter V presents a discussion of the current research findings in the context of previous literature. It also discusses the strengths and limitations of the current research and considers the implications for the practice of school staff and EPs, in addition to making recommendations for future research.

Finally, Chapter VI presents a conclusion to the thesis summarising the pertinent information that might be taken from the research.

CHAPTER II

LITERATURE REVIEW

2.1 Defining the term 'student wellbeing'

2.1.1 Student wellbeing as a distinct type of wellbeing

Student wellbeing adopts an educational perspective, emphasising school contextual factors and the ways in which school practices influence children's wellbeing *in school* (Noble and McGrath, 2014). It is distinct from *child wellbeing* due to the fact that not *all* children attend school (Danker et al., 2016).

Additionally, a distinction is made between types of wellbeing, of which student wellbeing is one form, and dimensions of wellbeing, which include emotional wellbeing and social wellbeing (Noble et al., 2008; Danker et al., 2016).

Furthermore, a distinction should be made between student wellbeing and a student's quality of life; *wellbeing* does not equate to quality of life but could be understood as one aspect of *quality of life* (Yamaguchi, 2015).

It is important to note that within the field of research, student wellbeing is a term used to describe wellbeing in students attending school and students attending university; this literature review will consider only research that concerns student wellbeing within a mainstream school context.

2.1.2 Conceptualisations and definitions of student wellbeing

There is currently no single agreed conceptualisation of the concept of *student wellbeing* (Soutter, O'Steen and Gilmore, 2012; McLellan and Steward, 2015). Similarly to researchers within the field of wellbeing more generally, researchers in the field of student wellbeing have conceptualised and investigated this phenomenon by drawing on three different philosophical traditions:

- hedonic perspective;

- eudaimonic perspective;
- integrated perspective, constituting both hedonic and eudaimonic philosophies.

2.1.2.1 Hedonic perspective

The *hedonic perspective* conceptualises wellbeing as the presence of positive emotional states (e.g. pleasure, comfort, enjoyment, etc.) that are experienced when a person's desires are satisfied (Diener, 2009; Delle Fave et al., 2011). Therefore, the hedonic approach asserts that wellbeing is achieved by maximising one's pleasurable moments and researchers adopting this perspective focus on what makes life pleasurable and what makes people feel good (Henderson and Knight, 2012; Danker et al., 2016).

The prominent theory within the domain of hedonic wellbeing is Diener's (1984; 2000) concept of *Subjective Wellbeing*. This theory posits that wellbeing comprises two main components: an emotional component, whereby there is a preponderance of positive feelings and a lack of negative feelings, and a cognitive component, whereby an individual is satisfied with life generally or with specific life domains. Similarly, researchers adopting a hedonic philosophy when investigating student wellbeing have conceptualised this as a student's satisfaction with life in school and frequent experiences of positive emotions accompanied by fewer experiences of negative emotions, in school. For example, student wellbeing has been defined as: 'an emotional experience characterised by the dominance of positive feelings and cognitions towards school, persons in school and the school context in comparison to negative feelings and cognitions towards school life.' (Hascher, 2003, p.129); or simply, 'the degree to which a student feels good in the school environment' (De Fraine et al., 2005, p.297).

Hedonic conceptualisations of wellbeing and, thus, student wellbeing have been heavily criticised, particularly by researchers adopting a contrasting philosophical tradition, the eudaimonic perspective. One criticism of the hedonic approach is that research findings are limited to measurements of affective state, which can change very quickly and, therefore, may constitute low

reliability (Hascher, 2008). Moreover, researchers have argued that the hedonic perspective reduces wellbeing down to the experience of positive and negative emotions, and neglects to recognise that wellbeing is a complex phenomenon, which cannot be assessed by investigating only affective experiences (Ryff and Keyes, 1995). Research findings have also cast doubt on a purely hedonic conceptualisation of wellbeing, with some studies reporting that pursuing and even attaining hedonic pleasures does not significantly enhance wellbeing (Ryan, Huta and Deci, 2008). Additionally, researchers have argued that many activities and outcomes that are pleasurable for the individual may not necessarily promote wellness (Ryan and Deci, 2001). These things could include eating lots of junk food or binge drinking, or in a school context, extensive engagement in pleasurable off-task behaviour at the expense of learning opportunities. Thus, there are limitations in conceptualising student wellbeing in purely hedonic terms.

2.1.2.2 Eudaimonic perspective

The *eudaimonic perspective* conceptualises wellbeing as focusing on self-actualisation and fulfilling one's potential (McLellan and Steward, 2015; Danker et al., 2016). Although there are many interpretations of the eudaimonic concept of wellbeing, a review of the literature identified the core components as: *growth,* striving towards self-actualisation and development of potentials; *authenticity,* personal expressiveness and having autonomy; *meaning,* valuing one's life and feeling one has a purpose; and *excellence,* recognising and utilising one's strengths to perform to a high standard (Huta and Waterman, 2014). Additionally, two prominent models reflecting eudaimonic wellbeing also emphasise the importance of relationships with others as a component of wellbeing. Ryff's (1989) model of *Psychological Wellbeing* highlights positive relationships with others as a core component of wellbeing (see Figure 1). Additionally, Deci and Ryan's (1985) *Self-Determination Theory,* originally proposed as a theory of motivation, asserts that three basic needs must be satisfied in order for an individual to experience eudaimonic wellbeing: autonomy, competence, and

Figure 1: The model of Psychological Wellbeing (adapted from Ryff, 1989; Ryff and Singer, 2008).

relatedness (Ryan, Huta and Deci, 2008); here, relatedness refers to feeling connected and cared for by others.

Within this tradition, researchers assert that students experience wellbeing in school when they are afforded opportunities to realise their potential by pursuing meaningful and purposeful goals (Keyes and Annas, 2009). Eudaimonic definitions of student wellbeing have also highlighted the importance of relationships in school. For example, student wellbeing has been defined within this tradition as 'the degree to which a student is functioning effectively in the school community' (Fraillon, 2004, p.24).

However, more recently, research has demonstrated that hedonic wellbeing and eudaimonic wellbeing are two distinct, albeit highly correlated, constructs (Linley et al., 2009); an individual can experience hedonia in the absence of eudaimonia and vice versa (Vittersø and Søholt, 2011). Furthermore, they each have different consequences for wellbeing; hedonia is considered important for the preservation of stability and for rewarding need fulfilment, and eudaimonia is considered important for pursuing complex goals and conducting challenging activities (Vittersø and Søholt, 2011). Thus, positioning hedonia and eudaimonia as opposing poles may not be the optimum approach to conceptualising student wellbeing. Instead, it may be more enlightening to adopt an integrated conceptualisation of student wellbeing that draws on both hedonic and eudaimonic approaches.

2.1.2.3 Integrated conceptualisation

In light of the distinct contributions of both hedonic and eudaimonic perspectives to our understanding of wellbeing, some researchers have combined aspects from both perspectives into an integrated conceptualisation of wellbeing. This integrated conceptualisation aims to provide a more comprehensive account of wellbeing by incorporating both philosophies (McLellan and Steward, 2015). In support of this approach, research findings have indicated that the pursuit of both hedonia and eudaimonia leads to greater wellbeing than either pursuit alone (Peterson, Park and Seligman, 2005; Huta and Ryan 2010).

Arguably the most prominent model based on an integrated conceptualisation of wellbeing is the PERMA model (Seligman, 2011). According to this model, there are five components that contribute to overall wellbeing, each represented by a letter in the acronym of the model, which can be defined and measured independently of one another: *positive emotions*; *engagement; relationships; meaning;* and *accomplishment*.

The integrated conceptualisation of wellbeing has also been adopted by researchers investigating student wellbeing. The following definition of student wellbeing, which is adopted in the current

research, was developed by a panel of 26 experts in the field, representing Europe, North America and Oceania:

"Optimal student wellbeing is a sustainable state characterised by (predominantly) positive mood and attitude, positive relationships with other students and teachers, resilience, and a high level of satisfaction with their learning experiences at school." (Noble et al., 2008, p.30).

Adopting this integrated conceptualisation of student wellbeing, McLellan and Steward (2015) developed a measure of this construct for use with CYP in the UK; this was based on the *European Social Survey* and also incorporated the five positive outcomes of *Every Child Matters* (Department for Education and Skills, 2004; European Social Survey, 2005). A factor analysis of the data from their pilot study revealed that the responses loaded onto four factors: *interpersonal wellbeing,* which encapsulates the relational aspects of eudaimonic wellbeing and is associated with feeling cared for and being treated fairly; *life satisfaction,* which encapsulates the level of satisfaction associated with school, and draws on the hedonic conceptualisation of wellbeing; *perceived competence,* which encapsulates aspects of positive functioning, such as positive self-concept and high levels of self-efficacy, consistent with the eudaimonic perspective; and *negative emotions,* which encapsulates the presence, or lack of, negative affect, constituting the second aspect of hedonic wellbeing.

The current research utilises McLellan and Steward's (2015) conceptualisation of student wellbeing, in order to capture the most comprehensive representation of student wellbeing in CYP with a diagnosis of ASC.

2.2 Autistic students as a vulnerable group

2.2.1 What is ASC?

2.2.1.1 Definition

ASCs, also known as Autism Spectrum Disorders (ASDs), is a term used to describe a range of complex and heterogeneous neurodevelopmental conditions (see section 2.2.1.5), which include

Asperger's Syndrome (Masi et al., 2017; House of Lords, 2018). The common construction of ASC is one of 'deficit' or 'deviance' from the normal (Brownlow, 2010; Runswick-Cole, 2014). In contrast to the term ASD, which defines an autism spectrum of *disorders*, the term ASC is used throughout this paper as it encourages the construction of autism as a *condition* or *difference* rather than as a *disorder* (Jaarsma and Welin, 2012; Autism Research Centre, 2018).

ASC, as ASD, is defined in the *Diagnostic and Statistical Manual of Mental Disorders 5 (DSM 5)* (American Psychiatric Association (APA), 2013) as:

- persistent deficits in social communication and social interaction across multiple contexts (e.g. difficulties with turn taking, difficulties in initiating or responding to interactions, unusual eye contact, reduced facial expression, difficulties in developing and maintaining relationships);
- restricted, repetitive patterns of behaviour, interests or activities (e.g. repetitive movements, use of objects or speech, insistence on sameness and difficulties with changes, inflexible adherence to routines, rigid thinking patterns, restricted or unusual interests, and hyposensitivity or hypersensitivity to sensory stimuli).

ASC is diagnosed when direct behavioural observations and parent reports satisfy these diagnostic criteria (APA, 2013). Additionally, clinicians may also classify the severity of the diagnosis, based on the difficulties with which an individual presents, and the level of support that is perceived to be required to assist the individual with these difficulties (Masi et al., 2017).

ASCs are lifelong conditions that can manifest in a spectrum of characteristics; this means that all autistic people experience particular difficulties in social communication and interaction and restricted and repetitive patterns of behaviour, interests or activities, but these difficulties may present in different ways (National Autistic Society (NAS), 2018). Additionally, ASCs can be

considered ‘hidden disabilities’, which means that they affect a range of cognitive processes rather than physical characteristics (Couzens et al., 2015).

2.2.1.2 Diagnostic process

The National Institute for Health Care Excellence (NICE) published guidelines on the recognition, referral and diagnosis of autism in CYP from birth to 19 years (NICE, 2017). This document highlights that individuals should be referred for an assessment by a team of specialist professionals, known as the autism team, if they are: a child under the age of 3 years presenting with regression in language, social skills, or motor skills; a CYP over the age of 3 years presenting with regression in language or motor skills; or the CYP presenting with some of the characteristics outlined in section 2.2.1.1.

According to the NICE guidelines (NICE, 2017), after a referral has been submitted to the autism team, a member of the team should decide whether to undertake an autism diagnostic assessment or an alternative assessment, considering the following:

- whether the child or young person has seen a paediatrician or paediatric neurologist;
- the severity and duration of the presentation of characteristics that are indicative of autism;
- the extent to which these characteristics are present across different settings or contexts;
- the impact of the child or young person’s presentation on their life in addition to the lives of their family members;
- the level of parental concern;
- the presence of factors associated with an increased prevalence of autism, and;
- the likelihood of an alternative underlying condition.

If, after these considerations, the autism team deem it appropriate to undertake an autism diagnostic assessment, they are likely to seek a report from the pre-school or school, if one has not already been made available, and then gather any additional health or social care information, including results from hearing and vision assessments (NICE, 2017).

The NICE guidelines state that the autism diagnostic assessment should begin within 3 months of the referral to the autism team (NICE, 2017). However, recent examination of NHS data indicates that the waiting time for a diagnostic assessment varies throughout the UK and, in some areas, can be longer than 2 years (All Party Parliamentary Group on Autism (APPGA), 2018).

2.2.1.3 Age at diagnosis

ASCs can reliably be diagnosed as early as 24 months (Johnson et al., 2007; Steiner et al. 2012). However, recent research investigating the age at which children receive a diagnosis of autism in the UK indicates that the median age at diagnosis is 55 months (4 years 7 months) and that age at diagnosis ranges from 7 months to 223 months (18 years 7 months) (Brett et al., 2016). The data analysed in this study were extracted from two large ASC research databases, encompassing all areas of the UK, and consisted of parent reports of age at diagnosis for 2134 CYP aged 2 to 18 years. Additionally, the researchers confirmed diagnoses of ASC by examining medical reports provided by parents. Brett et al. (2016) conducted a regression analysis on this data to determine which variables predicted age at diagnosis. The findings suggested that earlier diagnoses were associated with being male, language regression, language delay, higher levels of required support and lower socio-economic status. However, one limitation of the study is that the data relating to age at diagnosis are parent-reported and were not corroborated by medical reports, so it is possible that the data is subject to recall bias. Nevertheless, as the researchers note, retrospective parent reports are considered a valuable and reliable source of information by clinicians and are often sought as part of a diagnostic process (Brett et al., 2016). The findings of this study indicate that, while children may be diagnosed with an ASC before they begin schooling, most autistic CYP will be attending school when they receive their diagnoses.

2.2.1.4 Prevalence

It is estimated that 1 in 100 people in the UK have a diagnosis of ASC (NHS, 2016). More recently, data from the Millennium Cohort Study found that 3.1% of children born in 2000 had a diagnosis of ASC by the age of 11 years (Dillenburger et al., 2015). Furthermore, due to the extensive waiting times for autism diagnostic assessments after referrals to the autism team and the age range at which a diagnosis is received, this figure is likely to be an underestimate of the true number of autistic CYP born in 2000.

2.2.1.5 Heterogeneity and co-morbidity

ASCs, as the word *spectrum* suggests, constitute a range of presentations and possible contributory factors, which include both genetic and environmental factors (Masi et al., 2017). For this reason, autism is considered a heterogeneous condition (Masi et al., 2017). In the previous version of the Diagnostic and Statistical Manual (DSM IV), this heterogeneity was represented by different categorical diagnoses within the overarching category of Pervasive Developmental Disorders, which included autism, Asperger's Syndrome, pervasive developmental disorder not otherwise specified (PDD-NOS), Rett's syndrome and childhood disintegrative disorder (APA, 2000). However, research findings challenged the validity of the categorical distinctions between autism, Asperger's Syndrome and PDD-NOS (Lenroot and Yeung, 2013). Such research contributed to the broader re-conceptualisation of ASCs, and the inclusion of social communication disorder, which is a diagnosis for individuals presenting with difficulties in social communication in the absence of restricted and repetitive behaviours, in the revised Diagnostic and Statistical Manual (DSM 5) (APA, 2013; Lenroot and Yeung, 2013).

Lenroot and Yeung (2013) argue that one contributor to the heterogeneity of ASCs is the checklist approach employed in diagnostic procedures. They assert that diagnostic checklists permit different individuals to meet the threshold for ASC without necessarily sharing many specific clinical features;

this is highlighted in section 2.2.1.1, which illustrates the range of observable presentations of the two core aspects of ASC.

A second contributor to the heterogeneity of ASCs is the extensive co-morbidity between these conditions and other psychiatric diagnoses (Lenroot and Yeung, 2013; Matson and Williams, 2013). Estimates suggest that up to 78% of children with ASC also meet criteria for Attention Deficit and Hyperactivity Disorder (ADHD) (Gargaro et al., 2011). Additionally, up to 42% of children with ASC have anxiety disorders (Simonoff et al., 2008; Matson and Williams, 2013). Furthermore, between 25% and 70% of children with ASC have a degree of learning difficulties (Fombonne, 2009). ASCs are also known to be co-morbid with a range of other conditions and illnesses. In 2012, a retrospective prevalence study of over 14,000 autistic individuals under the age of 35 years found that, when compared the general population, a significantly greater proportion of autistic individuals had diagnoses of bowel disorders, central nervous system anomalies, epilepsy, muscular dystrophy, schizophrenia and sleep disorders (Kohane et al., 2012). The presence of one or more of these co-morbidities may be associated with more intense autism-related characteristics. For example, research findings suggest that autistic individuals whom also have a diagnosis of epilepsy are more likely to have severe social impairments than those with diagnoses of only ASC (Ko et al., 2016). Furthermore, sleep disturbance as a co-morbidity correlated with increased presentation of challenging behaviours (Goldman et al., 2011; Sikora et al., 2012).

2.2.1.6 Gender and ASCs

It is well-established that there are more males diagnosed with ASC than there are females diagnosed with the condition. A recent meta-analysis of prevalence studies estimates that there is only one female diagnosed for every three males diagnosed with ASC (Loomes, Hull and Mandy, 2017). Several theories have been proposed to explain this phenomenon. The 'extreme male brain' theory proposes that autistic characteristics can be considered an extreme presentation of the typical male cognitive profile, which is conceptualised as being stronger in cognitive processes such

as analysing and constructing systems; this is contrasted with a typical female cognitive profile, which is conceptualised as being stronger in cognitive processes related to empathising with others (Baron-Cohen, 2002; Baron-Cohen, Knickmeyer and Belmonte, 2005). More recently, a 'female protective model' has been proposed, based on genetic studies; this theory argues that females are more resilient than males to genetic variations (Jacquemont et al., 2014; Masi et al., 2017). Other researchers argue from an alternative perspective that, rather than being less prevalent in females, ASCs are under-identified due to a bias in the conceptualisation of autism and, thus, the diagnostic criteria (Dworzynski et al., 2012). In support of this argument, a large scale study found that autistic females presented with greater difficulties than autistic males, in relation to social communication and interaction, cognitive and language abilities, adaptive function, and externalising behaviours; these findings suggest that females may need to present with more intensive or debilitating characteristics of autism to receive a diagnosis (Frazier et al., 2014).

2.2.2 The vulnerability of autistic students in mainstream schools

In 1994, the United Nations Educational, Scientific and Cultural Organization (UNESCO) published the *Salamanca Statement,* which asserted that every child has the right to access mainstream education (UNESCO, 1994). This emphasis on inclusive education is a prominent feature of the UK education system (Department for Education and Department of Health, 2015). Consequently, almost three-quarters of autistic students are educated in mainstream schools (Department for Education, 2018a). The Equality Act (2010) mandates that reasonable adjustments should be made to ensure that these students access opportunities to succeed at school.

There is often an assumption that academically able autistic students should be able to cope in mainstream schools due to their cognitive abilities (Moore, 2007). However, these students are likely to face difficulties with the social aspects of school regardless of intellectual functioning (Uljarevic and Hamilton, 2013). Furthermore, the complex social and behavioural patterns of autistic CYP may conflict with school structures and staff expectations, particularly in mainstream schools, which

were originally designed to educate NT children (Burrows, 2010). Thus, the mainstream school environment may present challenges to autistic students regardless of their academic abilities.

2.2.3 *Survey data on the mainstream school experiences of autistic students*

This section will highlight the main challenges faced by autistic CYP, including school students, with reference to national surveys.

The most recent government commissioned statistics from a national survey of the mental health of CYP in the UK were published in 2004 (Office for National Statistics, 2004); therefore, the data may not reflect the current situation. For this reason, the findings will be considered alongside more recent national survey data and previous research.

A more recently conducted secondary analysis of survey data, collected for the Millenium Cohort Study (MCS), compared data from autistic children to data from NT children in relation to the following: health and development; happiness; self-esteem; behavioural difficulties; and education (Dillenburger et al., 2015). The data in this study related to 18,522 children born across the UK in 2000 and were collected, using interviews and self-report questionnaires completed by parents, when the children were aged: 9 months (N=18,522); 3 years (N=15,590); 5 years (N=15,246); 7 years (N=13,857); and 11 years (N=13,287). Hence, one of the strengths of this study is that there is a large sample size. Additionally, the data were weighted to provide representativeness in relation to ethnicity and socioeconomic status, so the findings are likely to be more generalisable. A further strength is that the study is longitudinal, which enabled the direct comparison of developmental trajectories in autistic children and NT children; in this instance, NT is used to describe an individual who does not have a diagnosis of ASC or any other neurodevelopmental condition. One limitation of the study is that it does not state how many children in the total sample actually had a diagnosis of ASC at each time point. However, it does state the prevalence so this number can be approximated: 5 years (N= approx. 137); 7 years (N= approx. 235); and at 11 years (N= approx. 465). A second

limitation is that diagnosis was self-reported and was not verified. Finally, it is possible that some children in the comparison group were, as yet, undiagnosed autistic children (see Section 2.2.1.2 and Section 2.2.1.3) . However, Dillenburger and colleagues exercised due diligence by undertaking a sensitivity analysis, which indicated that the impact of including these cases was minimal (Dillenburger et al., 2015).

2.2.3.1 Mental Health

National statistics indicate that autistic CYP are a vulnerable group in relation to mental health. It was found that 30% of this population have a diagnosable mental health condition in contrast to 10% of the general population of CYP (Office for National Statistics, 2004). Moreover, it is estimated that 63% of autistic CYP have impairing levels of anxiety and, by 11 years of age, they have significantly lower levels of overall happiness than NT children (Kerns, Comer and Zeman, 2014; Dillenburger et al., 2015). Furthermore, and of great concern, 25% of the parents of autistic children reported that their children had tried to harm or kill themselves (Office for National Statistics, 2004). This evidence suggests that autistic CYP are in need of further support in relation to their emotional wellbeing. This may be partially supported by the promotion of student wellbeing, which incorporates emotional wellbeing, in schools.

2.2.3.2 Exclusions

During the 2016/17 academic year, autistic children were three times more likely than children without SEN to receive a fixed term exclusion (Department for Education, 2018b). In support of these statistics, by the age of 11 years, a significantly higher proportion of autistic children, compared to NT children, had been excluded from school temporarily (Dillenburger et al., 2015). A higher proportion of autistic children had also been permanently excluded from school, but this difference was not statistically significant.

These statistics may actually reflect an underestimate of the total number of fixed term exclusions autistic children have received, as government figures only represent formally recorded exclusions

and there is evidence to suggest that some schools may be unlawfully excluding autistic students for fixed term periods (Ambitious about Autism, 2017; APPGA, 2017). It is possible that these exclusions are the result of challenging behaviour that is underpinned by the higher incidence of mental health needs, such as anxiety, in this population (APPGA, 2017). This suggests that targeting the promotion of positive student wellbeing in this population may reduce the incidence of challenging behaviour and, thus, exclusion. However, the available statistics indicate that, currently, autistic students may not be supported and included effectively in mainstream schools (Dillenburger et al., 2015).

2.2.3.3 Bullying and social isolation

Parent surveys indicated that, when compared to NT children, autistic children experienced bullying significantly more frequently (Dillenburger et al., 2015). Small scale survey findings from the UK also indicate that autistic CYPs feel that their peers at school do not understand them (APPGA, 2017). In support of this, social networking surveys examining peer relationships in mainstream classrooms have found that many autistic students are less accepted by peers and have fewer reciprocal friendships than their NT classmates (Rotheram-Fuller et al., 2010; Kasari et al., 2011).

Given that the ability to develop and maintain relationships is a key component of student wellbeing, the difficulties in social communication and social interaction that autistic students experience could put them at risk of impaired student wellbeing.

2.2.3.4 Lack of enjoyment of school

In accordance with the other difficulties highlighted by the survey data, parent reports indicated that autistic children are significantly less likely to enjoy school than their NT peers (Dillenburger et al., 2015). Furthermore, as early as age 5 years, a significantly greater proportion of autistic children were reluctant to attend school (Dillenburger et al., 2015).

One reason for this lack of enjoyment of school could be the sense that teachers lack the knowledge and understanding to provide adequate support to autistic CYP, which was reported by 50% of the

autistic CYP who participated in the APPGA survey (APPGA, 2017). Although, this survey had a small sample size (N=176), this finding is supported by research in which primary school teachers reported feelings of apprehension and a lack of confidence in supporting autistic students (Soto-Chodiman et al., 2012; Anglim, Prendeville and Kinsella, 2018). A positive development in this area is that, from September 2018, a discrete focus on autism will be a mandatory requirement of all Initial Teacher Training courses (APPGA, 2017).

2.3 Student wellbeing in autistic individuals attending mainstream schools

In 2016, Danker and colleagues attempted to review research into student wellbeing in autistic CYP and subsequently concluded that there was a distinct lack of research in this area (Danker et al., 2016); a systematic literature search undertaken as part of the current research also found this to be the case. Due to the lack of research into student wellbeing in autistic individuals, Danker and colleagues systematically reviewed literature on the experiences of autistic students in mainstream schools and related these experiences to student wellbeing. In this previous literature review, four papers that met the inclusion criteria were identified. However, it should be noted that two of these papers presented the same data collected from the same participants albeit analysed slightly differently. Interestingly, the review permitted the inclusion of studies conducted in primary and secondary schools, yet all four of the studies identified concerned secondary schools; this highlights the lack of research into the experiences of autistic children in mainstream primary schools. Danker et al. (2016) explicitly stated that their research was underpinned by the theoretical assumption that student wellbeing is likely to be negatively impacted by some of the characteristics associated with ASC. Thematic analysis was utilised to produce a metasynthesis of the findings and eight themes were identified, each of which was proposed to relate to student wellbeing: i) diagnostic label; ii) relationships; iii) positive/negative emotions; iv) professional support; v) teacher qualities; vi) curriculum-related issues; vii) environment; and viii) masquerade.

Although this systematic review was well explained and the analysis was thorough, it excluded grey literature in an already sparse area of research. Additionally, it included two papers documenting the same findings and presented these as independent studies, which both contributed towards the development of themes.

2.4 Extension of Danker et al.'s (2016) systematic review into the experiences of autistic students in mainstream schools

2.4.1 Overview

As previously highlighted by Danker et al. (2016), there is a lack of research into student wellbeing in autistic CYP. Research investigating wellbeing in autistic students has either focused specifically on emotional wellbeing (Meehan, 2011) or the evaluation of interventions (Burrows, 2010). However, the majority of research into wellbeing and ASC focuses on the wellbeing of parents, teachers or siblings of autistic CYP rather than the CYP themselves.

For these reasons, a systematic literature search was undertaken to identify papers, including those constituting grey literature, presenting the views of autistic CYP on their general experiences in mainstream schools, using a similar method to Danker et al. (2016). This section details the search strategy, inclusion and exclusion criteria, and analysis of the findings of previous studies into the experiences of autistic students attending mainstream schools.

2.4.2 Search strategy

Two databases, EBSCO and ProQuest, were searched using the terms 'autis* OR Asperger OR ASD OR ASC' and 'school experiences OR school OR mainstream', 'student AND voice' or 'wellbeing OR well-being'. Additionally, search results were limited to papers published between 2008 and 2018 (see Appendix 1).

2.4.3 Inclusion and Exclusion Criteria

To be included in the literature review, papers had to document studies that were:

i. original research analysing primary data;
ii. published from 2008 onwards, in the interest of current relevance;
iii. published in English;
iv. focused on general school experiences of autistic students in mainstream schools;
v. presenting student views, gathered using semi-structured interviews.

Only studies that sought to gather students' views, including studies that triangulated this data with the views of parents and teachers, were permitted in this literature review. This is because researchers have emphasised the importance of trying to understand 'what it feels like' to be autistic rather than 'what it looks like' to an observer (Davidson, 2010, p.311). By empowering young people to share their perspectives, including their thoughts and feelings, researchers can develop a greater understanding of students' experiences within the education system (Harrington et al., 2013). Dillon and colleagues argue, in relation to autistic students specifically, that 'listening to the student voice provides researchers with a meaningful insight into the experiences of those individuals who may not otherwise always find an outlet' (Dillon et al., 2016, p.222). Previously, it has been argued that the utility of researchers listening to and reflecting upon 'insider' accounts is that it can develop professional knowledge and understanding of ASCs (Hay and Winn, 2005; Davidson, 2010). This argument is supported by Dillon et al.'s (2016) research, which emphasises the paramount importance of capturing the views of autistic students in developing educators' understanding of which policies, procedures, and interventions are most successful for this group. Furthermore, it is acknowledged that there is an important difference between the views of parents and teachers and the views of autistic students themselves (Dillon et al., 2016). Finally, research, which used a range of methods of data collection including observation and interviews, included in this review stated explicitly that personal feelings were only revealed in the interviews (Moyse and Porter, 2015); this,

again, emphasises the importance of student voice in relation to understanding the lived experiences of autistic students in mainstream schools.

The search identified eight studies that met the inclusion criteria. Five of these studies were conducted in the UK (Humphrey and Lewis, 2008; Meehan, 2011; Hill, 2014; Moyse and Porter, 2015; Dillon et al., 2016), and the remaining three studies were carried out internationally, in Australia, Singapore and the USA (Saggers, Hwang and Mercer, 2011; Poon et al., 2014; Grave, 2016). An overview of the eight papers is provided in Table 1. These papers include three of the four papers identified by Danker et al. (2016); the fourth paper was rejected because it documented the same study as one the included papers.

2.4.4 Metasynthesis

Thematic analysis, involving both deductive and inductive coding, was used to identify themes across the data. Danker et al.'s (2016) original eight categories were used as a coding frame, and inductive coding was used to create new thematic categories for any data that was relevant but did not fit readily into these categories. Next, to develop theory and hypotheses about student wellbeing in autistic children, the content of the identified themes was considered in relation to the framework of student wellbeing proposed by McLellan and Steward (2015), as outlined in section 2.1.2.3.

Table 1: An overview of included studies.

Study	Location	Participant details				Educational context	Research question(s)/Aim(s)	Study Design/ Data collection	Qualitative data analysis
		n	*Age (years)*	*Gender*	*Diagnosis*				
Humphrey and Lewis (2008)	North-West England, UK	20	11 to 17 years	Not stated	20 Asperger Syndrome	Mainstream secondary	To explore the views of students with Asperger's Syndrome about mainstream education and to document the everyday experiences of these students in mainstream schools.	Transformative paradigm Phenomenological study Interviews Diaries Drawings	Interpretative Phenomenological Analysis
Meehan (2011)	North England,UK	11	Not stated: Years 8 to 10 (approx. 12 to 15 years)	9 boys 2 girls	6 Asperger Syndrome 5 ASC	Mainstream secondary	To investigate the perceptions of young people with Asperger's syndrome regarding their emotional wellbeing.	Interpretivist paradigm Multiple case studies Interviews	Thematic Analysis
Saggers, Hwang and Mercer (2011)	Brisbane, Australia	9	13 to 16 years	7 boys 2 girls	9 ASC	Mainstream secondary	To explore the lived experience of nine autistic students in a high school in Australia.	Qualitative inquiry Interviews	Constant Comparative Method
Hill (2014)	South England, UK	6	Not stated	Not stated	6 ASC	Mainstream secondary	To explore the mainstream secondary school experiences of autistic young people	Interpretivist paradigm Phenomenological Photo elicitation discussions	Interpretative Phenomenological Analysis
Poon et al. (2014)	Singapore	4	12 and 17 years	3 male 1 female	2 ASC 2 Asperger Syndrome	Mainstream secondary	To understand the perspectives of four autistic young people regarding their experiences in Singapore secondary schools.	Qualitative study (design not stated) Interviews	Interpretative Phenomenological Analysis
Moyse and Porter (2015)	England, UK	3	7 to 11 years	3 females	2 Asperger Syndrome 1 ASC	Mainstream primary	To consider the experience of autistic girls in schools and to examine the impact of their difficulties at different points in the school day.	Ethnographic case studies	Not detailed (appears to be Thematic Analysis)
Dillon, Underwood and Freemantle (2016)	West Midlands, England, UK	14	Mean age 13 years	11 males 3 females	14 ASC	Mainstream secondary	To examine the self-reported school experience of autistic students.	Mixed methods study Questionnaire Interviews	Content Analysis
Grave (2016)	North Dakota, USA	7	Not stated: (Approx. 11 to 14 years)	6 boys 1 girl	7 ASC	Mainstream middle school	To examine the experiences and perspectives of autistic adolescents presently in middle school.	Constructivist paradigm Phenomenological study Interview	Thematic Analysis

2.5 Student wellbeing in autistic CYP

The themes identified in the literature are presented in Table 2. These themes are considered, in turn, in relation to their potential impact on the student wellbeing of autistic CYP. The strengths and limitations of the included studies are also considered.

Table 2: The eight themes identified across previous research into the experiences of autistic students in mainstream schools and the papers that contributed to these.

Theme	*Humphrey and Lewis (2008)*	*Meehan (2011)*	*Saggers, Hwang and Mercer (2011)*	*Hill (2014)*	*Poon et al. (2014)*	*Moyse and Porter (2015)*	*Dillon et al. (2016)*	*Grave (2016)*
Diagnosis	✓		✓		✓		✓	✓
Masquerade	✓		✓	✓	✓	✓		✓
Peer Relationships	✓	✓	✓	✓	✓	✓	✓	✓
Teasing and bullying	✓	✓	✓	✓	✓			✓
Relationships with teachers	✓	✓	✓		✓	✓	✓	✓
Additional support	✓	✓	✓	✓		✓	✓	✓
Curriculum related issues	✓	✓	✓	✓	✓	✓	✓	✓
Environment	✓	✓	✓	✓	✓		✓	✓

It is important to note that these are the findings of qualitative studies, often carried out within one school or across two or three schools. These studies were likely not to have been undertaken in order to generalise the findings to other contexts. However, the identified themes illuminate some of the difficulties faced by autistic students attending mainstream schools and emphasise the need for more research into the lived experiences of these students.

2.5.1 Diagnosis

Some students framed their diagnosis positively. For example, they highlighted skills associated with their diagnosis and reported that knowledge linked to their special interests was considered impressive by their peers, which evoked feelings of pride (Humphrey and Lewis, 2008). A diagnosis was also perceived as marking the individual out as special and was associated with the opportunity

to achieve great things (Poon et al., 2014). The positive framing of an ASC diagnosis is likely to promote student wellbeing as it appears to be linked to feelings of perceived competence and also to positive emotions.

In contrast, other students framed their diagnosis more negatively. Some felt their diagnosis made them appear abnormal, unintelligent or fragile (Humphrey and Lewis, 2008; Poon et al., 2014; Grave, 2016). Additionally, one student highlighted that he felt his diagnosis caused his peers to be afraid of him and this caused him to dislike himself (Poon et al., 2014). Framing a diagnosis in this way is likely to negatively impact on student wellbeing due to reduced feelings of competence and an increase in negative emotions. Furthermore, negative self perception has been linked to higher rates of depressive symptomology among autistic CYP (Green et al., 2000; Vickerstaff et al., 2007).

2.5.2 Masquerade

Some students expressed a desire not to stand out. In one study, students reported that it was considered important not to be seen as different at school (Humphrey and Lewis, 2008). Students in another study stated that they did not want to be different but were not sure how to blend in (Hill, 2014). In an effort to blend in, some students stated that they masked their experiences of emotions, such as anxiety, when they were around their peers (Moyse and Porter, 2015; Grave, 2016). Students' desire to 'masquerade' as NT appears to be linked to anxiety about the potential consequences of others' perception of them as *different*. For example, some students reported that they would rather their peers did not know about their diagnosis because such knowledge would result in them being treated differently or even becoming a target for bullying (Humphrey and Lewis, 2008; Saggers et al., 2011; Poon et al., 2014). Thus, the desire to masquerade is likely to be linked with impaired student wellbeing due to its association with the experience of negative emotions.

In contrast to this desire to fit in, other students reported that being open about their diagnosis had positive consequences, such as others being more sympathetic and respectful of their individual

needs (Humphrey and Lewis, 2008; Poon et al., 2014). In such instances, it is possible that others' knowledge of students' diagnoses promoted their student wellbeing by fostering interpersonal wellbeing.

2.5.3 Peer relationships

Having friends was mentioned by students in four of the eight papers. These students tended to have one or two close friendships (Dillon et al., 2016; Grave, 2016). In one study, students reported deliberately making friends with other students who had SEN because it was felt that students without SEN would be unkind (Poon et al., 2014). However, this was not always the case; in another study, autistic students reported being friends with both students with SEN and without SEN (Saggers et al., 2011). Friendships were linked to feelings of happiness and enjoyment of school (Poon et al., 2014; Dillon et al., 2016); in contrast, a lack of friends was linked to a lack of enjoyment at school (Moyse and Porter, 2015). Students also highlighted the functional aspects of having friends. For example, friends were associated with feelings of safety (Dillon et al., 2016; Grave, 2016); autistic students stated that their friends stood up for them when their peers were unkind (Humphrey and Lewis, 2008). They also cited their friendships as a source of academic support (Dillon et al., 2016; Grave, 2016). Furthermore, some students reported that they helped their friends with lesson work (Poon et al., 2014; Grave, 2016). The experiences of friendship shared by the autistic students in the identified studies suggest that, for these students, having friends promotes student wellbeing across all of its four domains by positively impacting: interpersonal wellbeing, due to feeling cared for; life satisfaction, due to associated enjoyment; a (lack of) negative emotion, due to associated feelings of happiness; and perceived competence due to support with their own work and opportunities to be a 'more knowledgeable other' and provide support to peers.

In some studies, students reported that they enjoyed observing peers (Hill, 2014; Grave, 2016). Hill (2014) suggested that these students may have been trying to learn how to behave through observation. It could also have been the case that the students were using observation to try to gain

an understanding of their peers, as students in four of the eight studies felt they lacked an understanding of what others are thinking or feeling and, thus, found people confusing (Humphrey and Lewis, 2008; Saggers et al., 2011; Hill, 2014; Poon et al., 2014); this is likely due to difficulties with theory of mind, which is the ability to attribute mental states to others in order to appreciate what they are thinking or feeling (Premack and Woodruff, 1978). It is well documented in the literature that autistic individuals have difficulties utilising this skill (Baron-Cohen, Leslie and Frith, 1985; Yirmiya et al., 1998).

Students in some of the studies expressed that they disliked feeling left out (Moyse and Porter, 2015; Dillon et al., 2016; Grave, 2016). Some expressed desire for friendships but had been unsuccessful in developing these (Humphrey and Lewis, 2008; Saggers et al., 2011; Moyse and Porter, 2015). Consequently, some students reported feeling rejected by their peers (Meehan, 2011; Moyse and Porter, 2015). Others indicated these negative feelings were accompanied by low self-perception, such as feeling they did not exist at school or that their peers would prefer it if they were dead (Humphrey and Lewis, 2008; Moyse and Porter, 2015). This suggests that a lack of friendship, in instances where friendship is desired, could negatively impact student wellbeing due to a reduction in interpersonal wellbeing but also due to increased negative emotion and lower perceived competence.

In contrast to those students who desired interaction with peers, some autistic students voiced their preference for being alone (Saggers et al., 2011; Moyse and Porter, 2015). Students in some of the studies found peers irritating due to being distracted by disruptive behaviour and talking when they were trying to concentrate on their work (Saggers et al., 2011; Dillon et al., 2016; Grave, 2016). Some students contrasted this with enjoying peers' jokes when they were not working, which is likely to be linked to their preference for their peers to follow classroom rules (Grave, 2016). Additionally, some of the students associated peers with undesirable behaviours, such as pushing and shoving in corridors (Humphrey and Lewis, 2008; Hill, 2014).

The outlined difficulties associated with peers, such as feelings of being left out and being unsure of how to handle social situations, was reported by students to contribute towards them reacting aggressively, or wanting to react aggressively, to situations (Humphrey and Lewis, 2008; Meehan, 2011; Dillon et al., 2016; Grave, 2016). For some students, their own behaviour and difficulties managing this led to feelings of negative emotion. For example, students voiced concern about their current behaviour and worried about their potential future behaviour (Dillon et al., 2016). This suggests that peer behaviours and difficulties dealing with the evoked negative emotions, in addition to reduced feelings of perceived competence, would be likely to reduce experiences of student wellbeing.

2.5.4 Teasing and bullying

Teasing and bullying was highlighted in six of the eight studies, with bullying including both verbal and physical abuse (Humphrey and Lewis, 2008; Meehan, 2011; Saggers et al., 2011; Hill, 2014; Poon et al., 2014; Grave, 2016). In one instance, bullying even encompassed sexual harassment (Saggers et al., 2011). The emotional impact of bullying on the students was illustrated by one participant stating that her strategy for dealing with such behaviour was to avoid responding when anyone at school called her name (Saggers et al., 2011). Bullying is likely to negatively impact on student wellbeing due to associated experiences of negative emotion, and reduced experiences of interpersonal wellbeing due to feelings of being unsafe. The negative impact of bullying on student wellbeing may also be present in those students who are not direct targets of bullying, as research findings suggest that all students feel less safe when they know that unchallenged bullying is occurring in their school (Janson et al., 2009). Furthermore, a large scale study of adolescent students found that bullying in school was associated with lower levels of achievement (Konishi et al. 2010). This suggests that the negative impact of feeling unsafe on student wellbeing may also be associated with lower achievement.

2.5.5 Relationships with teachers

Some students reported positive relationships with staff, which are important for interpersonal wellbeing and have also been shown to predict academic success (Konishi et al., 2010; Hughes, 2012). For example, some students felt their teachers knew them and were trustworthy (Saggers et al., 2011; Dillon et al., 2016). This is encouraging because previous research has demonstrated that positive relationships with teachers are associated with fewer experiences of mental health difficulties (Bizumic, Reynolds and Turner, 2009; Joyce and Early, 2014).

Autistic students also stated that teachers in their mainstream schools were helpful (Meehan, 2011; Poon et al., 2014; Dillon et al., 2016; Grave, 2016). Some students highlighted that they valued their teachers giving them help in the form of hints rather than answers (Saggers et al., 2011; Dillon et al., 2016). They also valued teachers who provided clear and concise explanations that were easy to understand (Saggers et al., 2011; Dillon et al., 2016; Grave, 2016). Teachers providing help in this way may have promoted students' feelings of perceived competence, as some students reported that being encouraged by teachers to attempt tasks helped them to develop more self-confidence in their own abilities due to their increased level of understanding (Dillon et al., 2016).

Students preferred teachers whom spoke softly and remained calm rather than becoming annoyed or angry when they made mistakes (Dillon et al., 2016; Grave, 2016). They also valued teachers who were organised and able to maintain order in the classroom (Saggers et al., 2011; Grave, 2016). Finally, students liked teachers who told jokes and made lessons fun (Saggers et al., 2011; Grave, 2016); this supports the findings of a previous review, which concluded that the use of humour in educational contexts can enhance students' positive perceptions of teachers (Banas et al., 2011). This review also concluded that the use of humour contributes to a more engaging and relaxed learning environment, increases students' motivation to learn, and results in more overall enjoyment of lessons (Banas et al. 2011). These findings suggest that teachers' use of humour may

also promote feelings of satisfaction and positive emotion in school, thus promoting student wellbeing.

In contrast to teacher qualities that promoted positive student-teacher relationships, students also highlighted teacher qualities that were a barrier to these. Students reported that they disliked teachers leaving them to attempt work with little explanation or support (Moyse and Porter, 2015; Dillon et al., 2016; Grave, 2016); some students reported that their teachers did not look at their work or interact with them during their lessons (Humphrey and Lewis, 2008). Furthermore, some students reported that teachers talked through lesson content too quickly (Dillon et al., 2016; Grave, 2016). Some barriers to positive relationships with teachers appeared to be linked to students' need for consistency and routine. Students highlighted that inconsistent teaching practices were confusing (Dillon et al., 2016; Grave, 2016). This may be more of an issue in secondary schools than primary schools, as secondary students are more likely to be taught by several different teachers. Additionally, students disliked teachers making alterations to usual routine, withholding academic support, or using whole class consequences as a response to peers' misbehaviour (Grave, 2016). They reported that they experienced negative emotions in response to these unanticipated changes (Saggers et al., 2011; Grave, 2016). Thus, such changes could be a barrier to student wellbeing.

Students' relationships with their teachers were also negatively impacted by shouting (Meehan, 2011; Saggers et al., 2011; Moyse and Porter, 2015; Grave, 2016); in the majority of cases this was due to being shouted at but some students reported that shouting upset them even when this was directed at others (Grave, 2016). A final barrier to students developing positive relationships with their teachers was the feeling that teachers had insufficient knowledge of ASC and how best to support them, due to a lack of training (Humphrey and Lewis, 2008; Grave, 2016); this has also been highlighted by teachers of autistic students as a barrier to creating an inclusive environment (Lindsay et al., 2013).

Due to the aforementioned benefits of positive relationships between students and teachers in relation to student wellbeing, the barriers to these relationships highlighted by autistic students in the identified studies are likely to negatively impact on student wellbeing.

2.5.6 Additional support

Additional support such as that provided by teaching assistants, learning mentors, and pastoral staff was discussed by students. Many students valued help to engage with difficult work, provided by support staff in their lessons (Humphrey and Lewis, 2008; Saggers et al., 2011; Hill, 2014; Dillon et al., 2016; Grave, 2016). Although, some students voiced their preference for this support to be made less obvious, such as additional support being provided to several students in their classes, because this minimised the embarrassment they experienced in response to receiving help (Saggers et al., 2011; Dillon et al., 2016). In contrast, some students valued opportunities to develop their independence and felt that additional support could be a barrier to this (Saggers et al., 2011; Hill, 2014; Grave, 2016). Other students disliked receiving additional support in lessons because they felt they were followed around school or had staff sitting next to them in lessons, which exacerbated feelings of difference (Humphrey and Lewis, 2008; Saggers et al., 2011).

The views of students suggest that additional support could increase feelings of perceived competence, by supporting them to engage with their work. However, the provision of support should be carefully considered to avoid creating situations in which it becomes a barrier to perceived competence, such as students feeling that they have limited opportunities to attempt tasks independently, or situations in which it contributes to the experience of negative emotions.

Students also highlighted the value of additional support outside lessons. Some students reported that they valued being supported to complete homework in school, due to the help they received with this from school staff and due to a strong dislike of completing homework during their personal time at home (Hill, 2014; Dillon et al., 2016; Grave, 2016). Additionally, students reported that they

found pastoral support helpful, particularly when it involved listening and understanding (Saggers et al., 2011; Dillon et al., 2016). Some students linked this direct emotional support to feelings of positive emotion and reported that it helped them to feel relaxed and happy in school (Humphrey and Lewis, 2008; Meehan, 2011). Additionally, students identified that their experiences of positive emotion were promoted by having access to a withdrawal area that enabled them to take a break and have some space away from their peers (Hill, 2014; Grave, 2016). However, in one study students were being actively discouraged from using these areas because staff felt that they spent too much time away from the classroom (Moyse and Porter, 2015). Withdrawal areas were sometimes used during unstructured times, as an alternative to the playground. These provided a safe space in which students could engage with their special interests, some of which may be considered immature in relation to the age of the student, without worrying about unkind comments from peers. Students reported that engaging with their special interests was associated with feelings of happiness (Hill, 2014). These findings suggest that pastoral care and access to a withdrawal area can contribute to feelings of positive emotion, thus they are likely to promote student wellbeing.

2.5.7 Learning related issues

Positively, some students were able to identify personal strengths and highlighted that they particularly enjoyed practical subjects (Saggers et al., 2011; Hill, 2014; Grave, 2016). Students also reported that they felt they were generally engaged in their lessons, despite sometimes becoming distracted (Humphrey and Lewis, 2008; Hill, 2014). However, other students reported feeling reluctant to use strategies that helped them to focus, such as using fiddle resources or taking 'brain breaks', due to fear of getting into trouble with their teachers (Moyse and Porter, 2015; Grave, 2016). This is likely to be a barrier to student wellbeing as reluctance to use these potentially useful strategies may hinder their ability to concentrate and engage in lessons, which could negatively impact their feelings of perceived competence. Furthermore, students explicitly stated that they

found it difficult to complete their work if they were experiencing negative emotion (Dillon et al., 2016; Grave, 2016); this supports previous assertions that student wellbeing is important for academic achievement (Brooks, 2014).

Some students emphasised their preference for working alone rather than in groups. One reason for this was that it permitted them to do their work the way they wanted it done (Grave, 2016). Additionally, some students found group work distracting due to the number of other students and noise created by collaborative working (Dillon et al., 2016; Grave, 2016). Moreover, some students worried that, during group work, their peers would pressure them into doing all of the work (Grave, 2016). Conversely, others worried that their contributions would not be considered by their group (Moyse and Porter, 2015). In contrast to these reports of negative experiences related to group work, other students reported that they enjoyed collaborative working provided they were able to work in small groups with their friends (Dillon et al., 2016). This evidence suggests that for some autistic students collaborative work may be a barrier to student wellbeing, due to associated anxiety and disruption, yet for other autistic students it may promote student wellbeing by providing opportunities for them to work with their friends.

Writing was a commonly cited area of difficulty, which supports previous research findings that writing is more laborious for autistic individuals (Fuentes, Mostofsky and Bastian, 2009). Students reported that they had difficulties with handwriting or that they were slow at writing (Meehan, 2011; Moyse and Porter, 2015; Grave, 2016). They also reported that writing physically hurt them and that it was effortful and exhausting (Saggers et al., 2011; Grave, 2016). Due to these difficulties, some students preferred to type their work rather than handwrite it (Saggers et al., 2011; Grave, 2016). One student explained that it was faster for her to type and that it also benefited staff who could not read her handwriting (Saggers et al., 2011). Other students preferred to use voice-to-text technology rather than typing to support them with writing tasks (Grave, 2016). This evidence

suggests that, unless reasonable adjustments are made to support students to access writing tasks, they may experience lower levels of perceived competence when attempting such tasks.

Traits linked to perfectionism were highlighted as difficulties by students in several studies. For example, some students reported a desire to maintain neat presentation (Meehan, 2011). Others reported a fear of making mistakes or of failure (Hill, 2014; Poon et al., 2014; Grave, 2016). These feelings were associated with the experience of negative emotions, thus could present a barrier to student wellbeing if not addressed.

2.5.8 Environment

Positive and negative environmental factors were reported by the students. Having space was preferred by some students (Dillon et al., 2016). Similarly, other students reported that they disliked being in crowded areas at school (Humphrey and Lewis, 2008; Hill, 2014). However, for some students, large spaces caused feelings of anxiety. They felt their schools were too big, which caused them to feel small in comparison, and they felt they did not know their way around their schools (Meehan, 2011; Hill, 2014). Additionally, some students expressed their preference for attending a school with a small number of students on roll or preferred to be around smaller numbers of students in particular situations, such as when sitting exams (Hill, 2014; Grave, 2016). Difficulties associated with a large school may be more of an issue for students at secondary schools, as these tend to be larger than primary schools to accommodate more students. This evidence suggests that large schools, with a greater number of students on roll, could be a barrier to student wellbeing due to evoking feelings of anxiety.

Students reported a preference for quiet environments (Meehan, 2011; Grave, 2016). Noise was cited as a negative environmental factor in the majority of studies, as it evoked negative emotions such as irritation, stress, anxiety and fear, and caused disruption to the students' learning (Humphrey and Lewis, 2008; Meehan, 2011; Saggers et al., 2011; Hill, 2014; Poon et al., 2014; Dillon

et al., 2016). Furthermore, one student reported that she avoided eating in the lunchroom due to the fear she experienced in response to the volume of noise (Grave, 2016); avoidance strategies such as these may prevent the experience of negative emotions in response to noise, but they also reduce opportunities for socialising and developing relationships, which could be a barrier to interpersonal wellbeing.

2.5.9 Strengths and limitations of included studies

Of the eight identified papers, only one presents the views of autistic students attending primary schools (Moyse and Porter, 2015). However, this paper employed an ethnographic methodology, involving extensive observation and interviews with staff and parents in addition to the young people themselves, which limited the amount of analysis pertaining to interview data provided by the young people that could be presented in the paper. One reason why the paper focuses primarily on observation data and data provided by parents and teachers may be due to adults holding an underlying assumption that they 'understand much better than [CYP themselves] what is good for them and how events impact on them' (Greene and Hill, 2005, p.18). The lack of data from primary school students limits the conclusions that can be drawn from these studies as to the experiences of autistic students attending mainstream primary schools and how these may affect their wellbeing in school. Additionally, it is necessary to acknowledge that caution must be exercised when considering the findings of international research, as these may not readily apply to experiences in the UK due to cultural and social differences. Nevertheless, the metasynthesis of the data presented in these studies suggests that autistic students interviewed for international research faced similar challenges to those interviewed for research undertaken in the UK.

Some of the studies utilised creative data collection approaches in order to support students to express their views and share their experiences. For example, Humphrey and Lewis (2008) asked students to complete diaries in addition to being interviewed, and they also included a picture produced by one of the participants during their analysis. The use of diaries was advantageous as it

enabled student experiences to be measured over a period of time and provided evidence of the frequency of these students' experiences. However, a limitation of this approach is that it was time consuming and findings were similar to those studies that used only interviews to gather data. Another example of a novel and engaging data collection method was the photo elicitation approach utilised by Hill (2014). This involved asking the students to take photographs of places in school that were of particular importance to them, which were subsequently discussed in a follow-up interview. Hill provided a sound rationale for this approach, which included allowing the students to choose the focus of the interviews and having photographs as the focus of the discussions in the interviews, so that the young person did not feel uncomfortable. However, the data presented in this study revealed that students made very little reference to relationships during their interviews. It is possible that relationships were not considered to be important by the students in this study. However, it is arguably more likely to be an artefact of the method employed, because participants were asked to talk about the photos they had taken and this may have limited discussion to inanimate or concrete aspects of school that could be photographed more readily, such as rooms, the bell, the corridors, etc.

2.6 Current study

The review of previous literature into the experiences of autistic students in mainstream schools revealed that the vast majority of this research has focused on secondary schools. It could be argued that some of the differences to the school experience that students encounter once they leave primary school and begin secondary school infer that autistic students may find secondary school more challenging. Compared to primary schools, secondary schools are larger and place more demands on the independence of students (Coffey, 2013; Mandy et al., 2016; Hebron, 2017). Additionally, due to the greater number of students on roll, secondary schools may be more noisy and chaotic than primary schools; this may be distressing or overwhelming for some autistic students who experience hypersensitivity to sensory stimuli (Makin, Hill and Pelicano, 2017).

Furthermore, at primary schools, students receive the vast majority of their teaching in one classroom, from one teacher, with a familiar and stable group of peers (Mandy et al., 2016; Hebron, 2017); in contrast, at secondary schools students are taught by different teachers, often in different rooms for each lesson, and are required to move around the school to attend their lessons (Mandy et al., 2016; Hebron, 2017). For these reasons, the experiences of autistic students in secondary schools may be considered as more worthy of being researched.

In contrast, findings from the included secondary school studies indicate that for at least some autistic students, primary school was more challenging than secondary school (Meehan, 2011; Saggers et al., 2011). In support of this argument, longitudinal research into school connectedness across the transition from primary to secondary school found that autistic students reported an increase in feelings of school connectedness during their first year of secondary school, in comparison to their last academic term in primary school (Hebron, 2017).

This suggests that research into the experiences of autistic students attending mainstream primary schools, such as the current research, is needed. The current research aims to use questionnaires and interviews to enable autistic students in primary schools to share their views and, thus, contributes a voice that is currently lacking in the literature. Furthermore, previous research has shown that reluctance to attend school and social exclusion starts very early on in the school career of autistic students (Dillenburger et al., 2015). This indicates that pre-schools and primary schools should focus on improving the educational experiences of these students in order to maintain their engagement and enjoyment of school, so that they can thrive and achieve. One important approach to achieving this end is to endeavour to promote the wellbeing of autistic students in primary schools. This study is one of the first to investigate student wellbeing in this population.

CHAPTER III

METHODOLOGY

3.1 Paradigm

3.1.1 Ontology

The current research adopts a critical realist ontology. In opposition to the relativist assumption that reality is subjective and internally experienced, critical realism posits that there exists one mind-independent reality (Bisman, 2010). However, in contrast to naive realism, critical realism accepts that attempts to measure this *reality* are likely to be fallible, due to the inevitable partial bias that researchers' perspectives introduce to such research (Bremmers, 2004; Onwuegbuzie, Johnson and Collins, 2009).

3.1.2 Epistemology

The current research has been designed within a postpositivist paradigm. Postpositivism, adopts a critical realist ontology (Bremmers, 2004; Teddlie and Tashakorri, 2009). It represents 'an attempt to transcend and upgrade positivism' (Adam, 2014, p.5). Postpositivism is guided by the empiricism of the scientific method, but recognises that human behaviour is not as constant as the behaviour of elements of the physical world (Baran and Davis, 2015). It is accepted that there are important yet unobservable aspects of human experience that are worthy of research, including wellbeing as in the current study (Mertens, 2015). Postpositivist research involves a process of reducing concepts into small, discrete sets of constructs to test (Mukherjee and Kamarulzaaman, 2016); in the current study, these constructs are components of student wellbeing. Similarly to positivism, postpositivism emphasises the importance of objectivity, reliability, replicability and generalisability, but it suggests that researchers modify their claims to understandings of truth based on probability rather than certainty (Guba and Lincoln, 2005; Mertens, 2015); thus, postpositivism reflects 'a deterministic philosophy in which causes (probably) determine effects or outcomes' (Creswell, 2013, p.7). Within

the postpositivist approach, advances in knowledge are the result of systematic searches for regularities and causal relationships, and intersubjective agreement among scientists studying a particular event (Denzin and Lincoln, 2011; Baran and Davis, 2015). For this reason, the current research aims to test hypotheses and answer questions derived from the review of previous literature presented in Chapter II.

3.2 Research design

The current research utilises a mixed methods approach to data collection and data analysis. Mixed methods research can be defined as research which '*combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration'* (Johnson, Onwuegbuzie and Turner, 2007, p.123).

It is important to acknowledge that mixed methods research has been criticised on the grounds that quantitative and qualitative approaches cannot be utilised coherently together within the same study, as they are based on fundamentally incompatible philosophical traditions (Smith, 1983). In response to this, pragmatism was proposed as an aparadigmatic approach to mixed methods research, within which researchers are permitted to select the methods they feel best answer the research questions (Johnson and Onwuegbuzie, 2014). However, as other researchers have argued, methods unavoidably invoke a type of circularity that determines the nature of results (Gadamer, 1989; Bonham, 1991); thus, the results produced using a particular method will be improvements, explanations and magnifications of the worldview invoked by its underlying assumptions (Yanchar and Williams, 2006). In a recent and comprehensive book on mixed methods research, Creswell and Plano Clark (2018) note that four worldviews are particularly useful for informing mixed methods research: postpositivism, constructivism, tranformativism, and pragmatism; thus, the use of mixed methods within a postpositivist epistemology, as in the current research, is justified.

Schoonenboom and Johnson (2017) outline seven primary dimensions that should be considered to maximise the likelihood of a strong mixed methods design; in order to describe and explain the mixed methods design utilised in this study, each of these seven dimensions will be addressed in turn.

3.2.1 Purpose

The purpose of using a mixed methods design in this research is *utility;* this approach is prominent in research with an applied focus and assumes that combining two approaches will result in findings that are more useful to practitioners (Bryman, 2006). Quantitative research alone is abstract and decontextualized. This is a strength in the current research as it enables the measurement of discrete constructs such as components of student wellbeing and the statistical comparison of scores between groups, which is required in order to answer the first research question. However, the abstract nature of statistical findings is also a weakness of quantitative research, in that it can be unclear how practice can be altered in light of such findings (Morse and Niehaus, 2009). The qualitative component of the current research aims to circumvent this shortcoming by providing richer explanations of the context of the quantitative findings and building on these quantitative findings by generating ideas for changes to current practice (Morse and Niehaus, 2009). An additional benefit of mixed methods research is that the data are integrated so the qualitative findings are used to interpret and explain the quantitative findings, which is particularly useful in the event that statistical analyses reveal surprising results (Morse and Niehaus, 2009).

3.2.2 Theoretical drive

The current research is quantitatively driven, adopting a postpositivist view of the research process with an emphasis on testing previous theories and hypotheses, and controlling for extraneous variables. The addition of qualitative data is intended to provide elaboration on the quantitative responses and to support the development of practice (Johnson et al., 2007).

3.2.3 Timing

Concurrent data collection was undertaken, whereby semi-structured interviews were conducted immediately after participants had completed their questionnaires. The two components were independent of each other as neither component depended on the data analysis of the other component (Guest, 2013).

3.2.4 Point of integration

Each mixed methods study has at least one 'point of integration', which refers to the stage at which the quantitative and qualitative aspects are brought together (Guest, 2013; Schoonenboom and Johnson, 2017).

The current research utilises a *results point of integration* (Morse and Niehaus, 2009). The data will be used to answer related but separate research questions, in which the integrated result will consist of a combination of a quantitatively established effect and a qualitative description of the underlying processes (Schoonenboom and Johnson, 2017). It was not possible to use an *analysis point of integration* because the sample size of the qualitative component was smaller than the sample size of the quantitative component (Morse and Niehaus, 2009).

3.2.5 Typological approach

The current research would best be described as 'QUAN + qual'; a quantitatively driven concurrent mixed methods design (Schnoonenboom and Johnson, 2017). The combination of a standardised questionnaire as a QUAN component and a semi-structured interview as a simultaneous qual component is supported in guidance on conducting mixed methods research (Morse and Niehaus, 2009); furthermore, both methods are deemed to be compatible with the chosen epistemology (Bisman, 2010).

3.2.6 Emergent vs. planned

Mixed methods research can utilise a fixed or emergent design (Creswell and Plano Clark, 2018). The current study adopts the former approach; the utilisation of the quantitative and qualitative methods was predetermined and planned at the inception of the research process and the procedures were implemented in accordance with this prior planning (Creswell and Plano Clark, 2018).

3.2.7 Complexity

The current study can be described as a simple mixed method design because there is a single point of integration, a results point of integration, in contrast to complex mixed method designs with multiple points of integration (Guest, 2013).

3.3 Sampling strategy and recruitment

3.3.1 Sampling strategy and recruitment of schools

Randomised sampling is considered the 'gold standard' in quantitative research (Gorard, 2013). However, in the current study, it would not have been possible to recruit the sample required to test the hypothesis and, thus, answer the first research question, using this approach. Instead, two alternative sampling strategies were used. Firstly, a purposive sampling strategy was utilised in order to recruit participants with a diagnosis of ASC (Etikan, Musa and Alkassim, 2015; Palinkas et al., 2015). After autistic participants had been recruited, a matched sampling strategy was utilised to identify and recruit NT children for the comparison group. Matched sampling involves matching participants on variables other the independent variable, in an attempt to isolate the independent variable and improve the internal validity of the research (Reisner et al., 2015; Bogetoft and Kromann, 2018). Matched sampling was utilised in an attempt to control for the potentially confounding effects of extraneous variables.

The current study sought to investigate autistic children's experience of student wellbeing in mainstream primary schools. The QUAN component, which aimed to answer the first research question, necessitated the recruitment of two groups of participants from the same schools, to enable between group comparisons: ASC group vs. NT comparison group. Thus, the first step to recruiting participants for the study was to seek the participation of mainstream primary schools within the local authority; these schools were invited to participate in the study using letters addressed to the Headteachers, which detailed the aims, requirements and ethical considerations of the study (Appendix 2). A total of seven mainstream primary schools were invited to participate in the research study because they were known to have children with a diagnosis of ASC in Years 5 and 6. Of these seven schools, four schools (School A, School B, School C and School D) consented to participate. The researcher met with the Special Educational Needs Co-Ordinator (SENCo) in each of these four schools in order to discuss the research and to address any queries. The SENCos in each school provided an indication of the number of potential participants by sharing the number of children in Years 5 and 6 with a diagnosis of ASC: School A (N=10); School B (N=6); School C (N=2); and School D (N=2).

During the recruitment stage, the SENCos at School B and School C withdrew their participation. The SENCo at School A was enthusiastic about the research and supported the recruitment of 14 participants (7 autistic children and 7 NT matches); this may have been due to the fact that School A had an autism resource provision and a greater number of children with a diagnosis of ASC on roll, so the research was particularly relevant to their setting. Following the recruitment of these 14 participants, the researcher politely declined the offer of participation from School D due to the limited number of prospective participants in comparison with participants already recruited from School A. Further details of the rationale for this decision are presented in Appendix 3.

3.3.2 Description of the setting

School A is an inner-city, larger than average-sized primary school located in England. Approximately two thirds of the students are from a white British background and the remaining third is comprised of students from a wide range of minority ethnic backgrounds. Approximately one in every twelve students accesses support for special educational needs and/or disability (SEND) and/or has a Education, Health and Care Plan (EHCP). Roughly half of the students are supported by pupil premium (additional government funding for pupils who are known to be eligible for free school meals or who are in the care of the local authority); this is above the national average.

the school opened a specialist resource provision for autistic students, which is attached to the mainstream school building. The core purposes of the specialist resource provision are to ensure that each student has access to specialist input relating to his or her needs, to support students to learn how to self-regulate and to develop strategies for doing so, and to provide access to pre-teaching and post-teaching to ensure full access to the curriculum. The specialist resource provision houses specialist equipment and resources, such as individual work stations, social skills area, a sensory room, a padded room, a craft room for cooking and messy activities, a computer room, and an outside area. However, students who access this provision are considered an integral part of the school and attend lessons in the mainstream school for 50% of their school timetable. Thus, the responsibility for their progress is shared equally between their mainstream class teacher and the staff in the specialist resource provision. There are four members of staff working the specialist resource provision on a full time basis: the provision manager and three SEND higher level teaching assistants. The staff in the specialist resource provision work closely with each student's mainstream class teacher to plan an appropriate and accessible scheme of work. The students in the specialist resource provision are supported to gradually build up the amount of time they spend in their mainstream classrooms until they are able to attend the mainstream classrooms on a full time basis.

In order to access the specialist resource provision, students are required to have an Education, Health and Care Plan (EHCP), which details ASC or complex communication and interaction difficulties as their primary need.

During the school's last Ofsted inspection, in it was awarded an overall rating of Good. The school also achieved ratings of 'Good' for all four subcategories: i) achievement of pupils; ii) quality of teaching; iii) behaviour and safety of pupils; and iv) leadership and management.

3.3.3 Sampling and recruitment of participants

The second step of the recruitment process aimed to identify all possible participants who met *all* of the inclusion criteria for the ASC group: i) a diagnosis of ASC, which was known to the child; ii) student in either Year 5 or Year 6; and iii) on roll at a mainstream primary school. The Year 5 and Year 6 teachers were asked to distribute participant packs to the parents of all of the children in their classes who met these criteria; each participant pack constituted an information sheet and a consent form (Appendices 4 and 5, respectively). The rationale for the prerequisite 'i) a diagnosis of ASC, which was known to the child' was an ethical decision taken to ensure that no unnecessary distress was caused to any child or their family as a result of the child finding out through the research project that they had a diagnosis of which they had not previously been made aware.

The final step aimed to identify potential participants for the NT comparison group. The matching strategy required the Year 5 and Year 6 teachers to distribute participant packs to NT children, each of whom was matched to a recruited autistic participant, based on: i) gender; ii) age; iii) year group; iv) school class; and v) attainment. Attainment, used as a proxy for academic ability, was matched for in order to control for any variations in student wellbeing that could be attributed to the ease with which the participants were able to learn. This was done by gathering data on each participant's attainment in reading, writing and maths and finding their mean level of attainment across the three subjects. In order to do this, each level descriptor was assigned a numerical score (see Appendix 6). Additionally, to maximise the likelihood that the participants in the NT group were, in fact, *neurotypical*, the sampling strategy utilised an exclusion criterion whereby any children on the diagnosis pathway for a neurodevelopmental condition were not eligible to participate in the study.

3.4 Ethical considerations

3.4.1. Ethical approval

The current research was granted ethical approval through the University of Birmingham's Ethical Review Process (see Appendix 7).

3.4.2 Informed consent

Prior to participation in the research, informed consent was sought on three levels:

- from the Headteacher, for the research to be conducted in the school, using the aforementioned letter detailing the rationale and requirements of the study;
- from the parents or carers of the potential participants, using the letter and information sheet, which detailed the rationale and requirements of the study in addition to the rights of the children and parents. It should be noted that parents were asked to consent to each aspect of the study in turn, to aid understanding and transparency, and to afford the option

to consent to some aspects of the study and not to others. For examples, parents could consent to their child completing a questionnaire and withhold consent for their child completing an interview.

- from the participants themselves, using separate consent forms for the questionnaire and the interview (see Appendix 8).

3.4.3 Right to withdraw

Parents and carers were informed of their right to withdraw their consent for their child's participation in the research, on both the consent form and the information sheet. Furthermore, the withdrawal procedure was also explained to participants in the interest of ensuring informed consent. Parents, carers and participants were made aware that, in the event of withdrawn consent, they would no longer be asked to participate and any collected data would be destroyed. One further consideration is that social interaction and social communication difficulties may render the interview process anxiety provoking for some autistic children; the researcher remained alert to signs of discomfort during each interview so that, if necessary, participants could be asked whether they would like to return to their classes. All of the participants were happy to finish their interviews and some remarked on how much they had enjoyed sharing their views.

3.4.4 Confidentiality and data protection

In order to maintain confidentiality, participants were assigned a code and referred to using only this code throughout the research process and this thesis. Completed questionnaires were stored in a locked filing cabinet in a secure building and electronic data, such as spreadsheets and audio files, were stored on an encrypted USB before being transferred to a password protected file on the researcher's university account.

3.5 Quantitative Component

The quantitative component aims to address the first research question by using statistical analysis to compare the frequency of experience of student wellbeing reported by autistic children and those reported by NT children, to determine whether there are any significant differences. The following hypothesis was tested:

Autistic children will score significantly lower on a self-report measure of student wellbeing than their NT counterparts.

3.5.1 Participants

A total of 14 participants were recruited for the QUAN component of the study: 7 children with a diagnosis of ASC (6 male and 1 female; mean age = 9.57 years), whom formed the ASC group, and 7 NT children (6 male and 1 female; mean age = 9.43 years), whom formed the NT group.

As previously outlined, an attempt was made to match participants based on the class that they were in at school to control for differences related to the teacher, classroom layout, peer group, etc. However, this was not possible for two of the pairings, thus Pair Two and Pair Three were matched on all criteria except for their class; the decision was taken to prioritise matching by attainment over matching by class. Nevertheless, both the ASC group and the NT group consisted of an equal number of participants from each class. A detailed description of the participants and matched pairings is provided in Table 3. Comparisons of the two groups are provided in Table 4.

All 14 participants were recruited from the same school. The 7 autistic children who participated in this study constitute 70% of the maximum 10 autistic children in Years 5 and 6 attending this school. Of these 7 students, 2 students had previously accessed the autism resource base (see Table 5); one student had left the autism resource base earlier in the year and the other had been accessing the autism resource base two years prior to the research.

3.5.2 Instruments

The Year 6 version of the 'How I Feel About Myself and School' questionnaire, developed by McLellan and colleagues, was used to measure student wellbeing in all participants (McLellan et al., 2012). The questionnaire contains 21 Likert items, each of which is a statement (e.g. I feel good about myself) and requires participants to reflect on their experiences and indicate how frequently they would be in agreement with the statement, from five options (Never, Not Often, Sometimes, Often, Always). The questionnaire measures overall student wellbeing in addition to four components of student wellbeing, comprising four subscales: *interpersonal wellbeing; life satisfaction; perceived competence;* and *negative emotion.* These four factors constitute both hedonic and eudaimonic aspects of student wellbeing. An additional benefit of this questionnaire is that it was developed for use in English schools, with reference to UK policy documents, so it is likely to be more relevant than alternative measures of student wellbeing developed for use in other countries.

3.5.3 Procedure

Each of the 14 participants completed the questionnaire, individually, in a quiet room, with the researcher. The researcher read the instructions for completing the questionnaire to each participant. Participants were asked to complete the questionnaire independently but they were informed that if they needed any words or items to be explained to them, the researcher would do this.

3.5.4 Analysis

The quantitative data to be analysed in this research constituted the scores of the participants in the ASC group versus the scores of the participants in the NT group, on five Likert scales: *overall student wellbeing*; *interpersonal wellbeing*; *life satisfaction*; *perceived competence*; and *negative emotion*. As each of these scores is produced by a Likert scale, rather than an individual Likert item, the mean

score is an appropriate measure of central tendency (Boone and Boone, 2012). For this reason, and because the assumptions for parametric statistical tests were satisfied, paired samples t-tests were used to compare the mean scores of participants in the ASC group to their counterparts in the NT group (Boone and Boone, 2012). T-tests have been shown to have sufficient power even with small sample sizes (Meek, Ozgur and Dunning, 2007). In the event that the data did not meet the assumptions for parametric tests, the data would have been analysed using a Wilcoxon Signed Ranks test, which is a non-parametric statistical test used to compare related samples (Meek et al., 2007).

3.5.5 Validity

The validity of the questionnaire was ensured by a two-step process. An initial version of the Year 6 questionnaire was piloted in two primary schools and the final version, which was amended based on feedback from the pilot study, was then completed by 802 students, in Years 5 and 6, across 20 primary schools in England (McLellan et al., 2012). The developers conducted an exploratory factor analysis and found that a four-factor solution was the best match to the theoretical constructs underpinning the original scales. McLellan and Steward (2015) report that their four-factor model accounted for 51.3% of the variance, which they concluded was reasonable for instruments measuring self-perceptions and attitudes, based on the work of Henderson, Morris and Fitz-Gibbon (1987).

The internal validity of the current research should be high as all participants attended the same school and were additionally matched for age, gender, year group, class and attainment as a proxy for ability. By controlling for these potentially confounding variables in this way, the probability that any differences observed between the ASC group and the NT group were due characteristics associated with ASC is increased. The current research is likely to have low external validity, which is the extent to which the results of a study can be generalised to other situations or people, as all of the participants were recruited from one school.

Table 3: Demographic information for participants in each matched pair.

Demographic information for questionnaire respondents										
Pair	**Student**	**Age (Years)**	**Gender**	**ASC or NT**	**Year Group**	**Class (Pseudonym)**	**Reading**	**Writing**	**Mathematics**	**Attainment Score**
One	**A1**	10	Male	ASC	Year 5	5A	Beginning Year 3	Beginning Year 3	Beginning Year 3	9.00
	A2	9	Male	NT	Year 5	5A	Secure Year 2	Secure Year 2	Secure Year 2	8.00
Two	**B1**	9	Male	ASC	Year 5	5B	Beginning Year 3	Developing Year 3	Developing Year 3	9.67
	B2	9	Male	NT	Year 5	5C	Secure Year 3	Beginning Year 2	Secure Year 3	9.33
Three	**C1**	9	Male	ASC	Year 5	5C	Secure Year 1	Secure Year 1	Secure Year 1	5.00
	C2	9	Male	NT	Year 5	5B	Beginning Year 2	Secure Year 2	Beginning Year 2	6.67
Four	**E1**	9	Male	ASC	Year 5	5C	Secure Year 4	Secure Year 4	Developing Year 4	13.67
	E2	9	Male	NT	Year 5	5C	Secure Year 4	Secure Year 4	Beginning Year 5	14.33
Five	**F1**	10	Female	ASC	Year 6	6A	Beginning Year 5	Developing Year 5	Developing Year 5	15.67
	F2	10	Female	NT	Year 6	6A	Developing Year 5	Developing Year 5	Beginning Year 5	15.67
Six	**G1**	10	Male	ASC	Year 6	6A	Beginning Year 4	Secure Year 4	Secure Year 4	13.33
	G2	10	Male	NT	Year 6	6A	Developing Year 4	Secure Year 4	Beginning Year 5	14.00
Seven	**I1**	10	Male	ASC	Year 6	6A	Secure Year 5	Developing Year 5	Beginning Year 6	17.00
	I2	10	Male	NT	Year 6	6A	Secure Year 5	Developing Year 5	Secure Year 5	16.67

Table 4: Group comparisons for ASC group and NT group.

	Group Comparisons							
	Mean Age in Years (Standard deviation)	**Gender ratio**	**Year 5**	**Year 6**	**Reading (Standard Deviation)**	**Writing (Standard Deviation)**	**Mathematics (Standard Deviation)**	**Attainment Score (Standard Deviation)**
ASC Group	9.57 (.53452)	6 males 1 female	4 participants: Class 5A (N=1) Class 5B (N=1) Class 5C (N=2)	3 participants: Class 6A (N=3)	11.57 (4.15761)	12.00 (4.12311)	12.14 (4.45079)	11.91 (4.21097)
NT Group	9.43 (.53452)	6 males 1 female	4 participants: Class 5A (N=1) Class 5B (N=1) Class 5C (N=2)	3 participants: Class 6A (N=3)	12.14 (4.05909)	11.71 (4.23140)	12.43 (4.15761)	12.10 (4.00376)

Table 5: Demographic information for the participants interviewed during the qualitative phase of the study.

		Demographic information for children participating in interviews							
Student	**Age (Years)**	**Gender**	**Year Group**	**Class**	**Previously in ARB**	**Reading**	**Writing**	**Mathematics**	**Attainment score**
A1	10	Male	Year 5	5A	No	Beginning Year 3	Beginning Year 3	Beginning Year 3	9.00
B1	9	Male	Year 5	5B	No	Beginning Year 3	Developing Year 3	Developing Year 3	9.67
C1	9	Male	Year 5	5C	Yes	Secure Year 1	Secure Year 1	Secure Year 1	5.00
G1	10	Male	Year 6	6A	Yes	Beginning Year 4	Secure Year 4	Secure Year 4	13.33
I1	10	Male	Year 6	6A	No	Secure Year 5	Developing Year 5	Beginning Year 6	17.00

3.6 Qualitative component

The use of qualitative semi-structured interviews aims to generate data that answer questions two to four, in order to develop the utility of the quantitative findings by identifying:

- Factors that are promoting student wellbeing in autistic children so these can be continued or introduced into practice in other schools;
- Factors that are barriers to student wellbeing in autistic children so that, where possible, these can be addressed;
- Additional support or resources that autistic children feel would enhance their student wellbeing further, so that, where possible, these can be introduced.

3.6.1 Rationale

A semi-structured interview was chosen as the method for gaining a deeper insight into students' perceptions of the factors that promote or reduce their experience of student wellbeing. The development of a semi-structured interview schedule permitted questions to be literature driven, detailed and consistent from participant to participant, which is compatible with a postpositivist epistemology (Ponterotto, 2005). Alternatively, open ended questionnaires could have been used but these would have required participants to write their responses, which could have been viewed as undesirable or difficult and may have limited the amount of detail provided by each participant or precluded accurate interpretations of each participant's intended meaning. In contrast, using a semi-structured interview schedule enables the researcher to ask follow-up questions in order to gain further details or seek clarification.

Qualitative research involving autistic children is an emerging field and consequently there are few papers published about effective strategies to enable their participation in interviews. In order to enable autistic children to share their views, researchers must consider possible difficulties that could arise during the interviews and take steps to minimise the risk of these. Previous research has

highlighted that difficulties can arise from language and questioning techniques used by the interviewer and emphasised the need to utilise a range of approaches and resources to meet individual communication needs (Lewis & Porter 2004; Kelly 2007; Whitehurst 2007). However, papers that present studies into the views of autistic children have typically focused on reporting findings rather than documenting the strategies that enabled the participants to share their views (Harrington et al., 2013). Thus, it has been argued that researchers undertaking qualitative research with autistic children should document strategies that were successful in eliciting their views, so that these strategies can be utilised in future research (Beresford et al., 2004; Harrington et al., 2013). For these reasons, this section and section 3.6.4 provide a detailed overview of the approaches employed during the interview process to enable autistic children to share their perspectives.

The importance of gathering, listening to and reflecting upon student voice, particularly in autism research, is discussed in section 2.4.3. In order to understand the lived experiences of autistic students, the current study sought to gather the views of autistic students. There may have been merit in triangulating data relating to the views of autistic students with data relating to the views of their teachers and their parents. For example, the adults may have been able to share information of which the autistic student may not have been aware or they may have been able to provide additional information about something the autistic child had shared. However, in the current study, student voice was prioritised over the views of their parents or their teachers. This decision was taken because the primary aim of the research was to better understand the lived experiences of autistic students as opposed to what those experiences look like to non-autistic, non-student observers; the perspectives of teachers and parents could be very different to the lived experiences of the students, or purely speculative. Additionally, the research concerned what happened in school and, thus, parent perspectives were likely to have been limited to what they had been told by the students or the teachers. Furthermore, focusing on the views of autistic students only enabled a more in-depth analysis of this data. In contrast, previous research that triangulated the views of autistic students, their parents and their teachers, presented a less in-depth analysis of the students'

views because these were reported alongside the views of teachers and parents, and this arguably diluted the students' voices (Meehan, 2011; Moyse and Porter, 2015). The current research, therefore, positioned autistic students as the experts of their lived experiences in school and, therefore, focused on how these students were feeling both emotionally and in relation to their access to opportunities to succeed in school. One advantage of gathering students' views in the current research is that historically research has been conducted *on,* rather than *with,* autistic individuals (Wolery and Garfinkle, 2002); in this sense, research into autism has typically been experimental rather than focused on trying to understand the lived experiences of autistic people (Humphrey and Lewis, 2008). Research in the field of autism is gradually shifting away from experimental studies, as evidenced by the recent research into the views of autistic students, outlined in the literature review. However, the current research represents one of the few studies gathering the views of autistic primary school children.

Hart (1992) argued that for a research project involving children to be considered participatory, the child participants need to:

i. understand the intentions of the research project;
ii. know who made the decisions concerning their involvement and why;
iii. have volunteered for the project after the aims and methods were made clear to them;
iv. have a meaningful role.

The current research meets the first three criteria because the children were informed that their parents had provided permission for the researcher to work with them, and the intentions, aims and methods of the study were explained to the children before they provided their consent to participate in the project. In addition, the fourth criteria was satisfied by the research positioning the participants as experts in the lived experiences of autistic children in Years 5 and 6 in their mainstream primary school; as such, their perspectives are documented in detail and were fully

considered in relation to previous research to form the basis of the recommendations for developments in teacher and EP practice proposed in this thesis.

Hart (1992) proposed that the varying degrees to which research was either non-participatory or participatory could be represented, in a linear arrangement, as a ladder on which the higher rungs represented more desirable approaches to the participation of CYPs (see Figure 2). Thus, the model assumes that the highest rung on the ladder, *Child initiated, shared decisions with adults*, is the optimum level of CYP participation (Hart, 1992); at this level, CYP develop the ideas for the research, set up the projects and include adults in an advisory capacity.

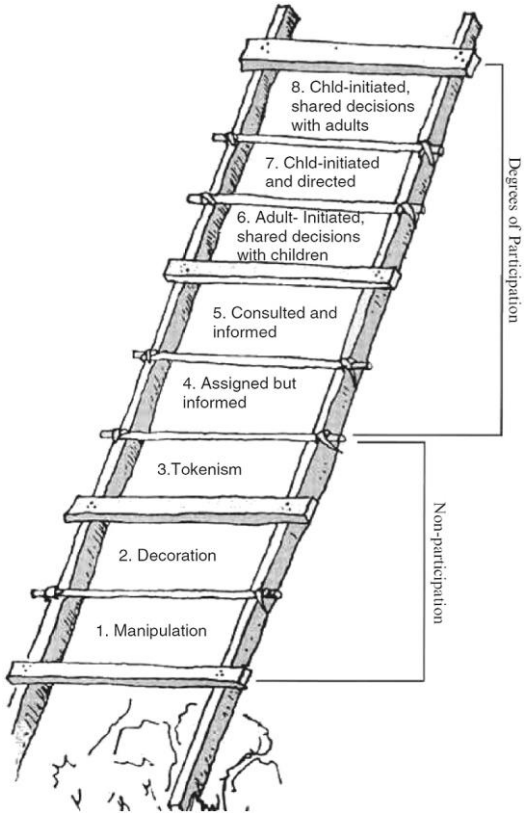

Figure 2: Hart's (1992) Ladder of Participation

When considered using Hart's ladder model of participation, the current research would be positioned at rung 5, *Consulted and informed*; the research was designed and undertaken by an adult researcher, but the child participants understood the process and the researcher strived to respect their views and present their opinions as perspectives that should be taken seriously by their

school in addition mainstream primary schools more generally. The *Consulted and informed* rung of the ladder represents the second tier of CYP participation and is considered a relatively weak example of participatory research, according to the ladder model (Hart, 1992). However, Wong, Zimmerman and Parker (2010) argue that the ladder analogy can underestimate the contributions that adults can offer to research projects and that an insistence on participatory research being child-initiated may place a disproportionate burden on the CYPs to assume roles that they may not be able to fill due to their minor status, limited experience with research or developmental difficulties. Thus, the lack of adult involvement in such research could hinder rather than encourage optimal participation and empowerment.

In consideration of the proposed limitations of Hart's ladder typology of participation, Wong, Zimmerman and Park (2010) propose the Typology of Youth Participation and Empowerment (TYPE) Pyramid. This model moves away from using a ladder metaphor to avoid the assumption that youth-driven participation is ideal. Instead, the TYPE pyramid consists five types of participation that delineate various levels of youth-adult involvement (see Figure 3).

According to this typology, the level of participation in the current research would be considered *Symbolic,* as the child participants were able to voice their perspectives about what was working well, problems they encountered and their suggested solutions, via the formal structures of semi-structured interviews developed by the researcher, and these views were then listened to by decision makers. Thus, the children in the current research were required to engage in a degree of critical thinking and formulate around problems in order to develop proposed solutions (Wong, Zimmerman and Parker, 2010). The inclusion of youth voice is the key factor that differentiates *Symbolic* participation from *Vessel* participation, which refers to a traditional adult-driven approach with CYPs being afforded few opportunities to contribute their own ideas (Wong, Zimmerman and Parker, 2010). However, the participation is considered *Symbolic* because the child participants were not afforded power in the form of decision making or agenda setting processes (Wong, Zimmerman

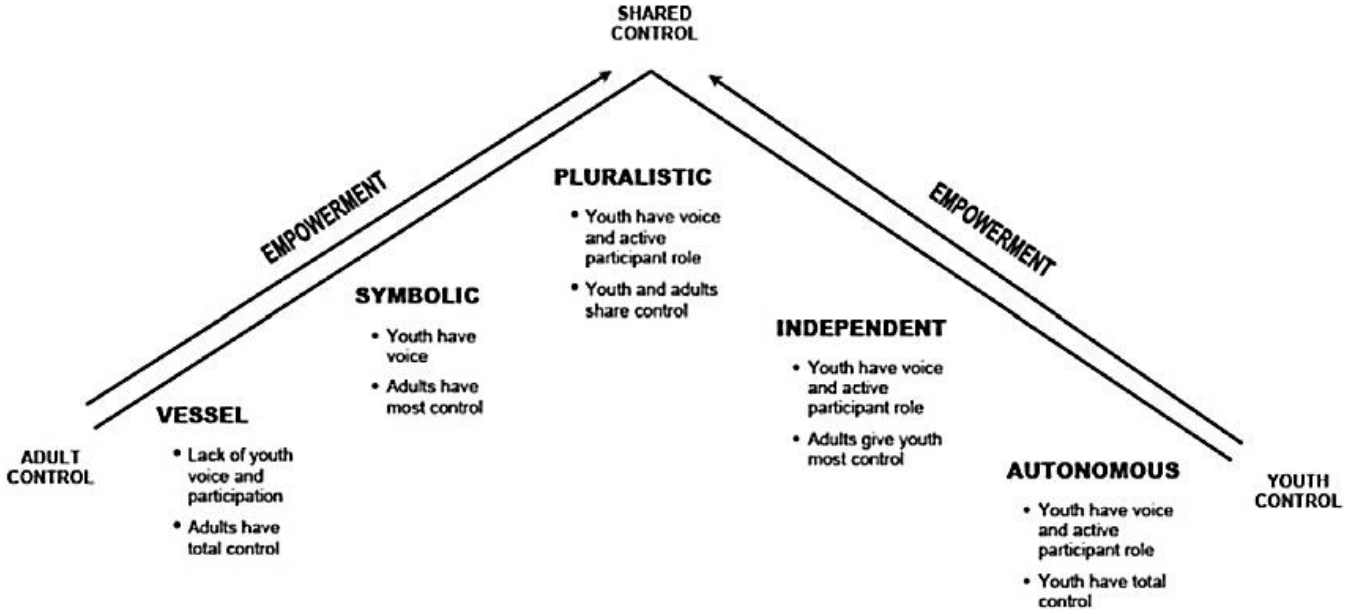

Figure 3: The TYPE Pyramid (Wong, Zimmerman and Parker, 2010)

and Parker, 2010). Thus, it is possible that the participants in the current research may have experienced some frustration in response to being able to share their perspectives, but not being able to exert control over any decisions that determined the subsequent outcomes of the research (Wong, Zimmerman and Parker, 2010). According to the TYPE pyramid, the current research could have been more participatory if control had been shared between the researcher and the participants, as in *Pluralistic* participation. At this level of participation, adults and CYP both engage in decision-making and planning related to the research. Additionally, the adults can act as role models and sources of social capital and support in their collaboration with CYP (Wong, Zimmerman, and Parker, 2010). For example, in the current research, the researcher could had involved participants in the process of developing the research aims and questions, designing the method, and implementing change in relation to the findings. Theoretically, this could have introduced several advantages to the research. For example, the autistic participants could have contributed a fresh perspective or child-centred understanding of themselves and their peers, which could have informed the design of the research project (Libby et al., 2005). However, in practice, this level of participation may have introduced several complications to the research process. Firstly, it would

have necessitated an additional application for ethical review to be submitted, because the researcher would have needed to seek ethical clearance to work with participants to design and develop the research project and then seek additional ethical clearance to undertake the proposed research project. This would have been problematic due to the tight timescales of the research project. Secondly, the involvement of participants in designing and undertaking the research would have required them to dedicate substantially more of their time to the research project; this may have been difficult for students in Years 5 and 6, due to the focus on preparing them for SATs. Finally, the research formed the basis for a doctoral thesis and, therefore, the onus was on the researcher, as the doctoral candidate, to design, implement, analyse and present the findings of the research.

3.6.2 Participants

A subsample of five participants (71%) from the ASC group participated in the qualitative component, as they and their parents had consented to interviews. Details of these participants are provided in Table 5

3.6.3 Instruments

The importance of adapting interview protocols to the needs of autistic children has been emphasised by previous research. Such research demonstrated that, in the absence of adaptations, participants became distressed during interviews and experienced difficulties in discussing their opinions and emotions, and in answering open-ended questions (Preece, 2002; Preece and Jordan, 2010). Thus, the interview protocol used in the current research, including the semi-structured interview schedule, was developed to maximise the accessibility and, therefore, the participation of autistic children.

Firstly, the semi-structured interview schedule was based on one used, successfully, in a previous research project that aimed to gather autistic adolescents' perceptions of school in relation to

emotional, or *hedonic,* wellbeing (Meehan, 2011). The semi-structured interview schedule used in Meehan's (2011) research was adapted for use in the current research by simplifying the language so that it was appropriate for primary school aged children and by including questions relating to *eudaimonic* wellbeing. The adapted semi-interview schedule was then piloted with autistic children in Years 5 and 6, as part of individual casework undertaken by the researcher in the capacity of a TEP, in order to identify and rectify any issues prior to its use with the research participants. The pilot phase confirmed that the interview questions were comprehensible and elicited sufficient data to answer the research questions, so no changes were made. The final version of this semi-structured interview schedule, which was used in the current research, is provided in Appendix 9. The interview schedule was designed so that each interview would last approximately 30 minutes, in order to minimise disruption to learning and potential distress of asking participants to remain in the interview situation for longer periods of time. In practice, each interview in the current research lasted between 16 and 33 minutes.

The semi-structured interview schedule included three different levels of questions or probes, which were informed by previous research that found that autistic children may provide limited responses to open-ended questions (Bruck et al., 2007). The first level of questioning was a broad, open-ended question (e.g. 'When do you feel happy and relaxed at school? ') that afforded children the opportunity to talk about whatever they wanted to in relation to the question. The second level of questioning involved the use of both closed questions and open-ended questions; for example, participants would be asked 'Do you ever feel happy or relaxed in lessons?' and then a positive response would be followed up with an open-ended question such as 'What helps you to feel happier or more relaxed in your lessons?'. This second level of questioning was intended to gain more information about what the participants had said or to support participants to think about one particular aspect of their school day at a time. The final level of questioning involved the use of specific open-ended questions (e.g. Is there anything in your classroom that helps you to feel happier or more relaxed?') and, if necessary, the use of picture prompts to aid communication.

These picture prompts included emotion faces (happy, sad, worried, excited, neutral, angry), pictures of key words in the questions (teacher, other children, classroom), and picture prompts of things that might promote or hinder student wellbeing (see Appendix 10). It has been suggested in previous research that closed questions may be more appropriate than open-ended questions when interviewing autistic children (Preece, 2002). However, the current research utilised a combination of closed questions and open-ended questions to ensure that all participants were afforded the opportunity to give an account of their experiences in school, rather than merely answer yes or no questions. This was advantageous with respect to the current research, because it aimed to provide insight into the factors that promoted or hindered autistic primary students' experiences of student wellbeing rather than confirm an existing theory. Similarly to the findings reported by Harrington et al. (2013), the participants in the current research were able to answer open-ended questions during the interviews, particularly when these were used as follow-up questions to their responses to closed questions. Although picture prompts were incorporated as an optional level of support for participants who had difficulties with verbal communication, these were not needed as all five participants demonstrated that they were able to understand and answer the questions asked without these visual cues. However, it is noteworthy that some participants were very articulate and able to provide detailed accounts of their experiences in response to the first level of questioning and other participants responded to questions with short phrases and were able to provide fuller accounts in response to the researcher using the third level of questioning; this is a similar finding to that reported by Harrington et al. (2013).

3.6.4 Procedure

Semi-structured interviews were conducted immediately after participants had completed the wellbeing measure, to ensure minimal disruption to lessons.

During the interviews, the researcher adjusted the style of communication to accommodate each participant's communicative abilities. Strategies employed in the interviews included using simple

and unambiguous language, rephrasing questions, and seeking clarification from participants to establish the accuracy of interpretations. Additionally, active listening strategies, such as reflecting the participants' language back to them, were employed to reassure participants that they were being listened to and that their views were being taken seriously; it is argued that using the vocabulary of child participants in interviews can make the experience more personally relevant and meaningful (Owen et al., 2004). Researchers have cautioned that there is the potential for autistic CYP to acquiesce to being interviewed because they feel obliged to consent, possibly due to the power imbalance between themselves and the adult researcher or because their parents have already provided consent (Beresford, 1997; Preece and Jordan, 2010). Thus, the researcher recognised the need to consider the non-verbal communication of each participant in relation to their willingness to participate (Beresford et al., 2004; Preece and Jordan, 2010; Harrington et al., 2013). For example, in instances where a participant was becoming distressed or restless in the interview situation, the researcher would either ask the participants if they would like to return to their classroom or take the decision to conclude the interview to minimise the likelihood of discomfort or cognitive fatigue. The participants in the current research were interviewed, individually, by the researcher in a quiet withdrawal room, without the presence of another adult. One advantage of this approach is that the participants could provide their own views, without being interrupted or corrected by an adult; this has been highlighted as an issue in previous research in which parents were present during interviews with autistic children (Preece and Jordan, 2010; Harrington et al., 2013). A potential limitation of this approach is that the participants could have felt uncomfortable in the interview situation, without the presence of a familiar adult; however, it appeared that all five participants were comfortable and engaged fully with the interviews. Autistic CYP often have special interests that can consume much of their attention (Smith Myles, 2005). Therefore, it was pre-empted that during the interviews, participants may wish to talk about their special interests rather than answer the question that was asked. In these situations, the researcher listened to the participant talk about their own topics of interest for a brief period and asked one

follow-up question to show genuine interest before returning to the questions on the semi-structured interview schedule. This strategy worked well to engage participants during the interviews in the current research and has also been used successfully in previous research (Owen et al., 2004; Harrington et al., 2013).

3.6.5 Qualitative analysis: Thematic Analysis (TA)

3.6.5.1 What is TA?

TA 'is a method for identifying, analysing, and reporting patterns (themes) within data.' (Braun and Clarke, 2006, p.6). It is a useful method for qualitative data analysis as it can summarise the key features of a large body of data and it can highlight similarities and differences across the data set, which can generate unanticipated insights (Braun and Clarke, 2006).

3.6.5.2 The role of the researcher in TA

It is important to recognise the active role the researcher plays in identifying themes, by selecting those considered to be of interest and reporting these (Taylor and Ussher, 2001). Thus, it is not possible for TA to be completely objective. In this research, data were coded specifically to answer the research questions. Furthermore, the research was framed within a social relational model of disability (Thomas, 1999; 2004) and aligned with the neurodiversity movement.

The social relational model of disability is an extension of the social model of disability, which asserts that disability is a form of social oppression imposed on individuals due to the impairments they experience (Oliver, 1996). Thomas's (1999;2004) social relational model of disability retains the central tenet of the social model of disability, namely that disability is a form of social oppression due to an unequal social relationship resulting in the 'imposition of restrictions of activity on people with impairments' by society (Thomas, 1999, p.60); these restrictions can be either structural barriers or psycho-emotional barriers. Structural barriers are conceptualised as 'barriers to doing' and the subsequent negative impact on the accessibility of an activity; these barriers include

physical, economic, and material barriers, such as the presentation of information in an inaccessible format or lack of wheelchair access. Psycho-emotional barriers are conceptualised as 'barriers to being' and negatively impact on an individual's sense of self; for example, being singled out by a teacher or being stared at by peers (Reeve, 2012). This process has been termed 'psycho-emotional disablism' and can be the result of exclusionary institutional practices and policies in addition to more personal interactions (Connors and Stalker, 2007). Researchers have argued that many professionals are not recognising individual neurological differences and are not supporting autistic individuals to maintain a positive identity and position within society (Brownlow, 2010); this could be considered a form of psycho-emotional disablism and is likely to negatively impact upon self-concept and, in school, overall experiences of student wellbeing. The social relational model of disability asserts that society should strive to remove the structural and psycho-emotional barriers that underpin disablement in order to enable currently 'disabled' individuals to participate in mainstream activities (Siebers, 2008; Gallagher, Connors and Ferri, 2014). Of particular relevance to the current research, the model asserts that educators should strive to remove or modify 'educational practices that impose significant restrictions on individuals with disabilities' (Gallagher, Connors and Ferri, 2014, pp.1123). However, the social relational model of disability also extends the social model of disability by acknowledging that individuals can experience 'impairment effects'. 'Impairment effects' are defined as restrictions to activities that are the result of living with impairments rather than the consequence of social or material barriers (Thomas, 1999; 2004). Although the social relational model is promising and has demonstrable application to educational practice, there are potential limitations. Thomas (2010) has acknowledged that it may be difficult to disentangle impairment effects from disablement because the two things can be related. Additionally, other researchers have raised concerns that the inclusion of impairment effects may promote unhelpful debates about whether particular experiences are the result of impairment effects or structural or psycho-emotional barriers (Watson, 2012).

The social relational model of disability directly opposes the medical model of disability, which conceptualises disability as the inability to engage in everyday activities as a direct consequence of specific physical, psychological, or intellectual impairments (Gallagher, Connor and Ferri, 2014). The medical model, thus, positions disability as being caused by an impairment, representing deviation from the 'normal', that is present within the individual (Barnes, 1991; Oliver, 1996; Terzi, 2004). Thus, in contrast to the current research, the medical model asserts that individuals' impairments should be treated or corrected in order to minimise disability (Oliver, 1990). In relation to ASCs specifically, the medical model approach is likely to focus on 'curing' an autistic individual by changing, eliminating or reducing the frequency of any behaviours deemed 'inappropriate' to 'normalise' the individual (Brownlow, 2010). Rejecting these attempts to 'cure' and 'normalise' and drawing on ideas from the social model of disability, autistic self-advocates have developed their own movement: the neurodiversity movement (Runswick-Cole, 2014). The primary argument of the neurodiversity movement is that ASCs, in addition to other conditions with a neurological component, constitute natural variations at a neurological level (Runswick-Cole, 2014); thus, autism is a naturally occurring *difference* rather than a *disorder* (Jaarsma and Welin, 2012). Additionally, researchers have highlighted that ASCs can also embody desirable and enabling consequences both to the individual and to society (Jaarsma and Welin, 2012; Graby, 2012). Graby (2012) highlights how, within the social relational model of disability, the neurodiversity movement can recognise the disablement of autistic individuals through structural and psycho-emotional barriers whilst simultaneously recognising that ASCs can be associated with biological bodily variations that may also contribute towards the experiences of autistic individuals.

The researcher's alignment with the social relational model of disability and the neurodiversity movement are likely to have influenced the ways in which the research questions were framed and, therefore, the data collection. However, the researcher also sought to clarify what the participants were saying in an attempt to report accurately the views that were being shared. The researcher's philosophical and theoretical alignments could have also influenced which aspects of the children's

views were coded and, therefore, contributed to the final themes. However, steps were taken to minimise the risk of this (see section 3.6.5.4).

3.6.5.3 The purpose of TA

The purpose of the analysis was to provide a detailed account of semantic themes relating to the promotion of student wellbeing, barriers to student wellbeing and suggestions for the improved promotion of student wellbeing. This analysis was driven by a theoretical and analytical interest in the area, thus a theoretical TA was undertaken, within which data was coded in relation to three specific research questions. Additionally, the TA approach in the current research aims to report the experiences, meanings and reality of participants, which is compatible with a realist ontology and postpositivist epistemology (Braun and Clarke, 2006). It was assumed that language enabled the participants to articulate meaning and experience (Potter and Wetherell, 1987; Widdicombe and Wooffitt, 1995). A semantic approach to data analysis was employed, whereby themes are identified within the explicit or surface meanings of the data (Braun and Clarke, 2006). The analysis aims to provide a rich description of all of the experiences of the autistic students within their mainstream primary school, due to this being an under-researched area; an inevitable limitation of this approach is that it limits the depth and complexity of the analysis (Braun and Clarke, 2006).

3.6.5.4 The process of TA

A theory-driven thematic analysis was carried out using a six stage approach (Braun and Clarke, 2006):

1. *Familiarising oneself with the data:* The researcher listened to the audio recording of each interview and transcribed these verbatim; the researcher transcribed the data rather than outsourcing this work in order to become immersed in the data. The researcher then listened to the audio recording of each interview a second time whilst reading the transcript, in order to

ensure that these were accurate; any mistakes in the transcript were corrected during this stage.

2. *Generating initial codes:* The researcher read through each transcript in turn in order to generate a set of initial codes, using qualitative data analysis software (Nvivo). Firstly, the entire interview transcript for A1 was coded, line by line. Next, the interview transcript for B1 was coded, line by line, either using codes generated when the data for A1 was coded or by creating new codes when necessary. The process, whereby data was coded line by line into existing codes or into new codes that were created, was then repeated for the interview transcripts for C1, G1 and I1. Finally, once a complete set of initial codes had been generated, each interview transcript was read and coded against this complete set of initial codes.
3. *Searching for themes:* The initial codes generated in step 2 were sorted into potential themes by grouping related codes together; this was done by physically arranging codes into theme-piles. Initially, themes were determined using two methods: i) data coded in the majority of interviews or several times within one interview was considered to be important and, thus, contributed to the formation of themes; and ii) direct contradictions of established themes were also included within those themes, to acknowledge the contrasting views. This exercise generated three sets of themes, one for each research question (see Figures 4, 5 and 6 respectively).
4. *Reviewing themes:* Provisional themes were reviewed to determine whether they were internally coherent and sufficiently distinct from the other themes. Any themes that overlapped were combined and modified to better reflect the data. During this phase of the TA, the researcher identified that four of the initial themes thought to relate to the promotion of student wellbeing, were actually *components of* student wellbeing. These four initial themes were: *positive relationships with others*, which constituted interpersonal wellbeing; *satisfaction and engagement*, which primarily constituted life satisfaction;

recognising strengths and independent problem solving, which constituted perceived competence; and *experiences of positive emotions*, which constituted a (lack of) negative emotions. These four themes were separated from the remaining five themes and are discussed in section 4.6, which draws links between the factors that the participants identified as promoting student wellbeing and the specific aspects of student wellbeing that these factors appear to promote. Additionally, the researcher identified that four of the initial themes thought to encapsulate barriers to student wellbeing, actually captured lowered levels or fewer experiences of the *components of* student wellbeing. These four initial themes were: *difficult relationships with others*, which constituted a lack of interpersonal wellbeing; *dissatisfaction*, which constituted a lack of life satisfaction; *lack of*

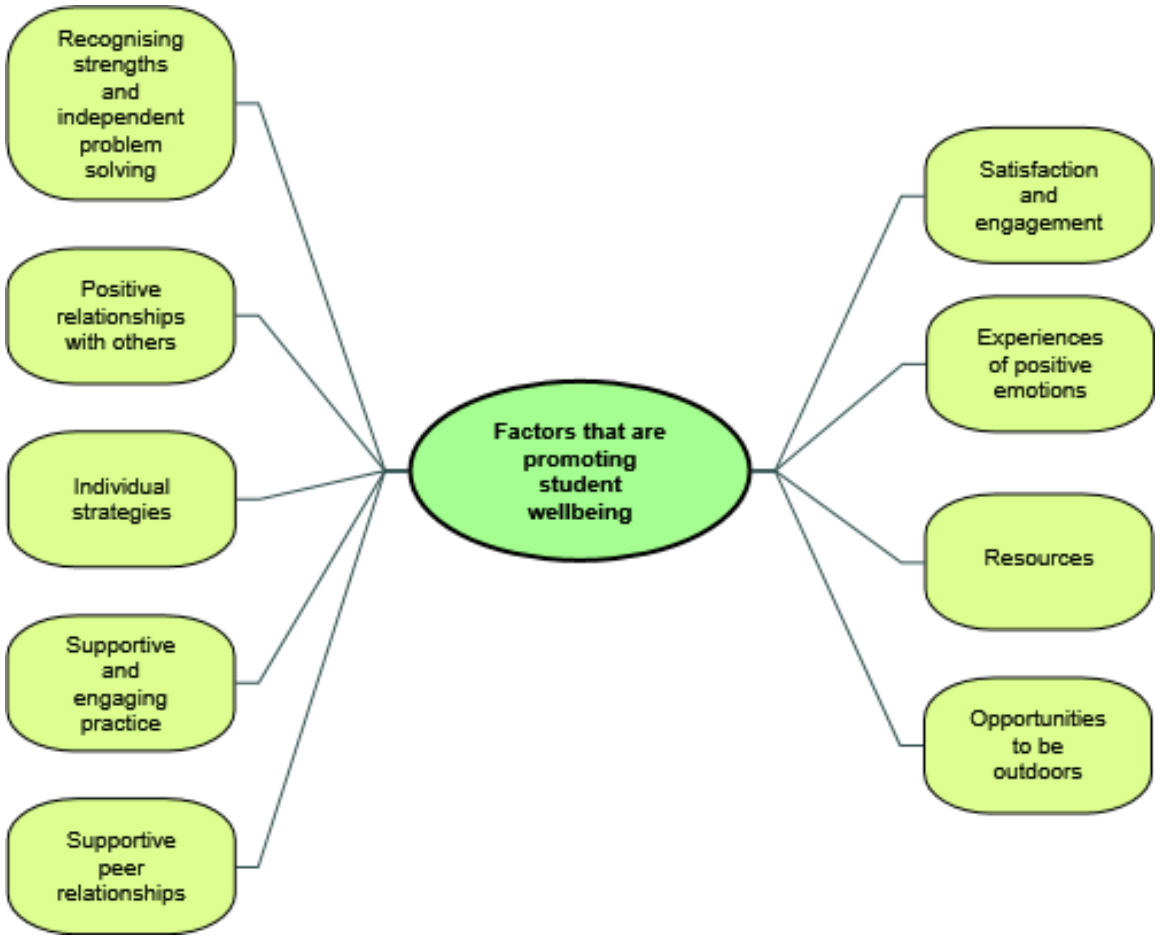

Figure 4: Initial themes relating to the second research question, 'What factors do autistic children identify as promoting their experience of student wellbeing in mainstream primary schools?'

confidence in own abilities to do things well, which constituted reduced experience of perceived competence; and *experiences of negative emotions*, which constituted negative emotions. These four themes were separated from the remaining six themes and are discussed in section 4.6, which draws links between the factors that the participants identified as barriers to student wellbeing and the specific aspects of student wellbeing that these factors appear to hinder.

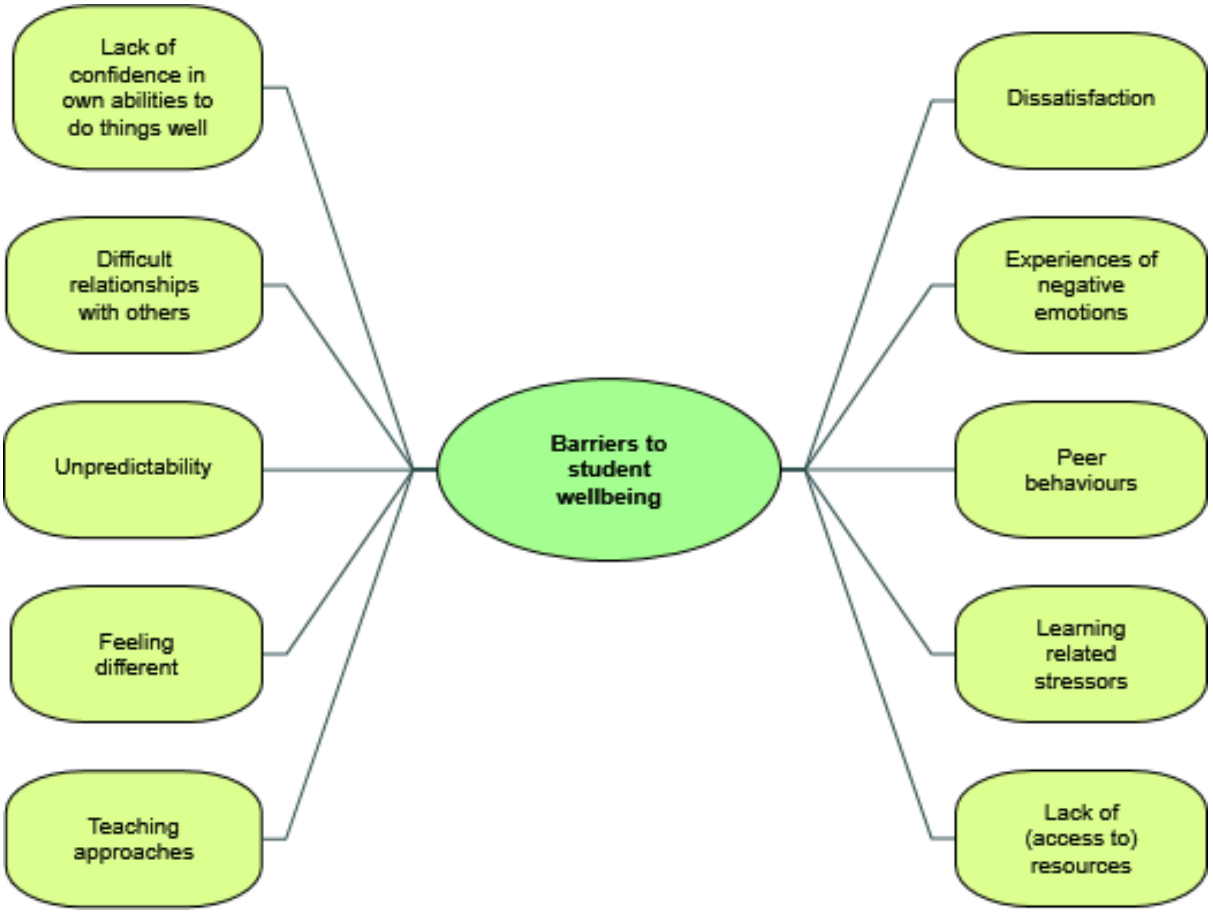

Figure 5: Initial themes relating to the third research question, 'What factors do autistic children identify as barriers to their experience of student wellbeing in mainstream primary schools?'

Figure 6: Initial themes relating to the fourth research question, 'What factors do autistic children feel would further promote their experience of student wellbeing in mainstream primary schools?'

5. *Defining and naming themes:* The final five themes relating to the promotion of student wellbeing, and the sub-themes within these, were defined and named. These are presented in Figure 12 and discussed in section 4.3. The final six themes relating to barriers to student wellbeing, and the sub-themes within these, were also defined and named. These are presented in Figure 13 and discussed in section 4.4. Finally, the four themes relating to participants' suggested modifications or additions that could support their school to promote student wellbeing more effectively, and the sub-themes within these, were defined and named. These are presented in Figure 14 and discussed in section 4.5.
6. *Producing the report:* The findings from the thematic analysis are presented in Chapter IV and discussed in greater detail in Chapter V.

3.6.6 Quality assurance

In order to ensure that the views of participants were understood, the researcher used active listening strategies during the interviews to check out and clarify participants' views, which is likely to have increased the trustworthiness of the TA and reported findings. In order to achieve dependability and confirmability of the analysis, attempts have been made to clearly document the process of TA employed in this study and the justifications for the decisions made (Koch, 1994; Tobin and Begley, 2004). Attempts have also been made to provide sufficient descriptions to enable other researchers and professionals to judge the transferability of the findings to their own situations (Lincoln and Guba, 1985).

CHAPTER IV

FINDINGS

4.1 Statistical analysis

4.1.1 Normality assumptions

Prior to analysis, the data were examined to ensure that they satisfied the assumptions of parametric statistical tests. This involved checking that the data were normally distributed, using the Shapiro-Wilk test (Shapiro and Wilk, 1965). The Shapiro-Wilk test was developed for use with a sample size of fewer than 50 and it is able to determine whether data violates normality assumptions based on skewness, kurtosis, or both (Razali and Wah, 2011). Furthermore, a recent comparison of four tests of normality found that Shapiro-Wilk test was the most powerful normality test (Razali and Wah, 2011).

Analysis of the distribution of the differences between the ASC group and the NT group for each of the five subsets of data to be compared (*overall student wellbeing, interpersonal wellbeing, life satisfaction, perceived competence,* and *negative emotions*), using the Shapiro-Wilk test, revealed that the data met the assumptions of normal distribution; the Shapiro-Wilk statistic (W value) was non-significant (p=>0.05) in each case (see Table 6).

Table 6: Normality tests for questionnaire data

Variable	***W-value***	***P value***
Overall Student Wellbeing	.939	.625
Interpersonal Wellbeing	.809	.051
Life Satisfaction	.889	.268
Perceived Competence	.829	.078
Negative Emotions	.899	.324

As the data met the normality assumptions, it was deemed appropriate to use paired samples t-tests to analyse the data.

4.1.2 Matching verification

Paired samples t-tests were undertaken to confirm that there were no significant differences between the age and attainment scores of the ASC group and the NT group. The difference between the ages of participants in ASC group (*M* = 9.57*, SD* =.534) and the NT group (*M* = 9.42*, SD* =.534) was not significant (t(6)=1.000; p = .356). The difference between the attainment of participants in ASC group (*M* =11.91 *, SD* =4.21) and the NT group (*M* =12.10 *, SD* =4.00) was not significant (t(6)=-.571; p=.589). These analyses indicate that the groups were matched satisfactorily and minimises the likelihood that the confounding effects of extraneous variables will have impacted on wellbeing scores.

4.2 Question 1: Do autistic children report significantly fewer experiences of student wellbeing in mainstream primary schools than are reported by NT children?

This section presents the quantitative questionnaire data for all participants (N=14). Descriptive statistics are provided to offer an overview of the frequency with which students are experiencing aspects of student wellbeing. Paired samples t-tests are used to compare the mean scores of the ASC group (N=7) to the mean scores of the NT group (N=7), in order to determine whether there are any significant differences and to answer the research question (see Table 7).

4.2.1 Student wellbeing

Student wellbeing was measured by calculating the mean total score for each participant, so that these scores could be more easily interpreted using the five point Likert scale used on the questionnaires.

Table 7: Statistical analysis of questionnaire data, by subscale, using paired samples t-test

Variable	***Mean*** ***Standard Deviation***	**Group**		***t-value***	***P value***
		ASC (n=7)	***NT (n=7)***		
Overall Student Wellbeing	M SD	3.58 .62	3.94 .37	-1.131	.301
Interpersonal Wellbeing	M SD	3.68 .79	4.21 .65	-1.136	.299
Life Satisfaction	M SD	3.46 .84	4.03 .56	-1.183	.281
Perceived Competence	M SD	3.74 .54	3.89 .51	-.455	.665
Negative Emotions	M SD	3.57 1.27	3.79 .64	-.328	.754

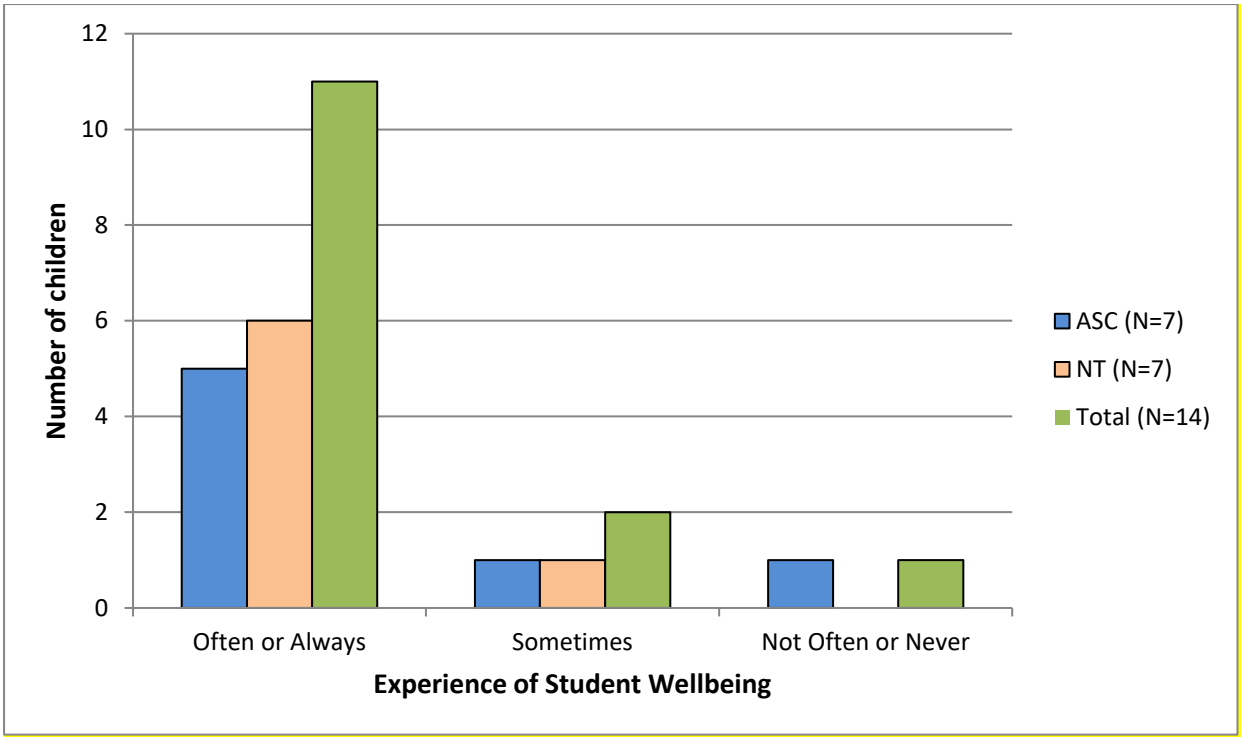

Figure 7: Graph showing the frequency of experience of student wellbeing reported by the participants in each of the two groups, and as a collective sample

The frequency of experience of student wellbeing reported by the participants, in each of the two groups and as a collective sample, is presented in Figure 7. In accordance with the scale on the questionnaire, participants were deemed to experience student wellbeing *often or always* if their mean score, rounded to the nearest whole number, was 4 or above. Participants were deemed to experience student wellbeing *sometimes* if their rounded mean score was 3. Participants were deemed to experience student wellbeing *not often or never* if their rounded score was 2 or below.

Overall, the majority (79%) of children reported experiencing student wellbeing often or always. This indicates that the majority of children are experiencing student wellbeing more often than not during their time in school. However, the remaining children either reported experiencing student wellbeing sometimes (14%) or not often (7%); the one participant who reported not often experiencing student wellbeing was a member of the ASC group. This indicates that school staff may need to examine the barriers to student wellbeing identified in this research (see Section 4.4) to determine if any of them can be removed through modified practice, and they should consider the

implementation of some of the suggested strategies to further promote student wellbeing (see Section 4.5).

It was hypothesised that autistic participants would report lower overall levels of student wellbeing than the NT matched participants. However, a paired samples t-test revealed that the overall student wellbeing scores for the ASC group (*M* = 3.58, *SD* = .62) and the NT group (*M* = 3.94, *SD* = .37) were not significantly different (t(6)=-1.131; p=.301). Thus, the null hypothesis that *there is no significant difference between the overall student wellbeing reported by the two groups* was accepted. These findings indicate that the school is promoting student wellbeing in both autistic children and NT children, equally as effectively.

4.2.2 Interpersonal wellbeing

Interpersonal wellbeing was measured by calculating the mean score for this subscale for each participant.

The frequency of experience of interpersonal wellbeing reported by the participants, in each of the two groups and as a collective sample, is presented in Figure 8. Overall, the majority (71%) of participants reported experiencing interpersonal wellbeing often or always. The remaining participants (29%) reported experiencing interpersonal wellbeing sometimes. This indicates that the majority of children are experiencing interpersonal wellbeing often during their time in school. However, over a quarter of participants were only experiencing interpersonal wellbeing sometimes. Based on research highlighted in the literature review, it was hypothesised that autistic participants would report lower levels of interpersonal wellbeing than the NT matched participants. However, a paired samples t-test revealed that the interpersonal wellbeing scores for the ASC group (*M* = 3.68, *SD* = .79) and the NT group (*M* = 4.21, *SD* = .65) were not significantly different (t(6)=-1.136; p=.299).

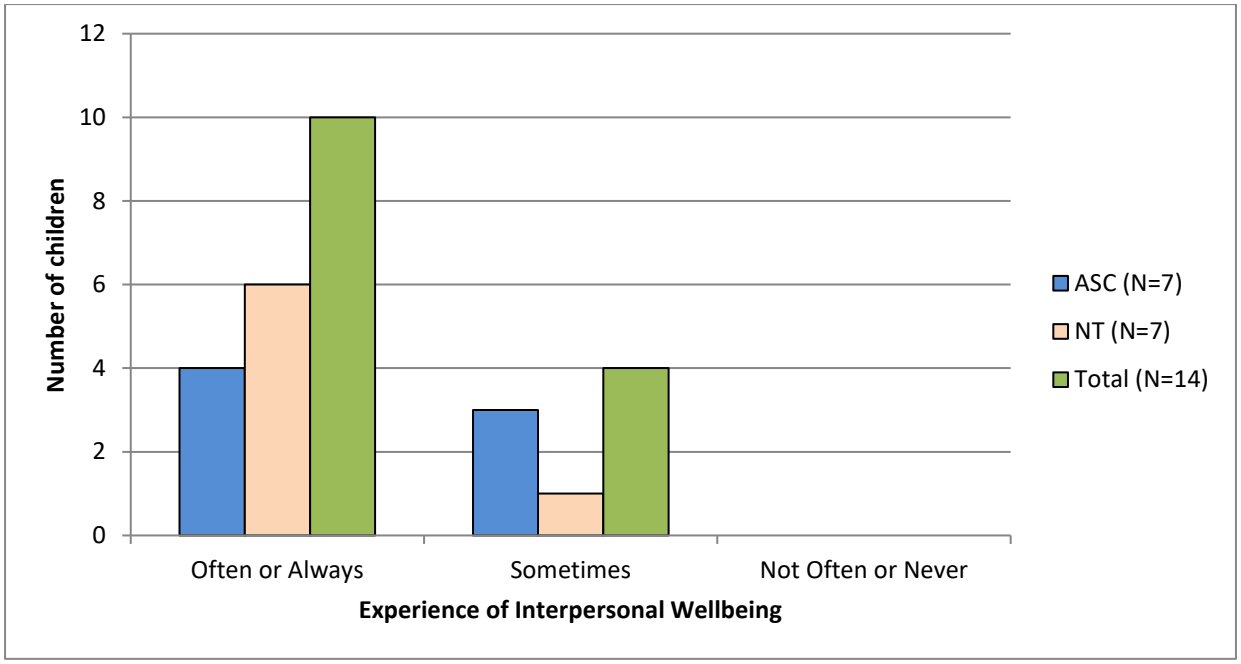

Figure 8: The frequency of experience of interpersonal wellbeing reported by the participants in each of the two groups, and as a collective sample.

Thus, the null hypothesis that *there is no significant difference between the frequency of interpersonal wellbeing reported by the two groups* was accepted. These findings indicate that the school is promoting interpersonal wellbeing in both autistic children and NT children, equally as effectively.

4.2.3 Life satisfaction

Life satisfaction was measured by calculating the mean score for this subscale for each participant. The frequency of experience of life satisfaction reported by the participants, in each of the two groups and as a collective sample, is presented in Figure 9. Overall, the majority (64%) of participants reported experiencing life satisfaction in school often or always. This indicates that a small majority of children are frequently feeling satisfied with their lives in school. However, over a third of participants were experiencing life satisfaction less frequently than this; 29% participants reported experiencing life satisfaction only sometimes and one participant, who was a member of the ASC group, reported not often experiencing life satisfaction in school.

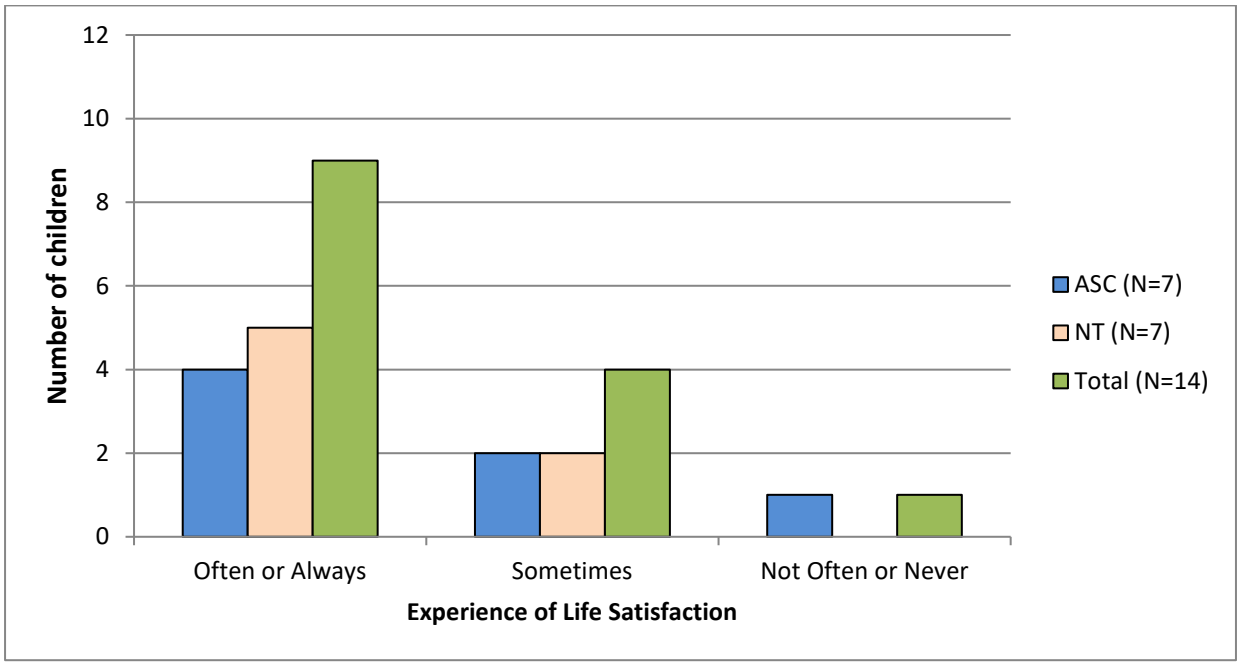

Figure 9: The frequency of experience of life satisfaction reported by the participants in each of the two groups, and as a collective sample.

It was hypothesised that autistic participants would report lower levels of life satisfaction than the NT matched participants. However, a paired samples t-test revealed that the life satisfaction scores for the ASC group (M = 3.46, SD = .84) and the NT group (M = 4.03, SD = .56) were not significantly different (t(6)=-1.183; p=.281). Thus, the null hypothesis that *there is no significant difference between the frequency of life satisfaction reported by the two groups* was accepted. These findings indicate that overall the school is promoting life satisfaction in both autistic children and NT children, equally as effectively.

4.2.4 Perceived competence

Perceived competence was measured by calculating the mean score of this subscale for each participant.

The frequency of experience of perceived competence reported by the participants, in each of the two groups and as a collective sample, is presented in Figure 10.

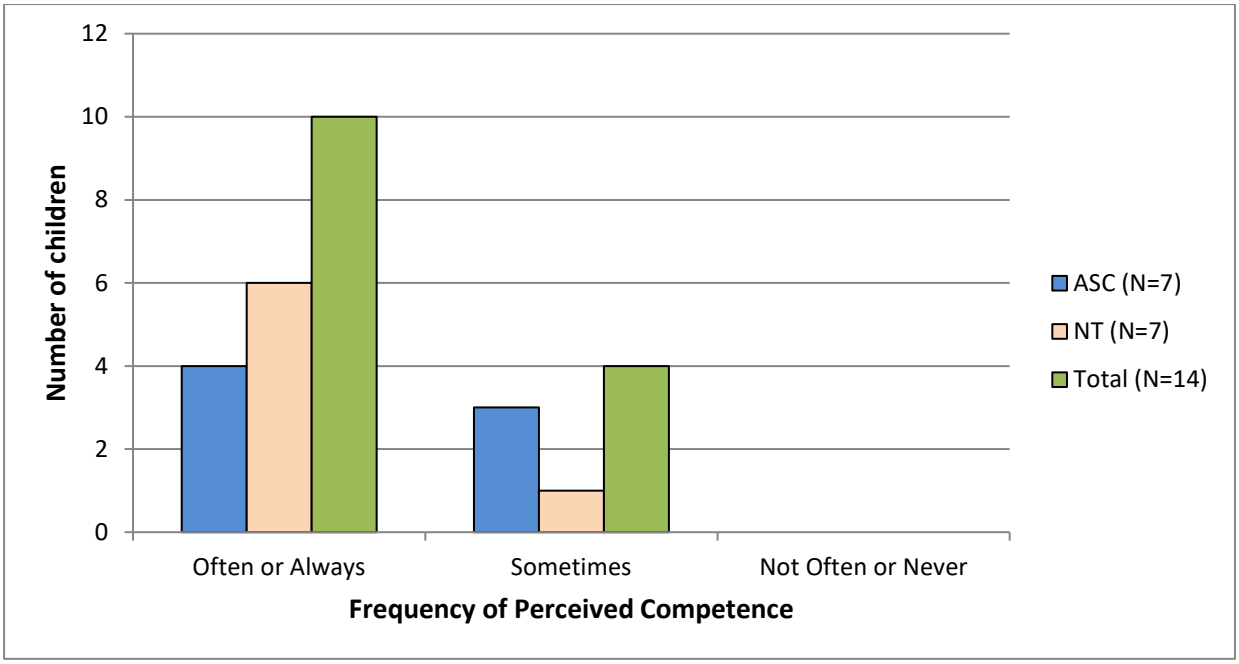

Figure 10: The frequency of experience of perceived competence reported by the participants in each of the two groups, and as a collective sample.

Overall, the majority (71%) of participants reported experiencing perceived competence often or always. However, over a quarter of the participants (29%) reported only sometimes experiencing perceived competence in school.

It was hypothesised that autistic participants would report lower levels of perceived competence than the NT matched participants. However, a paired samples t-test revealed that the perceived competence scores for the ASC group (M = 3.74, SD = .54) and the NT group (M = 3.89, SD = .51) were not significantly different (t(6)=-.455; p=.665). Thus, the null hypothesis that *there is no significant difference between the frequency of perceived competence reported by the two groups* was accepted. These findings indicate that the school is promoting perceived competence in both autistic children and NT children, equally as effectively.

4.2.5 Negative emotion

Negative emotion was measured by calculating the mean score for this subscale for each participant. The frequency of experience of negative emotion reported by the participants, in each of the two groups and as a collective sample, is presented in Figure 11.

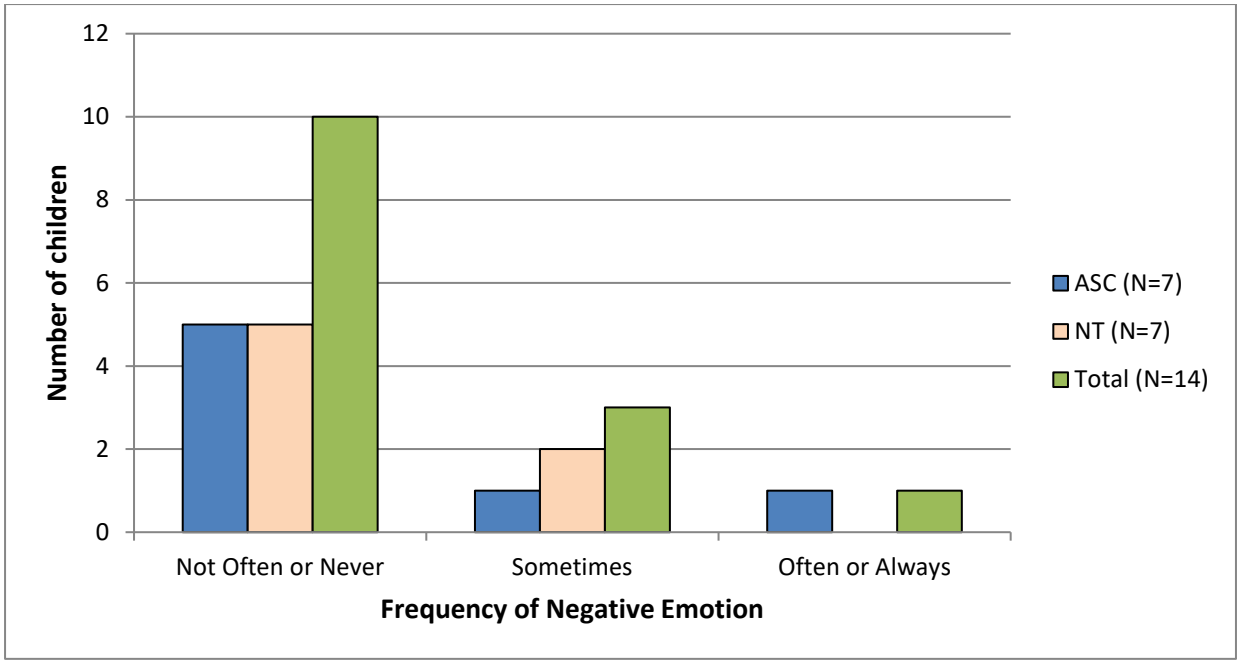

Figure 11: The frequency of experience of negative emotion reported by the participants in each of the two groups, and as a collective sample.

Overall, the majority (71%) of participants reported not often or never experiencing negative emotions in school. This indicates that the majority of children frequently experience emotional wellbeing often during their time in school. Nevertheless, 22% of participants reported sometimes experiencing negative emotion in school and, worryingly, one participant (7%), who was in the ASC group, reported always experiencing negative emotion in school. However, these findings must be interpreted with caution as an integrated analysis of quantitative and qualitative data for this domain of student wellbeing revealed only moderate levels of convergence, which casts some doubt on the validity of these findings (see section 4.7.4). Furthermore, the situation did not appear to be as negative as the quantitative findings suggested when the qualitative data was also considered.

Based on research highlighted in the literature review, it was hypothesised that autistic participants would report higher levels of negative emotions than the NT matched participants; this subscale is reversed scored so a higher score denotes fewer instances of negative emotion. However, a paired samples t-test revealed that the negative emotions scores for the ASC group (M = 3.57, SD = 1.27) and the NT group (M = 3.79, SD = .64) were not significantly different (t(6)=-.328; p=.754). Thus, the

null hypothesis that *there is no significant difference between the frequency of negative emotions reported by the two groups* was accepted. These findings indicate that the school is promoting emotional wellbeing in both autistic children and NT children, equally as effectively.

4.2.6 Summary of quantitative findings

The quantitative data suggest that the school is promoting student wellbeing effectively for the majority of participants. However, a substantial minority of participants reported only sometimes or not often experiencing life satisfaction in school so the suggestions for improvements presented in section 4.5 could be useful in supporting school staff to develop additional strategies to promote feelings of satisfaction in students attending the school.

Comparisons between the ASC group and the NT group, using paired samples t-tests, revealed that there were no significant differences between the scores of the two groups across any of the domains of student wellbeing. Thus, to answer the research question, the frequency of student wellbeing reported by autistic students was comparable to that reported by NT participants.

4.3 Question 2: What factors do autistic children identify as promoting their experience of student wellbeing in mainstream primary schools?

Five themes that related to some, or all, of the aspects of student wellbeing were identified: individual strategies; supportive and engaging practice; supportive peer relationships; resources; and opportunities to be outdoors (see Figure 12). These are described in more detail under the relevant subheadings, in the sections that follow. All quotes represent the interviewees' responses to questions as to what they feel is currently supporting them to feel happy or relaxed in school (hedonic wellbeing) or is helping them to do well in school (eudaimonic wellbeing).

4.3.1 Theme 1: Individual strategies

Participants reported using strategies they had developed themselves to promote their own student wellbeing.

Space away from peers

Three of the participants stated that they enjoyed spending time away from peers. Students who enjoyed spending time alone linked this explicitly to the experience of positive emotions, although the underlying motivations varied. Several participants enjoyed being alone as it gave them time to think:

> *'I like to just wander about on my own thinking of stuff.'* (B1)

> *'I sit alone and just think about stuff.'* (G1)

One participant also added that he spent time alone because it meant not having 'any nonsense to deal with' (G1). However, participants were not always able to meet their need for space away from others and one participant highlighted that it was difficult, at playtimes, 'just to be on [his] own' (C1).

Although, one student had conflicted feelings about spending time alone as he enjoyed it but he also worried about the possible negative connotations. The following extract occurred after he talked about enjoying being by himself:

> *Researcher: And are you doing that on your own or are you playing with other children?*
>
> *G1: Playing with other children! Why? Do you think I'm all alone?*
>
> *Researcher: Oh, I'm just asking because I don't know.*
>
> *G1: A sad loner?*
>
> *Researcher: Do you like playing with other children?*
>
> *G1: Yes, I do. But sometimes, I just don't.*

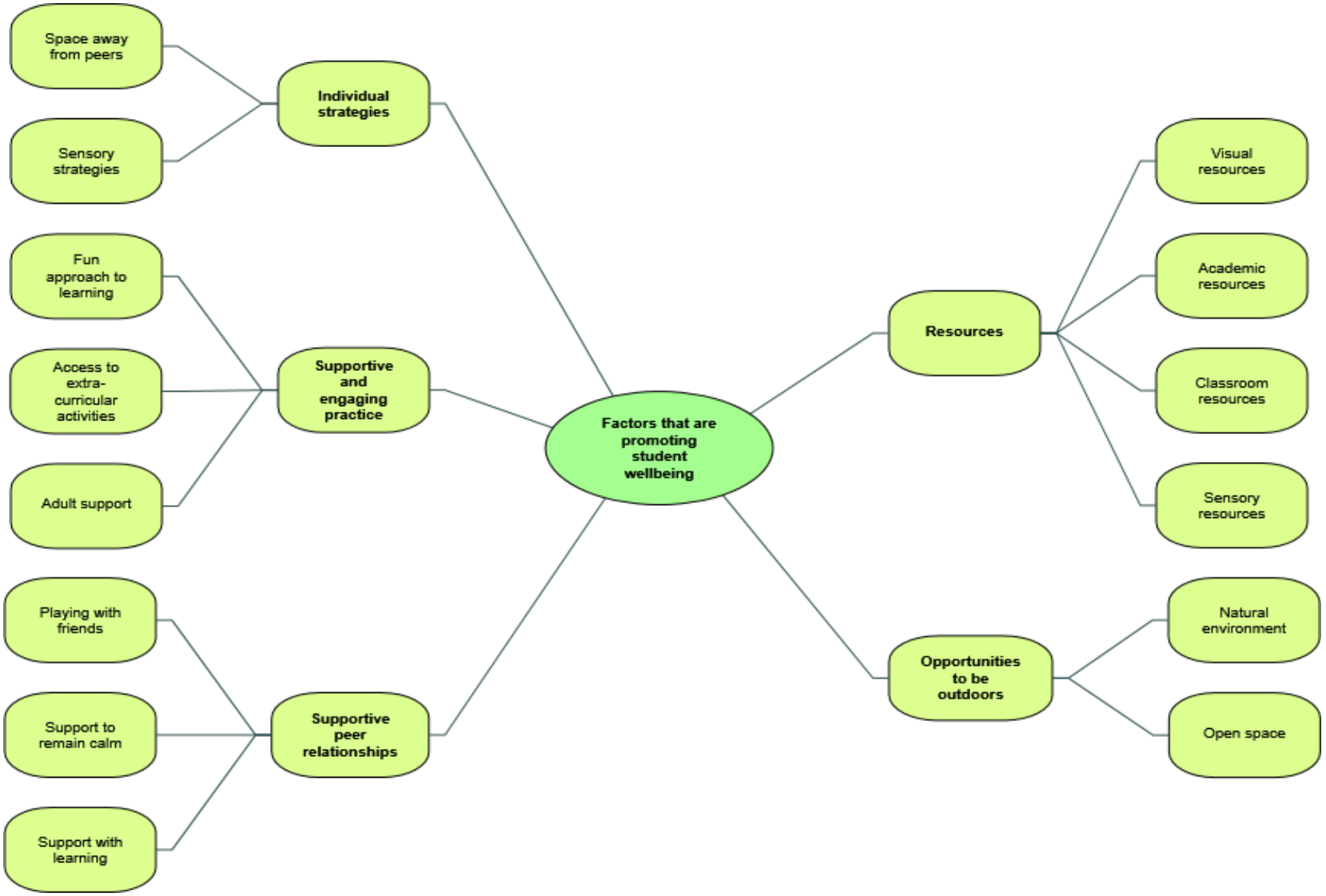

Figure 12: Thematic map of factors that were highlighted by autistic primary school children as promoters of student wellbeing.

In contrast to participants reporting a preference for time alone, another student described his playtime behaviours by stating 'I'm a loner' before adding 'I mind my own business.' [A1]. However, he did not state that spending time alone was something he enjoyed. This could indicate that, although some autistic students do require time away from their peers to feel happy and relaxed, other students who spend playtimes alone may not be doing so due to preference and may have the desire to interact with peers.

Sensory strategies

Some of the students utilised strategies to meet their sensory needs, which promoted their experiences of positive emotions in addition to supporting them to do well in school. One student reported that he 'need[s] to chew a lot', which supported him to remain calm in certain situations: *'When I'm angry... instead of questioning them I'm just like 'What could it be?' [chewing demonstration]'* (G1). Additionally, some of the students reported that having something with which to fiddle supported them to focus in lessons and to feel happier: *'Whenever I'm a bit not happy, I just go [rolls pencil to and fro] and like listen to the teacher at the exact same time and then I feel happy.'* (I1)

4.3.2 Theme 2: Supportive and engaging practice

Students identified aspects of staff practice that supported them to feel happy and relaxed, and to do well, in school.

Fun approach to learning

One factor that helped students to feel relaxed and happy in lessons was their teachers using humour: *'He's mostly fun and he likes to make some jokes sometimes.'* (B1). Additionally, fun activities in lessons were cited as promoting the experience of positive emotions. One student stated that playing a 'maths Bingo game' supported him to feel happy and relaxed in lessons (I1). Another

student reported that he had arrived at school feeling 'pretty miserable' but his mood had improved as a result of having 'fun in learning' (B1).

Extra-curricular activities

Another factor related to promoting feelings of satisfaction and positive emotions in students was school staff arranging extra-curricular activities. One participant talked about his enjoyment of school trips:

C1: Going to the school trips.

R: Ok. Where did you go?

C1: Space centre. The best bit there was the planetarium. The planetarium means there's a video that looks like in your dream.

Another participant highlighted timetabled extra-curricular activities, such as swimming lessons, as an aspect of school that helped him to feel happy and relaxed: '*I do like computing, that does make me relaxed, and swimming because I'm just like floating.'* (G1).

Adult support

Participants highlighted direct support from their class teacher as a factor that helped them to do well in their work. One participant reported that his teacher helped him to reduce the size of his handwriting by 'starting [him] off' (A1). Another participant reported that his teacher helped him to relax and concentrate on his work, using focusing exercises: *'Teacher says 'Close your eyes, be ready, still.'* (C1). Indirect adult support, including the creation of useful resources such as 'word bank books', was recognised as supporting participants to do well in their lessons (I1). Adult support in the form of individual interventions was identified as reducing the experience of negative emotion by supporting students to feel relaxed and happy in school: *'My one to ones that are something like this [interview], help me.'* (B1). Furthermore, some students highlighted how they felt happy when adults supported them to interact with peers, including those from different year groups, during unstructured times: *'At lunchtime... there's this football game that one of the teachers made up.*

Nearly everyone from Year 5 and Year 6 joins in, and some Year 4s and 3s.' (I1). This aspect of supportive and engaging practice is likely to have fostered supportive peer relationships, which was another theme that was identified from the interview data.

The content of this theme suggests that the majority of participants felt they were well supported by staff. However, it is also important to recognise that one participant reported that there was nothing that his teacher did that supported him to feel happy and relaxed, or helped him to do well, in school.

4.3.3 Theme 3: Supportive peer relationships

Most participants identified receiving support from peers as a factor that promoted their student wellbeing.

Playing with friends

Some of the participants stated that playing with their peers during unstructured times helped them to feel happy and relaxed:

Researcher: Ok, and what do you like to do when it's play time?

I1: Well, me and my friend made a game called Space and we go into space and we get lost on this random planet and we have to rebuild a ship.

Support to remain calm

One participant highlighted how his friend, who also has a diagnosis of ASC, used sensory strategies to support him to feel happy and relaxed in lessons: *'Well, [peer] just like gets the giant blanket and puts it on me... because it's really, really soft.'* (I1)

Support with learning

Participants reported that peers provided academic support that helped them to do well in their lessons: *'The children help me [with] doing dividing.'* (C1). However, in contrast to participants who welcomed peer support, one participant stated that he did not receive support from peers and that this was his preference: *"They never help me... I'm happy with the way things are.'* (A1)

4.3.4 Theme 4: Resources

Participants identified access to resources as a factor that helped them to feel happy and relaxed in school and enabled them to do well in school.

Visual resources

One participant highlighted the value of visual resources such as the 'literacy board' and the interactive whiteboard, which supported him to do well in 'literacy, independent work, big write, maths, all sorts of things' (C1).

Academic resources

Another student identified specific learning resources as supporting him to do well in lessons: *'The word bank book... [contains] all the words we've learnt in Year 6 - I've been learning lots of new words.'* (I1).

Classroom resources

Participants highlighted the value of classroom resources in promoting calmness during free time: *'When it's golden time all I do is just lie on the beanbag in the corner of the room and just relax. It's the quietest part of the room. It's in the book corner so I definitely read a book.'* (I1)

Sensory resources

Participants identified resources that supported them to meet their sensory needs, such as ear defenders, blankets and fidget cushions. These resources supported them to reduce negative emotions they would otherwise experience. For example, one student highlighted the value of ear defenders: *'They're like headphones... they keep out noises that annoy me and frustrate me.'* (B1)

4.3.5 Theme 5: Opportunities to be outdoors

Participants reported that opportunities to spend time outside helped them to feel happy and relaxed.

Natural environment

Some participants enjoyed having access to 'fresh air' (B1), being able to 'wander about... around trees' (B1) and sit down 'on the trees' (G1). One participant summarised this: *'I just like to be outside.'* (B1).

Open space

One student highlighted how playing 'really fast paced games' supported him to feel happy and relaxed because he is 'literally an energy machine' (G1). Having access to large spaces, such as the playground, was an important factor in relation to promoting his experience of positive emotions and, thus, student wellbeing.

This theme appears to be linked to the theme of individual strategies because being outside is likely to enable students in primary schools to find space to be away from peers when needed; an individual strategy that was highlighted by several students as promoting their experiences of positive emotions.

4.4. Question 3: What factors do autistic children identify as barriers to their experience of student wellbeing in mainstream primary schools?

Six themes that related to the experience of student wellbeing were identified: unpredictability; feeling different; teaching approaches; peer behaviours; learning related stressors; and lack of (access to) resources (see Figure 13). All quotes represent the interviewees' responses to questions as to what they perceived to be barriers to feeling happy or relaxed in school (hedonic wellbeing) or doing well in school (eudaimonic wellbeing).

4.4.1 Theme 1: Unpredictability

Some of the participants reported unpredictability as a barrier to student wellbeing. One participant highlighted that he was 'not that keen on changes' (B1). Additionally, not knowing the plan for the

day in advance resulted in heightened levels of anxiety: *'I was a bit worried about today at school because I don't know what there is to come next.'* (B1)

4.4.2 Theme 2: Feeling different

Three participants talked about their diagnosis and of feeling, or being, *different*.

Perception of diagnosis

Students reported both positive and negative perceptions of their diagnosis. One participant associated his diagnosis with positive differences: *'I'm an autistic child that takes more in than everybody else, I think, in this school.'* (A1). However, other students reported negative experiences linked to their diagnosis: *'I felt pretty miserable at the start [of the day due to] just a few things that I have problems with in life, since I'm pretty much autistic.'* (B1).

Efforts to blend in

Another student highlighted how he used strategies to try to minimise the differences that others may perceive, in an effort to decrease the embarrassment he experienced in school: *"When I feel overburdened, I just have a mental breakdown inside... this is what it looks like from the outside [deliberately neutral expression]."* (G1). Possibly linked to his desire to blend in, G1 also voiced his reluctance to receive special attention, when he was asked if anything more could be done to support him: *"I just sound weird and I don't like it. I feel like I'm just saying that I'm the best, like I should have all the attention - I don't want that."* (G1).

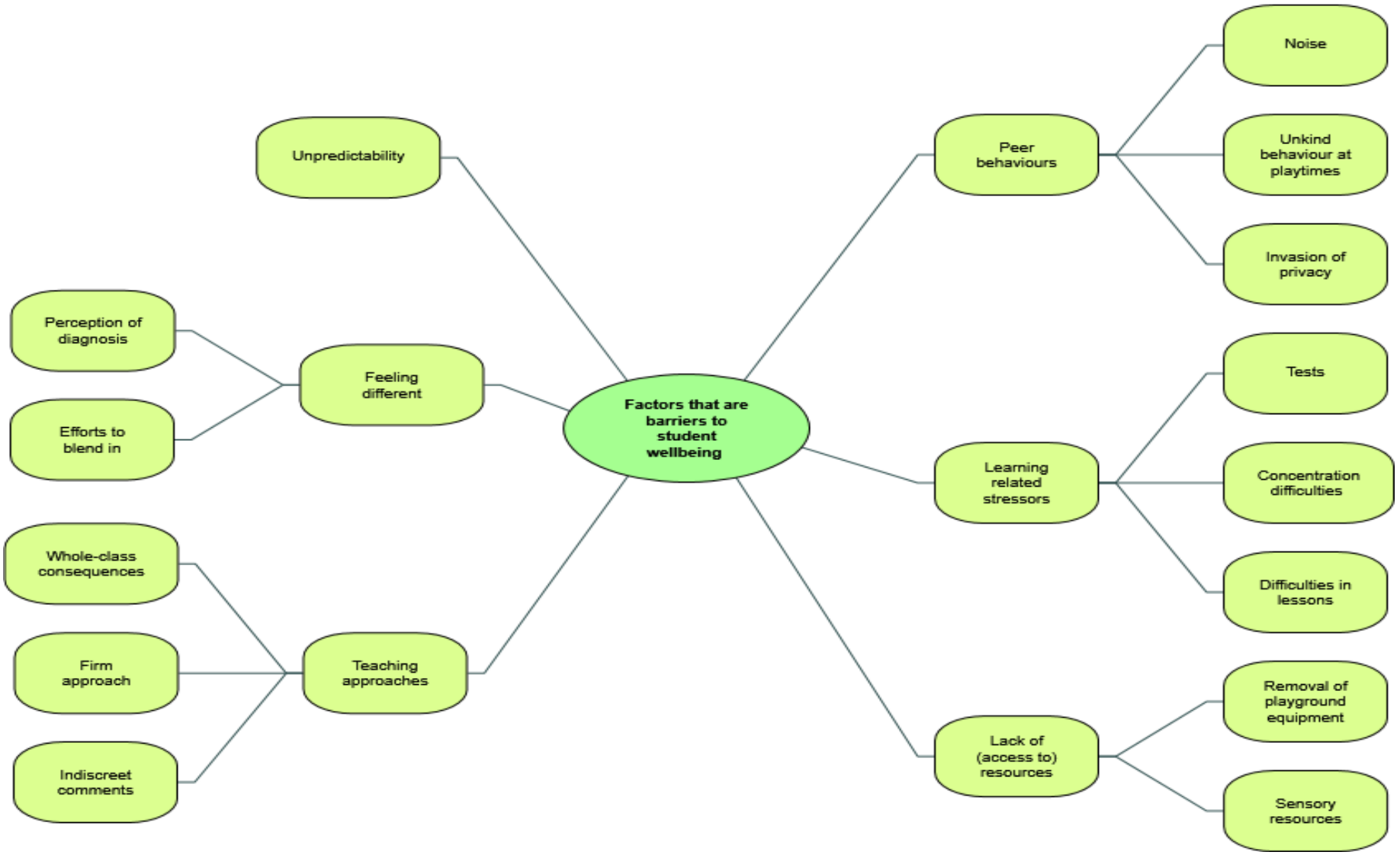

Figure 13: Thematic map of factors that were highlighted by autistic primary school children as barriers to student wellbeing.

4.4.3 Theme 3: Teaching approaches

Participants identified specific staff approaches that were perceived to increase the experience of negative emotions and, thus, were a barrier to student wellbeing.

Whole-class consequences

Participants were particularly upset about their teachers keeping them in at playtimes, as a whole class behaviour management strategy used to combat excessive talking in the classroom:

> *'I just feel sad when everyone just... keep[s] chattering and chattering... then like it counts off the entire class... I've stayed in because of the rest of the class.'* (I1)

> *'Sometimes [teachers] can take away your break and it just makes me feel very worried.'* (B1)

B1's comment that teachers keeping the whole class in playtimes making him feel worried could be at least partially underpinned by his assertion that he does not like changes and that not knowing his routine in advance causes him to experience anxiety, as captured in the theme *Unpredictability.*

The behaviour management strategy of keeping a whole class inside at playtime was also associated with feelings of injustice:

> *'Once my class had to stay in and I had to stay in with them... because they were being too loud... it was others, not me, and I felt it was unfair.'* (B1)

> *'If you're not part of it then you should just go out.'* (I1)

It is possible that autistic students felt particularly aggrieved by this consequence because noise and classroom disruption were also cited as factors that caused these students to experience negative emotion. Thus, they may feel that they are effectively being punished for peer behaviours that have already caused them distress.

Firm approach

Some of the participants highlighted a firm teaching approach as a barrier to their student wellbeing: *Shouting is - it makes people sad."* (G1). This was associated with feelings of fear, even when teachers' comments were directed at peers rather than the participants themselves: *"Teachers are firm against students - it kind of scares me a little, sometimes."* (B1).

Indiscreet comments

One student identified his teacher's approach of talking to him to about his behaviours in front of his peers as a barrier to his student wellbeing, because it caused him to feel embarrassment. He highlighted how his teacher drew attention to his difficulties with communicating: *"Sometimes she embarrasses me in front of the whole class. Sometimes, I stutter on my words and... she just says it out loud in front of the whole class."* (G1). Furthermore, he stated that his teacher also drew attention to his sensory needs: *"Or, just the chewing. I didn't realise it and then she just points it out. She's like, 'Why are you chewing on that?' Everyone turns their head."* (G1). Previously, G1 had voiced his preference for not standing out and his teacher's approach was negatively impacting on his emotional wellbeing in his lessons: *"I'm like 'Don't point me out, teacher, I didn't, I was not chewing on that.' I just really hate it when the teacher's like 'Why are you chewing on that?' I'm just like [whines]. I really hate being embarrassed."* (G1)

4.4.4 Theme 4: Peer behaviours

Participants identified some of their peers' actions as barriers to their student wellbeing.

Noise

Most students cited noises associated with their peers as a barrier to their wellbeing, due to the resultant negative emotions they experienced. One participant reported feeling sad due to noise: *"It's the noise that can upset me."* (B1). This included noises that were planned and could be anticipated: *'I'm not too keen on the songs [in assembly] because they're very loud.'* (B1)

Other participants highlighted noise as a source of irritation both in lessons and during unstructured time:

A1: I have this boy in my class. He makes a lot of noise.

R: How does the noise make you feel?

A1: Very annoyed!

'Most people just go really annoying in free time... because there's just really big arguments... and then everyone keeps shouting.' (I1)

In addition to evoking negative emotions, noisy peers appeared to be a source of distraction in lessons and participants reported that a quieter classroom environment helped them to 'concentrate more' (I1).

Unkind behaviour at playtime

Some participants highlighted that their peers were sometimes unkind to them at playtimes, which made them feel sad or worried. For example, one participant stated that he experienced 'bullying... sometimes' at playtime and that he dealt with this by laughing (C1). Another participant reported that he became upset on the playground when 'everyone's been like forcing me to be It on a game' (I1). However, he stated this only happened once a month and he was able to manage this situation effectively and independently by 'playing a different game' (I1).

Invasion of privacy

Participants voiced their dislike of their peers looking at or touching their belongings. For some participants, this perceived invasion of privacy caused feelings of irritation: *'There's a girl at the back of my seat... she's always being nosy and she's always looking over my private property.'* (A1). However, for others it appeared to be linked to anxiety about the cleanliness of peers and the potential spread of illness: '*I do not like people putting their dirty, dirty hands on my water bottle... I got a disease off it.'* (G1)

4.4.5 Theme 5: Learning related stressors

Some of the participants highlighted learning related stressors as a barrier to student wellbeing.

Tests

Tests, particularly maths tests, were one aspect of learning that some students found difficult. It is likely that participants were completing many practise tests during Years 5 and 6, in preparation for their SATs. One participant reported that maths tests made him feel 'irritated' because he 'can't count properly' (C1). It appeared that feeling a lack of perceived competence in relation to tests was associated with feelings of negative emotion. Conversely, the realisation that students would not be required to do a test resulted in the experience of positive emotions: *'When I get a test that isn't a test... I just get so relieved.'* (G1). In further support of the proposed relationship between participants' feelings of perceived competence in relation to completing tests and their emotional response to those tests, one participant highlighted how tests affirmed his capabilities, which causing him to experience positive emotions: *'Well, I'm completely really, really happy because not much people in maths get full marks on the test.'* (I1). In this case, and in contrast to reports from all other participants, tests are likely to promote his experience of student wellbeing.

Concentration difficulties

One participant identified that concentration difficulties were a barrier to student wellbeing, in that these hindered his engagement in lessons: *'I do quite a bit of daydreaming sometimes so it's hard for me to listen and that's the reason why I can find it sometimes hard to get through [maths].'* (B1). Additionally, noise in the classroom, as outlined in *Peer Behaviours,* hindered students' concentration. These difficulties with concentration are likely to have negatively impacted upon students' feelings of perceived competence.

Difficulties in lessons

All of the participants reported experiencing difficulties in lessons. Most students reported difficulties in academic subjects, such as maths and literacy, which were often accompanied by reduced feelings

of perceived competence and increased experiences of negative emotion. One participant provided a particularly poignant example of this, when asked to elaborate on what made him feel 'overburdened': *'Feeling I can't do anything. I'm just like 'I can't do this. I can't do this' because I really don't like getting questions wrong. I feel like everyone's going to laugh at me. I really hate it!'* (G1). In addition to highlighting the negative emotions associated with finding learning difficult, he also highlighted how his peers' potentially negative reactions to his difficulties exacerbated the problem. The current findings illustrate that anxiety linked to perfectionism can manifest in primary school for some autistic children.

Some students reported difficulties with writing. One participant reported that he experienced difficulties with 'spelling' and maintaining an appropriate 'size of handwriting' (A1). Another student reported difficulties with punctuation: *'I cannot do punctuation correct, even though I edit it on the computer. I even need help with doing the punctuation still.'* (G1). This example also illustrates the experience of frustration in response to requiring support with learning, which could be linked to G1's preference for not receiving special attention (see section 4.4.2). However, other participants highlighted writing as an aspect of school that they particularly enjoyed:

'It can sometimes be a little vision of your own' (B1)

'I like literacy. I've been working on a ghost story, The Haunted House, and I've got three pages already.' (I1)

4.4.6 Theme 6: Lack of (access to) resources

Participants reported that the lack of, or lack of access to, resources was a barrier to student wellbeing.

Removal of playground equipment

One participant was particularly upset about the removal of playground equipment: *'They've gotten rid of the tables and chairs recently and I'm sad about that because I liked to sit down on them.'* (G1). He also voiced that he was upset that his school had removed 'the thing in the playground that

everyone likes to go on: the wooden jungle gym.' (G1). In addition to negative emotion, this led him to feel dissatisfaction with the current state of the playground: *'The playground's boring now.'* (G1)

Sensory resources

One participant, who had previously accessed the autism resource base, reported feelings of dissatisfaction because he felt he did not have access to the sensory resources required to meet his sensory needs effectively in the mainstream school:

> *'In fact, I do not have a single chew toy.'* (G1)

> *'Even though I'm autistic, I'm not allowed [to use the autism resource base] because there's supposedly not enough spaces.'* (G1)

4.5 Question 4: What factors do autistic children feel would further promote their experience of student wellbeing in mainstream primary schools?

Four themes that related to changes the school could introduce, to better promote the experience of student wellbeing, were identified: additional individual strategies; modified teaching practices; increased access to available resources; and the provision of additional resources (see Figure 14). Each theme is described in more detail under the relevant subheading. All quotes represent the interviewees' responses to questions as to what else could be put in place to support them to feel happy or relaxed in school (hedonic wellbeing) or to help them to do well in school (eudaimonic wellbeing).

4.5.1 Theme 1: Additional individual strategies

Similarly to the individual strategies that students had already developed to support themselves in school, some students identified additional strategies that they could introduce themselves to further promote their student wellbeing.

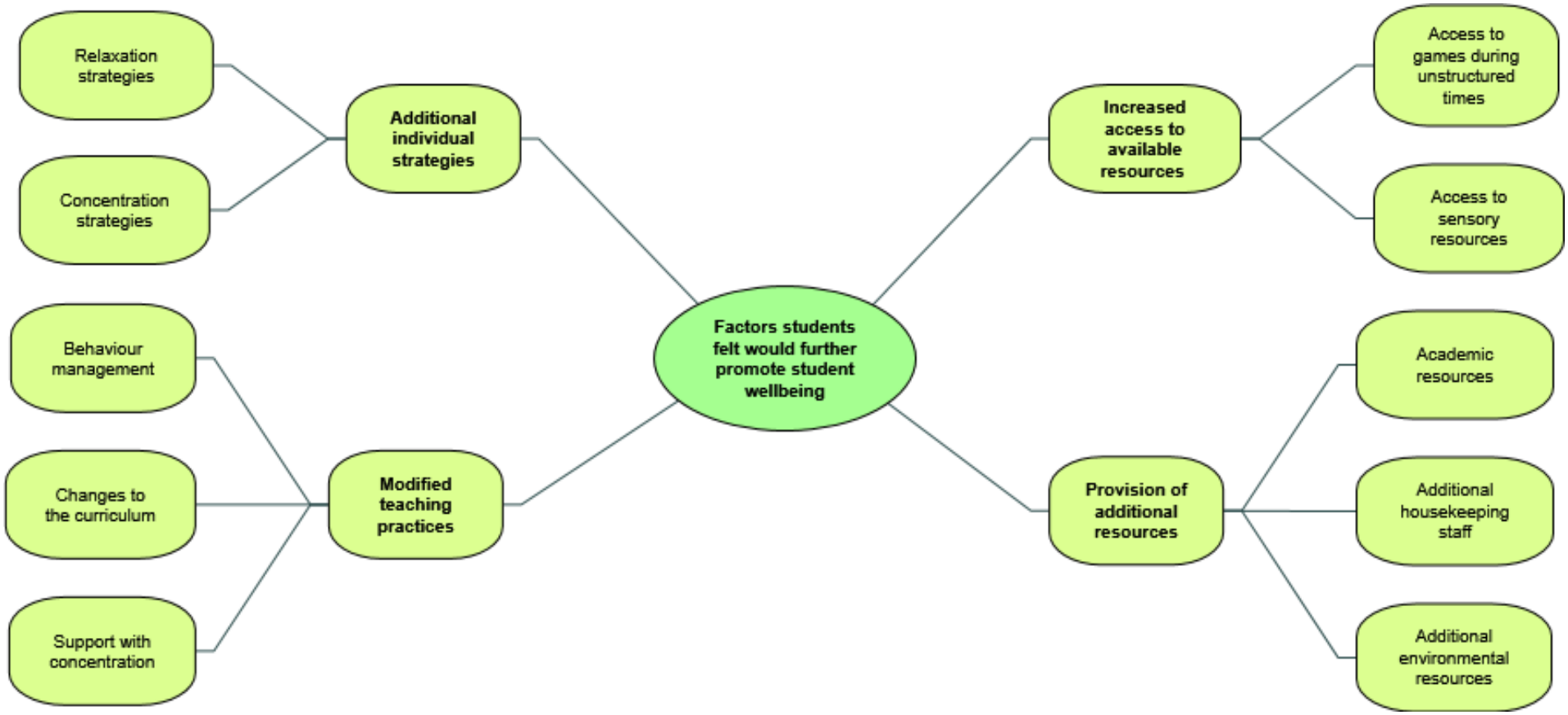

Figure 14: Thematic map of factors that were highlighted by autistic primary school children as modifications or additions that would further promote student wellbeing.

Relaxation strategies

One participant, who reported feeling anxious in school, identified a strategy that he could use to support him to relax prior to coming to school: *'I could use relaxations… because there's a relaxation thing on the tablet.'* (B1). It is possible that this is a strategy that could be introduced into school as well.

Concentration strategies

A participant reported experiencing difficulties with concentrating in school and suggested that he could try the following strategies to improve his engagement in lessons: *'I could stop listening to videos and TV because that's what makes me daydream all the time.'* (B1).

4.5.2 Theme 2: Modified teaching practices

Participants identified several areas in which they felt modified teaching practices would promote their student wellbeing.

Behaviour management

One aspect of practice that students wished to modify was teachers' approaches to behaviour management. One participant suggested that teachers should shout less and 'be less strict' (G1). This sub-theme appears to be directly related to the sub-theme of *Firm approach* within the theme of *Teaching Approaches*, which outlined how teachers shouting, even when this was directed at other students, evoked negative emotions in some autistic students.

Changes to the curriculum

Some participants highlighted areas of teaching practice that could be modified. This included the addition of new sports to the P.E. curriculum: *'I don't really like sports. What I like to do is called parkour. Parkour is like vaulting and stuff. I can do vaulting.'* (G1). Suggested modifications to practice also included opportunities for higher ability children to attempt more challenging work to extend their learning. For example, one Year 6 participant asserted he would like: *'A new table*

because lots of people are passing lots of stuff already of their SATs... I think there should be a rainbow table that's got the best like cleverest people on... they would do... Year 7 lessons.' (I1).

Support with concentration

Participants reported a desire for additional strategies to support their concentration in the classroom. One participant wanted school staff to provide further individual support to help him to engage in lessons: *'They could give me some advice on how to listen better and not daydream as much.'* (B1). Whereas another participant suggested a whole class strategy that would reduce noise and also support 'a lot of other people who try and work' to concentrate, which involved his teacher displaying a 'Noise-o-meter' whereby 'if it's on silence there's not a single word spoken, whisper then there's a little table chat, and then the group giant talk*'* (I1).

4.5.3 Theme 3: Increased access to available resources

Participants stated that there were resources in the school that were inaccessible to them and that access to these resources would promote their student wellbeing.

Access to games during unstructured times

One participant was upset about the school blocking access to games he enjoyed. He stated that this made him feel 'so angry' (G1). He speculated that these games had been blocked due to safety concerns and proposed that school staff could 'just block the chatting thing' to enable students to access these games safely (G1).

Access to sensory resources

Participants highlighted how increased access to sensory resources would promote their student wellbeing. This included access to sensory resources in lessons, to promote relaxation and concentration. For example, one student wanted access to 'fidget toys or chew toys' (G1). Another student suggested that the school could introduce a 'headphone muffler station because lots of people just keep shouting and we have these special headphone thingies that muffle the noise' (I1).

One participant also suggested that periodic access to the autism resource base would support him to feel happy and relaxed: *'I mean I don't have to work there [autism resource base], I could just like visit every so often.'* (G1).

4.5.4 Theme 4: Provision of additional resources

Several students suggested that the introduction of additional provision would promote their student wellbeing.

Academic resources

One participant suggested that additional academic resources, such as 'a multiplication square' that 'goes up to 100' would support him to do better in his work (A1).

Additional housekeeping staff

Another participant suggested that additional staff were required to improve the cleanliness of the school and current resources: *'More janitors - to clean the water [bottles] and the school - so no one gets a disease.'* (G1). This appeared to be linked to concerns he had in relation to the hygiene of some resources in school, as he claimed that he needed 'safe to drink water bottles' because 'there's not even clean water bottles - I got a disease off it' (G1).

Additional environmental resources

Students suggested improvements to the school grounds that they felt would promote their student wellbeing by increasing feelings of positive emotion and reducing the experience of negative emotions. One participant proposed that the school should replace the 'wooden jungle gym' and add a 'swimming pool' (G1). Additionally, another student proposed that the school could introduce an additional resource to improve current provision: '*I would add - because everyone just goes screaming and the quiet area isn't actually very quiet - so maybe a little mini-shack and you can open and close the door.'* (I1).

4.6 Summary of qualitative findings and how these relate to student wellbeing

Sections 4.3, 4.4 and 4.5 detailed the themes identified during thematic analysis of the interview data, relating to the factors that autistic students identified as: i) currently promoting student wellbeing; ii) hindering student wellbeing; and iii) potential modifications or additions that they felt would enable their school to promote student wellbeing more effectively. In this section, the factors detailed in these themes will be considered in relation to how they contribute to, or detract from, the experience of the four domains of student wellbeing outlined by McLellan and Steward (2015): *interpersonal wellbeing*; *life satisfaction*; *perceived competence*; and *negative emotions*. Figure 15 presents a thematic map that illustrates the relationships between factors that promote student wellbeing and the specific aspects of student wellbeing that they are promoting. Figure 16 presents a similar thematic map that illustrates the relationships between barriers to student wellbeing and the specific aspects of student wellbeing that these are negatively impacting. Finally, Figure 17 presents a thematic map of the relationships between the suggestions for more effective promotion of student wellbeing and the aspects of student wellbeing that these are likely to promote.

Interpersonal wellbeing

The interpersonal wellbeing component of McLellan and Steward's (2015) conceptualisation of student wellbeing constitutes students' relationships with others and feelings of being cared for and appreciated. Two key themes relating to the current promotion of interpersonal wellbeing were *Supportive and engaging practice* and *Supportive peer relationships.* Participants reported that school staff promoted their feelings of being cared for and supported by helping them with their work, both directly and indirectly, in addition to supporting them with emotional regulation. Furthermore, some teachers promoted positive relationships between the participants and their peers, both within and between year groups, by supporting them to engage in structured games at lunchtimes. Some students highlighted that their peers supported them with their work, helped them to calm down and played with them at playtimes, which all contributed to them feeling

supported and appreciated. However, as captured in the theme *Peer behaviours*, other students reported that peers subjected them to unkind behaviour at playtimes and, although the students appeared to have good strategies for dealing with such behaviour, these incidents may have contributed to the students feeling unsafe or uncared for by their peers. Furthermore, students reported that some aspects of practice, as captured in the theme *Teaching approaches,* negatively impacted upon their relationships with teachers. For example, keeping in the whole class at playtimes was associated with feelings of injustice, because participants felt that they were behaving in line with their teachers' expectations and this was not appreciated by their teachers. Additionally, some teaching approaches drew attention to students' difficulties and evoked feelings of shame, which is likely to have negatively impacted on how cared for these students felt within their school. Finally, teachers shouting at students evoked negative emotions such as sadness and fear; this is likely to have hindered participants' relationships with their teachers. One suggested modification highlighted in the theme *Modified teaching practices,* which directly addressed this, was that teachers should shout less and be less strict. This would arguably contribute towards teachers being viewed as more approachable and promote feelings of being cared for in students.

Life satisfaction

The life satisfaction component of McLellan and Steward's (2015) conceptualisation of student wellbeing constitutes students' satisfaction with their life in school. All five themes relating to the promotion of student wellbeing promoted life satisfaction in school. Participants felt satisfied when they were permitted to spend time outside due to having access to the natural environment, and space to move around and spend time away from peers. Some participants also experienced satisfaction when they played with their friends on the playground.

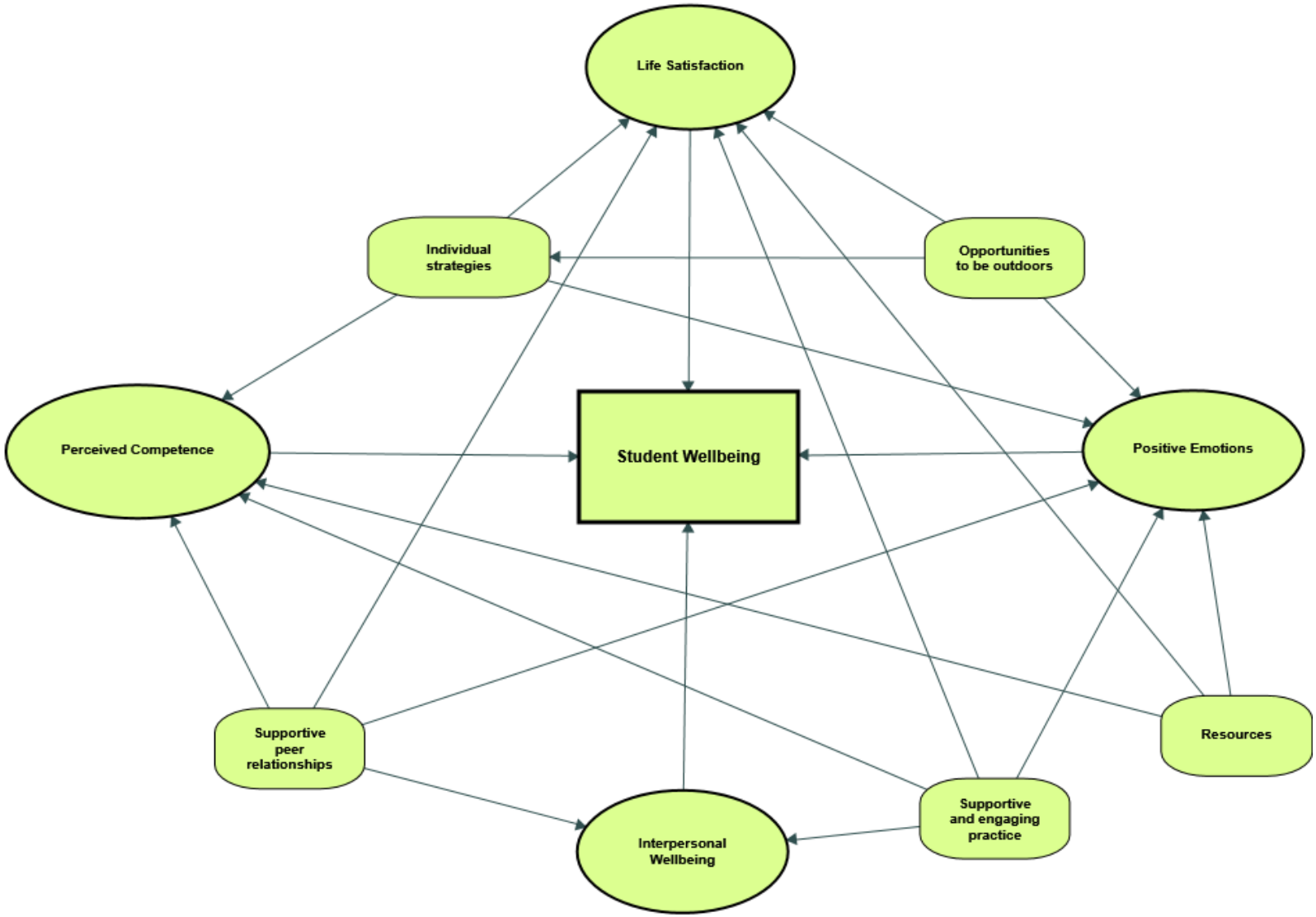

Figure 15: A thematic map illustrating how themes relate to the current promotion of student wellbeing.

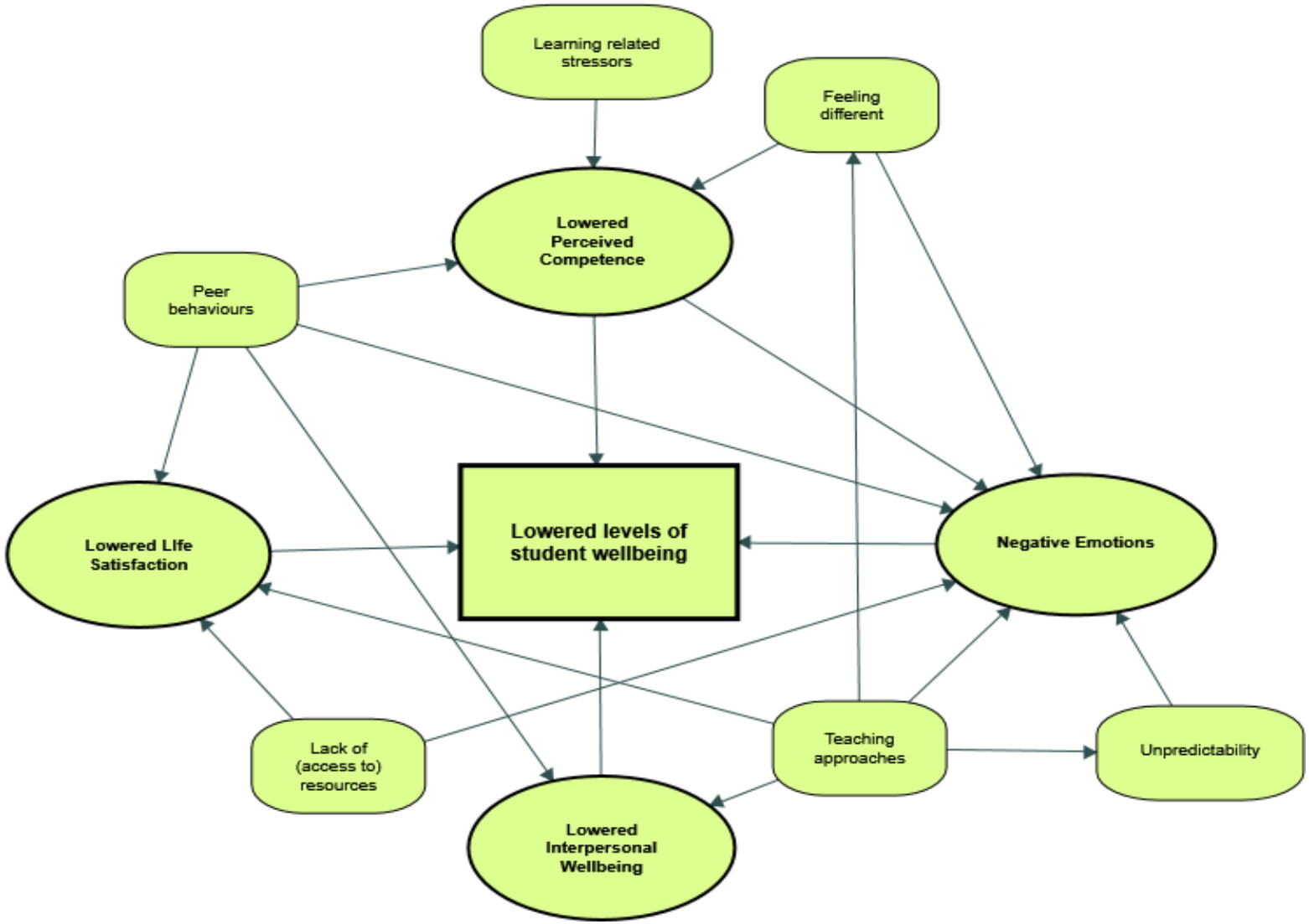

Figure 16: A thematic map illustrating how themes negatively impact upon, and reduce, student wellbeing.

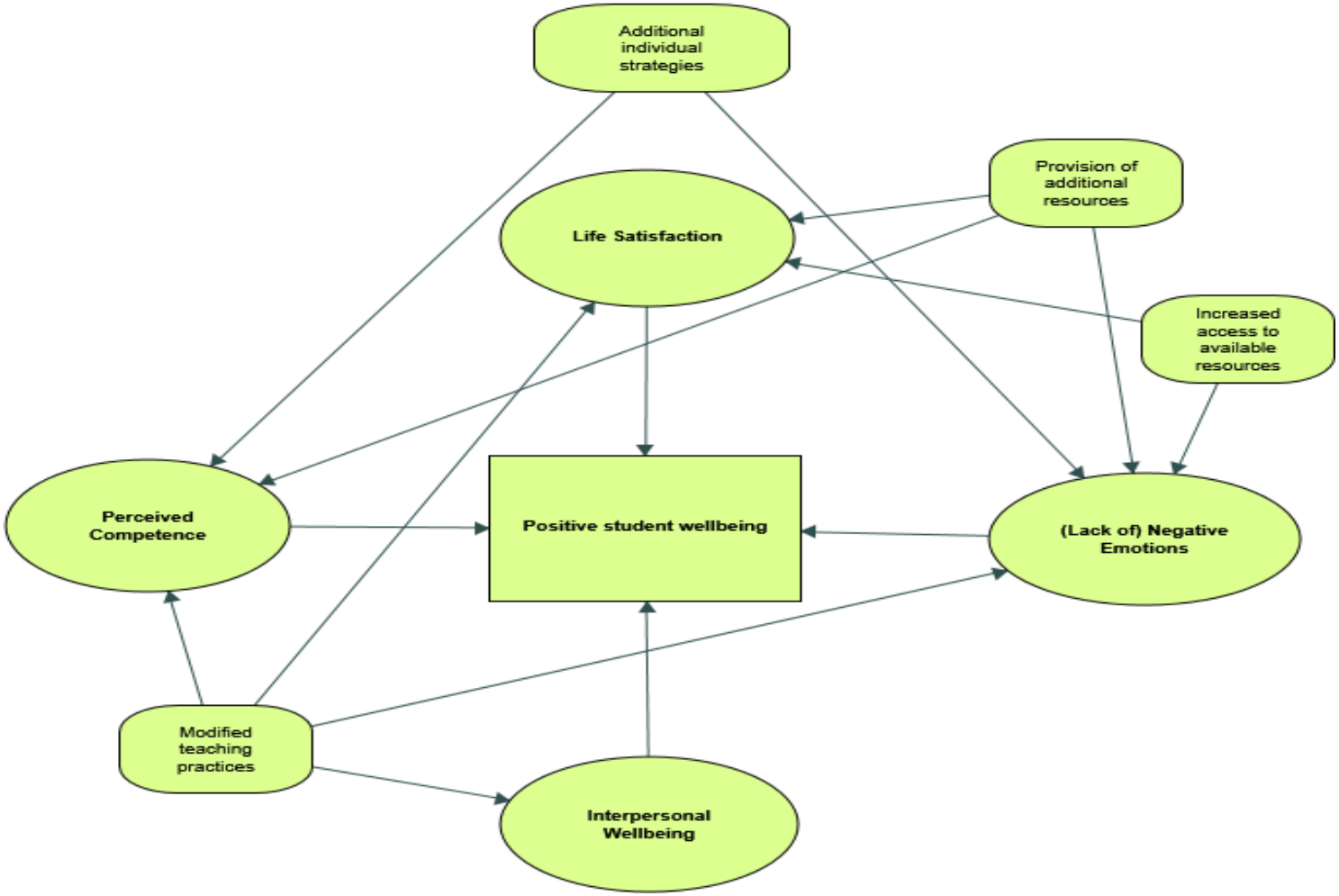

Figure 17: A thematic map illustrating how themes relate to the proposed more effective promotion of student wellbeing.

Generally, participants appeared satisfied with their lessons, which were reported to be fun and enjoyable due to the activities and teachers' use of humour. Access to quiet and comfortable areas during unstructured times and opportunities to engage in extra-curricular opportunities also contributed towards feelings of life satisfaction in school. However, some students were dissatisfied with the range of activities that were available to them and wanted their teachers to introduce more breadth to the curriculum, which is captured in the theme *Modified teaching practices.* Participants were also dissatisfied with the use of whole class behaviour management strategies because they felt these were unfair to students who were behaving in line with school expectations. Additionally, participants were dissatisfied that they could not prevent other students from looking at, or touching, their belongings. Some participants were dissatisfied with their lack of access to sensory resources and the removal of playground equipment and this dissatisfaction underpinned two themes relating to suggested improvements to promote student wellbeing more effectively: *Increased access to available resources* and *Provision of additional resources.*

Perceived competence

The perceived competence component of McLellan and Steward's (2015) conceptualisation of student wellbeing constitutes aspects of positive functioning such as feeling good about oneself and feeling that one is doing well. Students had developed their own strategies to meet their needs, as captured in the theme *Individual strategies*, which is likely to have boosted their perception of their own abilities to solve problems. Unkind behaviour on the playground, as captured in the theme *Peer behaviours,* while undesirable and in need of addressing by the school staff, enabled students to develop and utilise individual strategies for managing the situation; students reported that their strategies were successful, so these situations are likely to have promoted feelings of perceived competence. Furthermore, some students had developed strategies to support their concentration in lessons, which is likely to have enabled them to engage and achieve in lessons. Both school staff and peers were supporting the students with their lesson work, as captured in the themes *Supportive and engaging practice* and *Supportive peer relationships,* which enabled them to

recognise their strengths; all students were able to identify individual strengths, which included reading, writing, maths and computing. Additionally, the available academic resources supported students to achieve in lessons. In contrast, certain *Peer behaviours* such as creating excessive noise, resulted in students experiencing difficulties in concentrating on their work and feeling as if they were not doing as well as they could do; this is likely to have negatively impacted upon experiences of perceived competence. Additionally, students reported that their performance on tests impacted upon their perceived competence, as captured in the theme *Learning related stressors*, which then impacted upon their emotions. For some students, tests were pleasant experiences in that they affirmed the students' capabilities and thus promoted increased feelings of perceived competence. However, the majority of students viewed tests as unpleasant experiences that led to feelings of inadequacy and, thus reduced perceived competence. Additionally, students reported difficulties with maintaining concentration and anxiety linked to possible failure or humiliation in front of their peers, which negatively impacted upon their self-perception and, thus, their experience of perceived competence. The theme *Feeling different* captured both experiences that promoted and negatively impacted on perceived competence; some students felt that their diagnosis of ASC was associated with increased abilities, whereas others attributed some of the difficulties they experienced to their diagnosis and tried to mask their difficulties to avoid standing out. Some *Teaching approaches,* such as the teacher addressing students' difficulties in front of their peers, hindered student wellbeing by evoking feelings of being 'pointed out' and negative self-perception in these students. Thus, some *Teaching approaches* can negatively impact upon students' perceived competence, by exacerbating factors captured in the theme *Feeling different*.

Students suggested that the school could introduce *Modified teaching practices* to promote feelings of perceived competence by providing students with more opportunities to excel, which included: expanding the breadth of the curriculum; increasing the level of challenge of tasks presented to students, where appropriate; maintaining a quiet classroom environment that is conducive to learning; and supporting students to develop the skills needed to achieve in lessons. Additionally,

some students identified *Additional individual strategies* that they could employ to support themselves to engage and achieve in lessons. Finally, students asserted that *Increased access to available resources,* such as fidget toys to support concentration, and the *Provision of additional resources,* such as academic resources, would support them to achieve in lessons.

Negative emotions

The negative emotion component of McLellan and Steward's (2015) conceptualisation of student wellbeing measures the experience of, or lack of experience of, negative emotions; it is assumed that fewer experiences of negative emotion indicate increased experiences of student wellbeing. In considering how the identified themes relate to the experience of negative emotions, instances in which the students explicitly stated experiencing positive emotions will also be considered as evidence of a lack of negative emotions. Positively, several students stated during the rapport building phase of the interviews that they were feeling happy that day at school and one even stated 'every day I'm happy' (C1). Students had developed their own strategies to promote feelings of positive emotions, captured in the theme *Individual strategies,* such as spending time alone and meeting their own sensory needs. Students also cited *Opportunities to be outdoors* as a factor in promoting their experience of positive emotions, due to access to fresh air and trees; it is likely that being outside also provided space away from peers. Additionally, students reported that teachers using humour and fun lessons, as captured in the theme *Supportive and engaging practice*, promoted the experience of positive emotions and could even improve their mood on occasions when they had been experiencing negative emotions. Furthermore, some students reported that their peers supported them to relax in the classroom, as captured in the theme *Supportive peer relationships,* and that access to sensory resources and classroom resources promoted feelings of positive emotion, as captured in the theme *Resources.*

Unpredictability linked to the school routine evoked feelings of anxiety and *Feeling different* to others caused some students to feel 'miserable' (B1) and 'embarrassed' (G1). *Teaching approaches*

such as drawing attention to difficulties, shouting at students, and keeping students in at playtimes evoked feelings of negative emotions such as 'worried', 'jumpy', 'frightened' and 'upset' (B1); keeping students in at playtimes is also likely to induce feelings of anxiety due to the change to typical school routine. *Peer behaviours,* such as creating noise in the classroom, invasion of privacy, and unkind behaviours on the playground, contributed to students feeling 'upset' (B1), or 'annoyed' and 'cross' (A1). *Learning related stressors* such as difficult tests or difficulties with specific aspects of work resulted in students feeling 'fed up' and 'overburdened' (G1) or 'irritated' (C1). Conversely, some students reported feeling 'completely really, really happy' in response to tests (I1) because they found these easy and performed well. Finally, the removal of playground equipment, as captured in *Lack of (access to) resources* was reported by some students to have evoked feelings of sadness at playtimes.

All four themes relating to changes or additions that school could introduce to promote student wellbeing more effectively aimed to promote the experience of positive emotions and reduce the experience of negative emotions. Some students identified *Additional individual strategies* that they could use to promote feelings of positive emotion. Other students suggested that teachers could modify their approaches to behaviour management to reduce the likelihood of evoking negative emotions, as captured in the theme *Modified teaching practices.* Finally, students posited that *Increased access to resources,* such as chew toys and ear defenders, and the *Provision of additional resources,* such as a jungle gym and a quiet shack on the playground, would reduce feelings of negative emotion and promote feelings of positive emotion.

4.7 Integration of quantitative and qualitative findings

Using data from the subsample of the five students from the ASC group who completed both the questionnaire and the interview (see Table 5 on page 55), this section presents an integrated analysis of the quantitative and qualitative data. The integrated analysis has two main purposes. Firstly, it aims to contextualise and explain the quantitative data using the rich qualitative data. Secondly, it aims to highlight areas of convergence and divergence, and reconcile any discrepancies

between the two datasets. To determine the extent to which there was convergence between the two datasets, as they related to each aspect of student wellbeing, the questionnaire data for each student was systematically compared to the interview data for that student. The integrated analyses for each aspect of student wellbeing are presented in the sections that follow.

4.7.1 Interpersonal wellbeing

There appeared to be strong degrees of convergence between quantitative and qualitative data. The three students who reported only *sometimes* experiencing interpersonal wellbeing, as measured by the questionnaire, typically felt supported by either teachers *or* their peers, but not both. It could be argued that not all autistic students want to have supportive peer relationships, given that the majority of participants reported how they valued space away from their peers. This did appear to be the case for one participant who reported only sometimes experiencing interpersonal wellbeing, as he stated in his interview that he did not want support from other students and indicated that he never felt lonely on his questionnaire. However, it also appeared to be the case that some participants wanted to have supportive peer relationships and had not yet achieved this; one participant made no references to any peer relationships in the interview but indicated on his questionnaire that he was lonely and that people were not often friendly. Both of these participants reported that their teachers supported them with their learning, in contrast the third participant who reported sometimes experiencing interpersonal wellbeing indicated that he liked playing with his peers sometimes but that his teachers did not support him to feel happy and relaxed or to do well. Conversely, the two participants who indicated that they *often* or *always* experienced interpersonal wellbeing in school reported instances of being supported by both teachers and peers.

4.7.2 Life satisfaction

There were strong degrees of convergence between quantitative and qualitative findings related to life satisfaction in school. The three participants who scored *often or always* for life satisfaction reported enjoyment of particular lessons, school trips, swimming and golden time, and one

participant talked about having an abundance of energy in school. The students also highlighted a few negative aspects of school such as tests, certain lessons they disliked, games being blocked on the computers and assembly, which agreed with their more neutral responses to related items on the questionnaire such as *I feel bored* and *I feel I enjoy things*. One student, who indicated that he *sometimes* experienced Life Satisfaction in school, reported how he enjoyed guided reading and craft activities in school but disliked literacy, P.E. and maths. Finally, a participant who indicated that he *not often or never* experienced Life Satisfaction in school reported dissatisfaction with losing his break time and a dislike of maths tests. However, a possibly divergent finding was that he also reported liking his teachers, feeling happy during free time, and enjoying some of his lessons. This participant's questionnaire responses indicated frequent experiences of negative emotion so it is possible that these negative feelings may have contributed to his responses on the questionnaire, which indicated that he is generally dissatisfied with school.

4.7.3 Perceived competence

There were strong degrees of convergence between quantitative and qualitative findings related to perceived competence in school. The three participants who scored *often* or *always* for perceived competence framed their diagnosis of ASC positively or did not mention it at all. Two of these participants were able to identify subjects in which they excelled, which were attributed to finding learning easy and having good memory skills. The third participant was not able to identify any subjects in which he excelled. However, he reported that he had strong perceptive and memory skills. The two remaining participants reported experiencing perceived competence *sometimes*. Both participants framed their diagnosis as a contributing factor to the difficulties they experienced. They were able to identify some subjects in which they excelled but they also reported heightened levels of anxiety in response to aspects of learning, due to finding these difficult.

4.7.4 Negative emotion

There were moderate degrees of convergence between the quantitative and qualitative data. Four of the participants reported *not often* or *never* experiencing negative emotions in school. During the interviews, two of these students reported feeling happy frequently. However, the other two students highlighted several situations in which they experienced negative emotions and appeared to demonstrate emotion when discussing these situations. This discrepancy is likely to be due to the negative emotions they were discussing; the questionnaire only measured feelings of sadness and anxiety, yet participants also talked about anger, fear, irritation and embarrassment. The implications of this are discussed further in section 5.3. The fifth student reported *always* experiencing negative emotion, yet in his interview he discussed some situations in which he felt happy and relaxed at school. It is possible that his experiences of negative emotions are more intense, which resulted in him choosing extreme responses to the items on the questionnaire. However, it is possible that this discrepancy is due to limitations of the negative emotions scale of the questionnaire (see section 5.3).

CHAPTER V
DISCUSSION

5.1 Discussion of main findings

This section considers the main findings of this study in the context of current literature, in addition to implications for practice that is likely to promote student wellbeing in autistic primary school children.

5.1.1 The majority of participants reported experiencing student wellbeing frequently

The descriptive analysis of the quantitative data indicates that majority of students reported experiencing student wellbeing often or always, which suggests that generally the school is promoting student wellbeing in both autistic and NT students. However, it should be recognised that the data was gathered from a small sample of students attending the school, so it is possible that these findings are not generalisable to the entire population of Years 5 and 6 within the school. Furthermore, the parents of any potential child participants and the children themselves were asked to provide informed consent prior to their participation in the research, so it is possible that the sample consisted primarily of students who were coping well with school. Additionally, it must be acknowledged that some students reported experiencing aspects of student wellbeing less frequently, which highlights that there remains a need to improve aspects of the school to promote wellbeing in these students, more effectively.

5.1.2 The frequency of experience of student wellbeing reported by autistic participants was comparable to that reported by NT participants

The frequency of experience of each of the four domains of student wellbeing reported by autistic students was comparable to those reported by the students in a NT comparison group matched for age, gender, school class, and ability. This is a positive finding as it indicates that the school is promoting student wellbeing in autistic students as effectively as in NT students. However, it should

be recognised that, due to some limitations with the sample, these results could be biased. Firstly, it is possible that the sample represented only those autistic students who were coping well in mainstream primary school. At the time of the research, the students who participated in the research all attended the mainstream school on a full-time basis, to maximise the likelihood that comparisons between the two matched groups were valid. However, it should be noted that only two of the seven participants had previously accessed the autism resource base and had subsequently transitioned back into attending their mainstream classrooms on a full-time basis. Thus, it could be argued that the questionnaire data reflects only the views of autistic students who have more positive experiences in the school. A second possible bias relating to the sample is that the small sample size may have resulted in insufficient statistical power to detect a significant result unless the difference between the two groups was large, thus subtle but significant differences that would have been identified in a larger sample could have been overlooked in the current study. This argument is supported by the fact that a smaller number of autistic students, than NT students, reported often or always experiencing interpersonal wellbeing, life satisfaction and perceived competence. Furthermore, one student reported often or always experiencing negative emotion, which contrasted with the other participants' reports of not often or never experiencing negative emotion in school; this student was a member of the ASC group. It is not possible to conclude whether this pattern would remain evident within a larger sample or whether some of the data collected in the current research were anomalies. Additionally, the papers outlining the development of the questionnaire do not detail whether the participants included in the pilot studies included autistic students (McLellan et al., 2012; McLellan and Steward, 2015). Due to the large number of mainstream primary schools in which data was collected and the high proportion of autistic students being educated within mainstream schools, it is likely that autistic students were included in the standardisation sample, but this cannot be stated with certainty. Nevertheless, the spread of responses on the questionnaires indicate that the autistic students in the study understood the questionnaire and the high degree of convergence between the quantitative and

qualitative data for three of the four subscales indicate that their responses accurately reflected their experiences of school.

5.1.3 High degrees of convergence between quantitative and qualitative data

Comparisons of quantitative and qualitative data for the subsample of five autistic participants revealed high degrees of convergence for interpersonal wellbeing, life satisfaction and perceived competence. However, there were only moderate degrees of convergence between quantitative and qualitative data relating to negative emotions; possible reasons for this discrepancy are discussed further in section 5.3.

The high degrees of convergence between the data gathered using the two different methods indicates that the quantitative data of the subsample of five autistic participants did reflect their experiences of school. However, it is possible that the interview responses were primed by the questionnaire because the five participants who participated in both aspects of the research were asked to complete the interview immediately after completing the questionnaire. It was decided that the questionnaire and interview should be completed on the same day to minimise disruption to the students' timetables and also to ensure that the questionnaire data and interview data were collected under similar conditions; if the two types of data were collected on different days, the events of that day could have influenced the responses provided and, therefore, the degree of convergence or divergence between quantitative and qualitative data. It is possible that providing students with the opportunity to complete the interview before completing the questionnaire could have helped them to reflect on their experiences of school and answer the questionnaire more accurately. However, all participants were asked to complete the questionnaires under the same conditions, which necessitated questionnaires being completed prior to the interviews by the subsample of five autistic students who completed both aspects of the research.

5.1.4 Factors that autistic primary school children perceive to promote the experience of student wellbeing

5.1.4.1 Individual strategies

The findings provide evidence that some autistic primary school children are developing their own strategies to promote their wellbeing in mainstream schools. This finding supports and extends previous research, which documented that autistic secondary school students had developed their own strategies for coping within a mainstream school environment (Hill, 2014).

The majority of autistic students interviewed valued the opportunity to have space away from their peers in order to spend time alone, which supports the findings from previous studies undertaken in both primary and secondary schools (Humphrey and Lewis, 2008; Saggers et al., 2011; Hill, 2014; Moyse and Porter, 2015; Dillon et al., 2016; Grave, 2016). Additionally, this finding extends the findings of these previous studies by providing evidence that opportunities to spend time alone may actually promote student wellbeing in autistic students, via experiences of positive emotions and life satisfaction, which has implications for school practice. Many schools seek to intervene when children, including autistic children, spend time alone or do not appear to have friends (Garrote, Sermier Dessemontet and Moser Opitz, 2017). For example, school staff may utilise buddy systems or friendship interventions (Garrote, Sermier Dessemontet and Moser Opitz, 2017). However, this may not always be desired and could potentially introduce a barrier to student wellbeing in situations in which children are actually seeking solitude during unstructured times of the school day. Some students in the current research highlighted how they found it difficult to spend time alone at playtimes; this difficulty could be exacerbated by well-intentioned school staff trying to ensure that every child has someone with whom to play and, therefore, could be considered an unintentionally imposed structural barrier to space away from peers. Another important finding linked to this desire to spend time alone is that participants indicated that they had learnt that 'being alone' was perceived to be negative or undesirable. This belief evoked feelings of worry or shame in students who preferred solitude. It is possible that this message had been conveyed to

participants explicitly by school staff or peers, but it may have been taught incidentally as part of the hidden curriculum within the school. The 'hidden curriculum' can be conceptualised as learning outcomes that were not the result of an intended curriculum but from the promotion of norms, values, attitudes or beliefs (Giroux and Penna, 1983; Martin, 1983; Rink, 2014). In either case, the perpetuation of the belief that spending time alone is a negative or undesirable behaviour could be considered a psycho-emotional barrier to student wellbeing in those autistic students whom desire solitude, as such messages appeared to have a negative impact of their sense of self.

However, autistic children are each individuals with their own wants and needs and it should not be assumed that *all* autistic children need or desire time alone. Previous research, undertaken in primary and secondary schools, has highlighted that some autistic students disliked feeling left out and would like to have friends and feel included (Moyse and Porter, 2015; Dillon et al., 2016; Grave, 2016). Additionally, autistic students in these previous studies highlighted difficulties with developing and maintaining friendships (Humphrey and Lewis, 2008; Saggers et al., 2011; Moyse and Porter, 2015). Thus, some autistic children who are spending time alone at playtimes may actually desire support to develop and maintain friendships, which highlights the importance of school staff carefully assessing the situation before deciding whether to intervene and involving the autistic CYPs in this decision making process, whenever possible.

In the absence of access to sensory resources, some students had developed strategies to meet their sensory needs, such as chewing on available objects and fiddling with pencils to remain calm and concentrate in lessons. This finding supports the findings of previous research that fiddling with objects is as a strategy that aids concentration for some autistic students (Moyse and Porter, 2015; Grave, 2016).

5.1.4.2 Supportive and engaging practice

Participants in the current research valued teachers' attempts to make learning enjoyable by using humour and fun activities, which reflects the findings of previous research that gathered the views

of autistic secondary students (Saggers et al., 2011; Grave, 2016). The current research builds on these previous research findings by linking such teaching approaches to the experience of positive emotions and the promotion of student wellbeing. Additionally, previous research has illustrated that these approaches are likely to foster stronger relationships with teachers, thus they are likely to promote interpersonal wellbeing, because the use of humour in educational contexts can enhance students' positive perceptions of teachers (Banas et al., 2011). Furthermore, the use of humour and fun activities was associated with increased life satisfaction in school, which supports previous findings that teachers' use of humour contributed to increased student motivation and enjoyment of lessons (Banas et al., 2011). The primary school students in the current research valued both direct and indirect academic support from teachers, which supports previous research findings from secondary school research into autistic students' views (Meehan, 2011; Saggers et al., 2011; Poon et al., 2014; Dillon et al., 2016; Grave, 2016). In such cases, the provided support was linked to increased feelings of perceived competence in addition to feeling supported, which is likely to promote interpersonal wellbeing. However, some students were worried about receiving 'special attention' in case it made them stand out; this has also been documented as a concern in research into the views of autistic secondary students (Humphrey and Lewis, 2008). The implication of these findings is that support is valued but it should be provided sensitively to avoid evoking negative emotions that, over time, may contribute to a reluctance to seek help when it is needed. Individual interventions, particularly those that supported emotional regulation, were highlighted by autistic primary school students as an aspect of practice that promoted feelings of positive emotion; this resonates with the views of autistic secondary school students (Humphrey and Lewis, 2008; Meehan, 2011). The current findings, therefore, extend previous research findings by demonstrating that these interventions are also valued by autistic primary school students and links these interventions directly to the promotion of student wellbeing in autistic students.

5.1.4.3 Supportive peer relationships

Although some autistic students preferred spending time alone, others cited playing with friends during unstructured times as an aspect of school that promoted positive emotions; this supports findings of studies into the views of autistic secondary students (Poon et al., 2014; Dillon et al., 2016). Additionally, the primary school students in the current research reported that their peers supported them to complete difficult aspects of their work, which also supports the findings from secondary school research (Dillon et al., 2016; Grave, 2016). Furthermore, the current research extends these findings by evidencing that supportive peer relationships can promote feelings of perceived competence and, thus, student wellbeing. Notably, none of the students in the current research talked about unsuccessful attempts at making friends, in contrast to previous research findings (Humphrey and Lewis, 2008; Saggers et al., 2011; Moyse and Porter, 2015). This may have been due to many of the participants voicing their preference for spending time alone or it may have been easier to form friendships in this school. One potential enabling factor could have been that due to there being several autistic students in each class, the participants were able to more easily identify with some of their peers; in support of this, the interview data revealed that the two students who talked about having friends were referencing each other. This possible explanation is supported by previous research findings that some autistic students were deliberately forming friendships with other students who had identified SENs, because it was felt that they would be kinder than non-SEN students (Poon et al., 2014). However, other research has found that autistic students are able to develop and maintain friendships with both students who have SENs and those who do not have SENs (Saggers et al., 2011). Thus, an alternative explanation is that, due to the number of autistic students on roll, the NT students in the school may have had a greater understanding of autism and, thus, a greater degree of empathy. It is possible that the students interviewed for this study were, therefore, able to develop friendships with other students who had a greater understanding of their needs. For example, a supportive peer behaviour that was not expressed in previous research was the use of sensory strategies to help autistic students to feel

happy and relaxed. Thus, fostering a greater understanding of autism and developing empathy in schools is likely to promote student wellbeing in autistic students.

5.1.4.4 Resources

Visual displays, the interactive whiteboard and curriculum related resources were cited as aspects of practice that helped students to do well in school and, thus, promoted feelings of perceived competence. The availability of sensory resources such as ear defenders, in addition to classroom resources such as a quiet book corner with comfortable seating and well-stocked shelves also promoted student wellbeing, by evoking feelings of positive emotion.

5.1.4.5 Opportunities to be outdoors

Abundant levels of energy meant that some students needed access to large open spaces, such as the playground, in order to engage in energetic games at playtimes. This promoted student wellbeing by evoking positive emotions. The implication of this finding is that some autistic students need space to move around and the opportunity to engage in energetic activities, before returning to the classroom; this finding supports previous research that also asserts that some autistic CYP require access to space to meet their need for movement (Schaaf et al., 2011; Martin, 2016). Furthermore, it is likely that opportunities to be outside enabled students to have greater access to space away from their peers, which was a strategy utilised by a number of participants at playtimes and lunchtimes to promote their student wellbeing. In contrast, it is unlikely that the students would have been able to find space away from peers without opportunities to be outside. In addition to providing space, opportunities to be outside provided environmental benefits such as access to fresh air and trees, which promoted student wellbeing by evoking feelings of positive emotion. Enjoyment related to having access to trees was also highlighted in one study of autistic secondary school students (Hill, 2014). However, being outside was not mentioned in the majority of the reviewed research into the views of autistic students, outlined in section 2.5, which primarily consisted of secondary school studies. One reason for this could be that students at secondary schools are

typically required to travel to different classrooms for their lessons, which sometimes necessitates going outside to travel to classrooms located in different buildings (Coffey, 2013); in contrast, lessons in primary schools typically take place in one classroom and opportunities to be outside tend to be restricted to playtimes and lunchtimes. Thus, these opportunities to be outside during break times and lunchtimes appear to be important for the promotion of student wellbeing in some autistic primary school students. This has important implications for the possible consequences of behaviour management strategies such as keeping the whole class inside during unstructured times, as the restriction of access to outside areas could evoke feelings of negative emotion or discomfort in autistic students. Restrictions on access to outside areas is likely unavoidable during wet or icy weather. However, school staff should carefully consider the rationale behind restricting access to space for movement or access to fresh air and nature, as a sanction for undesirable behaviour, and consider whether there are any alternative approaches that could be used instead.

5.1.5 Factors that autistic primary school children perceive as barriers to the experience of student wellbeing

5.1.5.1 Unpredictability

The unpredictability of the school day caused some students to feel anxious. This is arguably more likely to be an issue for primary school students because primary schools tend to have relatively flexible timetables. In contrast, secondary schools tend to have fixed timetables and, due to the increased expectations of student independence, secondary students are typically provided with a copy of their timetable and are responsible for taking themselves to classes (Coffey, 2013; Makin, Hill and Pellicano, 2017); for these reasons, secondary students are arguably more likely than primary students to know what their routine will be each day. Unpredictability also evoked negative emotions in some autistic secondary students, but this tended to be linked to teachers making changes to the usual classroom routines (Saggers et al., 2011; Grave, 2016). The implication of the current findings is that teachers should endeavour to make autistic students, and other students who benefit from routine and predictability, aware of their timetable in advance and, in primary

schools, should ensure that the timetable for the day is clearly visible in the classroom for easy reference and reassurance.

5.1.5.2 Feeling different

Some of the students in the current research talked about feeling different or referenced their diagnosis of ASC directly, which is notable because the interview questions asked about school generally and did not mention ASCs. It is possible that the students introduced their diagnosis to the interview because being autistic is an intrinsic part of who they are as people (Sinclair, 1999; McGeer, 2004; Grandin, 2006; Graby, 2012). Alternatively, as the information sent home to parents to gain consent for children's participation detailed the aims of the study, participants may have been made aware that the study was investigating student wellbeing in autistic students. The findings provide evidence that some autistic primary students have negative perceptions of their diagnosis, linking it with being deviant or to the inability to cope; in both instances, feelings of difference were associated with lowered perceived competence and increased experiences of negative emotions. In relation to the social relational model of disability, the inability to cope appears to be framed as an impairment effect of ASC rather than attributed to disabling factors in the environment such as structural barriers or others' behaviours. This perception of oneself as incapable also reflects the views expressed by some secondary school students, particularly those linking their diagnosis to fragility and SEN (Grave, 2016). Other students tried to mask their emotions and reported being reluctant to receive additional help to avoid standing out. This appeared to be a strategy employed to minimise negative reactions from others, which would cause students to experience embarrassment and lower perceived competence and could be considered a form of psycho-emotional disablement. This strategy of masking emotions was reported previously in research into secondary school students and female autistic primary school students (Moyse and Porter, 2015; Grave, 2016); the current findings support and extend these findings by providing evidence that the strategy of masking emotions is also utilised by some autistic males in primary schools. The desire to blend in and its association with a reluctance to receive help were also

expressed by autistic secondary students interviewed for previous research (Humphrey and Lewis, 2008; Hill, 2014). These studies found that some autistic students would prefer support to be provided in ways that does not single them out, in order to minimise the negative emotions they experience in relation to receiving help from school staff (Saggers et al., 2011; Dillon et al., 2016). It may have been the case that the students in the current study did not want their peers to recognise their diagnoses because, as highlighted in previous research, this could lead to being treated differently or being targeted for teasing or bullying (Humphrey and Lewis, 2008; Saggers et al., 2011; Poon et al., 2014); such treatment could be considered a form of psycho-emotional disablement. However, in contrast to this argument, other research has found that when NT peers are aware of autistic students' diagnoses, they can be more sympathetic and respectful of their individual needs (Humphrey and Lewis, 2008; Poon et al., 2014). The current research also provides evidence that some primary students explicitly linked their diagnosis of ASC to superior abilities in particular domains, which mirrored and extended findings that some secondary students associated their diagnosis with being special and possessing particular skills (Humphrey and Lewis, 2008; Poon et al., 2014). This recognition of individual strengths and abilities, including instances in which these could be underpinned by being an autistic individual, promoted student wellbeing via increased feelings of perceived competence.

The implication of the current findings, in addition to the findings of previous research, is that schools need to support autistic students to develop more positive self-perceptions and acceptance of themselves as autistic individuals with strengths in addition to difficulties. This is important in relation to promoting student wellbeing because previous research has found that negative self-perception in autistic CYPs is linked to higher rates of depressive symptomology (Green et al., 2000; Vickerstaff et al., 2007).

5.1.5.3 Teaching approaches

In light of the finding that opportunities to be outside promoted student wellbeing, it is perhaps unsurprising that the behaviour management strategy of keeping in a whole class at playtime was cited as a factor that negatively impacted student wellbeing. Most autistic primary students associated staying in at playtimes with the experience of negative emotions. This could have been underpinned by an unforeseen change to routine, for those students who become anxious due to unpredictability, or by the feelings of injustice that students voiced about being punished for the behaviour of others. Noisy peers were highlighted as a barrier to student wellbeing in the current study, so situations in which the participants were being kept in as part of a whole class consequence for excessive levels of noise may have resulted in them feeling particularly aggrieved that they were being punished not only for the behaviours of their peers but also for behaviours that had already caused them to experience irritation or distress. Autistic students in secondary school research also voiced feelings of injustice in response to whole class consequences for the behaviour of other students (Grave, 2016). However, these consequences tended to be changes to the lesson format, such as copying out notes instead of accessing a more interactive lesson (Grave, 2016). In primary schools, being kept in at playtimes is likely to have a particularly negative impact on students who require opportunities for movement because primary school students typically spend the majority of their school day in one classroom; this means that they are not typically able to engage in physical activity, such as walking, between lessons and may rely on opportunities to be outside at playtimes and lunchtimes to meet their needs. Additionally, being kept in at playtimes is likely to be a barrier to student wellbeing in some students because it withdraws their access to fresh air and trees.

The teaching approach of 'pointing out' students in front of their peers, particularly in situations in which this drew attention to their difficulties or sensory needs, caused some autistic students to experience embarrassment or perceive themselves negatively; thus, this teaching approach negatively impacted on student wellbeing by increasing the experience of negative emotion and

reducing their feelings of perceived competence. The current research highlights how some teachers appear to employ approaches best aligned with the medical model, which aims to *fix, cure* or *correct* deficits or difficulties 'to enable the individual to live in normal society' (Jaarsma and Welin, 2012, p.24). For example, one student reported that his teacher simply told him to stop chewing. In this example, chewing appears to be framed by the teacher as an undesirable behaviour rather than being recognised as a sensory need, so the student was told to cease engaging in the behaviour as opposed to being supported by being provided with a purpose made resource, such as a chew toy. This experience echoes findings from previous research that found that autistic students, in both primary and secondary schools, were refraining from using supportive sensory strategies to avoid being reprimanded by their teachers (Moyse and Porter, 2015; Grave, 2016). In addition to constituting a barrier to student wellbeing, the teaching approach of drawing attention to autistic students' difficulties could be considered a form of psycho-emotional disablement, as it caused them to feel worry and shame. One explanation for these teaching approaches, which was voiced by autistic students in previous research, is that they could be underpinned by a lack of understanding of ASCs and how best to support autistic students (Humphrey and Lewis, 2008; Grave, 2016). In support of this argument, a lack of understanding of ASCs in teachers can be a barrier to creating an inclusive and effective teaching environment (Lindsay et al., 2013; Goodall, 2014). This indicates that some teachers need access to additional training on ASCs and how best to support autistic students within their schools.

Previous research into the views of autistic secondary school students found that teachers shouting at students caused distress, even when this shouting was directed at other students (Meehan, 2011; Saggers et al., 2011; Moyse and Porter, 2015; Grave, 2016). The current research, therefore, extends these previous findings by providing evidence that shouting also has a negative impact on autistic primary school students and by linking this directly to student wellbeing. It is possible that some of the shouting reported by autistic students, including those in the current study, was actually loud talking perceived to be shouting (Grave, 2016). Nevertheless, the evidence suggests that teachers

reprimanding students by shouting, or reprimanding students in front of their peers, is causing some autistic students to experience distress. This indicates that alternative approaches to behaviour management, such as positive behaviour management strategies and talking to disruptive students outside of lesson times, should be employed in order to facilitate the promotion of student wellbeing.

5.1.5.4 Peer behaviours

Noise, especially noise created by peers, was cited by most students as a barrier to their wellbeing in school because it evoked negative emotions. However, some students in the current study had access to ear defenders and were wearing these in order to block out such noises, as a means of promoting their student wellbeing. The finding that noise evoked negative emotions in autistic students supported the findings of secondary school research into the views of autistic students (Humphrey and Lewis, 2008; Meehan, 2011; Saggers et al., 2011; Hill, 2014; Poon et al., 2014; Dillon et al., 2016). Interestingly, despite noise being cited as a source of distress in these studies, none of the findings mentioned secondary school students using ear defenders. One possible explanation for this is that these resources were more readily available at the focus primary school in the current research. Alternatively, it may have been that the students in the current study were less self-conscious about wearing ear defenders due to their age or the number of other students also wearing these in their school. In addition to causing distress, noise was cited as a barrier to concentrating and achieving in lessons, thus negatively impacting students' perceived competence. This echoes the views of autistic students in previous research (Saggers et al., 2011; Dillon et al., 2016; Grave, 2016). In these instances, excessive classroom noise or the lack of access to ear defenders could be considered a structural barrier to students' being able to concentrate and, thus, access lessons.

Unkind peer behaviours at playtimes were identified as a barrier to student wellbeing as these evoked feelings of negative emotion. However, it is noteworthy that teasing and bullying was

mentioned by a minority of participants in the current research and was reported to happen infrequently. Thus, reports of unkind behaviours in the current research appear dramatically different in relation to both intensity and type, when compared to the bullying reported by autistic secondary students in previous research, which included verbal abuse, physical abuse and even sexual harassment (Humphrey and Lewis, 2008; Meehan, 2011; Saggers et al., 2011; Hill, 2014; Poon et al., 2014; Grave, 2016). One possible explanation for these findings is that bullying is more frequent at secondary schools. Alternatively, it is possible that there is greater understanding and acceptance of ASC at the focus school, in comparison to typical mainstream schools, due to the number of autistic students on roll and the presence of the autism resource base. Furthermore, it is possible that there are infrequent instances of bullying because the school is dealing effectively with instances of bullying (Muijs, 2017). The infrequency of unkind behaviours reported in the current study is a positive finding because it suggests that the students feel safe in school, and a recent review of the relevant literature concluded that students who feel safe in school achieve better academically (Noble and McGrath, 2016). Students who had been subjected to unkind behaviours by peers at playtimes, had developed their own strategies to manage such situations and they reported that these were effective. In this respect, unkind peer behaviours arguably afforded the students with opportunities to engage in problem solving, which may have promoted their sense of perceived competence. Nevertheless, school staff should endeavour to minimise the occurrence of teasing and bullying by enforcing the anti-bullying policy and encouraging all students, including autistic students, to report such behaviour to a member of staff so that it can be recorded and dealt with accordingly.

The final peer behaviour that was cited as a barrier to student wellbeing was the invasion of students' privacy by peers looking at or touching their belongings. In contrast, invasion of privacy was not mentioned in the reviewed previous research into the experiences of autistic students in mainstream schools. One reason for this difference in findings could be that previous research focused on secondary schools, in which students typically carry their belongings around with them in

their personal schoolbags and often have lockers in which they are able to store their belongings safely. In support of this explanation, storing belongings safely in a school locker was actually highlighted as important to emotional wellbeing by an autistic student in one study (Meehan, 2011). Students at primary schools do not typically have access to lockers and their personal bags are usually left in a cloakroom rather than carried with them around school. Consequently, autistic primary school students are required to keep their belongings in their schoolbags, which are left in a communal area, or place them on their desk or in a tray or drawer that is accessible to other students in their classroom. The implication of the current findings is that autistic primary students may experience increased student wellbeing if they were able to store their belongings in a secure location, due to fewer experiences of negative emotion related to the invasion of privacy.

5.1.5.5 Learning related stressors

Tests, particularly maths tests, were cited by many students as a barrier to student wellbeing because the difficulties they experienced, in relation to completing these tests, resulted in a decrease in perceived competence and the experience of negative emotions. These findings suggest that students in Year 5 and 6 may be experiencing stress in relation to tests, particularly in subjects they find more difficult, which supports the findings of previous research into testing in primary schools (Connor, 2003; Andreasen et al., 2015; Hutchings, 2015). As tests are a mandatory part of the UK education system, school staff should strive to minimise the stress students experience in response to tests by providing reassurance or by teaching coping strategies. However, it is important to note that tests did not evoke negative emotions in all students, and some of the more academically able students in the current research reported the inverse response to tests. In these students, tests promoted feelings of perceived competence due to their ability to score highly in comparison to their peers and these achievements resulted in the experience of positive emotions.

In addition to tests, experiencing difficulties in lessons was associated with lowered levels of perceived competence and increased experiences of negative emotion. Furthermore, some students

shared that they experienced anxiety and frustration in relation to making mistakes. Previous research has found that autistic secondary school students experienced anxiety linked to perfectionism and a fear of making mistakes (Hill, 2014; Poon et al., 2014; Grave, 2016). The current research provides evidence that this anxiety can manifest in some autistic children before they leave primary school.

Writing was commonly cited as an area of difficulty in previous research, by autistic students attending both primary and secondary schools, due to difficulties with handwriting, speed of writing, physical pain or the amount of effort required to produce writing (Meehan, 2011; Saggers et al., 2011; Moyse and Porter, 2015; Grave, 2016). In support of these findings, some students in the current research also cited difficulties with aspects of writing, such as maintaining a uniform size of handwriting and using punctuation correctly. However, the current research also provides evidence that some autistic students in primary schools hold contrasting views and cite writing as an activity they particularly enjoy.

Several students highlighted concentration as an aspect of learning that was difficult for them. These concentration difficulties were attributed to both excessive classroom noise and daydreaming in lessons, and students felt these difficulties prevented them from engaging in lessons and achieving as well as they could otherwise. Thus, concentration difficulties negatively impacted on feelings of perceived competence.

Homework was not mentioned by the students in the current research, despite being cited as an area of difficulty in several studies into the experiences of autistic secondary school students (Hill, 2014; Dillon et al., 2016; Grave, 2016). It is possible that this was due to the primary school students in the current research being required to do a smaller amount of homework than students in secondary schools. Alternatively, the omission of any mention of homework could have been an artefact of the questions on the interview schedule, which only asked about experiences in school.

5.1.5.6 Lack of (access to) resources

The final barrier to students' wellbeing highlighted in the current study was a lack of access to resources. Some students highlighted the removal of playground equipment as a barrier to their wellbeing in school; it was associated with the experience of negative emotions and feelings of dissatisfaction with life in school. Students also experienced dissatisfaction in relation to restrictions placed upon their access to sensory resources, including chew toys, ear defenders, bubble lamps, and lava lamps. They argued that these restrictions were a barrier to them meeting their sensory needs. The restrictions imposed on autistic students' access to sensory resources in this instance could be considered a structural barrier to accessing a mainstream education. Such practice is preventing the students from meeting their sensory needs and, as a consequence, the students may experience greater difficulties in concentrating in lessons and accessing the curriculum (Blyth, 2015). Some of the resources identified by students in the current research, such as those listed above, could be made available to students in mainstream schools easily and inexpensively, to support them to meet their sensory needs. Furthermore, if introduced in the focus school, this practice is likely to enable students to continue to meet their sensory needs after they have fully transitioned from the autism resource base back into their mainstream classrooms. However, in other instances, restrictions on the sensory resources students could access may have been unavoidable. For example, one student wanted access to the autism resource base, but this provision has limited capacity and access to this provision is granted by the local authority based on a individual student's level of need.

5.1.6 Autistic primary school children's suggestions for further promotion of student wellbeing

5.1.6.1 Additional individual strategies

When asked what could be introduced or changed to promote student wellbeing more effectively, some students took ownership for promoting their own wellbeing by identifying strategies they could introduce themselves. These strategies related to reducing feelings of negative emotion,

promoting feelings of positive emotion and improving concentration within lessons, thus they aimed to promote student wellbeing via a lack of negative emotions and increased perceived competence.

5.1.6.2 Modified teaching practices

Linked to the students' dislike of teachers shouting at them or their peers, they suggested that teachers could shout less and be less strict to promote student wellbeing more effectively. The implication of this suggestion is that students wanted teachers to use alternative behaviour management approaches to those currently being employed within the school. Some students wanted teachers to alter the curriculum by broadening the range of activities in which they were asked to engage, in order to cater for a wider range of interests and skills. Additionally, other students wanted their teachers to increase the level of challenge of set tasks in subject areas in which they excelled, in order to more effectively extend their learning. Both suggested strategies are likely to promote student wellbeing by affording students with more opportunities to perform well at school, thus increasing their experiences of perceived competence in lessons. Additionally, these strategies may also promote student wellbeing by increasing the level of life satisfaction students experience in school.

Other students highlighted that they wanted school staff to support them with concentration, which could promote their student wellbeing by increasing their experiences of perceived competence. The desired support included help to develop individual strategies to improve concentration and additional noise management strategies to be introduced into the classroom. The latter suggestion reflects the views presented in previous research that autistic secondary students valued teachers maintaining order in the classroom, which included maintaining a quiet learning environment (Meehan, 2011; Saggers et al., 2011; Grave, 2016).

5.1.6.3 Increased access to available resources

In order to directly address the barrier of a lack of access to resources, students wanted to be granted access to resources they knew were available in the school. Students felt sensory resources,

such as ear defenders, fiddle toys and chew toys, would enable them to meet their sensory needs more effectively. This is likely to promote the experience of positive emotions and support them to concentrate in lessons, which is likely to promote the experience of perceived competence. Additionally, it is possible that granting students access to ear defenders, specifically, may support them to remain calm during situations in which their peers are being noisy or class teachers are using loud voices to address the behaviour of their peers. The implication of this finding is that this school, and other primary schools, should ensure that autistic students have access to the resources necessary to meet their sensory needs, in order to promote student wellbeing more effectively. Other students wanted the school to restore their access to online games that had been blocked on the school computers, by disabling the chat functions on these games to ensure that they are safe for students to play. However, schools have a statutory duty of care to safeguard their students against accessing harmful content and being contacted by strangers on the internet (Department for Education, 2018c); therefore, the school's stance on restricting access to online games that could pose a potential threat to students is likely to be informed by government legislation. As an alternative solution, the school could install age-appropriate offline games that the students could access during unstructured times. Moreover, schools could select games that are enjoyable and engaging whilst also containing an educational element such as problem-solving.

5.1.6.4 Provision of additional resources

A second proposition to address the barrier of a lack of access to resources was that the school should introduce additional resources. These included academic resources to support students to achieve in lessons, thus promoting perceived competence, and the introduction of additional resources to the school grounds, which would be likely to promote positive emotions and life satisfaction in school. One suggested addition to the playground was a designated quiet hut. It was felt this would be a more effective alternative to the current quiet area, which is arguably not very quiet because it consists an open area next to the playground. This finding reflects the findings of previous research in which autistic secondary school students identified that having a quiet

withdrawal area in which to spend time away from their peers promoted their experience of positive emotions (Hill, 2014; Grave, 2016). The final suggestion was additional cleaning staff should be employed to ensure that the school was sufficiently hygienic to prevent the spread of illness. In the interest of respecting the students' perspectives, all of the suggestions are documented in this thesis in addition to being shared with the school. However, it should be noted that the school appeared clean and tidy, at all times, during the period in which the research was conducted. It is possible that there were areas of the school in which these high standards were not always maintained. However, it is also possible that the student who raised these concerns was experiencing a heightened sense of anxiety relating to germs and the spread of disease, which could have been related to his diagnosis of ASC (Wood and Gadow, 2010; Ozsivadjian and Knott, 2011; Magiati, Ozsivadjian and Kerns, 2017).

5.1.7 Unique contributions

The current research is one of the first studies to investigate the student wellbeing of autistic students in primary school. Additionally, this research also presents the views of these children, with respect to their experiences in mainstream primary schools, which are lacking in the current literature. The findings of the study, therefore, contribute novel perspectives to the field of research. The findings of the current study can be utilised by the school in which the research was undertaken in order to inform staff of autistic students' perspectives about the practice, strategies and resources that are currently supporting them, so that these can be maintained. The findings can also be used by staff at this school to inform the development of strategies to minimise the negative impact of environmental factors and to modify practice in practicable ways that aim to further promote student wellbeing. Furthermore, the findings may be useful for staff at other mainstream primary schools who are seeking to promote student wellbeing in autistic children.

5.2 Strengths of the research

The inclusion of a matched NT comparison group in the quantitative component of the research enabled the questionnaire data provided by autistic children about their student wellbeing to be interpreted in relation to the student wellbeing of NT children within the same school, to determine whether there were any significant differences. The matching procedure ensured that both groups were comparable and arguably controlled for extraneous variables and increased the internal validity of the findings. For this reason, the conclusion that autistic and NT students experience comparable levels of student wellbeing in this school is more likely to be valid.

All of the autistic children in Years 5 and 6 were invited to participate in the research. This is likely to have minimised potential bias, as children were not selected based on the assumption that they would either feel more positive or more negative towards school. This is advantageous because it encourages a range of views that are likely to provide more balanced and varied information for comparison (Miles and Huberman, 1994). However, it is possible that unavoidable bias was introduced to the research; the parents of three potential autistic participants declined the invitation for their children to participate in the research. It is unlikely but possible that the data from these three children, or their three matched NT counterparts, may have altered the findings of the research.

The qualitative findings of this study illustrate that all of the students who participated in the research, even those with more pronounced social communication difficulties, were able to answer the interview questions. Additionally, their responses demonstrated a high degree of self-reflection. Prior to conducting the interviews, as part of the ethical review process, visual prompts were prepared (see Appendix 10). These were utilised in previous research to support autistic students attending secondary schools to provide their views about school (Meehan, 2011). However, in the current study, these were to be used as the highest level prompts in the semi-structured interview, if needed. In actuality, all participants were able to answer the interview questions without these

prompts and the decision was taken not to use them during interviews. This was arguably a more advantageous approach as the use of prompts may have limited participants' responses or donated responses, when the aim of the research was to gather the students' views.

Finally, previous researchers have noted that research has often gathered the views of adults who work with children because it is assumed these may have more utility than the views of the children themselves (Greene and Hill, 2005). The current research challenges this assumption and demonstrates that primary aged autistic children were able to provide insightful comments on practice, strategies and resources in school that promote, or could promote, their experiences of student wellbeing in addition to aspects of school that are a barrier to them achieving this. Furthermore, they were able to do this in relatively short interviews and several of the participants commented on how they had enjoyed being interviewed and sharing their views.

5.3 Limitations of the research

The research findings are likely to lack external validity due to the small sample size and the recruitment of participants from one school. Furthermore, the school in which the data was collected may not have been representative of a typical mainstream school due to the presence of an autism resource base. Thus, the findings cannot be used to draw conclusions about student wellbeing in autistic children attending other mainstream primary schools. Nevertheless, the findings suggest that autistic children can be supported effectively in a mainstream school, as the participants in this research all attended mainstream classes rather than working in the resource base.

Another possible limitation of the research is that only five interviews were conducted. Glaser and Strauss (1967) proposed that theoretical saturation should be employed to determine 'how many' participants should be included in qualitative research; this requires the researcher to sample relevant cases until no new theoretical insights are found in the data. Saturation sampling requires

the researcher to simultaneously undertake sampling, data collection, and data analysis rather than treating them as separate stages in a linear process (Bryman, 2012). It was not possible to employ a saturation strategy in the current research; all potential participants were invited to participate and all participants for whom informed consent was obtained, were interviewed. Additionally, postpositivist research strives to remain as objective as possible and any analysis of data prior to the completion of the data collection phase may have introduced bias into the data collection procedures.

A further limitation is that the majority of the sample was male. This is to be expected due to autism being diagnosed more frequently in males. However, the ratio of the current study was 6 males to 1 female, whereas a recent meta-analysis of prevalence studies estimates the male to female ratio as 3 to 1 (Loomes, Hull and Mandy, 2017). Additionally, the interview data was gathered from only male participants. Thus, autistic females were underrepresented in the current research. Due to gender differences in the presentation of ASC, it is possible that there are gender differences in the experiences of student wellbeing but it is not possible to ascertain this from the findings of this study (Head, McGillivray and Stokes, 2014; Beggiato et al., 2017).

ASC has high co-morbidity with a number of other conditions, including ADHD and epilepsy (Mannion and Leader, 2013; Dillenburger et al., 2015). The current study did not gather information about the presence of co-morbid conditions in participants, which means it is not possible to rule out co-morbid conditions as underlying factors that may have contributed to some of the difficulties experienced by the participants.

McLellan and Steward's (2015) 'How I Feel About Myself and School' questionnaire was utilised in the study to gather quantitative data on participants' level of student wellbeing. This questionnaire aims to measure the experience of negative emotion in the school setting, but only contains items pertaining to sadness and anxiety. The findings of the qualitative component of the research indicated that autistic students experienced a range of different negative emotions in the school

setting, which included emotions not measured by the questionnaire. Therefore, it is possible that the questionnaire data does not provide an accurate account of the experience of negative emotion and this is a potential limitation of the instrument. However, this finding emphasises the utility of the mixed methods approach in the current research; the quantitative component enabled the statistical comparison of levels of student wellbeing in autistic participants and NT participants, and the qualitative component revealed additional information that was not captured by the questionnaires. In light of this, it is potentially a limitation of the study that interviews were not conducted with NT participants, as this could have provided a more complete picture of their experiences and comparisons between the qualitative data may have revealed important differences or, indeed, similarities in the experiences of autistic and NT students within a mainstream primary school.

5.4 Implications for school and EP practice

The key finding of the current research indicates that autistic students can be supported as effectively as NT students within a mainstream primary school, providing that reasonable adjustments are made to both practice and the environment. EPs can utilise this information to alleviate the anxiety that school staff may have about their abilities to meet the needs of autistic students; a concern that has been highlighted in previous research by both teachers and autistic students. Furthermore, as EPs typically work across several schools within a local authority, they could aim to facilitate the systematic sharing of good practice between schools; this has been proposed as a useful strategy for developing good practice in supporting autistic students (APPGA, 2017).

The findings of this study illuminate some of the potential facilitators and barriers to promoting student wellbeing in autistic students attending mainstream primary schools. This information can be used to inform the development of provision for this population.

5.4.1 Implications for school practice

The following points illustrate the key implications for modifications that could be made to teaching practice to promote student wellbeing in autistic primary school children:

1. *Support and enable students to use their own strategies for promoting student wellbeing:* School staff should seek to find out what students are doing to support themselves to feel happy and relaxed, and to do well, in school. This should involve asking students directly and, in instances in which students present with difficulties expressing their views verbally, the use of pictorial cues or observation to try to understand the functions of students' behaviours. School staff should seek to support students to use their individual coping strategies. If a coping strategy is inappropriate for use in school, school staff should support the student to use an alternative and effective strategy to meet their needs.
2. *Reduce stigma associated with spending time alone:* School staff should strive to reduce any stigma associated with students spending time alone. This could include promoting messages that validate spending time alone with one's thoughts or relaxing, as an acceptable recreational activity. However, it may also necessitate school staff evaluating their practice to ensure that negative messages relating to spending time alone are not being reinforced via the hidden curriculum.
3. *Check whether students desire support with developing friendships:* When school staff notice that a student is spending time alone during unstructured times, they should seek to gather the student's perspective on their use of unstructured times before intervening. It may be that the student prefers to spend time alone and this should be accepted and enabled. However, it could be that the student desires support with developing and maintaining friendships. In such instances, school staff should introduce a friendship intervention. For example, peer buddies, a social skills group, or *Circle of Friends* (Pearpoint, Forest, and Snow,

1992). A school's link EP will be able to train school staff to deliver *Circle of Friends* or a similar intervention.

4. *Use humour and plan fun activities:* Classroom staff such as teachers and teaching assistants should strive to use humour and plan engaging and enjoyable lesson activities, whenever possible, to promote students' experience of positive emotions in the classroom and to foster the development of good relationships with their students.
5. *Increase the predictability of the school day:* School staff should seek to maximise the predictability of each school day. For example, each Friday teachers could provide students with a written or visual timetable of the following school week. Additionally, school staff should display a visual timetable in the classroom so that students can be reassured that they know what will be happening that day, even if this deviates from their typical school day. Furthermore, school staff should ensure that they provide as much forewarning as possible to students about any planned changes to their timetables.
6. *Support all students to recognise their strengths:* School staff should support autistic students, in addition to other students with SEND, to develop positive self-concept and recognition of themselves as individuals with many strengths that can be used to support them with aspects of life that they find more difficult. This could include individual intervention to build up students' self-esteem. Additionally, school staff could encourage positive self-perception in autistic CYPs by sharing examples of well-known autistic people who have achieved great things or arranging for autistic adults to come in to school and speak to autistic students about their achievements. Furthermore, school staff could use whole class interventions either during PSHE lessons or as discrete scheduled sessions, to develop an understanding that all students have strengths in addition to aspects of school that they find more difficult and develop greater understanding of different needs. This is an aspect of practice that EPs can support school staff to deliver. For example, the EPS in the local authority in which this research was undertaken has developed an intervention that is

delivered over six sessions and aims to foster the development of understanding and empathy in primary school children. It aims to achieve this by introducing students to four fictional example children, by outlining their strengths and interests in addition to their areas of difficulty or dislikes, and then asking the students to imagine what it must feel like to be each particular child and what other children could do to support them to feel happier in school. One of the fictional children introduced and discussed as part of this intervention has strengths, interests, areas of need and dislikes that are likely to be attributable to an ASC but no diagnostic labels are used in the intervention.

7. *Broaden the curriculum so all students have opportunities to excel:* Where possible, school staff should broaden the range of activities in which students are asked to engage, in order to provide opportunities for students to showcase their skills and excel in particular aspects of the curriculum. This may be more achievable in creative subjects, such as music, art, drama and physical education, as they tend to be less prescribed by the national curriculum. Teachers could ask for students' suggestions for what they would like to cover and then try to either work key national curriculum objectives into these activities or do one off sessions, so that the inclusion of these activities do not impact on the mandatory requirements of the primary school curriculum. Additionally, where appropriate, teachers should strive to provide more able students with opportunities to extend their learning, such as the opportunity to attempt more advanced work.
8. *Ensure that support is provided to students in a sensitive way:* School staff should carefully consider how best to provide support to students, discretely, to minimise feelings of embarrassment or difference. For example, providing support to several students within the classroom and 'checking in' with students periodically rather than sitting next to them. An additional benefit of this approach is that it should minimise the frequency of situations in which students feel that they have limited opportunities to attempt tasks independently.

9. *Use positive behaviour management strategies:* School staff should strive to use positive behaviour management strategies whenever this is feasible. Using raised voices to address the unacceptable behaviour of an individual or group of individuals should be a strategy that is employed away from other students, such as during a playtime or after school. Additionally, whole class behaviour management strategies, such as keeping the class inside during playtimes, should be avoided as they seek to punish students who have not been causing issues in the classroom and evoke, in these students, feelings of injustice and resentment. Additionally, revoking students' access to the playground at playtimes is likely to prevent them from being able to find space away from their peers or expend excess energy.
10. *Increase students' access to sensory resources:* School staff should ensure that all students have access to resources to meet their sensory needs, such as chew toys and fiddle toys. Additionally, ear defenders should be made accessible for students so that they can be used to prevent feelings of distress, or concentration difficulties, in response to noisy environments. Furthermore, school staff could consider purchasing resources that can be utilised by students during sensory breaks or as part of a sensory diet, such as lava lamps, bubble lamps, playdough, small trampolines, and exercise therapy balls or peanut balls.
11. *Support students to concentrate:* School staff should aim to promote concentration in all students, and to minimise distress caused to those students who are sensitive to auditory stimuli, by managing classroom noise. One solution proposed by a student in this study is to use a Noise-o-meter, which is a wall display for the classroom that consists of four different levels of noise (silence, whisper, table chat, group work) and an arrow that can be moved to indicate the level of classroom noise that is permitted at that time. Additionally, as mentioned previously, enabling students to access ear defenders when needed is likely to support concentration. Furthermore, individual students may need tailored support, such as brain breaks, movement breaks, access to sensory resources, or emotional support,

depending on their individual needs and the factors that are contributing towards difficulties with concentration.

12. *Provide students with access to academic resources:* School staff should ensure that students have access to classroom resources that may support them in lessons, such as dictionaries or word books, concrete maths resources, number lines, and hundred squares. Additionally, teachers should ask students whether there are additional resources that they feel would support them to achieve in lessons.
13. *Address issues with students on an individual basis:* School staff to address issues with students' work or behaviour on an individual basis, rather than addressing this in front of the whole class, to avoid drawing attention to students or causing them to experience embarrassment. This should support students to maintain their experience of positive emotions and foster stronger teacher-student relationships.
14. *Encourage students to report instances of teasing and bullying:* School staff should endeavour to minimise the occurrence of teasing and bullying behaviours, by enforcing the school's anti-bullying policy and encouraging all students to report incidents to a member of staff so that these can be recorded and dealt with accordingly.
15. *Provide spaces in which students can store their belongings securely:* School staff to ensure that students with anxieties about others touching their things have a designated and secure area in which to store their belongings. Teachers should ensure that all students in their classes understand that they should not touch other students' belongings without permission. Some students may dislike other students, or adults, touching their things, even when this is done in accordance with an assigned role or responsibility such as bottle washing. In these instances, students should be given the option to perform the responsibility, such as washing their own bottle, to prevent unnecessary feelings of negative emotions. In some students, a dislike of others touching their belongings could be

underpinned by health anxiety related to germs; these students may benefit from support to develop their understanding of germs and illness to reduce their levels of health anxiety.

16. *Support students to manage their levels of test anxiety:* Perhaps unsurprisingly given that participants were in Years 5 and 6, the focus on testing was evoking feelings of anxiety in many students. As tests are a mandatory feature of the UK education system, teachers should seek to address the stress caused by such tests by providing increased reassurance in relation to sitting tests. For example, teachers could foster the development of a 'Growth Mindset' (Dweck, 2000) in students by promoting the associated messages in the classroom, which include an emphasis on trying one's best and viewing mistakes as opportunities for future learning. Additionally, school staff could timetable specific sessions, prior to testing periods, to support students to develop and practice strategies to reduce their levels of anxiety to a more manageable level. The school's link EP could support with these sessions, using approaches based in mindfulness or cognitive behavioural psychology.
17. *Provide a quiet withdrawal area for students to attend during playtimes and lunchtimes:* School staff to provide a quiet, withdrawal area that students can access during unstructured times. This could be a quiet hut that can be accessed from the playground, as suggested by a student in the current research, or a withdrawal room as documented in previous research.
18. *Provide access to safe, offline games during unstructured times:* School staff to provide access to safe, offline computer games that can be accessed during unstructured times, such as reward time or 'golden time.' These games could contain an element of educational value in addition to being enjoyable for students. For example, *The Logical Journey of the Zoombinis* (Broderbund Software Inc., 1996) is a game in which children create their own creatures and then 'rescue' these creatures by taking them on a 'journey' that involves completing a variety of puzzles that require mathematical thinking.

5.4.2 Implications for EP practice

In addition to the aspects of teaching practice with which EPs can provide support, as outlined in the previous section, the following points illustrate the key implications for modifications that could be made to EP practice to promote, and to support schools to promote, student wellbeing in autistic primary school children:

1. *The findings can be used to inform formulations:* The current research offers insights into how aspects of student wellbeing can be promoted, or are already being promoted, in autistic primary school students. This information can be used by EPs to inform formulations in individual casework involving autistic children. Additionally, the perspectives and suggestions offered by the students in the current research, and the implications of these on optimal teaching practice, could inform the recommendations provided to mainstream primary schools that are trying to support autistic students.
2. *The interview schedule can be used to gather student views:* The current research illustrates that primary aged autistic students are able to reflect upon and share their views on practice and resources that are promoting their student wellbeing and factors that present a barrier to their experience of student wellbeing. Additionally, it illustrated that these students were not only able to suggest modifications to practice and additional resources that could further promote their student wellbeing, in addition to devising their own strategies to support themselves. EPs undertaking individual casework or statutory assessments with autistic students should seek to gain these valuable insights into students' needs and the support that could help them and then consider these insights when providing recommendations to schools as to how best to support these students. EPs should, therefore, aim to elicit student voice from these students in a meaningful way and include them in decision-making processes, as experts in their own individual needs. Additionally, EPs can encourage school

staff to involve students in a similar way when devising or reviewing Individual Education Plans (IEPs).

3. *Training:* The accounts provided by some autistic students revealed that teachers may be employing approaches that align with the medical model of disability, such as asking students to refrain from engaging in sensory seeking behaviours. EPs should strive to support school staff to develop their knowledge and understanding of alternative models of disability, such as the social relational model of disability. Additionally, EPs should provide school staff with training on the characteristics associated with ASCs and how best to support autistic students within mainstream schools.

5.5 Future research

This study presents findings from data gathered within one mainstream primary school. Although the findings suggested that autistic students were being supported effectively in this school, further research is needed to gather data across many different mainstream primary schools in order to gain a better understanding of student wellbeing in autistic students across these settings. Additionally, future research could examine the influence of other variables, such as gender or the number of autistic students on roll, in relation to student wellbeing. In order to do this, future studies would need to recruit a larger sample with a more representative gender ratio. This would provide a more comprehensive understanding of the factors that promote student wellbeing and barriers to student wellbeing in this population.

Future research could employ a method similar to that used in the current study but interview both autistic and NT children in order to compare the factors that promote student wellbeing and the barriers to student wellbeing between these two groups of students. This would highlight similarities in addition to differences, and would support schools to identify the practice, strategies and resources that could be implemented to promote student wellbeing across the whole school.

CHAPTER VI

CONCLUSION

The current research had two aims. Firstly, it aimed to determine whether autistic students attending mainstream primary schools experienced lower levels of student wellbeing than their NT peers. Secondly, it aimed to gather the students' perspectives on the factors they felt promoted their student wellbeing, the barriers to this and any strategies or provision they felt would further promote their student wellbeing.

National surveys collecting data on mental health and wellbeing have highlighted that the mental health of autistic CYP is an area of concern (Office for National Statistics, 2004; Dillenburger et al., 2015). Additionally and possibly linked to these mental health difficulties, autistic students are three times more likely to be excluded from school than students without SEN (Department for Education, 2018b).

Almost three quarters of autistic CYP are educated in mainstream schools (Department for Education, 2018a). Parent surveys have indicated that autistic children are bullied significantly more frequently than NT children (Dillenburger et al., 2015). Additionally, social networking studies have reported that autistic students are less accepted and have fewer reciprocal friendships than their NT peers (Rotheram-Fuller et al., 2010; Kansari et al., 2011). Furthermore, from the age of 5 years, a significantly greater proportion of autistic children were reluctant to attend school (Dillenburger et al., 2015). Together, this evidence highlights the need for mainstream primary schools to endeavour to promote student wellbeing in this population.

Previous research into the experiences of autistic students attending mainstream schools has typically focused on secondary schools. This research highlighted that autistic students can identify positive aspects of their experiences in mainstream schools, which are likely to contribute towards their experience of student wellbeing. However, they are also faced with many challenges. Autistic

students reported feelings of being different and trying to blend in (Humphrey and Lewis, 2008; Saggers et al., 2011; Poon et al., 2014). They also reported difficulties in forming and maintaining peer relationships and, in the majority of studies, students reported being teased or bullied (Humphrey and Lewis, 2008; Meehan, 2011; Saggers et al., 2011; Hill, 2014; Poon et al., 2014; Grave, 2016). Some students reported that particular teaching approaches evoked feelings of negative emotion and negatively impacted on teacher-student relationships (Moyse and Porter, 2015; Dillon et al., 2016; Grave, 2016). Although many autistic students reported that aspects of learning, such as concentrating and writing, were difficult, some were reluctant to receive additional support as they felt it made them stand out (Humphrey and Lewis, 2008; Saggers et al., 2011). Finally, several studies reported that autistic students experienced negative emotion in response to environmental factors such as noise and crowding (Humphrey and Lewis, 2008; Meehan, 2011; Hill, 2014).

Based on the survey data and previous reports of the experiences of autistic students in mainstream schools, it was hypothesised that the seven autistic participants in the current research would report significantly less frequent experiences of student wellbeing than their seven matched NT counterparts, across some or all of the domains of this construct. However, statistical analysis of the data revealed that there were no significant differences between the two groups of participants. Thus, it was concluded that the school in which the research was undertaken was supporting autistic students equally as effectively as NT students, overall. Descriptive statistics illustrated that the majority of participants reported experiencing interpersonal wellbeing, life satisfaction, and perceived competence often or always, and they reported experiencing negative emotion not often or never. Furthermore, the majority of participants reported experiencing student wellbeing often or always. However, it should be acknowledged that some participants reported feeling aspects of student wellbeing sometimes, not often or even never.

In light of the quantitative findings, the qualitative findings are thought to illustrate ‘good’ practice in relation to promoting student wellbeing in autistic students, in addition to highlighting barriers that

could be removed and additional strategies or resources that could be provided in order to further promote student wellbeing. Autistic students reported that their student wellbeing was promoted by supportive and engaging practice, supportive peer relationships, resources, opportunities to be outside, and their own individually developed strategies, which included spending time away from peers and repetitive actions such as rolling a pencil to and fro. They identified the barriers to their experiences of student wellbeing as unpredictability, feeling different, particular teaching approaches, certain peer behaviours, learning related stressors and lack of access to resources. The students interviewed in the current research were able to suggest several strategies or additional resources they felt would improve their experience of student wellbeing. These included modified teaching practices, increased access to available resources and the provision of additional resources, in addition to individual strategies of which they could take ownership. These findings will provide school staff in the research setting with pointers as to positive changes that could be made to practice and the school environment, and information as to the additional provision that students feel they may need. The findings may also have utility for other mainstream primary school settings, in relation to improving practice.

The findings of the current research also have implications for EP practice. For example, EPs can use the information relating to 'good' practice and barriers to student wellbeing to inform their formulation when undertaking casework or to inform the development of provision during consultation meetings. Additionally, the interview schedule can be used during individual assessment with autistic students to gather their views in relation to what is supporting them in school, not only to do well but also to feel happy and comfortable, and to identify aspects of school that present a barrier to this. This is likely to be beneficial as some current methods of gathering students' views have been labelled tokenistic (Department for Education, 2018d; Sales and Vincent, 2018).

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APPENDICES

APPENDIX I

Systematic literature search:
Perceptions of autistic students ASC about their experiences of attending mainstream schools

Search terms	**Number of papers found**	**Number of papers rejected**	**Papers included**
EBSCO Education Databases Autis* AND school experiences (2008-2018)	19	17	**2**
EBSCO Education Databases Asperger AND school experiences (2008-2018)	2	2	None
EBSCO Education Databases Mainstream AND autis* (2008-2018)	97	95	**2**
EBSCO Mainstream AND asperger (2008-2018)	8	8	None
Proquest Autis* AND school experiences (2008-2018)	66	65	**1**
Proquest Asperger AND school experiences (2008-2018)	8	8	None
Proquest Autis* AND mainstream (2008 – 2018)	124	124	None
Proquest Mainstream AND asperger (2008-2018)	13	13	None
EBSCO TI autis* AND TI voice AND AB student (2008-2018)	5	4	**1**
EBSCO TI asperger AND TI voice AND AB student (2008-2018)	1	1s	None
EBSCO TI ASD AND TI voice AND AB student (2008-2018)	0	N/A	N/A

EBSCO TI ASC AND TI voice AND AB student (2008-2018)	0	N/A	N/A
EBSCO TI autis* AND perspective* AND AB student* (2008-2018)	41	41	None
EBSCO TI autis* AND perspective* AND AB student* (2008-2018)	54	53	1
EBSCO TI asperger* AND TI perspective* AND AB school* (2008-2018)	6	6	None
EBSCO TI asperger* AND TI perspective* AND AB student* (2008-2018)	6	6	None
EBSCO TI asd AND TI perspective* AND AB student* (2008-2018)	5	5	None
EBSCO TI asc AND TI perspective* AND AB school* (2008-2018)	8	8	None
ProQuest TI autis* AND perspective* AND AB student* (2008-2018)	76	76	None
ProQuest TI autis* AND perspective* AND AB school* (2008-2018)	110	110	None
ProQuest TI asd AND perspective* AND AB student* (2008-2018)	7	7	None
ProQuest TI asc AND perspective* AND AB student* (2008-2018)	0	0	None
ProQuest TI asd AND perspective* AND AB school* (2008-2018)	13	13	None
ProQuest TI asc AND perspective* AND AB school* (2008-2018)	1	1	None
ProQuest TI asperger* AND perspective* AND AB student* (2008-2018)	9	9	None
ProQuest TI asperger* AND perspective* AND AB school* (2008-2018)	8	8	None

EBSCO TI Autis* AND AB wellbeing (2008-2018)	63	63	None
EBSCO TI Autis* AND AB well-being NOT moth* NOT paren* (2008-2018)	64	64	None
EBSCO TI asperger AND AB wellbeing (2008-2018)	0	N/A	N/A
EBSCO TI asperger AND AB well-being (2008-2018)	5	5	None
ProQuest ASD AND wellbeing (2008-2018)	9	9	None
ProQuest ASD AND well-being (2008-2018)	2	2	None
ProQuest ASC AND wellbeing (2008-2018)	0	N/A	N/A
ProQuest ASC AND well-being (2008-2018)	0	N/A	N/A
ProQuest TI Autis* AND AB wellbeing (2008-2018)	116	116	None.
ProQuest TI autis* AND AB well-being AND school (2008-2018)	90	89	**1**
ProQuest TI asperger AND AB wellbeing (2008-2018)	3	3	None

Inclusion criteria:

- Gathers students' views about general experiences
- Published since 2008 (last ten years)
- Mainstream school
- Published in English
- Original research (not a review)

Exclusion criteria:

- Duplicate of paper already accepted
- Focuses on specific aspect of school, i.e. students were asked for their views on a particular aspect of school specifically
- Focuses on evaluation of intervention.
- Focuses on resources
- Focuses on transition
- Gathers views of adults reflecting on their experiences of school
- Review articles

APPENDIX II

Letter to headteachers

[HEADTEACHER NAME]
[ADDRESS]

Dear [Headteacher],

How can mainstream primary schools promote wellbeing in children with a diagnosis of autism spectrum conditions (ASC)?

I am a trainee educational psychologist working at [City] Educational Psychology Service and I am writing to invite a small number of students in your school to participate in a research project. This project forms part of my qualifying doctorate in Educational and Child Psychology at the University of Birmingham.

As you will be aware, schools are increasingly expected to play an important role in promoting positive well-being and the mental health of their students. Positive wellbeing has been linked to better academic achievement but recent research has shown that people with ASC are particularly at risk of developing problems in these areas. However, to date there has been little research into the wellbeing of children and young people with ASC and how this can be promoted.

This project aims to investigate wellbeing in children with a diagnosis of ASC and the ways in which mainstream primary schools are supporting this. If your school chooses to participate, after the project has concluded I will provide information sheets documenting all of the findings and implications to both yourself and the school staff.

I am seeking to work with a small number of students with and without a diagnosis of ASC in Year 5 and/or Year 6. I would need to work with children without a diagnosis of ASC for up to 20 minutes and children with a diagnosis of ASC for up to 50 minutes.

I would seek to obtain permission from the primary care giver prior to working with any students. In order to maintain anonymity of potential participants prior to consent being given by parents/carers, I would provide class teachers with information packs and ask that these be given to the parents of any prospective participants.

After obtaining parental consent, I intend to ask participants with a diagnosis of ASC and students without a diagnosis of ASC to complete a short questionnaire about wellbeing; this will take a maximum of 20 minutes. Additionally, if parents/carers of children with ASC have consented to semi-structured interviews, I intend to undertake short interviews with these participants; these interviews would take approximately 30 minutes, be voice recorded, and make use of picture prompts in order to support the students.

The interviews will focus on what students feel is currently happening in school to promote wellbeing; what students feel could be put into place to promote this further; and what (if anything) is a barrier to their wellbeing. The aim of these interviews is to identify strategies that schools are using to promote positive emotional wellbeing, and to identify any additional strategies that could be used, so that this good practice can be shared across the local authority.

I am aware that this is a sensitive topic and I would like to assure that the subject matter will be handled sensitively, during the questionnaires and interviews and afterwards. Information disclosed in the questionnaires and interviews will remain confidential, with the exception of information that would need to be shared with the designated child protection person, in accordance with my statutory duty of care to children and young people.

When reporting the results of the study, I will take care not to provide any information which allows individual schools, children, parents or teachers to be identified.

My intention is to complete the questionnaires and interviews during the Summer Term 2017, at a time that is convenient to school staff. A quiet, private room will be required in school for the completion of questionnaires and interviews.

Following completion of the questionnaires and interviews, I will provide an information sheet documenting the research findings to yourself and all participants, alongside the opportunity to speak with me about the research if required.

I hope you will agree that this research is valuable to current priorities in education and will provide consent for me to liaise with teachers in Years 5 and 6 so that they can send home consent letters to the parents of eligible students.

To confirm whether or not your school is able to participate in the study, or if you have any questions, please contact me on [telephone number] or [email address]. If your school is able to participate I will then liaise with teachers and provide the information packs for parents to the class teachers in Years 5 and 6.

Yours sincerely,

Francesca Mann

Trainee Educational Psychologist

Postgraduate Research Student – Applied Educational and Child Psychology Doctorate
School of Education
University of Birmingham

Research supervisor: Dr Jane Leadbetter

School of Education

University of Birmingham

APPENDIX III

Rationale for declining the offer of participation by School D

During the recruitment of participants, School B and School C withdrew their consent to participate in the research and fourteen participants were recruited from School A (7 autistic participants and 7 matched NT participants). Following this, the decision was taken to politely decline the offer of participation of School D, which was attended by only two autistic students across Years 5 and 6. This decision was taken for the following reasons:

i) The inclusion of School D would have resulted in, as a best case scenario, a sample constituting 18 participants (9 autistic participants and 9 NT matches) of whom 78% represented School A and 22% represented School D. Although the matched sampling strategy would have ensured equal representation from each school between groups (i.e. both the ASC group and the NT group would contain the same proportion of the participants from each school), such unequal representation of each school within the two groups may have introduced issues at the analysis stage because the mean score for each group would be more representative of the experiences of students in School A than in School D. Thus any inferences drawn from the statistical analyses are likely to have better reflected the experiences of students, resources and practices in School A than those in School D. Similarly, any themes identified during the qualitative analyses are likely to have better reflected the experiences of students, resources and practices in School A than those in School D and the unequal representation of each school would have meant that any attempt to compare the experiences of students between schools was potentially unfair.

ii) The two schools were heterogeneous. School A had an autism resource provision and many children with a diagnosis of ASC, which meant that school staff accessed many CPD opportunities related to supporting autistic children, whereas School D was a more typical mainstream primary school and had only a few children with a diagnosis of ASC on roll.

iii) It would not have been ethical to withdraw children in School D from their lessons in order to collect data, which may subsequently have been excluded from the analyses if it introduced outliers.

iv) The inclusion of School D would not have improved the generalisability of the sample as this would still have only consisted two schools. By collecting data from only School A, the argument could be made that findings could be generalised to students with a diagnosis of ASC attending School A.

APPENDIX IV

Project information sheet for parents

How can mainstream primary schools promote student wellbeing in children with autism spectrum conditions (ASC)?

Background information

This information sheet has been given to you because we are seeking both children with a diagnosis of autism spectrum conditions (ASC) and children without a diagnosis of ASC to take part in a research project being run by a postgraduate research student (Student Name) at the University of Birmingham. Before you decide whether you would like your child to take part, please read this information so that you understand why the research is being conducted and what it will involve. If you would like further information, or would like to ask any questions about the information below, please contact me (contact details are provided at the end of this leaflet).

Purpose of the study

The study has two purposes. Firstly, it aims to find out about levels of wellbeing in children with a diagnosis of ASC and children without a diagnosis of ASC, who attend mainstream primary schools in [Local Authority]. Secondly, it aims to find out from students with ASC what they feel best supports them at school, what they think could be introduced to support them further and what (if anything) makes them feel sad or worried at school. The findings from this research project will be used to inform suggestions for best practice in schools, which will include highlighting good practice that is already happening and suggestions for changes to practice that might better support children with ASC. The findings will also inform the local authority about levels of wellbeing in children attending mainstream schools in [City], which may lead to further research in the important area of wellbeing more generally.

Why has my child been selected?

Your child has been asked to participate in the project because either:

i) he/she is known to school to have a diagnosis of ASC;

ii) he/she is known not to have a diagnosis of ASC but he/she is a similar age, the same gender, and approximately the same academic ability as a child who does have a diagnosis and who has been asked to participate in the project.

The reason for including both children with and without a diagnosis of ASC is so that levels of wellbeing and the implications of this can be considered for both groups of students, in addition to comparisons being made between the two groups.

Does my child have to take part?

No. Your child will only participate in the project if you consent to his/her participation and if he/she also consents to participation on the day.

What will happen if I give permission for my child to take part?
If you choose for your child to participate in this research you will be asked to sign a consent form. Once you have given your consent (and the child gives his/her consent too), the research study will begin. Children participating in the study will be asked to:

- Complete a short questionnaire, which will take a maximum of 20 minutes.

The questionnaire has been developed for use with children in Year 5 and Year 6 and asks them to rate how they feel about aspects of school on a scale. The questionnaire will be completed by each child individually in a quiet room and the researcher will be present to read any of the questions and explain any of the language that a child does not understand.

Additionally, if you are a parent of a child with a diagnosis of ASC, you are asked to decide whether you would also like your child to:

- Participate in a 20-30 minute interview about what is already supporting him/her in school, what could better support him/her in school, and what (if anything) makes him/her feel worried or sad in school. This interview will be supported by picture prompts, where needed. This interview will be audio recorded using a dictaphone.

Your child can participate in the study by completing the questionnaire without also participating in the interview, if this is your preference. The consent form is designed so that you can provide consent to one or both parts of the research.

Will my child miss any lessons?
The researcher will work with teachers to find the most convenient and least disruptive times for children to complete this research. Your child will only be participating in the research for a maximum of 20 minutes during one school day if he/she is completing the questionnaire, or a maximum of 50 minutes during one school day if you are the parent of a child with a diagnosis of ASC and have consented to both the questionnaire and the interview. There is a possibility that your child may miss part of one lesson during one school day, but the project unlikely to have a negative impact on his/her learning.

What are the possible benefits of taking part?
We hope that the experience will be enjoyable for your child as they will have the opportunity to provide their views about their feelings and experiences in school, both through the questionnaire and the interview (if applicable). Additionally, the findings of the questionnaires will be used to inform schools and the local authority about levels of wellbeing in mainstream primary schools across the local authority. Finally, the findings of the interviews will be used to identify from the students themselves what constitutes good practice when supporting students with a diagnosis of ASC in mainstream schools and what additional strategies could be used to improve this support to better promote wellbeing.

What are the possible risks of taking part?
The questionnaire has been specifically designed for use with children in upper Key Stage 2 and is worded using language appropriate for children in Years 5 and 6. As the questionnaire asks children to rate how they feel in school, there is a possibility that a child may feel uncomfortable to answer the items. Similarly, the semi-structured interview questions ask children about what is working well and what is more difficult for them, so this could also cause children to become uncomfortable. However,

it will be explained to each child participating in the study that he/she can stop and go back to his/her classroom at any time. Additionally, if the researcher thinks that a child appears to be uncomfortable at any time during his/her participation in the study, she will ask the child if they would like to stop and go back to his/her classroom.

If I change my mind, can I withdraw my child from the study?
Yes. If at any point during the study you wish to withdraw your child, you can inform the researcher via email or telephone or through your child's class teacher and they would no longer be part of the project. No further data would be collected about your child and any data already collected would be destroyed. You do not have to give a reason for withdrawing your child. If, after the study, you want to withdraw your child's data, you have one month from the end of the study to inform the researcher of this via e-mail or via your child's class teacher.

Will my child's information be kept confidential in this study?
Yes. The researcher complies with the Data Protection Act (1998) in terms of handling, processing and destroying all participants' data. All of the collected data will be kept strictly confidential and anonymous with participants being referred to using codes so that no participant can be personally identified. All paper copies of data (e.g. completed questionnaires) and digital copies of data (e.g. audio recordings of interviews), which will be stored on an encrypted memory stick, will be locked away securely in a filing cabinet at Coventry Educational Psychology service when they are not being used. The data will be destroyed 10 years after the research is completed, having been stored securely from the date of collection.

What will happen with the results of the research study?
A summary of the key findings will be shared with you in an information sheet. This information sheet will also be shared with your child's school staff. A child friendly version of the information sheet will be provided to all of the children who have participated in the project.

In addition, the results of the study will be written up as part of the researcher's thesis for the Doctorate in Applied Educational and Child Psychology. The study may also be written as a journal article and submitted for publication to a relevant professional journal. The work may be presented at conferences. Your child's name (and the name of the school) will remain anonymous at all times. Some information about your child will be included: his/her age, his/her gender and whether or not he/she has a diagnosis of ASC and his/her national curriculum level.

Who is organising the research?
The research is organised by the University of Birmingham and Coventry Educational Psychology Service. This research project has been approved by the Ethical Review Committee at the University of Birmingham.

What do I do next?
If you are willing for your child to participate in this study please complete the consent form.

Contact details for further information:

Francesca Mann (Doctoral Researcher, University of Birmingham and Trainee Educational Psychologist, Coventry Educational Psychology Service): [redacted] OR [redacted]

Dr Jane Leadbetter (Research Supervisor, University of Birmingham): [redacted]

Thank you very much for taking the time to read this information leaflet and for considering your child's participation in the study.

APPENDIX V

Consent form for parents

Dear Parent/Guardian,

Please find the consent form for your child's participation in the 'How can mainstream primary schools promote student wellbeing in children with autism spectrum conditions (ASC)?' study. I would be grateful if you could complete it and return it to your child's teacher.

Consent Form

Parent(s)/Guardian(s) Name: _____

Child's Name: _____

1. I have read and understood the project information sheet.

YES / NO

2. I have been given the opportunity to ask questions about the project.

YES / NO

3. Does your child have a diagnosis of ASC?

YES / NO

If yes, continue to number 4. If no, continue to number 5.

4. Does your child know about this diagnosis?

YES / NO

5. I agree for my child to take part in the project and to complete the questionnaire.

YES / NO

If you answered no to number 3, please go to number 7. If you answered yes to 3 and 4, please go to number 6.

6. I agree for my child to participate in a semi-structured interview and for this to be voice recorded.

YES / NO

7. I understand that my child's participation is voluntary. I understand that I can withdraw my child from the study at any time. If, after the study, I want to withdraw my child's data, I understand that I have one month to inform the researcher. I know that I do not have to give any reasons for withdrawing data.

YES / NO

8. I agree that the results of the study will be written in a report for the researcher's university thesis and may later be published in an academic journal. I understand that my child's name or the name of their school or teachers will not be included in these reports. I understand that basic details about my child will be included: gender, age, whether or not he/she has a diagnosis of ASC, and national curriculum level.

YES / NO

I agree for the data I provide to be stored securely by the researcher for ten years.

YES / NO

Parent's signature _____

Date _____

Researcher's signature _____

Date _____

Thank you for taking the time to complete the consent form. Please return this to your child's class teacher.

Please get in touch with me if you have any questions or queries. Contact details can be found on the Project Information Sheet.

APPENDIX VI

Table for converting curriculum descriptors into numerical scores

In order to enable the statistical comparison of participants' attainment scores, to ensure that there were no significant differences between the groups and that pairs were well matched, it was necessary to convert qualitative descriptors into numerical scores. The table below presents the numerical scores assigned to each descriptor. For each participant, the total numerical score for their attainment in maths, reading and writing was calculated and then divided by three to determine their mean attainment score.

Level Descriptor	Numerical Score	Level Descriptor	Numerical Score
Beginning Reception	0	Secure Year 3	11
Developing Reception	1	Beginning Year 4	12
Secure Reception	2	Developing Year 4	13
Beginning Year 1	3	Secure Year 4	14
Developing Year 1	4	Beginning Year 5	15
Secure Year 1	5	Developing Year 5	16
Beginning Year 2	6	Secure Year 5	17
Developing Year 2	7	Beginning Year 6	18
Secure Year 2	8	Developing Year 6	19
Beginning Year 3	9	Secure Year 6	20
Developing Year 3	10		

APPENDIX VIII

Participant consent forms

CHILD CONSENT FORM (QUESTIONNAIRE ONLY)

My name is Miss [Researcher's Surname] and I am doing some research in Coventry schools to find out how children feel about school. The people who look after you have said it is ok to ask you to take part in my research.

I will read the information to you and if you are happy to take part, you can circle the green thumbs up. If you are not happy to take part, you can circle the red thumbs down.

- **I understand that taking part in this research means that I will be asked to do a questionnaire.**
- **I understand that I can change my mind and stop at any time.**
- **I understand that my information will be kept safe.**
- **I understand that I do not need to put my name on the questionnaire and that only Miss [Researcher's Surname] will see my answers.**
- **I understand that if I want to stop, my answers will be destroyed.**

My name is _____.

I am _____ years old. Today's date is _____.

I am happy to take part in the research:

YES

NO

CHILD CONSENT FORM (INTERVIEW ONLY)

My name is Miss [Researcher's Surname] and I am doing some research in Coventry schools to find out how children feel about school. The people who look after you have said it is ok to ask you to take part in my research.

I will read the information to you and if you are happy to take part, you can circle the green thumbs up. If you are not happy to take part, you can circle the red thumbs down.

- **I understand that taking part in this research means that I will be asked some questions about what helps me in school and what I find difficult.**
- **I understand that my responses will be recorded using a voice recorder so that Miss [Surname] can type out my answers later.**
- **I understand that I can change my mind and stop at any time.**
- **I understand that my information will be kept safe.**
- **I understand that my name will not be on the recording and that only Miss [Researcher's Surname] will know what I have said.**
- **I understand that if I want to stop, my answers will be destroyed.**

My name is _____.

I am _____ years old. Today's date is _____.

I am happy to take part in the research:

YES

NO

APPENDIX IX
Semi-structured interview schedule

Introduction

Thank you for completing the questionnaire. I would now like to ask you a few questions about school, is that ok? This little thing here (dictaphone) will record everything that we are say. This will help me to remember it later on. To make sure that nobody knows who is talking on the recording, I will say a code name instead of your real name. Please try to answer the questions honestly. You can tell me if you want to stop at any time and you do not have to say why.

Topic	**Possible Questions**	**Possible Follow up Questions (Prompt)**	**Probes**
Rapport building	What year are you in? What's your favourite lesson? Are there any lessons that you don't like? What do you like to do at playtime? How are you feeling today?	What do you like about that lesson? Which ones? What has made you feel like this today?	Cards with different lessons on them: English, Maths, Science, P.E., Art, Music, R.E., Drama, ICT, History, Geography.
Things that already help in school	When do you feel happy and relaxed at school? What are you good at doing at school?	Do you ever feel happy or relaxed: in lessons? At playtimes? At lunchtimes? In assembly? What helps you to feel happier or more relaxed in...OR at...? What helps you to do well? (Card prompts for different parts of the day: classroom, playground, lunch time, assembly)	Cards with emotion faces on them: happy, sad, worried/stressed, excited, OK, angry/annoyed Is there anything that you do to help yourself? Is there anything that your teacher does to help you? Is there anything that other children do to help you? Is there anything in your classroom that helps you? (Card prompts with pictures of: a teacher, friends, a classroom to support understanding of the question) Card prompts with suggestions of things that might help.

Things that make school more difficult	Do you ever feel worried or sad at school? Is there anything that you find tricky or difficult at school? If you had a magic wand and you could change anything about the school, what would you change?	Do you feel worried or sad: in lessons? At playtimes? At lunchtimes? In assembly? What makes you feel worried/sad? Do you find anything tricky or difficult: in lessons? At playtimes? At lunchtimes? In assembly? (Card prompts for different parts of the day: classroom, playground, lunch time, assembly)	Is there anything that your teacher does to make you feel worried/sad? Is there anything that other children do to make you feel worried/sad? Is there anything in your classroom that makes you worried/sad? Is there anything that you do that makes you feel worried/sad? (Card prompts with pictures of: a teacher, friends, a classroom to support understanding of the question) Card prompts with suggestions of things that might be difficult or act as a barrier to wellbeing.
Things that might be able to help in the future	So these are the things that you said already help you: (Recap things that are helping already) Now I would like you to think about other things that help you to feel happy or relaxed? Are there other things that help you to do well?	Do you feel happy or relaxed: in lessons? At playtimes? At lunchtimes? In assembly? What helps you to feel to feel happy or more relaxed in...OR at...?	Cards with emotions on them: happy, sad, worried/stressed, excited, OK, angry/annoyed Is there anything that you do to help yourself? Is there anything that your teacher does to help you? Is there anything that other children do to help you? Is there anything in your classroom that helps you? (Card prompts with pictures of: a teacher, friends, a classroom to support understanding of the question) Card prompts with pictures of things that might help.

APPENDIX X

Examples of picture prompts