MINDFULNESS EXPERIENCES OF CHILDREN WHO HAVE AUTISTIC SPECTRUM DISORDER AND ANXIETY – AN EXPLORATORY STUDY.

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PROFESSIONAL DOCTORATE IN
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Abstract

This qualitative phenomenological study explored the experiences of four children with Autistic Spectrum Disorder (ASD) and anxiety (aged 10-13 years) who took part in a mindfulness-based intervention. The research was conducted within a local authority in times of reform in both education and mental health. A systematic literature review indicated that the majority of children with ASD experience difficulties with attention, anxiety, empathy, comprehension and communication within the social world. The research into mindfulness revealed it to have many applications in social and emotional development, attention and general well-being for children and adults. However, there was limited literature regarding mindfulness-based interventions with children on the autistic spectrum. The central research question was 'what do children with ASD say about their experiences of being part of the mindfulness programme?' Additional research questions were 'what do children with ASD say about their life experiences?' and 'does anything change in children's lived experiences during the course of the mindfulness programme?' The data was collected using semi-structured interviews pre and post intervention and via audio- diaries. Data was analysed using Interpretative Phenomenological Analysis. The themes that emerged were 'worries', 'perceptions of the self', 'relationships', 'connecting to the environment', 'views of autism' and 'perceptions and experiences of mindfulness'. The themes appear to indicate that mindfulness-based approaches may be useful in promoting the psychological well-being of children with ASD. Children reported enjoyment of mindfulness, engagement with the practical and concrete teaching of the intervention, positive changes to their experiences of having autism and worries, feelings of empowerment and resiliency, enjoyment of new experiences and abilities in noticing and accepting change. Therefore, the research identifies positive opportunities for children with ASD to engage with mindfulness-based approaches and it also highlights the role that can be undertaken by the educational psychologist in such interventions.

Declaration

Student Declaration Form

Student Name	**Jodie Lambert**
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Chapter 1: Introduction

1.1 Chapter Overview

In this chapter, an introduction to the research thesis is provided. The research was set within the United Kingdom (UK) and focused on children with autistic spectrum disorder (ASD) and their experiences of a mindfulness-based intervention. The research also explored the pupils' experiences of their lives before and after their engagement with mindfulness practice.

The researcher's own interest and position are introduced and both national and local priorities related to mental health and autism are explored. The terminologies and theoretical underpinnings associated with 'mindfulness' and autism are examined and the importance of listening to children is addressed, leading to the rationale for this research.

1.2 National Context and Background Concerning Mental Health

The social, emotional and mental health of pupils has been on the agenda of both the Department of Education (DfE) and the Department of Health (DoH) for a number of years and has been the subject of many initiatives and reviews in recent years, which have informed policy and good practice recommendations. Examples include 'Excellence and Enjoyment: Social and Emotional Aspects of Learning (SEAL, DfES, 2005)' which provides a whole curriculum framework for teaching social, emotional and behavioural skills to all pupils and 'Social and Emotional Wellbeing in Primary Education' (National Institute for Health and Clinical Excellence (NICE), 2008) which provides guidance for Local Authorities (LAs), teachers and professionals regarding the promotion of good mental-health. Moreover, the 2008 Child and Adolescent Mental Health Service (CAMHS) review (CAMHS, 2008) places importance on strategic development in order to ensure universal access to mental health resources and to improve early identification of mental health issues. The Children and Young People's

Mental Health Coalition launched in the House of Lords in March 2010 and its campaigns have included the prioritisation of early intervention and the teaching of emotional resilience. The recent DoH and National Health Service (NHS) taskforce report 'Future in Mind' acknowledges these priorities and the need for investment in mental health services due to the growing prevalence of mental health problems in children and young people - on average 3 in 30 pupils in the UK will experience a diagnosable mental health issue (DoH, 2015, p. 25). Consequently, the DoH plans to improve the mental health and well-being of children and young people by making mental health support more visible and easily accessible, prioritising early intervention and resilience, improving accountability and transparency within services and developing the skills, training and experience of the workforce. Norman Lamb, Minister of State for Care and Support (DoH, 2015) explains:

> "Anyone who works with or for young people knows that this isn't just about funding. What is needed is a fundamental shift in culture. A whole system approach is needed focusing on prevention of mental ill health, early intervention and recovery" (p.3).

The Government recognises that this system shift will need to span both health and education, thus in education there have also been changes to legislation and policy. The Children and Families Act (2014) received Royal Assent in March 2014 and led to a revised Special Educational Needs and Disability Code of Practice (DfE, 2014) which further emphasises the responsibilities of all professionals for the mental health and well-being of pupils with special educational needs and disabilities (SEND), and clarifies this as a statutory responsibility rather than 'good practice' alone. The SEND Code of Practice states that:

> "a child or young person has SEN if they have a learning difficulty or disability which calls for special educational provision to be made for him or her. A child of compulsory school age or a young person has a learning difficulty or disability if he or she:
>
> - has a significantly greater difficulty in learning than the majority of others of the same age, or

- has a disability which prevents or hinders him or her from making use of facilities of a kind generally provided for others of the same age in mainstream schools or mainstream post-16 institutions" (DfE, 2014, p.15-16).

The SEND Code of Practice (DfE, 2014) identifies broad areas of need which require special education provision. These areas are:

- "Communication and interaction;
- Cognition and learning;
- Social, emotional and mental health difficulties; and
- Sensory and/or physical needs" (p.97-98).

The third category of 'social, emotional and mental health difficulties' is new terminology for school staff, as it was previously termed 'Social, emotional and behavioural difficulties'. This linguistic change reflects a shift in current ideology regarding behaviour; whereas policy concerning the well-being of pupils has often in the past been viewed from a behaviourist perspective, current legislation appears to reflect positive psychology and systemic philosophy and theory, placing greater emphasis on risk and resilience factors which impact upon emotional and mental health (DfE, 2015; DfE 2014).

'Mental health and behaviour in schools: departmental advice for school staff' (DfE, 2015) has been issued in acknowledgement of the need to clarify the knowledge and responsibilities expected of school staff regarding mental health concerns and how these unmet mental health needs may impact on pupil behaviour. Furthermore, it acknowledges that school staff require further opportunities to learn about mental health and psychological well-being, which is consistent with other reviews (DoH, 2004; DoH 2015). The Carter Review (Carter, 2015) was commissioned by the DfE 'with the aim to define effective Initial Teacher Training (ITT) practice' (p. 5). The review recommends that ITT programmes should include core content covering child and adolescent development, managing pupil behaviour, special educational needs and disabilities, therefore recognising the need for teachers to have a comprehensive

understanding of mental health and psychological well-being from the start of their careers.

1.3 National Context and Background Concerning Autism

Wing and Gould (1979) identified autism as a spectrum disorder, noticing different subgroups presenting a much wider range of behaviours. These behaviours had in common a triad of impairments of social interaction, communication and imagination (Wing & Gould, 1979; Wing, 1988). ASD (or autism; both will be used interchangeably with the same meaning intended) is diagnosed by the Diagnostic and Statistical Manual (DSM)-V (American Psychiatric Association, 2013) under two main criteria of impairment: 'social communication and interaction' and 'restricted, repetitive patterns of behaviour, interests, or activities'. Statistics indicate that approximately one in one hundred individuals has ASD (Baird et al., 2006). Although research shows the increased prevalence of ASD in males (Abrahams & Geschwind, 2008; Baird et al., 2006; Baron-Cohen et al., 2009) accounting for the male stereotype of autism, there has been recent research suggesting that females with ASD may be under-diagnosed (Gould & Ashton-Smith, 2011).

The SEND Code of Practice (DfE, 2014) recognises that children with autism could experience barriers to their education in all areas of need and are likely to have particular difficulties with social communication and interaction. From the researcher's experience, it is her belief that children and young people with a diagnosis of autism, who have these social communication and interaction difficulties, are particularly at risk of developing social, emotional and mental health difficulties. This risk of social emotional and mental health difficulties might arise from challenges that the children and young people experience with integrating with their peers, and this subsequently might lead to isolation and exclusion from the social context of school.

The Division of Educational and Child Psychology (DECP, 2002) and Farrell et al. (2006) outline the main undertakings of an educational psychologist's (EP) work to include individual assessment, consultancy, intervention and training, all of which are important for the inclusion of pupils with autism. There has been much debate in recent

years concerning the unique contribution that EPs can make and Farrell et al. (2006) concluded that whilst "EPs should continue to assume a key role in the statutory assessment of children with the most complex needs", there is also a "need to develop their activities in different areas where their skills and knowledge can be used to greater effect, e.g., in group and individual therapy, staff training and in systems work" (p.13). Clearly if schools are required to address mental health and psychological well-being in schools better, there is a necessity to provide support to enable this, and though recent legislation appears to acknowledge this (Carter, 2015; DoH, 2015; DfE, 2015), it is not yet clear how the Government will deliver this training and support. Despite major improvements to CAMHS over the past few years with "increased expenditure on CAMHS and specific government targets to deliver a comprehensive service" (Eleven Million, 2008, p.4), significant gaps remain in the availability of appropriate services. These gaps are particularly apparent regarding children with disabilities and SEN, preventative work and targeted support for well-being and mental health education; it seems that the duty for all of these tasks may be passed to educators.

Therefore, at present, it appears that EPs with their academic background, experience of research, knowledge of SEN and training in psychology may be able to offer a distinctive contribution to support educational settings with the early identification of, and intervention for, social, emotional and mental health needs, particularly for those children with ASD. Pellicano, Dinsmore and Charman (2013) state that such interventions for autistic individuals should be directly linked to research findings. Moreover, this research should be embedded in an ethos of collaboration with autistic individuals to ensure their voices are heard.

1.4 National Context Concerning Listening to Children

At the heart of the new SEND Code of Practice (DfE, 2014) is greater involvement for children, young people and parents. The legislation aims to encourage greater control and choice for children, young people and parents regarding the services they use and ensure more streamlined assessments which integrate education, health and care services. The Education Health and Care Plan (EHCP) will replace the Statement of

SEN and aim to be person-centred, focused on outcomes and specific about provision. There is an ethos shift for educators to move away from the 'expert' role and into the field of collaborative enquiry, placing the child's voice at the heart of SEN practice. This way of working is consistent with the wishes of many autistic individuals (Pellicano et al., 2013).

The numerous changes in legislation and policy have implications for current EP practice both nationally and in the LA, because 'local offers' (the local support services that can be accessed by young people with SEN) should match the needs and aspirations of young people and their families. It is likely that EPs will be placed in a position in which they can advise on and help to implement evidence-based interventions which meet these needs and aspirations. Therefore, research that focuses on ways to gather children's views is increasingly valuable to all professionals who work with children in order to develop good practice.

1.5 Local Context and Background

During discussion with the Principal Educational Psychologist (PEP) at the Local Authority (LA) where the researcher was training as an EP, she expressed a research interest in the field of psychological well-being, with a particular interest in mindfulness approaches. The PEP found this to be of relevance to the LA due to the nature of recent requests for statutory assessment and of the referrals to the educational psychology service. A pattern was emerging, which identified children with autism as a particularly vulnerable group in terms of psychological well-being, indicated they were particularly at risk of refusing to attend school and subsequently at risk of developing mental health problems into adulthood. The LA's EPs were called upon frequently to assess the SENs of children with autism and recommend intervention strategies that may be useful in a range of areas, including social communication and interaction, attention, behaviour and emotional needs, with specific regard to anxiety. Moreover, the children's public health team in the LA conducted a survey with pupils in school years six, eight and ten. This survey highlighted the challenges for pupils, which included having worries and low self-esteem, feeling that their views were not listened to, feeling afraid of attending

school and feeling less satisfied with their lives. This led the public health team to arrange a LA conference concerning the promotion of emotional well-being and resilience.

In response to the proposed changes suggested by the DfE Green Paper *(*DfE, 2011*),* which outlined the vision of the new system for SEN, the LA set up 'Support and Aspiration' working groups. These working groups collaborated during 2014 and comprised school staff, EPs, SEN representatives and parents. The groups were charged with working together to adapt the LA provision and guidance criteria for children with SEN, in line with the proposed SEN changes. Following this work, an additional section was added to the social communication difficulties area of the SEN guidance document to address emotional well-being specifically, as it had become apparent that this was an area of particular concern. Therefore, research into psychological well-being seemed imperative to the LA and the PEP agreed to, and facilitated, the research to move forward in this direction.

1.6 The Theoretical Basis of Mindfulness

Mindfulness is a branch of positive psychology which is "the scientific study of optimal human functioning and what makes life worth living" (Grenville-Cleave, 2012, p.1). Positive psychology, founded by Martin Seligman and Mihaly Csikszentmihalyi, was recognised as a formal branch of psychology from 1998, and it offers a shift in thought from traditional psychology's focus on the reduction of distress and disorder (Ciarrochi, Kashdan & Harris, 2013, p.4). Positive psychology supports the notion that there is more to life than the absence of distress and disorder and it encourages the study of how people thrive. Positive psychology promotes "valued experiences: well-being, contentment, and satisfaction (of the past), hope and optimism (for the future) and flow and happiness (in the present)" (Ciarrochi et al., 2013, p.4). It considers the development of "positive individual traits such as the capacity for love, courage, interpersonal competence, perseverance, forgiveness amongst others" (Ciarrochi et al., 2013, p.4). Davis (2013) discusses how mindfulness can be seen as a method, a perspective or a cognitive process. He suggests that "mindfulness encourages some of

the subjective states of well-being referred to in positive psychology, such as calmness, vitality, spaciousness and freedom" (Csíkszentmihályi, 1991; Seligman, 2002 cited by Davis p.34). Kabat-Zinn's (1994) definition of mindfulness is clear and widely accepted: "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (p.4). The first principle outlined in this definition is that mindfulness is an active process; it involves active attention leading to awareness. Secondly, it regards the present, rather than the past or future. Thirdly, attention is non-judgmental and accepting, without thought about whether the experience of the present moment is good or bad, right or wrong, important or not.

Felver, Doerner, Jones, Kaye and Merrell (2013) speak of three common misconceptions of mindfulness. The first misconception is that mindfulness is a form of Eastern religious practice. Although the origins of mindfulness lie in Eastern religious and philosophical ideologies, modern mindfulness is a secular practice. Secondly, mindfulness is often believed to refer to the act of meditation. Felver et al. (2013) clarify that generally mediation concerns the act of engaging in "contemplation or reflection" (p.532) and although mindfulness may be seen by some as a form of meditation, it could be argued to have a more complex focus on psychological constructs than meditation alone. Finally, mindfulness is often seen as having the same meaning as the skill of focusing attention. Mindfulness may be argued to involve a specific form of attention and be a closely related construct, but again it is broader than just this, and requires the awareness of the present moment and the growth of a non-judgemental attitude. Felver et al. (2013) state that "these critical features of mindfulness differentiate it from attention" (p.532). Knowledge of mindfulness is becoming more widespread in the UK due to the growing body of research evidencing its benefits for well-being, most notably the treatment effects found by clinical trials. This in turn has led to increased media attention and the development of further publications and internet resources that allow individuals ease of access to mindfulness approaches, which is of course, a positive development. However, this makes it all the more important that people fully understand the constructs that differentiate mindfulness from other well-being practices such as relaxation techniques, meditation and religious contemplation.

1.7 Position and Interest of the Researcher

For the last 10 years, the researcher has been interested in the area of emotional well-being and related interventions. This has included the researcher's work as a therapeutic assistant in a school for children with severe learning difficulties and completion of post-graduate therapeutic art therapy training.

The researcher has also worked with many children with autism throughout her experience in both primary and secondary teaching. Through these experiences, the researcher noticed inconsistencies in the access to interventions and support that children received and has long held an interest in exploring what may be improved for these children.

1.8 Summary and Research Rationale

In light of the recent changes to national context and policy, the research area of emotional well-being is of great significance and relevance to the educational psychology profession. As identified nationally and locally, school staff appeared to require further support and training with regard to how to support children with their emotional well-being and children with ASD were identified as a particularly vulnerable group in terms of anxiety needs.

As discussed, research that considers the voice of individuals with SEN and disability is needed and, therefore, this study was exploratory in nature, and the voices of children with ASD were central to this study. Furthermore, this research attempted to follow the children's lived experiences over a period of time in order to gather rich and detailed accounts of these experiences.

In Chapter Two, consideration is given to the current literature in the fields of autism, anxiety and mindfulness interventions.

Chapter Two: Literature Review

2.1 Chapter Overview

As discussed in Chapter One, support strategies and interventions for ASD pupils are a key area of interest for many researchers, educators, and health care professionals at a national level. There is a growing body of research focused upon the most effective interventions for pupils with ASD, particularly in light of the SEN Code of Practice (DfE, 2014), which places emphasis on evidence-based practice. This was also relevant to the needs identified within the LA where the researcher was working as a trainee EP. The LA identified these key areas of support for ASD pupils to be related aspects of emotional, personal and social development, with anxiety being noted as a particular concern amongst educators and EPs within the LA.

In this chapter, the needs of pupils with ASD are explored, followed by research into the prevalence of anxiety in children with ASD. The current research literature relating to the use of mindfulness with adults and children is explored, and the researcher provides a critical analysis of the available and relevant literature.

2.2 Literature Review Strategy

In order to gain an overview of the broad topics of research relevant to this study, a hand search of literature was undertaken in the significant areas as displayed in Figure 2.2.1.

Figure 2.2.1: Hand search of literature

A systematic research review of the available, published literature was then carried out using a range of search terms within several electronic databases. The following tables summarise the results of these searches (using the EBSCOHOST database). The asterisk after keywords indicates that the search included any words with those letters. For instance, autis* may have generated articles which have the words autism or autistic.

Table 2.2.2: Search 1a - anxiety and autism

Search date	March 2014
Databases used	Psychinfo
Key words used	anxiety AND autis*
Results	N= 2364
Advanced search criteria	• The studies took place between 2000-2014 • The studies involved participants aged 0-17 years. • Major heading: anxiety, autism
Results	N= 144

Table 2.2.3: Search 1b - anxiety and autism

Search date	March 2014
Databases used	Education research complete
Key words used	anxiety AND autis*
Results	N= 438
Advanced search criteria	• The studies took place between 2000-2014 • Geography: United States, Great Britain
Results	N = 33

Table 2.2.4: Search 1c - anxiety and autism

Search date	March 2014
Databases used	Academic search complete
Key words used	anxiety AND autis*
Results	N= 1074
Advanced search criteria	• The studies took place between 2000-2014 • Geography: United States, Great Britain
Results	N = 37

Table 2.2.5: Search 2a - mindfulness

Search date	March 2014
Databases used	Psychinfo
Key words used	Mindfulness
Results	N= 4491
Advanced search criteria	• Studies took place between 2000-2014 • Studies involved participants aged 2-17 years • Studies were peer reviewed • The major subject heading was mindfulness
Results	N = 143

Table 2.2.6: Search 2b - mindfulness

Search date	March 2014
Databases used	Education Research Complete
Key words used	Mindfulness
Results	N= 1137
Advanced search criteria	• Studies took place between 2000-2014 • Studies took place in UK, US and Australia • Studies were peer reviewed
Results	N = 94

Table 2.2.7: Search 2c - mindfulness

Search date	March 2014
Databases used	Academic Search Complete
Key words used	Mindfulness
Results	N= 3581
Advanced search criteria	• Studies took place between 2000-2014 • Studies took place in UK, US and Australia
Results	N = 173

Table 2.2.8: Search 3a - mindfulness and autism

Search date	March 2014
Databases used	Academic Search Complete
Key words used	mindfulness AND autis*
Results	N = 21
Advanced search criteria	• The major subject heading was children • Academic journals only
Results	N = 4

Table 2.2.9: Search 3b - mindfulness and autism

Search date	March 2014
Databases used	Education Research Complete
Key words used	mindfulness AND autis*
Results	N= 16
Advanced search criteria	• The major subject heading was children • Academic journals only
Results	N = 4

Table 2.2.10: Search 3c - mindfulness and autism

Search date	March 2014
Databases used	Psychinfo
Key words used	mindfulness AND autis*
Results	N= 64
Advanced search criteria	• Studies involved participants aged 2-17 years • Academic journals only
Results	N = 16

A systematic map of the research articles to explore in depth was produced (see Figure 2.2.11).

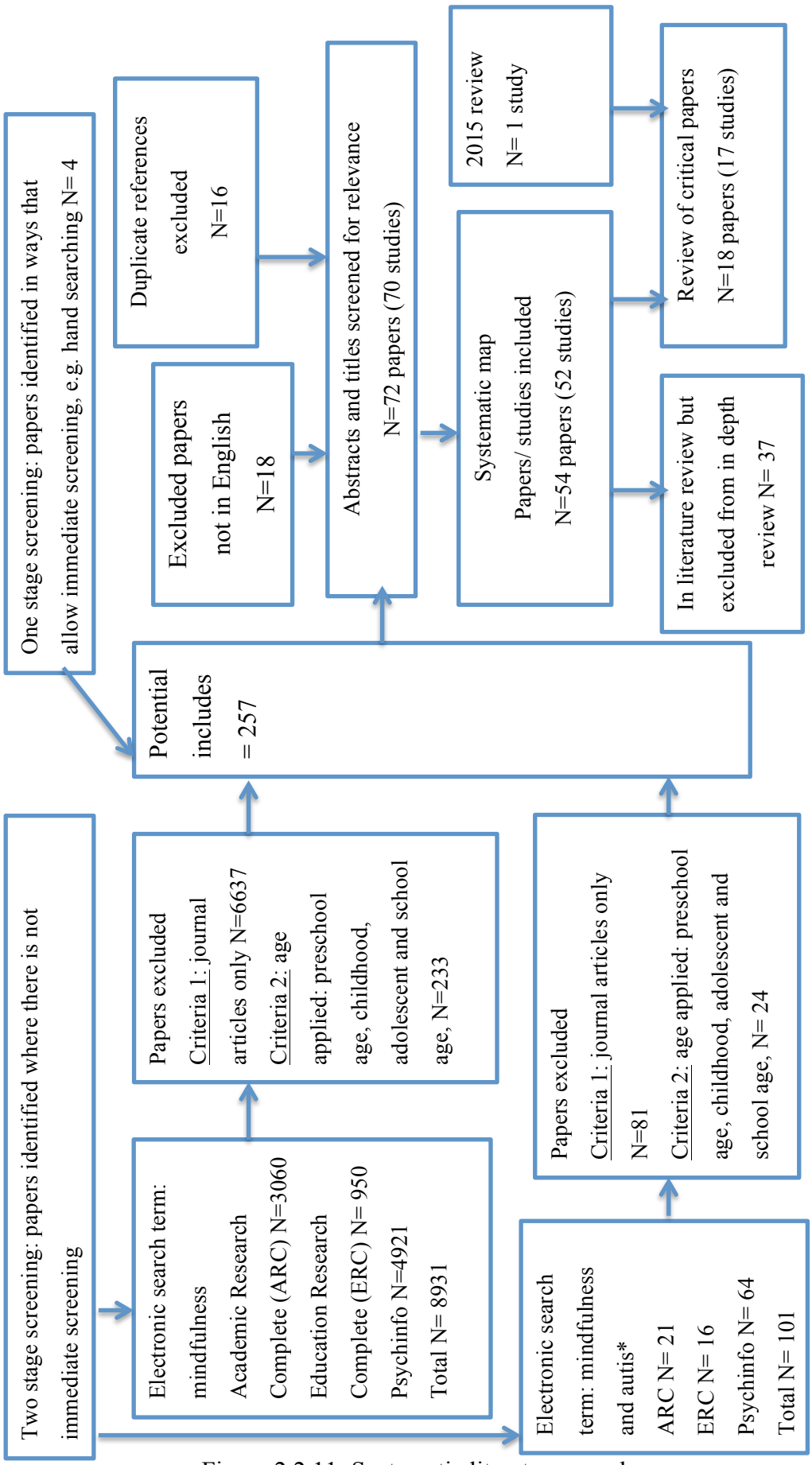

Figure 2.2.11: Systematic literature search

Having identified the most relevant results using the systematic key word search, the abstracts were read and then selected or discarded. The inclusion/ exclusion criteria used to determine critical papers are displayed in Table 2.2.12. Due to the popularity of research into mindfulness at the time of writing, the researcher reviewed the literature again in March 2015 to take into account more recently published research. One additional paper was found and included (Pahnke, Lundgren, Hursti & Hirvikoski, 2014). The researcher also read references from the most relevant articles as a way of ensuring that a thorough and comprehensive literature search was undertaken. A summary of the final 18 papers is displayed in Appendix 2.

Table 2.2.12: Literature review exclusion and inclusion criteria

Exclusion criteria:	Inclusion criteria:
Subject: parent training, spiritual, art, occupational therapy, coaching	Subject: children, intervention programme

Only four papers were found to explore the use of mindfulness with young people with ASD: Bögels, Hoogstad, van Dun, de Schutter and Restifo (2008); Pahnke et al. (2014); Russell (2011); and Singh et al. (2011).

2.3 The Presenting Needs of Children with Autistic Spectrum Disorder

In current psychological, medical and educational practice, the term 'Autistic Spectrum Disorder', often abbreviated to 'ASD' (Wing, 1996), is used to describe the group of conditions which fall under the category of 'Pervasive Developmental Disorders', which includes diagnoses of autism, Asperger's Syndrome and Pervasive Developmental Disorder-Not Otherwise Specified, amongst others (Ozonoff & Rogers, 2003). Current practice acknowledges that ASDs are now considered as developmental disorders and not psychiatric conditions, as they were previously thought to be. Alongside the triad of impairments in social interaction, communication and flexibility of behaviour, Mayes, Calhoun, Murray, Ahuja and Smith (2011) note common problems in autism as being "Irritability, anxiety, attention deficit, hyperactivity,

sensory problems, and poor safety awareness…. though these are not DSM-IV diagnostic criteria for autism". They point out that "These symptoms are included with DSM-IV criteria on autism rating scales, including the Childhood Autism Rating Scale (Schopler, Reichler, & Renner, 1986), the Autism Behavior Checklist (Krug, Arick, & Almond, 1993) and the Checklist for Autism Spectrum Disorder" (Mayes & Calhoun, 1999; Mayes, et al., 2009).

2.4 Autism Research

It is now widely accepted that autism is a neurodevelopmental disorder and, although research has not yet identified a definite genetic or biological cause for autism, a vast amount of research implicates genetic factors as the predominant cause of the ASDs (Medical Research Council, 2001; Abrahams & Geschwind, 2008). Evidence supporting the genetic origin includes high concordance rates found in family studies (Abrahams & Geschwind, 2008) and twin studies (Frederickson, 2008). Neuroanatomical research suggests that genetic mutations could lead to anatomical differences in certain areas of the brain and cause atypical neural connections and processing (Ecker et al., 2012). Smalley et al. (2002) suggest that genetic variations on chromosome 16p13 may contribute to the deficits observed in both Attention Deficit Hyperactivity Disorder (ADHD) and autism, therefore linking their causations. This rare genetic condition occurs when either a tiny piece is missing from chromosome 16, known as a microdeletion, or when there is an extra copy of a tiny piece of chromosome 16, known as a microduplication.

Due to the fact that very small numbers of individuals with this emerging genetic variation have been identified, scientists cannot be certain about the full range of possible effects of the variation. Additionally, the features vary and do not affect each individual in the same way, even within the same family. One study suggests that males with autism are more likely to have deletions or duplications in the 16p13.11 chromosome, when compared with controls, than are females (Tropeano et al., 2013).

Therefore, this suggests genetics as a predisposing factor in the development of autism. Autism might be caused by non-genetic factors, but it is likely that such instances account for only a minority of cases (Levy, Mandell & Schultz, 2009 cited in Pellicano et al., 2013). Kim and Leventhal (2015) state that the next steps for understanding the origins of ASD require a focus on how genes and the environment interact with one another to influence the risk and presentation of symptoms, as the present understanding of the neurobiology underlying neurodevelopmental disorders remains limited. For the discipline of psychology, research may seek to examine these environmental factors.

The largest proportion of UK published research into autism between 2001 and 2011 focused on biology, neuroanatomy and cognition (Pellicano et al., 2013). The UK produced fewer research articles on treatment and intervention than other parts of the world, "with this research area making up 11% of all UK autism research output in 2011 compared to a marked 23% of all research published in the US" (Pellicano et al., 2013, p.26). Pellicano et al. (2013) conclude that, in order for the UK to maintain its position as one of the world leaders in autism research, it is necessary to provide funding in under-researched areas. They also point out the necessity to develop "more widespread mechanisms of engagement between researchers and the autism community" to make sure that science translates into practice and that "future priorities for autism research should lie in the areas of public services, promoting the life chances of autistic people and how autistic people think and learn" (Pellicano et al., 2013, p.38).

2.5 Research Evidence for Anxiety Difficulties in Children with ASD

White, Oswald, Ollendick and Scahill (2009) reviewed 40 studies between 1990 and 2008 and the wide range of results over time suggests anxiety to be common in children and adolescents with autism spectrum disorders.

A more recent systematic review of 31 studies involving 2,121 young people aged

under 18 years with ASD suggests 39.6% of young people with ASD to have at least one comorbid DSM-IV anxiety disorder (van Steensel, Bögels & Perrin, 2011) and these results show reliability with a large participant sample. McPheeters, Davis, Navarre and Scott (2011) found that 544 in 100,000 parents of children aged 4–17 in the US reported their children to have an autism diagnosis and 219 in 100,000 also reported their children to have depression or anxiety. It must be noted that parent reports can present difficulties due to the data representing the parents' perception of children's anxiety rather representing the children's own feelings. However, using both parent and child reports, Russell and Sofronoff (2005) found that children with Asperger's Syndrome experience more overall anxiety than normally developing children. Strang et al. (2012, p.406) suggest an "increased risk for depression/anxiety symptoms in children and adolescents with ASDs without intellectual disability, regardless of age, IQ, or ASD symptoms".

Mayes et al. (2011) found significantly higher maternal ratings of anxiety, depression, and irritability in children with autism in comparison with typical children. The study also compared children with autism to children with clinical disorders including ADHD-combined type, ADHD-inattentive type, anxiety disorders, depression, mental retardation without autism or acquired brain injury. Children with high-functioning autism were significantly more anxious than children with ADHD and acquired brain injury, but did not differ significantly from children with an anxiety disorder, depression, mental retardation or low functioning autism. However, the study did not triangulate measures and relied on maternal report. The researchers note that previous studies show poor agreement between parent, teacher and self-report of anxiety (White et al., 2009). Furthermore, the study's sample was collected from a psychiatric clinic so the findings of this clinical population may not be generalisable to the wider population of children with autism.

It has been theorised that sensory over-responsivity, a common impairment found in more than half of children with ASD, is linked to anxiety (Green & Ben-Sasson, 2010).

However, this does not account for all cases of anxiety and has limited research support.

Furthermore, anxiety has been associated with repetitive behaviours; Rodgers, Glod, Connolly and McConachie (2012) found children with high anxiety had more repetitive behaviours than those without anxiety. The Spence Anxiety Scale Parent Version (SCAS-P) was used to measure children's anxiety, and, although this tool was standardised on typically developing children, the researchers state that "good agreement has been found between the gold standard clinical interview (ADIS; Silverman & Albano, 1996) and the SCAS-P in a large ASD sample" (p.2408) therefore suggesting confidence in the validity when used with autistic children (Rodgers, Jamieson & McConachie, submitted, cited by Rodgers et al., 2012). Rodgers et al. (2012) suggest that children with ASD may engage in repetitive behaviours and insist on sameness as a way to reduce demand in anxiety provoking situations. Rodgers et al. (2012) suggest that "the continued use of such behaviours may serve to maintain anxious states" (p.2408). Despite this, research findings are correlational and therefore no directional relationship has been affirmed between repetitive behaviours and anxiety. Furthermore, the research is, again, focused on parental perceptions rather than on the children's experiences.

Storch et al. (2012) found that ASD and co-occurring behaviour disorders such as oppositional defiant disorder or conduct disorder correlated with greater risk for heightened anxiety symptoms. Despite the correlational findings of the relationship between ASD and anxiety, it is unclear why children with ASD appear to have increased risk for anxiety, but it has been suggested that the disruptive behaviour serves as a mechanism for reducing anxiety triggers, such as environmental demands. This could lead to increased use of disruptive behaviour to cope with anxiety, but this behaviour may lead to exacerbated anxiety symptoms. Mayes and Calhoun (2007) state that future genetic research may provide biological explanations and it is currently known that the dopaminergic, serotonergic and noradrenergic neurotransmitter systems are all involved in ADHD, autism, anxiety, and depression. Further research is needed

in this area to develop a clearer understanding of the relationship between ASD and anxiety. It might be that the emphasis that UK research has placed on genetic factors has diverted attention from studies exploring environmental factors and the lived experiences of individuals with ASD, which may give us a better insight into this relationship.

2.6 The Relationship Between ASD Difficulties And Anxiety

2.6.1 Attention. The DSM-IV specifically states that ADHD should not be considered a separate diagnosis when assessing children with autism, because it is so common in autism, and therefore, part of autism itself. Attention deficit, hyperactivity, and impulsivity are common in children with autism, but, unlike children with ADHD, children with autism have the ability to hyperfocus on activities of interest to them (Mayes & Calhoun, 1999).

In a sample of 143 children with autism, 93% had significant attention problems, but attention spans in these children were selective. Most children were reported to be able to hyperfocus for extended time periods on self-selected activities of interest (Mayes & Calhoun, 1999). This research is robust in terms on empirical methodology; it used a large sample of 886 children with clinical disorders and 149 typical control children. However it was a laboratory based experiment, and the unfamiliar environment may have caused the children to present with different behaviour than they would show in a naturalistic setting.

2.6.2 Executive functioning. The restricted, repetitive behaviours and interests with which children with autism often present are proposed to be a result of executive dysfunction (Frederickson, 2008). Frederickson (2008) states: “Executive functions refer to the abilities to plan and carry out complex behaviour, such as planning, prioritising, monitoring tasks, switching between tasks, inhibiting inappropriate impulsive actions and generating novel approaches to a situation and weighing up the consequences for alternative courses of action” (p.148). Findings of executive

dysfunction are consistently documented in school-age children with ASDs (Hill, 2004; Pennington & Ozonoff, 1996). Lerner, White & McPartland (2012) state that challenges resulting from executive functions also include attention management and emotional self-regulation, which can lead to negative emotional affect.

2.6.3 Central coherence. Frith's cognitive theory of 'central coherence' has sought to address both deficits and assets in ASD. Typically developing children and adults have a tendency to process incoming information for meaning and 'gestalt' (a whole view), often at the expense of attention to or memory for details (Frith, 1989; Happe´ & Frith, 2006, p.5). "Individuals with ASD were hypothesised to show weak central coherence; a processing bias for featural and local information, and relative failure to extract meaning or see the big picture in everyday life" (Happe´ & Frith, 2006, p.6). This weak central coherence could lead to children misunderstanding the 'whole' of situations they face on a daily basis, therefore causing increased anxiety levels. Central coherence is a well established theory that is generally well supported by research findings (Best, Moffat, Powers, Owens & Johnstone, 2007) although some findings have found only partial support for the theory, in terms of begin able to organise event schemas (Loth, Gomez & Happe´, 2008).

2.6.4 'Mindblindness' or 'theory of mind'. Baron-Cohen, Leslie and Frith (1985) propose that many features of ASD stem from a theory of mind deficit otherwise known as 'mindblindness'; a failure in ability to attribute mental states to others in order to explain and predict their behaviour. Much of the research in this area has used a laboratory based 'false belief task', which has received criticism, but research has been replicated suggesting reliability and a well-established base of evidence for theory of mind (Leslie & Frith, 1988; Baron-Cohen, 1991; Rutherford & Rogers, 2003; Best et al., 2007; Loth et al., 2008). This weakness in mentalising ability could lead children to misinterpret situations in which they may need to understand another person's point of view, therefore causing anxiety.

As this research focused on the impact of a mindfulness intervention for children with

ASD, the literature review will now focus on the current uses of mindfulness-based therapies and the evidence base for its effectiveness in reducing anxiety and improving well-being.

2.7 Current Uses of Mindfulness

There is rising popularity in mindfulness-based programmes such as Mindfulness Based Stress Reduction (MBSR), pioneered by Jon Kabat-Zinn, and Mindfulness Based Cognitive Therapy (MBCT). The MBSR model was developed as an intervention to help people suffering from various chronic physical illnesses and related emotional stress. The MBCT (Williams & Penman, 2011) followed with the intention to specifically improve symptoms of depression and the MBCT is recommended by NICE as an effective treatment for depression (NICE, 2009). Mindfulness has been a topic in the public domain over recent years, with articles appearing in national newspapers and in other forms of social media.

Acceptance and Commitment Therapy (ACT) is a psychotherapeutic approach which has roots in mindfulness and cognitive behavioural traditions. It encourages acceptance and psychological flexibility through the application of six main interconnecting principles: contact with the present moment, acceptance, values, committed action, self as context and 'defusion'- separating the experience from the self (Bowden & Bowden, 2012). These principles are considered through mindful discussion with the client and the focus is to encourage the client to accept the internal experiences that are outside of their control, while committing to taking action in line with their values (Bowden & Bowden, 2012). ACT does not directly incorporate typical mindfulness techniques like breathing meditation or yoga into its practice (Felver et al., 2013).

Dialectical Behaviour Therapy (DBT) is based on the principle that a "dialectic worldview can exist between clients mindfully accepting themselves and simultaneously striving for change" (Linehan, 1993 cited in Montgomery, Kim,

Springer & Learman, 2013 p. 3). Unlike ACT, MBCT and MBSR, DBT is influenced by traditional cognitive behavioural therapy and is undertaken through certain treatment stages with associated treatment goals, in order to develop: "emotion regulation; distress tolerance; skillful responses to interpersonal situations; observation, description, and participation skills in the absence of self-judgment, while simultaneously remaining aware and focused on effective skills; and behavior management through utilising strategies that are not self-injurious" (Dimeff & Koerner, 2007 cited in Montgomery et al., 2013, p.3).

Hill and Updegraff (2012) investigated the effectiveness and mechanisms of mindfulness when used in psychotherapy. Findings suggest mindfulness to be associated with greater emotion differentiation and fewer emotional difficulties.

2.8 Mindfulness Research with Adults

There is a growing body of evidence into the effectiveness of mindfulness approaches for adults in reducing stress, anxiety and depression. Hofmann, Sawyer, Witt and Oh, (2012) conducted a meta-review with a sample of 1,140 participants and found robust effect sizes supporting the efficacy of mindfulness-based therapy for improving anxiety. Vøllestad, Birkeland-Nielsen and Høstmark-Nielsen (2012) undertook a systematic review of 19 studies including 491 participants and found mindfulness and acceptance-based interventions to be associated with robust and significant reductions of anxiety and comorbid depressive symptoms. The studies included participants with a clinical diagnosis of anxiety. Both of these systematic reviews provide comprehensive overall support for the use of mindfulness, although they cannot guarantee the methodological quality of the studies reviewed.

Rasmussen and Pidgeon (2011) found mindfulness significantly predicted high levels of self-esteem and low levels of social anxiety. The research employed self-report methods with use of the Mindful Attention Awareness Scale (Brown & Ryan, 2003), the

Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Social Interaction Anxiety Scale (Mattick & Clarke, 1998). The limitations of this study include the participant sample of undergraduate students, which limits the generalisability of the findings; and the closed questionnaire self- report method which restricts the richness of data.

Hill and Updegraff (2012) conducted a self-report study with 96 undergraduate students and found mindfulness to be associated with greater emotional differentiation and fewer emotional difficulties based on The Five Facet Mindfulness Questionnaire (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006) and The Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004). These results are hard to generalise due to the student participant sample consisting of over two-thirds female participants. The scales used are standardised but have not been used repeatedly over time to indicate substantial reliability and the findings suggest a correlation but no causation.

Davidson et al. (2003) found significant increases in left-sided anterior activation, a pattern previously associated with positive affect demonstrating that mindfulness meditation produces effects on brain and immune function. Weare (2012) states that brain imaging studies with adults show mindfulness meditation to reliably and significantly "alter the structure and function of the brain to improve the quality of both thought and feeling" (p.4). These neuropsychological studies provide robust and empirical evidence for the impact of mindfulness. However, neuropsychology's assumption that brain regions are responsible for specific functions has been debated (Eysenck & Keane, 2010).

2.9 Mindfulness Research with Young People

The benefits of mindfulness for children and young people are a lesser-evidenced area, but the body of research is rapidly developing. Montgomery et al. (2013) conducted a systematic review of 296 papers to establish the efficacy of four mindfulness

programmes (Acceptance and Commitment Therapy, 46 papers; Dialectical Behaviour Therapy, 209 papers; MBCT 14 papers; and MBSR 27 papers). Support was found for ACT and DBT but conclusions were not drawn due to the lack of research for MBCT and MBSR, which impacted upon the significance of effect sizes. The review averaged results from studies to establish effects sizes, therefore diminishing sensitivity.

Huppert and Johnson (2010) investigated the effects of mindfulness training on general adolescent well-being with a modified MBSR programme. Participants were 173 14 to 15 year-old male students attending two English independent boys' schools. Pre-post intervention self-report measures found the four-week mindfulness training produced significant effects on mindfulness, ego-resilience and well-being among students who regularly did 10 minutes of home practice per day and smaller effects among those who did not.

Schonert-Reichl and Lawlor (2010) investigated a mindfulness-based program, delivered by teachers, involving 10 lessons and three times daily practice of mindfulness meditation. The 246 participants were from a wide area of 12 schools representative of a range of ethnic and socio-economic backgrounds. Overall, there was a significant increase in post intervention self-report measures of optimism and positive emotions. Teacher reports showed an improvement in social and emotional competence and a decrease in aggression and oppositional behaviour for children in the intervention group.

Kuyken et al. (2013) assessed the acceptability and efficacy of a schools-based universal mindfulness intervention, the 'Mindfulness in Schools Programme' (MiSP) to enhance mental health and well-being. A moderate participant sample (522) of young people aged 12-16 years was used. This study employed a control group and assessed outcomes at baseline, post-intervention and at a three-month follow up. Assessment measures included the Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009) to assess well-being, the Perceived Stress Scale (Cohen, 1986) and the Center for Epidemiologic Studies Depression Scale (Coyle & Roberge, 1992) to assess mental health, and a short five-question questionnaire to assess mindfulness practice. The study

compared the outcomes of the intervention and control group and concluded that the MiSP curriculum was accepted by the participant group, had an impact on depressive symptoms and showed promising evidence for its efficacy in reducing stress and improving well-being. This study provides robust empirical evidence due to the use of a control group and within and between groups statistical analysis. The participant groups were adjusted for age, gender and ethnicity to reduce confounding variables. However, limitations are present in the methodology, as some baseline biases may have been present due to the participants not being randomly assigned. Furthermore, the self-report method could have been affected by social desirability and participant understanding.

Dellbridge and Lubbe (2009) carried out a single case study of an adolescent girl's experiences of mindfulness. The participant experienced mindfulness as being task-oriented (in terms of making effort and practicing mindfulness) and reported experiencing personal growth and development in her practice of mindfulness. The study used typological and interpretive analysis with data collected from unstructured interviews, creative expression and case notes. This study provided some rich data on how mindfulness applies to an adolescent and the methodology fits with the subjectivity of mindfulness as a tradition. Limitations include the researcher-participant relationship as the researcher taught the mindfulness sessions and collected data and the use of only one participant rather than a small group.

2.10 Mindfulness Research with Children

Research investigating adaptations of mindfulness programmes for younger children has found some positive benefits. Burke (2009) conducted a systematic review of 15 studies to determine the feasibility and acceptability of mindfulness-based approaches with children and adolescents aged 4-19 years. Overall conclusions indicate a reasonable support base for the acceptability and feasibility of mindfulness interventions. Research dissertations were excluded, but their inclusion may have provided a wider range of studies and contributed to the small body of published research. Burke (2009) identifies the limitations of the studies reviewed to be the small samples, lack of randomisation, reliance on self-report and the use of pre and post

measures lacking reliability and validity. A range of participant populations was considered in terms of age and the type of difficulties children presented with e.g., ADHD, sleep problems, conduct disorder etc. While this provides a comprehensive overview of the feasibility/acceptability of mindfulness for these groups, clearly further research is needed to evaluate more specific outcomes and efficacy with these particular groups of children and to investigate mechanisms for positive effects with individual children and groups. Furthermore, research should explore how children from different populations relate to mindfulness approaches to a more detailed extent than can be offered via a questionnaire methodology, which could be argued to limit participant response opportunities.

2.10.1 Mindfulness and anxiety, depression and behavioural difficulties.

Semple, Reid and Miller (2005) examined the feasibility and acceptability of a child-friendly MBCT programme (Mindfulness Based Cognitive Therapy for Children, MBCT-C) for anxious children. This open trial pilot study was completed with three boys and two girls attending the same school. A within-groups pre-post test design was used and the self-report measures included The Multidimensional Anxiety Scale for Children (March, 1997), The State Trait Anxiety Inventory for Children (Spielberger, Edwards, Lushene, Montuori & Platzek, 1973) and the Feely Faces Scales developed by the researcher. A teacher report measure was also collected (The Child Behaviour Checklist: Teacher Report Form, Achenbach, 1991). Findings demonstrated an improvement in at least one of three areas: academic performance, anxiety or depressive symptoms and conduct or behavioural difficulties, for children as young as seven years, after completing a six week mindfulness intervention. The small and possibly homogeneous sample used in this study may not be representative of larger and diverse populations across the US and UK. Furthermore, self-report and teacher rating measures may have been subject to expectancy effects or demand characteristics. The idiographic approach to data analysis is appropriate to applied settings where a between-subjects design may not be appropriate, but in order for evaluative research to be generalisable, idiographic methods must be systematically replicated (Velicer, 2010). Due to the nature of the open trial, no conclusions were drawn about the intervention's efficacy, therefore the researchers state that more research is required.

Lee, Semple, Rosa and Miller (2008) followed up their previous feasibility study (Semple et al., 2005) in order to evaluate the feasibility, acceptability and helpfulness of the MBCT-C for children with non-clinical internalising and externalising symptoms related to emotional well-being and behaviour. The study used a larger sample compared to the 2005 study of 25 children aged 9-12 years who were enrolled on a remedial reading programme. Participants were recruited from an area of New York and were mostly from minority low-income families. Children were matched according to age and gender and randomly assigned to two groups. Children undertook a 12-week intervention programme taught by the researchers and they were encouraged to engage with home practice. Assessments were taken using four measures; The Child Behaviour Checklist: Teacher Report Form (Achenbach, 1991), The Multidimensional Anxiety Scale for Children (March, 1997) and The State Trait Anxiety Inventory for Children (Spielberger et al., 1973) and the Reynolds Child Depression Scale (Reynolds, 1989). Qualitative measures were also employed by participant and parent evaluation questionnaires using both open and closed questions. A methodological strength is the fact that assessments were undertaken by research assistants who were blind to the group assignment and research hypotheses, which reduces the chance of participant or researcher bias. Outcome measures were used to evaluate the programme's efficacy and the researchers found a small to medium effect size. These statistical measures can indicate a correlation in the use of mindfulness and the changes in child symptoms, but without a between-group analysis the effects of the changes cannot be attributed to the intervention with certainty. The fact that clinical measures were used with a non-clinical sample could mean that the tools may not have been sensitive enough to show accurate changes over time. However, the mixed methods design is a strength, as the qualitative data indicates favourable views of the intervention held by both parents and children, suggesting the MBCT-C may hold potential for the treatment of internalising and externalising symptoms.

Semple, Lee, Rosa and Miller (2010) extended the work of Lee et al. (2008) and hypothesised that children participating in the MBCT-C would show reductions in attention problems, behaviour problems and anxiety symptoms. Twenty-five participants aged 9-13 years were recruited from a remedial reading clinic to represent inner city children struggling with academic problems. The participants were allocated

to four groups using a randomised wait-list design, which allowed a randomised controlled trial by comparing data from the two treatment groups with the control groups. Similar to Lee et al. (2008), research assistants administered and scored the assessments before and after the 12-week intervention and were blind to the assignment of participants. Measures included The Child Behaviour Checklist: Teacher Report Form (Achenbach, 1991), The Multidimensional Anxiety Scale for Children (March, 1997), and The State Trait Anxiety Inventory for Children (Spielberger et al., 1973). Statistical significance was examined using inferential statistics. Significant reductions in anxiety were found within groups, but were also found across groups, so the improvements could not be attributed to the intervention. Behaviour problems did reduce but no significant differences between groups were found. Reductions in behavioural difficulties were significantly associated with reductions in attention difficulties. Overall, the researchers conclude that the study offers preliminary support for the effectiveness of the MBCT-C in reducing attention problems, behaviour problems and anxiety symptoms. The analysis of variables in this study demonstrates that the impact and benefits of mindfulness may involve a complex interaction of factors and further research into the use of mindfulness with children is necessary, particularly those with specific difficulties.

2.10.2 Minority groups. Liehr and Diaz (2010) examined the effects of mindfulness for depression and anxiety with ethnic minority children. The research compared a mindfulness intervention with a health education intervention using a repeated measures analysis of variance with 18 participants. Results found the mindfulness intervention to lower levels of depressive symptoms and anxiety after a programme of just 10 sessions for 15 minutes daily. The health education intervention also decreased anxiety and depressive symptoms but to a lesser extent. The research employed a small sample which could be subject to individual differences, so a larger scale study would be needed to show a clearer difference.

Gould, Dariotis, Mendelson and Greenberg (2012) conducted a larger scale study with 97 children from minority backgrounds with the aim of examining moderators of a mindfulness intervention on emotional regulation. The moderators explored were gender, grade level and baseline depressive symptoms. A wait-list design was used and

participants were allocated to the 12-week intervention programme consisting of four 45-minute sessions per week. Participants completed baseline and post invention measures of depressive symptoms (The Short Mood and Feelings Questionnaire, Angold et al., 1995), positive and negative emotions (The Emotion Profile Inventory, Benn 2003) and stress responses (The Responses to Stress Questionnaire, Connor-Smith, Compas, Wadsworth, Tomsen & Saltzman, 2000). The researchers assured the internal validity and test-retest reliability of these measures although the current study used selected scales rather than the complete Responses to Stress Questionnaire, which could reduce the validity and reliability. Overall, the mindfulness intervention was found to reduce involuntary engagement stress responses in comparison to no intervention and age and gender had no effect on this reduction. Those who had low to medium levels of depressive symptoms benefitted from the mindfulness intervention in terms of reductions in impulsive action and involuntary engagement stress responses but, in those who had high levels of depressive symptoms, there was no difference between the intervention and control groups. Expectancy effects could have impacted on the findings of the study and there is a possibility of a type one error due to the sample being small relative to usual samples needed to calculate power effects. The study presents mindfulness as a preventative rather than a treatment intervention.

2.10.3 Increased attention. Mindfulness produces greater blood flow in the brain and leads to a thickening of the cerebral cortex in areas associated with attention and emotional integration (Davidson & Lutz 2008). Carelse (2012) noted that, following a mindfulness-based programme, children with ADHD showed qualitative though not quantitative changes. They were able to apply mindful practices, including being better able to concentrate, sit still and focus. Other research supports the use of mindfulness-based approaches for attention difficulties (Napoli, Krech & Holley, 2005; Singh et al., 2010; van der Oord, Bögels & Peijnenburg, 2012; Semple et al., 2010). Much research examining attention is qualitative only, therefore there is no way to control variables directly, thus findings may be due to extraneous factors. Furthermore, qualitative research may be vulnerable to bias due to the relationship between the researcher and the participants.

2.10.4 Executive functioning and cognitive flexibility. Weare (2012) comments that mindfulness practices contribute to cognitive development and executive functioning (EF) - the ability to "problem-solve, plan, initiate and control and monitor one's own actions, to pay attention, be mentally flexible, multi-task and use verbal reasoning" (Weare, 2012, p.8). As aforementioned, these skills are thought to be difficult for children with ASD. Flook et al. (2010) found that teachers and parents rated improvements in executive functioning following typical children's completion of a mindful awareness intervention. The pre-post intervention measures show children who started with poor EF and undertook the mindfulness training showed improvements in behavioural regulation, metacognition, and overall global executive control. Flook et al. (2010) outline the need for "further support from neurocognitive tasks of executive functions, behavioral observation, and multiple classroom samples to replicate and extend these preliminary findings" (p.2). Weare (2012) discusses the fact that research into the effect of mindfulness on the EF of children and young people is not yet extensive and the available research presents some methodological issues, such as small participant numbers, little use of control groups or random allocation of participants, no standardised measures, reliance on self report, and biases created by having participants who volunteer. However, previous research offers support for the benefits of mindfulness upon EF; Carson and Langer (2006) state that mindfulness can "increase cognitive flexibility and therefore behavioural flexibility and the ability to adapt to one's environment in a meaningful manner" (p.26).

2.10.5 Emotional regulation and social skills. Mindfulness is suggested to improve emotional regulation by increasing awareness of emotional experiences (Hill & Updegraff, 2012). Schonert-Reichl and Lawlor (2010) evaluated the effectiveness of a mindfulness education program and established that mindfulness led to self-reported improvements on measures of optimism and positive emotions and teacher-reported improvements in social and emotional competence. This programme has since been published as The Hawn Foundation's 'MindUp' Curriculum (The Hawn Foundation, 2011). Beauchemin, Hutchins and Patterson (2012) found a five-week teacher-led mindfulness intervention decreased state and trait anxiety, enhanced social skills and improved academic performance in students with learning disabilities. Data was collected by interview and the researchers suggest that mindfulness decreases anxiety

and negative self-attention, which then improves social skills and academic performance.

Iyadurai (2013) conducted a small scale exploratory study in a year four/five class and found that a teacher-led calm breathing programme based on mindfulness techniques led to significant improvements in behavioural difficulties, emotional symptoms, conduct problems, peer problems and prosocial behaviours as measured by the teacher's completed Strengths and Difficulties Questionnaire (Goodman, 1997). There was no control group in this study and the changes noticed by pre and post measures may have been influenced by the teacher's perceptions. Iyadurai (2013) states the importance of further research examining the use of mindfulness with children who have special educational needs.

2.11 Mindfulness for Adults with Autism

Little research on mindfulness has been conducted with autistic individuals. This might be because of the emerging nature of research into the efficacy of mindfulness and the limited access that autistic individuals may have to the present mindfulness interventions, which rely heavily on abstract concepts. However, Spek, van Ham and Nyklı́c̆ek (2013) conducted the first controlled trial which found that mindfulness approaches led to a significant reduction in depression, anxiety and rumination in adults with ASD.

2.12 Mindfulness Research with Children and Young People Who Have Autism

Singh, Wahler, Adkins and Myers (2003) developed and explored the use of 'Soles of the Feet', a mindfulness-based intervention which diverts the individual's attention from an emotionally arousing stimulus to a neutral stimulus. From conducting a case study of a young man with mild learning difficulties, they concluded that it effectively helped the participant to self-regulate his verbal and physical aggression and therefore could be used to treat behavioural challenges in children and adults with "mild mental retardation" (Singh et al., 2003, p.159). The intervention has since been found to

decrease aggression in adolescents with conduct disorder (Singh et al., 2007). Singh et al. (2006) taught three parents a 12-week mindfulness course and concluded that mothers' mindful parenting decreased their autistic children's aggression, noncompliance and self-injury.

Singh et al. (2010) trained parents of children with ADHD and found that the mindfulness parent training enhanced child compliance and, when children were subsequently given similar training, compliance increased even more markedly and was maintained during follow-up.

Singh et al. (2011) conducted an evaluation of the effectiveness of a mindfulness intervention for managing anger in adolescents with autism. The researchers trained the adolescents' mothers on the 'Soles of the Feet' intervention, which they then delivered to their children for a 30 minute session each day for five consecutive days each week. The intervention continued until the adolescents' aggressive behaviour stopped for four consecutive weeks, therefore courses varied from 17 to 24 weeks. Alongside the scheduled sessions, adolescents were encouraged to practice the techniques independently. Data was collected from the adolescents, their siblings and parents about the adolescents' behaviour and suggests a causal relationship between the mindfulness intervention and a reduction in aggression.

As with the previous studies conducted by Singh and colleagues, a small sample was used in the 2011 study. This can be unavoidable with specific populations such as children with ADHD, conduct disorder and autism, but conducting a quantitative evaluation with such small samples presents limitations in the generalisability of the findings as well as the internal reliability and validity, due to the effect of extraneous variables. However, the research did ensure inter-rater reliability by triangulating behavioural data from participants, siblings and parents. The change in the mothers' interactions with their children could also have explained the positive impact on aggression, rather than the direct impact of the intervention on the adolescents. One strength of the 2011 study is that it was longitudinal, and found no episodes of physical aggression to occur during a 4-year follow-up. Therefore, the research suggests that

adolescents with ASD may successfully use a mindfulness-based procedure to control their aggressive behaviour over a sustained period of time.

Pahnke et al. (2014) investigated the impact of ACT skills training with 28 high-functioning adolescents with ASD (aged 13–21 years) using self-report and teacher-ratings at pre- and post-assessment and at a two-month follow-up. Improvements were reported in levels of stress, hyperactivity, emotional distress and pro-social behaviour. This study demonstrates the effects of ACT training in the short-term, as found by the two-month follow-up and also triangulates the impact found by collecting data from adolescents and teachers. However, the research does not address what was effective for individual participants.

Russell (2011) wrote an article about his parental experience of using mindfulness with children who have ASD and comments on the improvements he observed in symptoms of autism such as emotional regulation, executive functioning, empathy, attention, anxiety and sleep routines, because of mindfulness mediation. However, this case study provides little empiricism, reliability or validity. No research studies have supported these claims directly.

Bögels et al. (2008) conducted a quasi-experimental study to evaluate the effects of child and parent mindfulness training for adolescents with externalising disorders. The sample was 14 adolescents aged 11-18 years old (average age 14.4 years old) with primary diagnoses of Conduct Disorder, Oppositional Defiant Disorder, Attention Deficit Hyperactivity Disorder, Pervasive Developmental Disorder and Asperger's Syndrome. The adapted MBCT intervention was delivered for eight weeks to parents and adolescents in parallel for one and a half hour weekly sessions by qualified MBCT therapists. Pre and post intervention measures were collected examining personal goals, symptoms, quality of life and mindful awareness. Results were compared by t-test and found improvements in personal goals, internalising and externalising complaints, attention problems, happiness and mindful awareness. The study offers empirical evidence in terms of the quantitative data collected and the statistical significance of the results. The study is also comprehensive with respect to the areas of benefit examined. The collection of data via the various Likert scale questionnaires could reduce validity,

because these tools have not been standardised for use with this particular participant sample. Therefore, the results could be affected by the participants' levels of understanding, as well as fatigue and boredom effects and demand characteristics due to the participants being familiar with the researcher.

At the time of writing, no further research was available regarding the use of mindfulness for children with autism.

2.13 Current Research

2.13.1 Research aims. Overall, the existing literature indicated that the majority of children with ASD experience difficulties with attention, anxiety and empathy, and with making sense of and communicating within the social world. Research into mindfulness found it to have many applications in interventions to improve learning, social and emotional development, attention and general well-being, all of which could be beneficial for children with ASD. It appeared to be a cost-effective and short-term intervention that may be used as an approach by school staff. Furthermore, it was experiential so it was thought to be more appropriate for children with ASD than interventions which relied more heavily on discussion and abstract ideas. Davis (2012) noted that mindfulness places great emphasis on paying attention to the physical experience of anxiety as opposed to ruminating on the factors surrounding the anxiety. This principle was thought to be well suited to children with ASD who experienced difficulties in executive functioning, theory of mind and central coherence.
The limited literature on mindfulness-based interventions with children who have autism justified the need for the current research. Existing research showed positive opportunities for the use of mindfulness with adolescents with autism (Bögels et al., 2008; Singh et al., 2011; Pahnke et al., 2014) but studies with younger children were limited (Russell, 2011). Furthermore, additional research was needed to explore mindfulness from children's perspectives rather from the points of view of their parents/ carers and teachers. Much existing research came from a positivist perspective whereby researchers are examining feasibility, acceptance and efficacy rather than the experience

of the individual and limited phenomenological research existed in general with a focus on mindfulness with children (Carelse, 2013; Dellbridge & Lubbe, 2009).
Interest in mindfulness had grown rapidly within the educational psychology field over the last few years, but there is a lack of research from the profession. Iyaduri (2013) noted a requirement for further educational psychology research into the impact of mindfulness with children, particularly to examine whether it was suitable for children with additional needs, where levels of language, cognition and attention may create barriers to access.

Therefore, the main aim of this study was to explore, interpret and understand the experiences of children who had ASD and anxiety and had practiced a suitably structured and concrete mindfulness programme.

2.13.2 Research questions. The key questions that were developed as a result of engaging with the literature were:

- What do children with ASD say about their experiences of being part of the mindfulness programme?

- What do children with ASD say about their life experiences?

- Does anything change in children's lived experiences during the course of the mindfulness programme?

Chapter Three: Methodology

3.1 Chapter Overview

In the previous chapters, the background to this research was introduced (Chapter One) and the existing research base has been critically considered (Chapter Two). In this chapter, the research aims, purpose and questions are detailed, building upon the previous chapters. The researcher's ontological and epistemological positions are outlined and their influence on the research design, data collection and the research methods used are explained. The ethical considerations accounted for in this research in relation to working with vulnerable children are detailed, before the research findings are presented (Chapter Four).

The Interpretative Phenomenological Analysis (IPA) methodology used in this research explored the experiences of children who had ASD and anxiety and took part in a mindfulness programme. Semi-structured interviews took place at the beginning and the end of the programme and the participants reported their on-going experiences via audio diaries. These interviews and audio diaries constituted the data that was used to explore the children's individual lived experiences over time and these experiences were analysed using the IPA method of analysis.

3.2 Research Aims and Purpose

3.2.1 Research aims. This research aimed to address the limitations of existing research as outlined in the literature review (Chapter Two). This includes the gap in research regarding mindfulness practice with children who have SEN, and in particular, autism. Furthermore, the research aimed to take a phenomenological perspective to explore, interpret and make sense of autistic, anxious children's experiences of mindfulness and their lived experiences in relation to mindfulness practice, which was highlighted as an additional area where research was limited, by the literature review.

3.2.2 Research purpose. Creswell (2009) describes various purposes of research and classifies these as being exploratory, explanatory, evaluative and emancipatory. Exploratory research aims to discover in detail what is happening during a specific event by asking questions to elicit information about participants' views, beliefs and thoughts in order to allow insight into phenomena (Robson, 2011). Therefore, this research was exploratory in nature as it aimed to explore the experiences of mindfulness for children who experienced anxiety and had a diagnosis of ASD. The research also explored the children's understanding of their life experiences and whether their narratives of themselves and their experiences changed during the course of the mindfulness programme.

3.3 Research Paradigm

Mertens (2005) describes a paradigm as "a way of looking at the world, composed of certain philosophical assumptions that guide and direct thinking and action" (p.7). According to Lincoln and Guba (2000) cited by Mertens (2005), there are three central questions that can define a paradigm:

> *"1. The ontological question asks, "What is the nature of reality?"*
>
> *2. The epistemological question asks, "What is the nature of knowledge and the relationship between the knower and the would-be-known?"*
>
> *3. The methodological question asks, "How can the knower go about obtaining the desired knowledge and understanding?" (p.8).*

The emergence of qualitative methods of inquiry within educational psychology reflects the move towards interpretivist research paradigms, away from the positivist traditions of psychological research (Coolican, 2004). Traditionally, psychological paradigms were rooted in positivism and assumed the ontological view that reality exists independently of the knower and the context has no impact on this reality. Empirical methods of quantifying the 'reality' have been traditionally employed by the positivist

tradition but it has long been debated whether the "methods for studying the natural sciences are appropriate for the social world" (Ormston, Spencer, Barnard & Sharpe, 2014, p.10-11).

In contrast, constructivist ontology sees reality as subjective and individually constructed; there are as many realities as individuals (Scotland, 2012) and social constructionism takes similar views, but usually concentrates on the experience of the individual within a group (Robson, 2011). This research adopted a constructionist ontology, which prescribes that knowledge and reality can never be truly known because an objective world that can be discovered and measured does not exist (Pring, 2004). The researcher has an interest and background in counselling and psychotherapy and believes in the existence of multiple realities, all of which are equally valid and socially constructed, so the researcher's goal was to "understand the multiple constructions of meaning and knowledge" (Mertens, 2005, p.14).

Epistemology concerns the way in which the researcher gains knowledge of reality and has a relationship with this knowledge. Epistemological assumptions are concerned with the way in which knowledge may be created, acquired and communicated (Mertens, 2005). Constructionists take on an interpretivist epistemology, considering an interactive link between the researcher and participants to permit findings that are subjective and created together. This research used interpretive epistemology to interactively explore the individual experiences of a group of children with anxiety and ASD.

3.4 Research Questions

Chapter Two outlined three research questions that were developed through engagement with the review of existing literature. Taking into account the limitations of existing research, a central research question was decided upon as being the most significant in relation to the area of research:

1. What do children say with ASD say about their experiences of being part of the mindfulness project?

The literature review outlined mindfulness to have benefits in a number of social, emotional and cognitive areas, including in the reduction of anxiety. These areas of functioning could be difficult for children with ASD to be fully aware of and able to communicate about explicitly. It was therefore considered appropriate to explore their lived experiences with the following additional research questions:

2. What do children with ASD say about their life experiences?
3. Does anything change in children's lived experiences during the course of the mindfulness project?

3.5 Research Design

3.5.1 Qualitative methodology. The literature review (Chapter Two) revealed that a limited amount of previous research had been carried out in the field of mindfulness with children with ASD, therefore highlighting it as a little researched field of study with no definitive hypothesis which can be built upon or further tested. For this reason, qualitative inquiry was a reasonable starting point for research (Quinn-Patron 2002, p.123). Although quantitative research was often considered to be a more empirical and scientific method of research, qualitative or flexible inquiry is currently seen as "no more or less legitimate a method than any other" (Anastas, 1999 cited in Robson, 2011 p. 133). Anastas (1999, cited in Robson, 2011) argues that all any study can do, is produce "approximations of reality and incomplete understanding of the phenomena of interest as they exist in the real world" and that the "process of study itself must be studied as well" (p.133).

Creswell (2012, p.128) comments that in qualitative research, theories are not usually tested and researchers do not compare groups or relate variables, but rather a central phenomenon or concept is explored to gain a deep understanding of the views of one group or single individuals. Hypotheses are intended to be tested using statistics, so are

not appropriate, hence research questions are used instead of hypotheses. The researcher takes more of an "open-ended stance and often changes the phenomenon being studied or at least allows it to emerge during the study" (Creswell, 2012, p.128). The research questions can change based on the responses of the participants. Therefore, "this makes quantitative research more deductive and qualitative more inductive" (Creswell, 2012, p.128).

This research explored the individual life experiences of children with ASD alongside their experiences of participating in the mindfulness programme. In this way, the research adopted an idiographic perspective, choosing to study each individual's account of the phenomenon of mindfulness as a unique case rather than only take interest in the ways in which accounts vary (Ashworth, 2008). This idiosyncratic approach to research required rich accounts of mindfulness to be gathered, suiting a qualitative research methodology, which is concerned with "describing the constituent properties of an entity" rather than "determining how much of the entity there is" (Smith, 2008, p.1). To gain useful information from these accounts, it was important for the research to examine subjectively the way in which the children make sense of their own personal experiences.

3.5.2 Rationale for the use of Interpretative Phenomenological Analysis.

Due to the phenomenological nature of the research, Interpretative Phenomenological Analysis (IPA) was decided to be more appropriate than other qualitative methods of analysis, as it allowed for an exploration of the phenomena of mindfulness as the participant and researcher construct it. IPA focuses on the uniqueness of a phenomenon and involves interpretation of what people say, linking this to the thoughts they might have, as interpreted by the researcher. IPA converges with the dominant discourse in psychology, the cognitive approach, as it is strongly concerned with the cognitive processes of the participant and researcher, although IPA diverges from the quantitative research methods favoured by this approach (Smith & Osborn, 2008). Other qualitative methods that are often used for psychological research are grounded theory and thematic analysis.

Grounded theory is a bottom- up approach concerned with "developing emergent theories of social action" (Ormston et al., 2014, p. 18) by generating categories of data and searching for relationships between them. "The process of data collection continues until the relationships are saturated- new data does not add to the theory" (Spencer, Ritchie, Ormston, Connor & Barnard, 2014, p.271). Grounded theory often stems from a critical realist position, which assumes reality lies on the continuum between objectivity and subjectivity: there may be an object to view but this is dependent upon who is looking at it and from what angle at what time. Therefore, reality is constructed by a mechanism creating an outcome, which is influenced by the context. In the critical realist paradigm, reality exists independently of our knowledge or perception of knowledge, or both. Reality is thought to consist of three different levels: real (that which exists regardless of our understanding of it), actual (that which exists in time and space and happens if and when the mechanisms are activated) and empirical (that which we observe and are aware of in our experience) (Sayer, 1984). This critical realist paradigm was not consistent with the researcher's position.

Thematic analysis involves "discovering, interpreting and reporting clusters and patterns of meaning within the data" (Spencer et al., 2014, p. 271). The researcher considered thematic analysis as a methodology, but felt that it would offer too shallow an account of children's experiences, rather than capturing the sense of their lived experiences.

Both grounded theory and thematic analysis offer simply descriptive analyses of individuals (Hefferon & Gil-Rodriguez, 2011, p.756). Neither method is able to explore the lived experience of the participant's narratives in such a rich manner as IPA, and being able to explore the subject matter of mindfulness from a phenomenological perspective was important to this research. For these reasons, the researcher favoured IPA.

IPA involves a two stage interpretative process, a 'double hermeneutic' whereby the "participants try to make sense of their world and the researcher is trying to make sense of the participants making sense of their world" (Smith, 2008, p. 53). IPA lends itself to the constructionist assumption that reality is subjective and the human experience can

only be known about through the interaction between the researcher and the participants, therefore suiting the researcher's ontological and epistemological perspective. Researchers must go beyond their natural attitude by being reflexively aware of their biases and pre-conceptions (Finlay, 2008; Tuohy, Cooney, Dowling, Murphy & Sixsmith, 2013). Although it was not possible to avoid being influenced by factors pertaining to one's life, the aim was to be aware of these factors and realise that they may influence understanding or interpretation (Finlay, 2008; Tuohy et al., 2013). Tuohy et al. (2013) describe the process of the hermeneutic circle as the manner in which interpretation leads to understanding by continuous re-examination of meaning and back and forth questioning between the researcher and participant.

The literature review found a lack of research in the area of mindfulness approaches with children with ASD. Therefore, the Interpretative Phenomenological Analysis (IPA) approach was particularly suitable for this novel field because the researcher hoped it might enable unanticipated phenomena and relationships to emerge and allow cognitive understandings of mindfulness to be thoroughly explored rather than examined to a more shallow degree as they may by using a quantitative positivist approach (Smith & Osborn, 2008).

3.6 Participants

3.6.1 Sampling method. Qualitative psychology takes an idiographic approach to research and seeks to explore the individual experience, rather than the nomothetic approach usually taken by quantitative psychology, which seeks only to find generalisations across the sample. Due to this idiographic tradition, IPA research requires samples to be selected purposively rather than via randomised sampling methods, because this allows insight into the particular experience being researched (Smith, Flowers & Larkin, 2009, p.48). Also due to IPA's commitment to idiography, small sample sizes are preferable because case-by-case analysis of individual transcripts is a lengthy process (Smith et al., 2009, p. 49). Hefferon and Gil-Rodriguez (2011) comment that larger samples can de-emphasise the idiographic nature of IPA so "fewer participants examined at a greater depth is always preferable to a broader, shallow and

simply descriptive analysis of many individuals, as commonly seen in thematic analysis, grounded theory or poor IPA" (p.756).

Purposively recruiting participants ensures that the sample is fairly homogeneous so that the aforementioned idiographic approach can be taken. It is important that the homogeneous features of the sample relate to the research questions because, after in-depth analysis of each individual's experience, the analysis broadens across the small homogenous group to develop an understanding of the group's experience. Therefore, this research used a purposive sampling approach, which satisfied the needs and interests of the research (Robson, 2011). For feasibility reasons linked to the delivery of the mindfulness intervention, the participants were recruited from a single school.

3.6.2 Inclusion criteria. The homogenous features that were important to this research included the participants being of a similar age, having a diagnosis of ASD and exhibiting some anxiety. The children needed to be able to use a conversational level of language in order to engage with the mindfulness project and the interviews. A two-stage process was followed in the consideration of inclusion criteria, as shown in Table 3.6.2.

Table 3.6.2: Participant inclusion criteria

Inclusion criteria – first stage	Inclusion criteria – second stage
Participants who fell into the following categories were considered for the second stage of recruitment: 1. Children at middle school, national curriculum years 5-8 (Key Stages 2-3, ages 9-13). 2. Children have an ASD diagnosis. 3. School has concerns over the children's levels of anxiety.	Participants who fell into the following categories were included in the sample: 1. Children who met the 'conversational partner' stage using the Social Communication, Emotional Regulation and Transactional Support (SCERTS) Assessment Process Scoring Criteria and Checklist. 2. Children who had an elevated anxiety levels according to the Spence Anxiety Scale.

3.6.3 Recruitment process. The research was carried out within a small LA in the east of England in which the researcher was working as a Trainee Educational Psychologist, so the researcher had existing connections with a local mainstream middle school. The research was agreed for ethical approval in February 2014 (Appendix 3) and, following a conversation with the school's Special Educational Needs Co-ordinator (SENCo), the researcher approached the school via a telephone conversation to explain the nature of the research. The school expressed interest and willingness to take part in the research, so the researcher sent a letter (Appendix 4) and a research information guide (Appendix 5) to provide further information to the SENCo about the research. The researcher arranged a meeting with the SENCo to follow up this initial information and to identify potential participants. At this stage, eight children from Key Stages two and three were identified as meeting the first set of inclusion criteria of: being similar in age, within a 4 year age spread; having an ASD diagnosis; and the school having concerns about their anxiety levels (see Table 3.6.2).

The researcher began the second stage of the inclusion criteria process by asking the school staff to consider the eight children's levels of communication using the Social

Communication, Emotional Regulation and Transactional Support (SCERTS) Model Assessment Process Scoring Criteria and Checklist (Prizant, Wetherby, Rubin, Laurent & Rydell, 2006) to ensure that children met the conversational partner stage (see Appendix 6).

Once five children had been identified, the researcher asked school staff to send out the information about the research (Appendix 5) and parental consent forms (Appendix 7) to the parents. Information about the research was sent to the school to share with the children (Appendix 8) and staff spent time explaining the research verbally to the children and checked they fully understood the process of giving consent and each question on the consent form (Appendix 9). When children had given their informed consent to the member of staff at the school, the researcher visited the school and once again checked the children's understanding of the research and consent. Once the children had consented to taking part in the research, the researcher assessed the children's levels of anxiety using the Spence Children's Anxiety Scale (SCAS, Spence, 1997, Appendix 10) and also reviewed the school's assessment of the children's communication through speaking with the children. All five children were identified through these assessments as having increased levels of anxiety and conversational communication skills, which would ensure their meaningful engagement and therefore meet the inclusion criteria. Children's scores on the SCAS can be seen in Appendix 11.

One original inclusion criterion was that the children would not have a comorbid disorder alongside their ASD diagnosis. However, difficulties with attention, hyperactivity and impulsivity are common in autism and for this reason, the DSM-IV specifically states that ADHD should not be considered as a separate diagnosis when assessing children with autism. Consequently, one child with anxiety issues and a diagnosis of ASD and ADHD was included in the sample. One participant was recommended for the programme by school staff and gave informed consent, but he felt uncomfortable when discussing his feelings and therefore, after the first mindfulness programme session and the initial interview, he decided to withdraw from the study and his data has not been used in this research. A final sample of four children (two boys and two girls aged 10-13 years old) completed the mindfulness programme and participated in the data collection process.

3.7 Inclusion Criteria Assessment Tools

3.7.1 SCERTS assessment process scoring criteria and checklist. One inclusion criterion was that children needed a reasonable level of language ability in order to take part in the mindfulness programme and give their views in the research process. The SCERTS Worksheet for Determining Communication Stage (Prizant et al., 2006) was used to assess whether they were at a conversational level of communication in order for them to be able to discuss and participate in the group (Appendix 6). The SCERTS checklist is part of the broader multi-disciplinary educational model for working with children with autism spectrum disorder (ASD) and its development has been informed by findings from published efficacy research in a number of educational and therapeutic fields relevant to ASD (Prizant, Wetherby, Rubin & Laurent, 2010). SCERTS provides guidelines and objectives for helping children develop social communication, emotional regulation and transactional support (relational and environment support). The model uses a comprehensive assessment which aims to inform curriculum objectives and it incorporates evidence-based practices consistent with the recommendations indicated by the National Research Council (2001). Molteni, Guldberg and Logan (2013) investigated multidisciplinary teamwork using the model and found that participants commented on the positive aspects of the assessment process. It was chosen as an assessment of children's language for this research because it was designed as an assessment of the language of children with autism and aims to be user-friendly for a range of professionals, including teachers.

3.7.2 Spence Children's Anxiety Scale. The Spence Children's Anxiety Scale (SCAS, Spence, 1997) was chosen to measure the children's levels of anxiety. The SCAS, which can be seen in Appendix 10, has 44 items which evaluate the severity of the symptoms of six child anxiety disorders: panic-agoraphobia, generalised anxiety, fears of physical injury, obsessive-compulsive disorder, social anxiety and separation anxiety. It is commonly used in clinical practice and shows good psychometric properties for 7 to 19 year-olds (Spence, Barrett & Turner, 2003). Self-report measures can present limitations for use with autistic children, for example they lack

psychometric properties and suitability due to the need for the reporter to be engaged in introspection and to identify and express emotions (Blakeley-Smith, Reaven, Ridge & Hepburn, 2012, p.708). Nevertheless, the SCAS has been described as useful for children "who are higher functioning and who have moderate language and cognitive abilities" (Grondhuis & Aman, 2012, p. 1360). Furthermore, Wigham and McConachie (2014) conducted a systematic review of tools used to measure anxiety levels of children with ASD in intervention studies and found the SCAS to be robust in its measurement properties. Due to the evidence supporting the SCAS and the fact that in this research it was used simply as a screening tool for the inclusion of participants, the researcher judged it to be an appropriate assessment of anxiety.

3.8 The Mindfulness Programme

3.8.1 Design of the mindfulness programme. This research involved exploring children's experiences of mindfulness and therefore a suitable mindfulness programme was required. The literature review outlined some programmes that had an evidence base, such as Mindfulness-Based Cognitive Therapy for Anxious Children (MBCT-C, Semple & Lee, 2011) which has research support outlined in the literature review (Semple et al., 2005; Lee et al., 2008; and Semple et al., 2010) and MindUP (The Hawn Foundation, 2010) which was evaluated by Schonert-Reichl and Lawlor, (2010).

At the time of conducting this research, the researcher found that no mindfulness programme existed that would be suitable for children with ASD. The existing resources that were designed for use with children (Semple et al. 2010; Hawn Foundation, 2010) were detailed but involved abstract language and lacked the structure that children with ASD can find helpful. The lack of suitable existing resources warranted the design of a programme specifically for use with children with ASD. The philosophy and principles of mindfulness described by the MBCT-C (Semple and Lee, 2011) and MBCT (Williams & Penman 2011) were combined with other ideas and activities from the researcher's experience of practicing mindfulness individually and in a group setting and experience of working with children with SEN in therapeutic and educational contexts. The researcher also drew on other established mindfulness-based

activities (Rae, 2014) that could be suitable and accessible for children with autism. Given the triad of impairment discussed in Chapter Two, considerations were made in relation to these needs, shown in Appendix 12.

The Mindfulness-Based Practice for Children with ASD programme was developed and written prescriptively so that it could be delivered effectively to a small group of four to eight children by a member of school staff with training and supervision from an EP. The programme consisted of 10 sessions each lasting approximately 45-60 minutes and delivered over five weeks, with two sessions to be delivered each week during this time frame.

Appendix 13 presents the programme overview, Appendix 14 gives an example of a session outline, Appendix 15 gives an example session guide and Appendix 16 shows examples of visual resources used within the programme.

3.8.2 Delivery of the mindfulness programme. It was decided that a member of school staff would deliver the programme. This was with the view to limit any bias that might have resulted should the researcher deliver the programme, in terms of participant demand characteristics or researcher effects. This was particularly important due to the interpretative nature of the research. It was also beneficial for school staff to deliver the programme so that they could help the children to generalise their mindfulness skills throughout the school day and sustain their practice after the programme had run its course.

The researcher delivered a morning training session to a teaching assistant who worked at the middle school. The training consisted of explaining the history, principles and current uses of mindfulness, the benefits found by research, mindfulness practice and an explanation of the programme. During this session, the teaching assistant was informed that it was necessary to develop her own mindfulness practice in order for her to fully understand mindfulness and subsequently deliver an effective intervention. The teaching assistant engaged in her own practice throughout the length of time that she delivered the programme with use of the ‘Mindfulness’ MBCT based book and CD (Williams & Penman, 2011) and also with the researcher during supervision sessions.

The member of staff had a personal interest and enthusiasm in mindfulness and well-being and felt comfortable with the concepts discussed. By this point, the researcher had been engaging in personal and group practice for over a year and she supervised the sessions and debriefed the teaching assistant after each session to continue to support her knowledge and understanding and to ensure programme fidelity. During these debriefing sessions the researcher modelled activities and engaged in mindfulness practice with the teaching assistant. The sessions were delivered on a twice weekly basis, with a break for half term and a passed over session due to school timetable commitments.

3.9 Data Collection

3.9.1 Research timeline. The research was given ethical approval in February 2014 (Appendix 3). Data was collected via semi-structured interviews before and after the delivery of the mindfulness programme. The researcher also collected audio diaries at the end of each session to gather further information about children's lived experience of mindfulness. Table 3.9.1 outlines the timeline of the research.

Table 3.9.1: Research timeline

Procedure	**Date**
UEL ethics requested	January 2014
UEL ethics granted	February 2014
Participants recruited (letters and telephone calls)	March 2014
Pilot taster session and interviews conducted	March 2014
Staff training session	April 2014
Taster session	April 2014
Initial data collection – Interview 1	April 2014
Programme delivery and audio diaries collected	April 2014- June 2014
Final data collection – Interview 2	June 2014

3.9.2 Pilot session. A pilot mindfulness session was carried out with a group of five pupils within a provision attached to a mainstream middle school for children with ASD (Appendix 17). This session aimed to ensure that children could engage with the

programme activities and structure before it was used as part of the research process. One of the pupils who took part was also interviewed to ensure the suitability of the research questions. The pilot study led to the adaptation of the resources used in the programme and the order of the activities. Furthermore, the interview schedule was adapted following this pilot by changing the order of interview questions and including four additional prompt questions to facilitate the children's responses (see Appendix 18 for the initial table used to plan the interview schedule, Appendix 19 for the initial schedule of interview questions, Appendix 20 for the final table and Appendix 21 for the final interview schedule).

3.9.3 Interviews

3.9.3.1 Perspective, meaning and aim. The nature and meaning of the qualitative research interview differs as a result of the different perspectives and traditions of research. Yeo et al. (2014) discuss that a positivist model would see the interview as "an interaction which accesses and acquires the participants pre-existing knowledge or views", whereas the constructivist research model sees knowledge as "something that is created and negotiated in the interview" (p.179) through collaborative and active participation and interpretation.

The aim of the IPA interview is to encourage the participant to speak about his or her experience in their own words and facilitate this by asking about relevant topics. It could be argued that IPA interviews are similar to psychosocial approaches to qualitative interviewing, as there is an aim to explore the outward facing aspects of a person's life and combine these with the inner life by taking a psychodynamic approach to data production and analysis.

3.9.3.2 The researcher-participant relationship. Oppenheim (2000) suggests that exploratory interviews should be a one-way process because a two-way process similar to a conversation might cause the participants to be influenced by the researcher, therefore the data may lose its value. Research with vulnerable groups in emancipatory and feminist research has criticised this stark contrast between the roles of researcher

and participant due to the imbalance of power that results. From a constructivist perspective, the researcher plays an active role in the research and is not just a "passive vessel through which knowledge is transmitted" (Yeo et al., 2014, p.179). The research interview can be viewed as a "conversation with purpose" and this purpose is informed by a research question (Smith et al., 2009; Webb & Webb, 1932 cited by Yeo et al., 2014, p.178). Therefore, the researcher would listen for the most part and the participant would talk (Smith et al., 2009). The researcher informed the children of this process, as the following extract demonstrates:

> *Researcher: Ok so Jack thank you for agreeing to take part in the research and coming to talk to me this afternoon….*
>
> *It might be a little bit of a funny conversation because I'm going to ask you questions and I'd like you to tell me as much as you can about whatever I've asked you so there's no right or wrong answers it's just whatever you think about things is that ok?*

Taken from audio-interview one with Jack.

However, due to the nature of the children's individual needs in the areas of anxiety and social interaction, the researcher anticipated the need to be flexible about her position and behaviour in the interviews and engage in responsive interviewing (Yeo et al., 2014), which emphasises the importance of building trust and is a gentler form of interviewing.

Seale, Gobo, Gubrium and Silverman (2004) further discuss the ideals regarding rapport and neutrality in the interviewer-interviewee interactions. The importance of rapport is recognised in all interview traditions, and to create rapport with the interviewee, the interviewer must "communicate trust, reassurance and, even, likeableness" (Ackroyd & Hughes, 1992 cited by Seale et al., p. 178). As the participants in this research study were children who had elevated anxiety levels, building rapport was especially important to ensure that the children felt comfortable talking with the researcher. To give the children the opportunity to meet the researcher and the other group members, a mindfulness taster session was delivered as described in section 3.8. The researcher also began each interview with questions about the most recent and well-known topic of

discussion, children's experience of school.

This research recognised that neutrality may cause an imbalance of power for the vulnerable sample of children with SEN and therefore the researcher was also reflexive to the information the children brought to the interviews. Seale et al. (2004) discusses how perspectives of neutrality differ between researchers, as some researchers view neutrality it as an essential practice (e.g. Ackroyd & Hughes, 1992; Weiss, 1994) and consider that a lack of neutrality from the interviewer will "bias the interviewee's story and contaminate the data" (Seale et al. 2004 p.12). However, more contemporary views see neutrality as a bad practice because when an interviewer is neutral he or she creates a hierarchical relationship in which the interviewee is treated as a research 'object'. As interviewers offer their own thoughts or experiences they begin to treat the interviewees more equally as other human beings, therefore lessening the power imbalance. This cooperative, engaged relationship involving mutual self-disclosure can encourage deep disclosure (Seale, et al., 2004, p. 12). The awareness of the researcher's role and effect is especially important for IPA research because of the double hermeneutic aspect. The researcher was aware of the essential skills and attributes of an effective interviewer (Yeo et al., 2014, p.184-185) and sought to show curiosity and active listening in the interviews, asking questions leading on from what participants said, seeking clarification and using the participants' own language. Humour, space to think and respond and careful preparation were also employed by the researcher to put the participants at ease. Completion of the pilot study led to the researcher being confident and comfortable in the interview situation, which is another factor that can instil trust in the participant.

3.9.3.3 Stages of the interview process. Interviews are the most frequently used method of data collection in qualitative research (Creswell 1994), and semi-structured interviews are an appropriate method in an experiential study as they give participants the opportunity to speak openly "and express themselves in their own terms and at their own pace" (Mosselson, 2010, p.481). In semi-structured interviews, the researcher "develops categories or topics to explore, but remains open to pursuing topics the

participant brings up" (Rossman & Rallis 2003, p.181). Therefore, an initial semi-structured interview table was drawn up to plan interview questions that would answer the research questions (Appendix 18) and from this a schedule was used to conduct the pilot interviews before and after the pilot mindfulness session (Appendix 19). Following this, further prompts were planned to facilitate the children's expression and accounts of their experiences. The researcher used the final interview table and schedule (Appendix 20 and Appendix 21) to guide the interviews rather than using it as an absolute 'script'. Interviews were conducted on an individual basis with each participant at the beginning and the end of the mindfulness programme. Each interview aimed to be short, with clear and open-ended questions, so that participants had the opportunity to express their lived experiences with limited imposition of the researcher's understanding of the experience. As previously discussed, the researcher anticipated that the children's anxieties could lead to the need for reassurance and increased sensitivity and flexibility in the researcher's response.

The researcher initially hoped to gather data via video recording as visual information might have provided another element of data to enrich the ways of representing the experience (Reavey & Johnson, 2008). However, the first participant was uncomfortable with this method, therefore the decision was made on ethical grounds to collect audio data only. Figure 3.9.3.4 demonstrates the stages of the interview used in the research.

Stages of the interview

Stage 1: arrival and introductions

Establish rapport and ensure the child is comfortable and at ease.

Stage 2: research purpose and ethics

Remind the child of the consent.

Stage 3: beginning the interview

Begin the interview with a broad question linked to a well-known context.

Stage 4: during the interview

Exploration of research questions in depth.

Stage 5: ending the interview

Asking for any further comments and any questions the participant has.

Stage 5: after the interview

Thank the child for his or her participation.

Remind the child of the next stages (analysis) and how the research will be used.

Figure 3.9.3.4: Stages of the semi-structured interviews

3.9.4 Audio diaries. Although interviews are an "effective way of exploring the ways that participants construct their lives" (Yeo et al., 2014, p.183) and the interviews in this research aimed to be in depth and exploratory, the researcher recognised from a constructivist viewpoint that they are only part of the representation the research seeks to explore. Therefore, it was felt that another method of data collection that would capture the lived experience of mindfulness practice would be useful to uncover a more authentic reality and understanding of the children's experiences. Audio diaries were recorded by the researcher at the end of each session, and these were gathered from the children as a group collectively. The researcher asked the children the question "What was mindfulness like today?" and each child had the opportunity to respond in an open manner to communicate his or her experiences of mindfulness for that particular session. The researcher separated each child's responses during the transcription stage of data analysis to create an individual audio diary for each child.

3.10 Data Analysis

3.10.1 IPA principles of analysis. This type of qualitative approach is phenomenological, whereby the researcher aims not to test hypotheses but take an

idiographic stance and produce a detailed understanding of how mindfulness affects thoughts, behaviours and experiences for individual children. For this reason, Interpretative Phenomenological Analysis (IPA) was the methodology chosen to gather and analyse the data. The aim of interpretive phenomenology, is to "explore in detail how participants are making sense of their personal and social world; the meanings particular experiences, events and states hold for participants" (Smith & Osborn, 2008 p.51) and the end result is always the researcher's account of how he or she thinks the participant is thinking - this is the double hermeneutic element (Smith et al., 2009). Smith et al. (2009) outline the stages involved in IPA to direct novice researchers, but they state that in reality "analysis is an iterative process of fluid description and engagement with the transcript. It involves flexible thinking, processes of reduction, expansion, revision, creativity and innovation" (p.81).

3.10.2 IPA process of analysis. The guidelines given by Smith et al. (2009) were followed to provide a structure to analysis, but a relatively fluid approach was adopted to move through the stages, for example, their suggested first stage of 'reading and re-reading' was repeated after carrying out the second stage of 'initial noting'. Table 3.10.2.1 outlines the stages of data analysis.

Table 3.10.2.1: Data analysis stages

Stage 0	Verbatim transcription of the data.
Stage 1	Reading and re-reading.
Stage 2	Initial noting - write descriptive, linguistic and interpretative comments on the transcript initial noting tables.
Stage 3	Develop emergent themes and write these in the left column of the transcript initial noting tables.
Stage 4	a. Type a chronological list of emergent themes and develop superordinate and subordinate themes by moving themes on paper. b. Create tables of emergent themes for participant one for each data set (interview 1, audio diary, interview 2). c. Create an overall table for each participant with the themes for all their data sets.
Stage 5	Repeat stages 1-4 for each separate participant.
Stage 6	Cross case analysis of participants looking at convergence and divergence for each data set.

Firstly, the audio data needed to be transcribed into a verbatim line-numbered transcript. IPA aims to interpret the meaning of the content of the participant's account so it requires a transcript with all the words spoken by the participant and the researcher. There is no necessity to record prosodic aspects of recording but notes were made regarding non-verbal utterances, significant pauses and hesitations (Smith et al., 2009) and the conventions for these can be seen in Figure 3.10.2.2.

… to indicate a short pause
[pause] to indicate a definite pause
[long pause] to indicate a prolonged pause
() within the text to indicate researcher comments e.g. (mmm)

Figure 3.10.2.2: The transcript conventions to indicate conversational flow

All audio recordings were transcribed in this way by the researcher for each participant before analysis. Appendix 22 shows an example transcript.

The data analysis process was completed on a participant-by-participant basis. The first stage of analysis outlined by Smith et al. (2009) of reading and re-reading was completed and this had also occurred whilst the researcher was in the process of transcribing, which strengthened familiarity with the data.

The second stage that was completed was ‘initial noting’ which involves making descriptive, linguistic and interpretative comments. The descriptive comments focused on describing the content of what the participant was saying, the linguistic comments focused on exploring the specific language used and the conceptual comments focused on a deeper and more conceptual level of interpretation. Comments are often enmeshed and are difficult to separate from one another, so this noting method was used as a framework. Figure 3.10.2.3 and Appendices 23 and 24 show examples of this process.

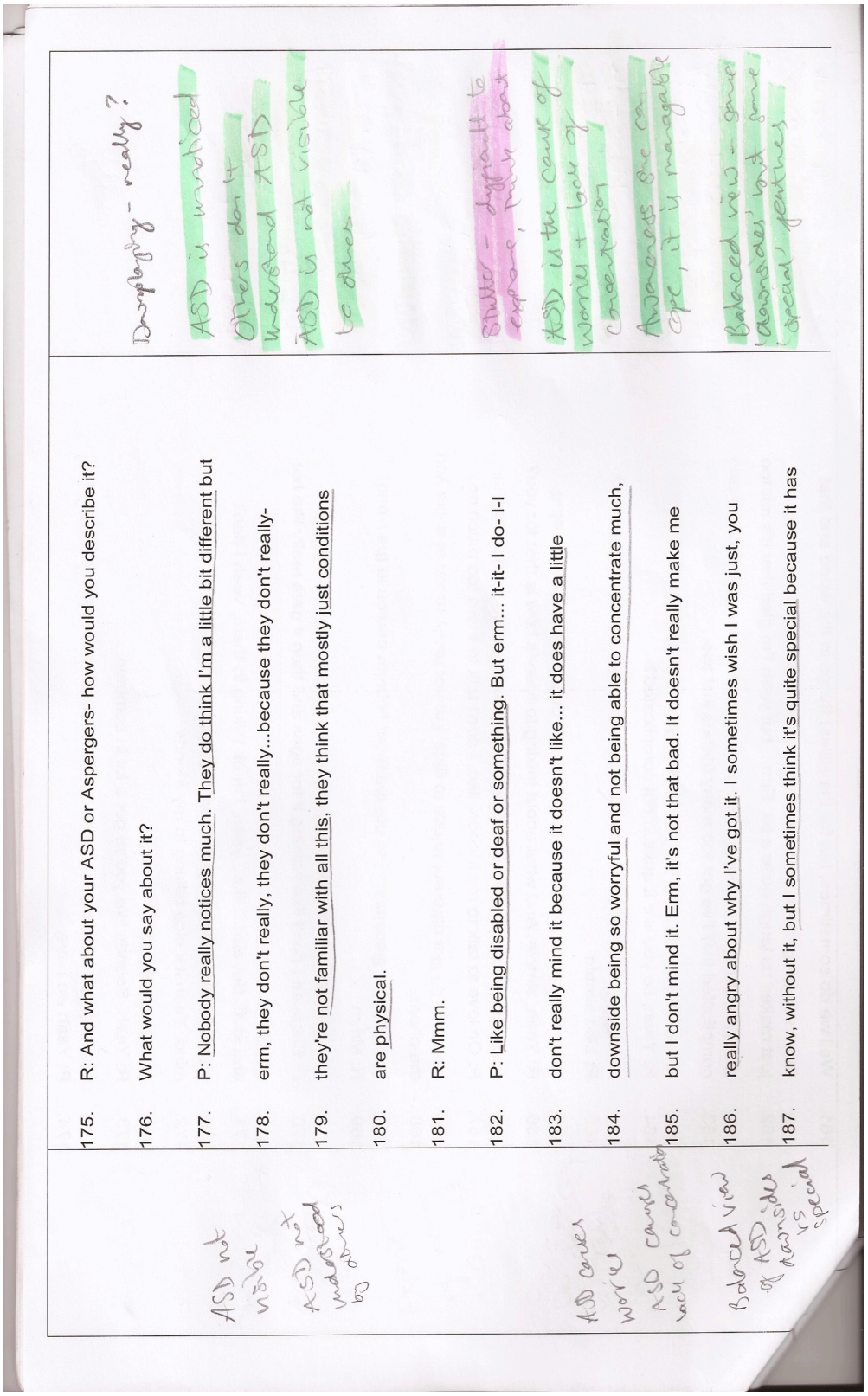

Figure 3.10.2.3: Example of initial notes- descriptive, linguistic and interpretative comments

The third stage involved developing emergent themes and reducing the data into meaningful and discrete pieces of data. The process of developing emergent themes reflects " a synergistic process of description and interpretation" (Smith et al., 2009) as the researcher draws on her interpretation of the participant's experience, as gained through the initial noting of stage two, to select meaningful interpretations of the data. To assist the researcher's selection of meaningful data, the researcher kept a note of key concepts. An example of this can be seen in Figure 3.10.2.4.

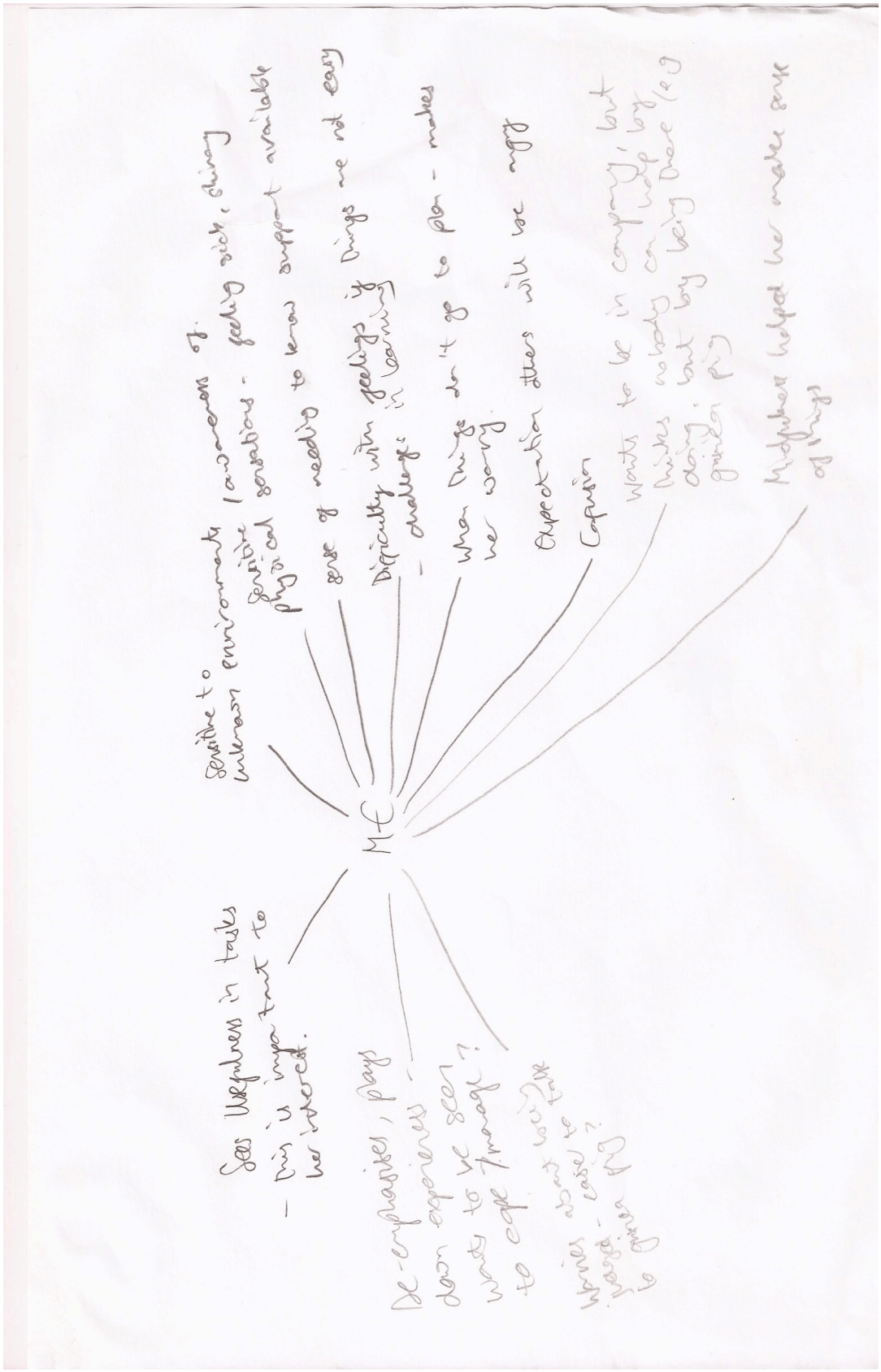

Figure 3.10.2.4: Example of graphic organiser of meaningful data

The emergent themes were written into the left hand column of the initial noting sheets (Figure 3.10.3) and then a table was made of the emergent themes for each participant's data set as can be seen by Table 3.10.2.5.

Table 3.10.2.5: Example of emergent themes

Emergent themes	Line number	Quote
Struggles with self expression	8, 29	Art [pause] Science, Tech. Food tech… things like that… Dunno
Difficulty connecting concepts	9-11	R: What sorts of things do - are the same about them? Is there anything that's the same? P: No
Inability to differentiate	18	It's all like the same
Difficulty with friendships	22-24	R: Ok thank you for telling me. Erm…what…what are friendships like for you? P: Hard.
Lack of awareness about what is hard in friendships	31-35	R: Ok. I was just wondering because you said they were hard I was wondering what was hard? P: [pause] R: It's sometimes difficult to know isn't it? P: Yeah
Feeling misunderstood	39	It's like hard coz people don't know like, they don't understand.
Having autism is hard	42-47	P: It's like hard R: Mmm. Is it hard at home and school? P: Yeah R: Or is it different? P: It's hard.
Autism is different in different contexts	52	It feels like, it doesn't feel the same at school, coz like, it's different.
Difficulty expressing feelings	53-54	R: Do you know what's different? P: No
Feeling isolated	57-59	P: It's hard, because you don't know who to tell.

Stage four involved searching for connections across the chronological list of emergent themes. This allowed the themes to be mapped into a structure and clusters of related themes to be brought together. At first, the researcher typed a chronological list of the emergent themes from the initial noting transcript tables and then wrote the emergent themes from the initial noting tables onto post-it notes. These post-it notes were then moved around on a large piece of paper so that the themes could be explored in terms of spatial representation to create the table of themes. After doing this for one participant and finding the need to cross reference the participants' comments from the initial noting sheets, the researcher decided it would be more practical instead of post-it notes to use a cut up version of the chronological emergent themes table which had the line numbers listed (Figure 3.10.2.6).

Themes that were similar were placed together, whereas opposing themes were placed at opposite ends of the paper or on different pieces of paper. Figure 3.10.2.6 and 3.10.2.7 show examples of this process.

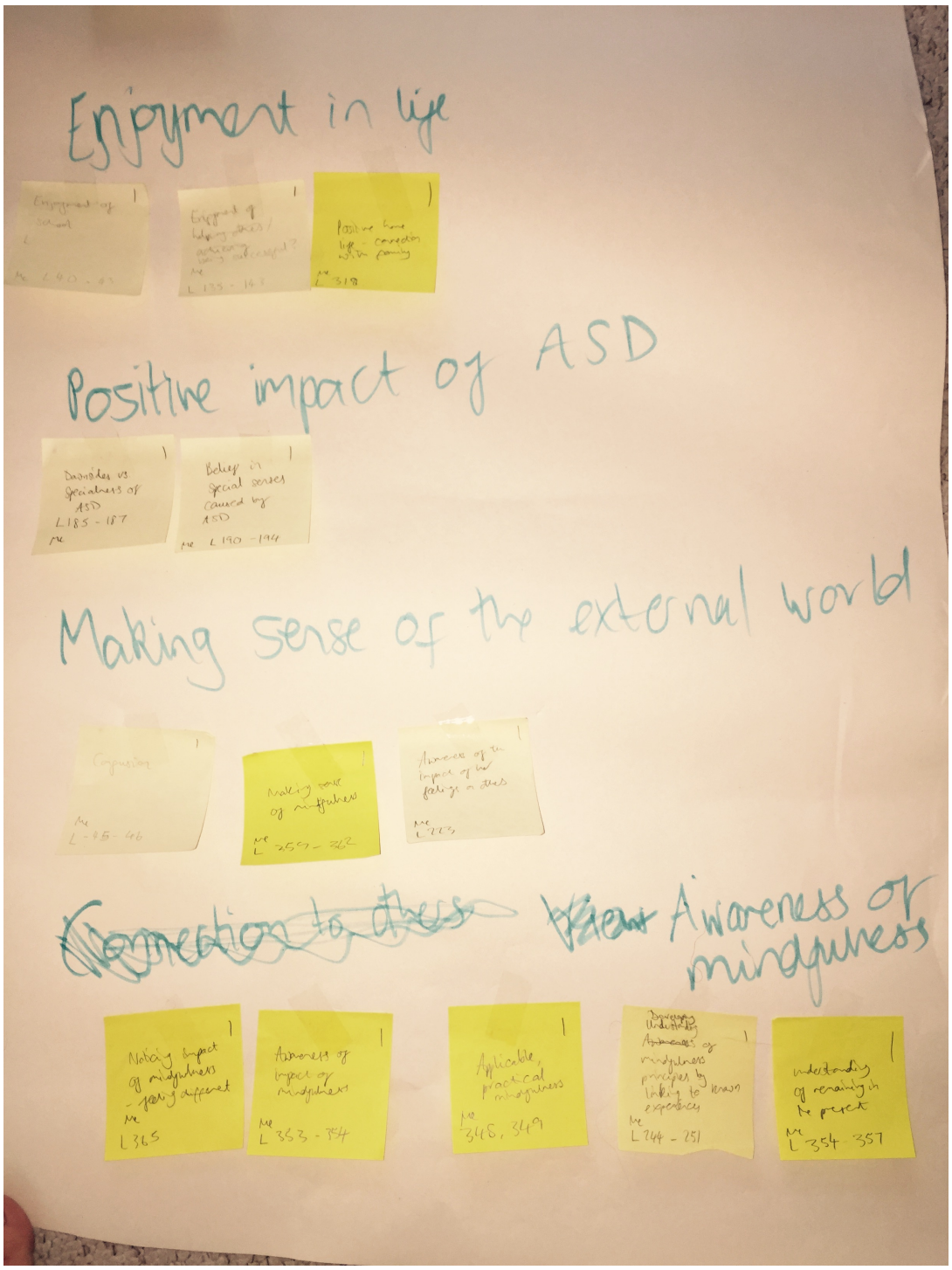

Figure 3.10.2.6: Example of stage four- mapping themes with post-it notes

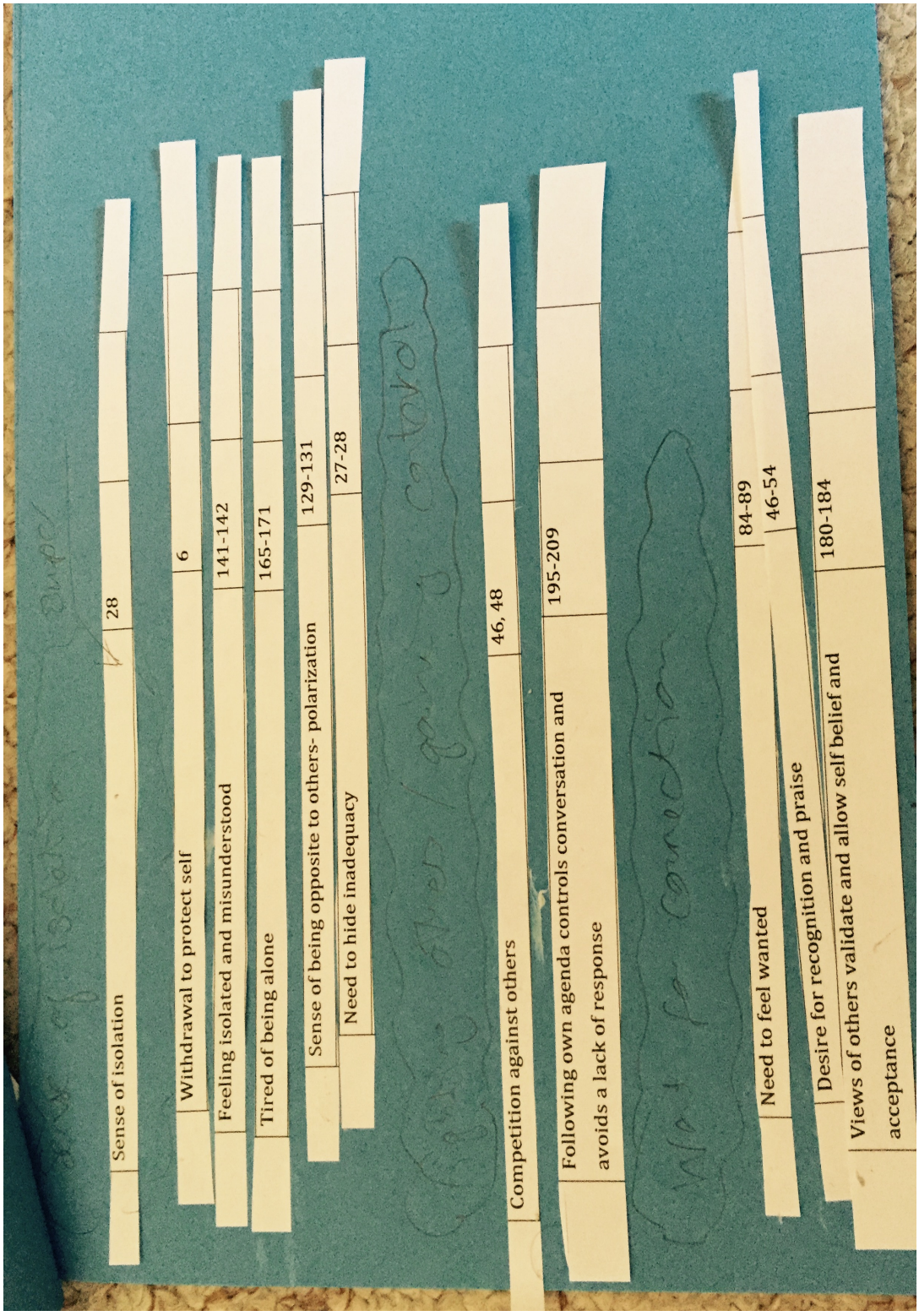

Figure 3.10.2.7: Example of stage four- mapping themes with word-processed themes

Patterns were identified in the emergent themes using a number of processes: abstraction, subsumption, polarisation, contextualisation, numeration and function.

Abstraction involves putting emergent themes into a superordinate theme so that a new term emerges to describe these themes (for example, in Me's analysis, themes of 'nobody can help', 'feeling unheard', 'it just happens' and 'I can't' developed the superordinate theme 'perceptions of helplessness').

Subsumption occurs when an emergent theme becomes a superordinate theme and brings together a number of related themes (for example, for Jack's analysis, 'pleasing others' became a superordinate theme).

Polarisation requires examining the transcripts for oppositional relationships by looking for differences rather than similarities (for example, Me spoke of difficulties her ASD caused, but also of its benefits).

Contextualisation identifies connections between the emergent themes and the key events described by the participants (for example, the worries spoken about were contextualised in terms of their relation to the future or past).

Numeration involves noting the frequency of emergent themes throughout the transcript. These were not counted formally, but a high frequency of comments related to the same theme was noticed (for example, Me spoke a lot about being misunderstood).

Function concerns how the emergent themes reflect how the participant positions themselves within their narrative (for example, Jack felt he was victimised by others).

The use of these analytical strategies created a representation of the emergent themes for each participant for each separate data set (interview 1, audio diary, interview 2) as can be seen in Figure 3.10.2.8.

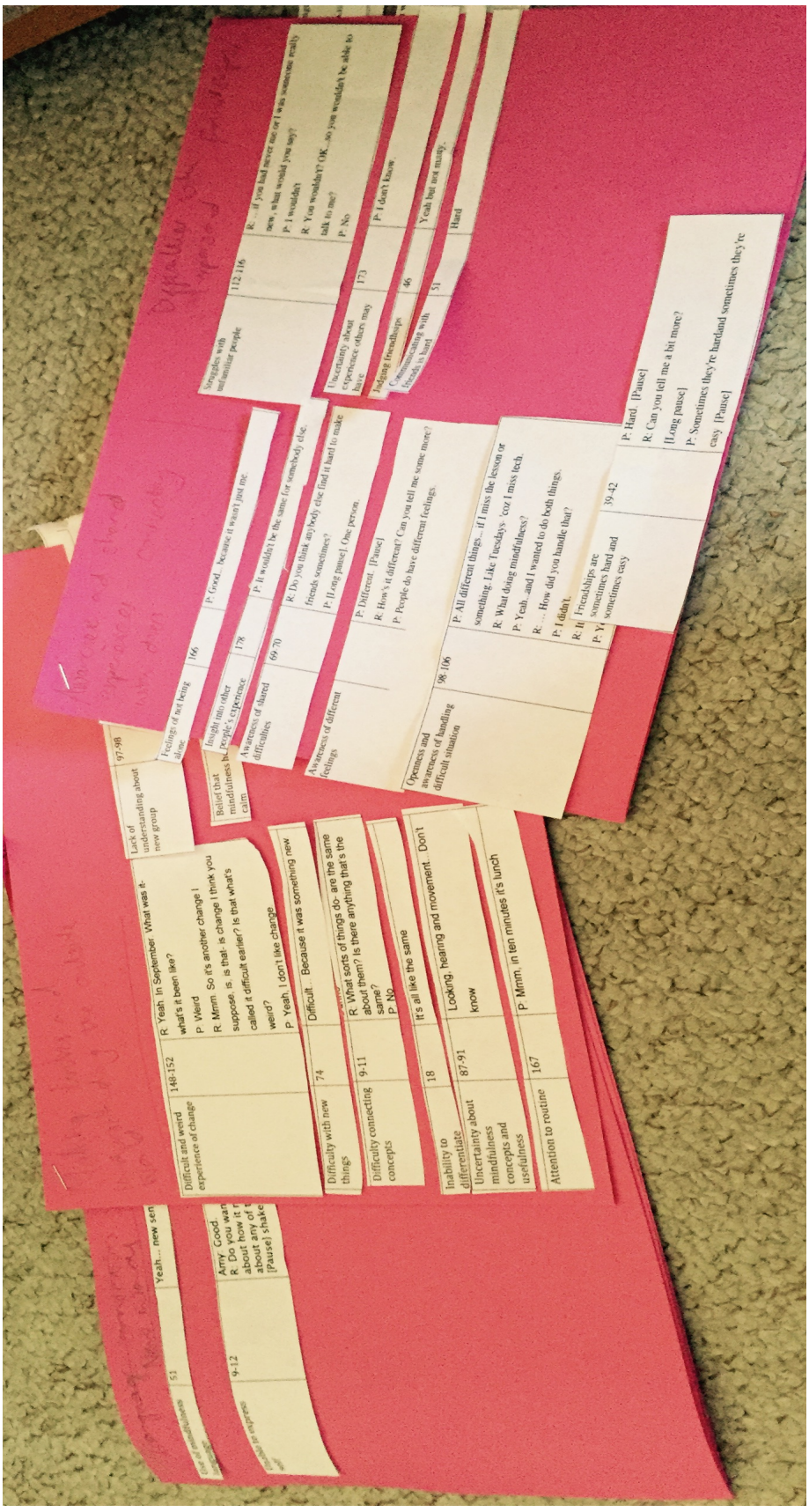

Figure 3.10.2.8: Emergent themes for each participant for each separate data set

Once each data set had been analysed in this way, the researcher created an overall poster of the main themes for each participant. The researcher colour-coded the themes according to the data set (interview 1, audio diary, interview 2) which can be seen in Figure 3.10.2.9 and Appendices 25-28.

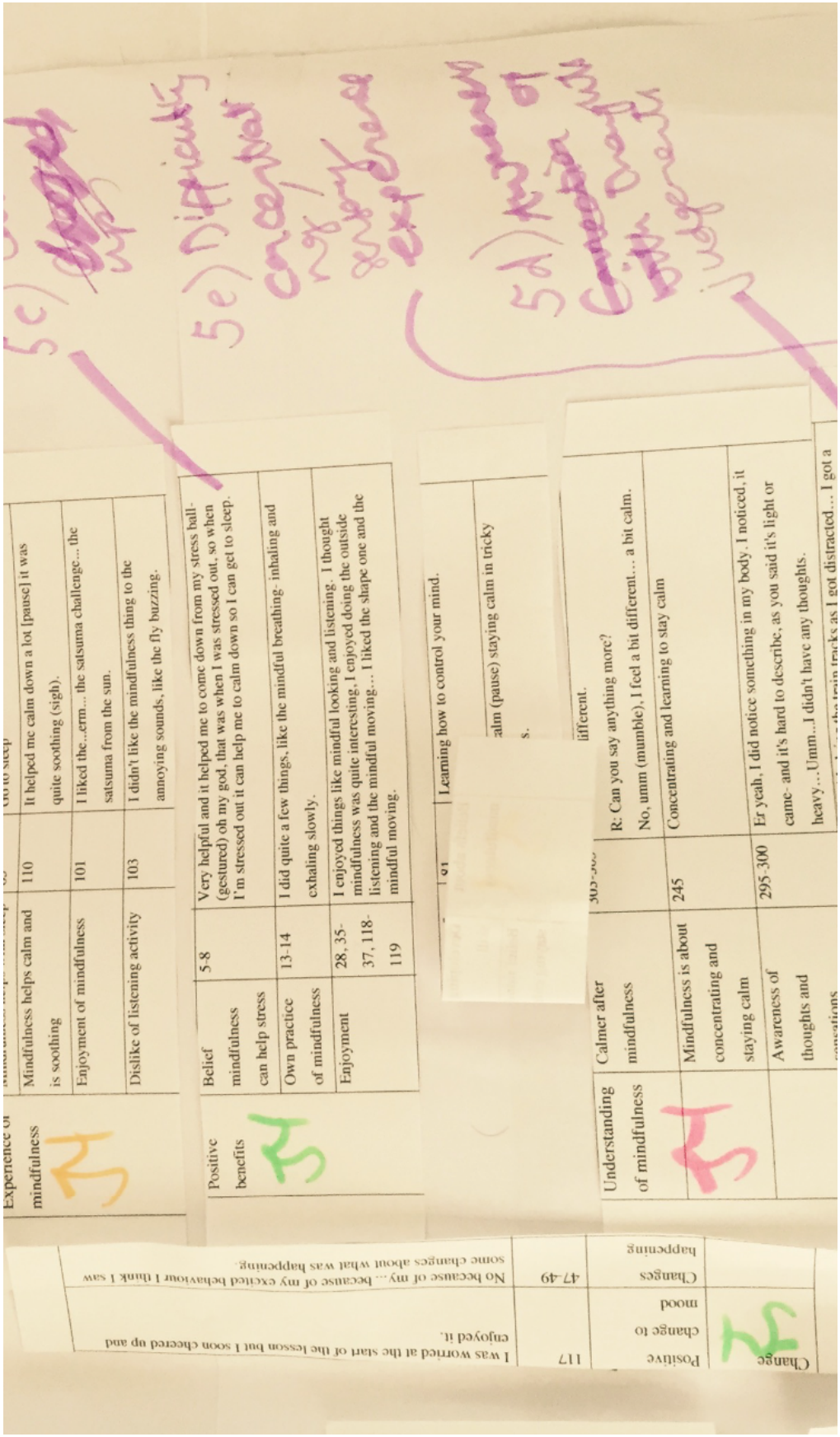

Figure 3.10.2.9: Example poster of superordinate and subthemes for one participant

The fifth stage moved on to analyse the data of the next participant, therefore repeating stages 1-4 as described above. The researcher analysed each case in depth to allow emergent themes to appear, in keeping with IPA's commitment to idiography. Smith et al. (2009, p.101) suggest that following their recommended stages will ensure a rigorous and systematic approach and allow in depth and good quality analysis to take place.

The sixth stage of the analytical process was to look for patterns and divergences in the emergent themes across cases to create a master table of themes for the group (Appendix 29). This allowed higher order qualities of similarities to be recognised but also identified areas of idiosyncrasy.

3.11 Ethical Considerations

The research was awarded ethical approval in February 2014 (Appendix 3). Ethical consideration includes four main areas outlined by the British Psychological Society Code of Ethics (BPS, 2009): protection from harm for both the participants and researcher; informed consent; anonymity and confidentiality; plus research quality considerations such as validity, trustworthiness, reflexivity and integrity (University of East London, 2013) which are covered in the next section. These ethical considerations supported the psychologist and balanced the power relationship between the researcher and the participants. This prevented the participants in this study being disadvantaged by a lack of knowledge and certainty, compared with the psychologist.

3.11.1 Protection from harm. This research not only protected participants from harm, but also served to improve their psychological well-being by empowering their voice and listening to their experiences. The children were informed about the details of the programme well in advance of the first session and the sessions days and times were consistent each week, so that children did not worry about the change to their routine; something especially important, given the needs of this vulnerable group of children. The programme sessions were delivered by a familiar adult with the researcher present to ensure that the researcher was not a stranger to the children and the

data was collected in the naturalistic setting of the school; all factors designed to limit anxiety for the participants. Children were advised that they may decline to answer any questions put to them in the interview but that if they said anything that was concerning about their safety, this would be passed on to the school staff. The researcher ensured she had full awareness of child protection procedures in the school should any disclosure or relating concern arise and they were able to discuss queries during supervision throughout the research process.

3.11.2 Consent. Consent was first sought from the school staff where the research would take place. Secondly, due to the participants being children, it was necessary to obtain informed consent from their parents. Information was given to parents/carers (Appendix 5) and pupils (Appendix 8) about the nature of the research before consent was obtained. As the research was carried out with children who have social communication needs, ample opportunities were given to the children and parents to understand the nature, purpose, and anticipated consequences of their participation (BPS, 2009). For example, a taster session was delivered by the researcher so that the children fully understood what taking part would entail. The researcher delivered this taster session to the children with the teaching assistant, a familiar member of staff. Once the children were fully informed, consent was obtained (Appendix 9) and it was clearly communicated to them that they had the right to withdraw at any point but that the researcher would reserve the right to use any collected data. This was first communicated to the children through the consent form and explained verbally at the taster session and again at the initial interview session. The researcher questioned the children to check that they fully understood their rights and the consent form used child-friendly language to also ensure clarity. In the case of one participant who withdrew, the ethical guidelines were followed and the participant was reassured that it was his right to withdraw from the research (BPS, 2009).

3.11.3 Anonymity and confidentiality. To address data protection guidelines, all audio recordings were stored on a password-protected device and were destroyed once the data had been transcribed. The researcher typed the transcripts with pseudo names replacing the participant's real names. The transcripts were stored in a locked container and only seen by professionals supporting the researcher in analysis, for

example trainees and staff at University of East London (UEL) and professionals attending the London IPA group.

Children were made aware of how their data would be used, which respected their rights to anonymity and confidentiality. The children were asked to choose pseudo names to replace their real names within the research write up and in the data transcriptions. This allowed children to feel in control and a sense of ownership with regard to their anonymity and confidentiality. Due to the study being conducted in a single school, the school remained anonymous to further protect the children's identities.

3.12 Validity and trustworthiness of the research

3.12.1 Validity in qualitative research. Yardley (2008, p. 235) states that the validity of qualitative research depends on judgments of whether the research is accepted as "sound, legitimate and authoritative by people who have an interest in research findings". Therefore the research must be considered to have been carried out well and to be trustworthy and useful. This poses difficulties since qualitative research usually believes people to have differing perspectives of reality and therefore no one perspective can represent a 'true' perspective of reality in order for this perspective to be used to evaluate the study (Yardley, 2008). Yardley (2008) goes on to discuss a framework of validity criteria that may be considered in qualitative research, including sensitivity to the research context, commitment and rigour in the research process, coherence and transparency in data analysis and the impact and importance of the research (p. 244 - 250). This framework is by no means a prescribed and rigid set of rules, but rather a set of recommendations that should be considered and used, if relevant, to evidence validity. Table 3.12.1 gives an overview of the ways in which the research met these criteria.

Table 3.12.1: Validity criteria for the research

Validity criteria	How the research met this criteria
Sensitivity to the context of	The researcher conducted a systematic literature

existing theory and research in the development of the research topic	review and used this as the basis for formulating the specific research questions.
Sensitivity to the positioning and perspective of participants	Participants were given the opportunity to take part once fully informed about the research. The researcher encouraged participants to speak openly during the semi-structured interviews and these were conducted in a familiar place with the researcher they had previously met.
Commitment and rigour in participant recruitment	Four children took part in the research, all with a diagnosis of ASD, anxiety difficulties and a conversational level of language. Two boys and two girls took part.
Transparency in the analysis of the data	A detailed description was given as to how the data was initially coded and how these codes developed into emergent themes throughout the analysis process.
Coherence between qualitative design and the presentation of the data.	The researcher looked for emergent themes across the group and for disconfirming instances.
Impact of the research	The research explains the experiences of children with ASD engaging in mindfulness-based practice.

3.12.2 Procedures for enhancing validity. The first element considered was triangulation of the researcher's perspectives with those of other researchers. This was carried out informally by presenting analysis at the London IPA group (Appendix 30) and with other researchers on the Doctorate in Educational and Child Psychology at UEL. The aim of sharing the analysis was to ensure that it made sense to other people who had read the transcripts. It was important that the researcher's interpretation of the participants' interpretations remained at the heart of the analysis, and other researchers' opinions helped to develop emergent themes rather than shift the researcher's perspective.

Hefferon and Gil-Rodriguez (2011) discuss their concerns over the quality of much IPA research and state that there is a lack of peer-reviewed educational psychology IPA research (Hefferon & Gil-Rodriguez, 2011). This research hoped to contribute to the educational psychology IPA evidence base by being peer-reviewed once the write up was completed. Throughout the research process, the researcher regularly attended IPA group meetings at the Tavistock Clinic and also joined the IPA online forum run by Jonathan Smith in order to develop a good understanding of IPA.

Furthermore, the study used participant feedback or 'response validation' (Yardley, 2008, p.242) by asking for comments from participants on the emerging analysis in February 2015. Attention was paid to the cases that did not fit into emergent themes, and this was done systematically according to the sixth stage of the IPA analytical process (Smith et al., 2009). This ensured that all data was taken into account, presented fairly and not subject to researcher bias.

The researcher ensured that records of analysis were made available to other researchers and examiners. This included verbatim transcripts (Appendix 22), initial noting with evidence of emergent themes (Appendix 23; Appendix 24; Figure 3.10.2.2) and extracts from the researcher's diary (Figure 3.12.2, Appendix 31).

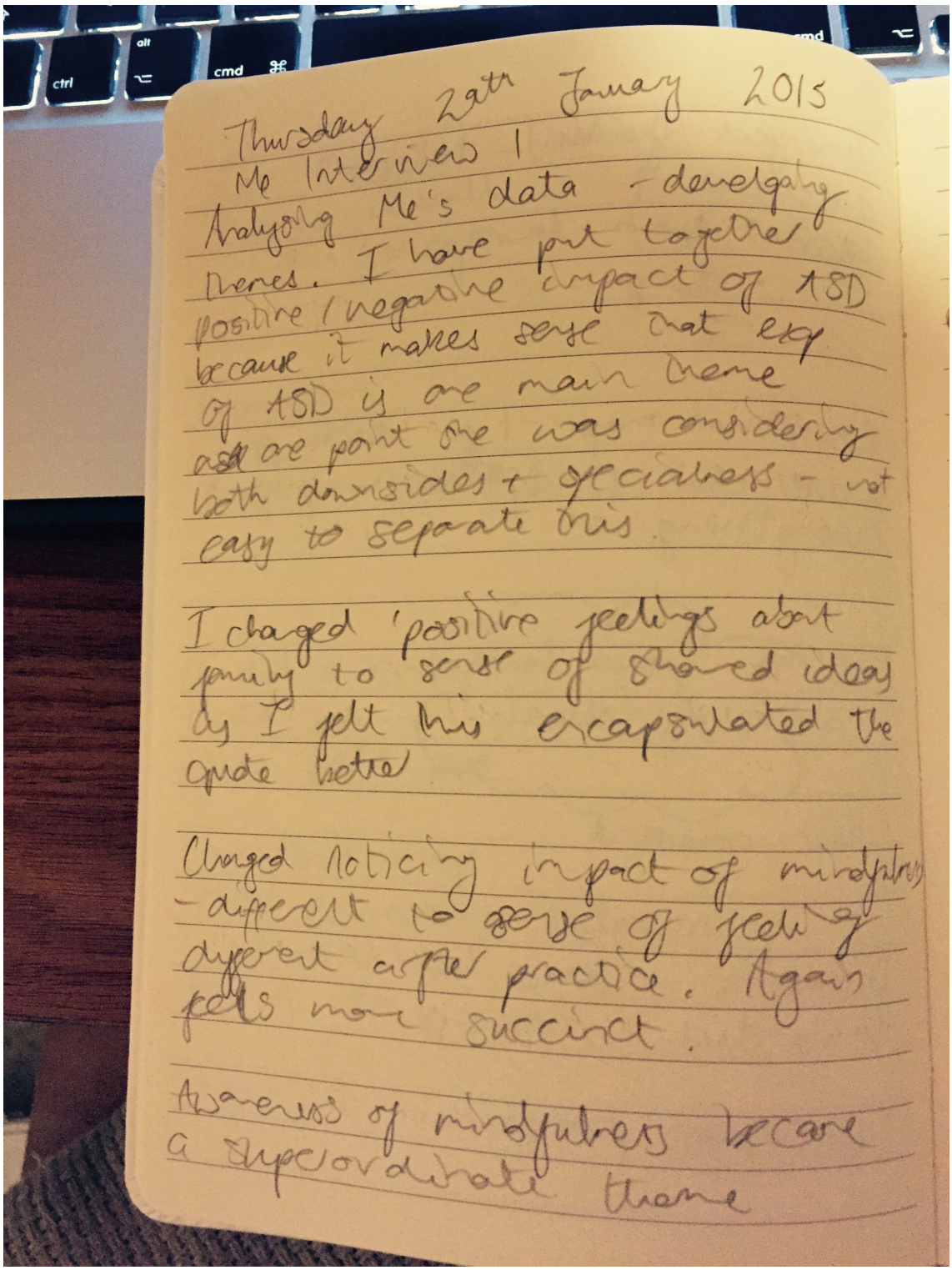

Figure 3.12.2: Extract one from the researcher's diary

3.13 Reflexivity

The attitude involved in phenomenological research involves a "radical transformation in our approach where we strive to suspend presuppositions and go beyond the natural attitude of taken-for-granted understanding. It involves the researcher engaging a certain sense of wonder and openness to the world while, at the same time, reflexively restraining pre-understandings" (Finlay, 2008, p.2).

Considerations were made regarding 'reflexivity'- a term used for the explicit reflection on the interpretations about the phenomena being researched and the researcher's experience of this. The researcher needed to be explicitly aware of her pre-assumptions and how these can influence their interpretations. Therefore the following were considered: the positionality of the researcher as a social constructionist, the creator of the mindfulness programme and a trainee educational psychologist; the researcher's emotional responses to the participants; the questions asked by the researcher; the researcher's interest and experience of mindfulness; the researcher's experience of working with children with SEN; and the researcher's knowledge of the participants. These factors might have impacted upon both the meanings children made of their experiences and the interpretations that the researcher made about the children trying to make sense of their experience. By the researcher recognising her own responses, it allowed reflexivity in guiding understanding about why and how the researcher came to feel that way and how her own feelings and this contributed to the interpretation process. The research diary was used to engage in the reflexive process (Figure 3.12.2; Figure 3.13).

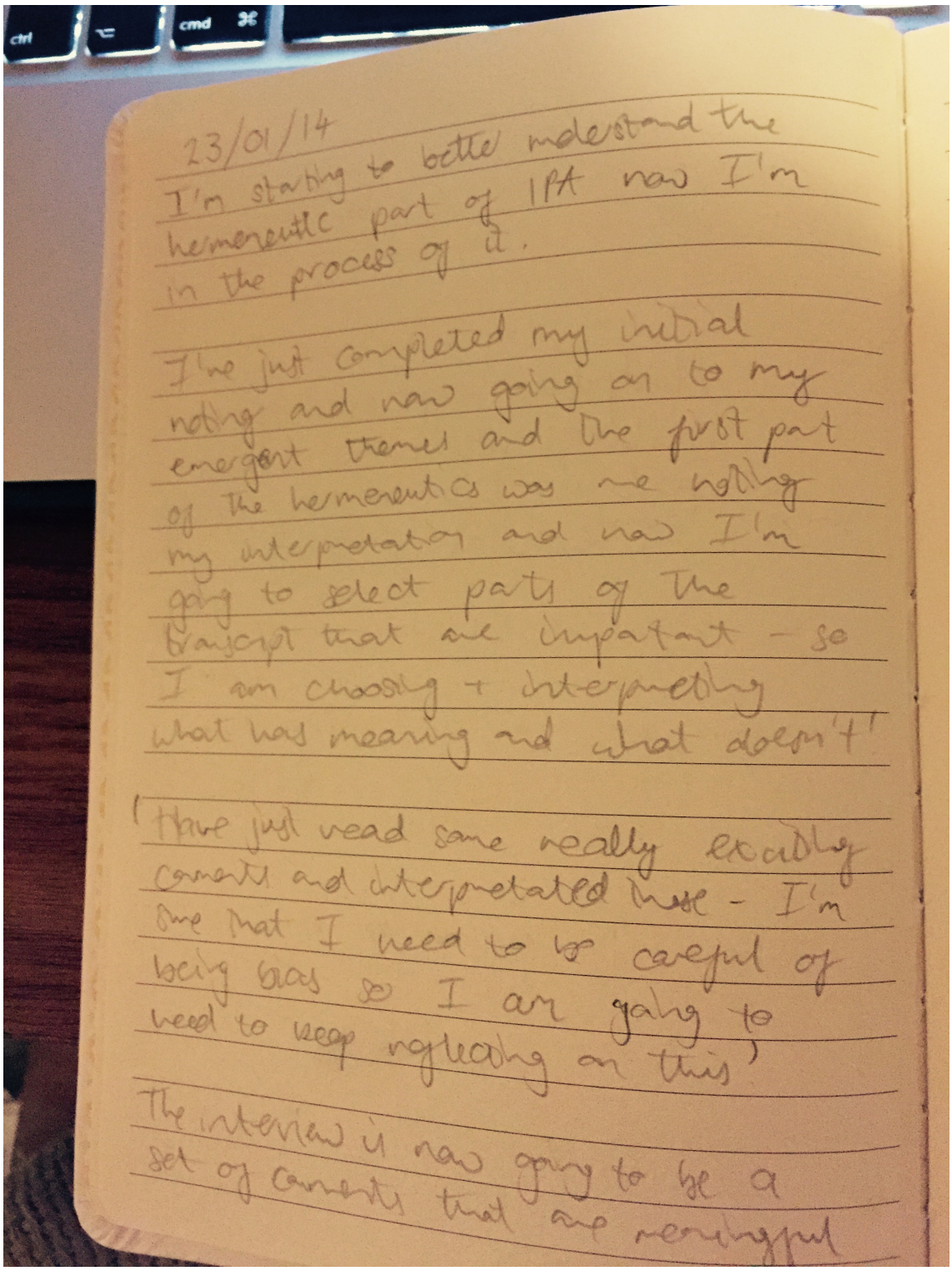

Figure 3.13: Extract one from the researcher's diary

Finlay (2008) states that most phenomenological researchers would agree with the process of reflexivity as "one of the more (if not the most) significant dimensions of phenomenological research" (p.4). Finlay (2008) speaks of Husserl as one of the first philosophers to argue for a self-meditative process where the researcher "brackets the natural world and world of interpretation in order to see the phenomenon in its essence" (p.4). The aim is to "connect directly with the world as we experience it and, through empathy, as we believe our research participants experience it, as opposed to conceptualising it with assumptions and pre-judgments" (Finlay, 2008, p.4).

There is a need to bracket these pre-understandings but at the same time use them as a source of insight for deeper understanding of the participants' world, in line with the philosophies of later phenomenologists Heidegger, Merleau-Ponty and Sartre (Smith et al., 2009). In order for the researcher to be able to bracket her assumptions and pre-judgments, it was necessary for her to have clear awareness of her own positioning and the specific ways in which these pre-judgements and pre-assumptions could influence the research, as has been discussed in this chapter

In conclusion, in this chapter the researcher has explained her ontological and epistemological positioning, which led to the methodological process used within this study. Justification for IPA has been presented and ethical considerations have been detailed. The next chapter demonstrates how the researcher came to an understanding of the participants' experiences through analysis of the data, and how her pre-assumptions were bracketed throughout the analysis.

Chapter 4: Analysis

4.1 Chapter overview

In the previous chapter, the research aims, purpose and questions were presented followed by an outline of the research design, data collection, research methods and ethical considerations. In this chapter, rich narratives of participants' lived experiences will be given by presenting the emergent themes gained during the analytic process. The process of IPA as described in Chapter 3 was undertaken to develop these narrative accounts for each individual and these will first be presented, and subsequently followed, by a presentation of the common themes which arose from the group of participants and therefore represent a 'shared' experience. In order to maintain the idiographic nature of IPA, a descriptive summary of each individual is presented in the initial section.

4.2 Individual analysis

As IPA is an idiographic approach, it was important for each individual's account to be analysed in detail as an individual story. Each case was analysed in this way with the first case ('Me') being the interview that was the most detailed and lengthy. This section aims to further introduce the participants to the reader and present each participant as 'a single case in its own right' (Smith, Flowers & Larkin, 2009, p.29) by initially presenting a summary of each participant. These summaries were created through discussion with school staff, observations during the course of the mindfulness programme and the data collection process and from discussions with the children regarding the information they wanted to be included in the research write up. These discussions happened once the emergent themes had been noted for each individual participant. The researcher talked about the emergent themes with each child individually, which helped her to reflect on her interpretations of the children's experiences. In this meeting, children were asked by the researcher what they would like to be written about them in the research write up. The descriptions seek to add

context for the reader and the information is not interpretative, nor did it form part of the analysis.

Summaries will be followed by a presentation of the analysis of each of the three data sets- the initial interview, audio diary and final interview. These three data sets were employed to gather the children's lived experiences over time. Previous studies have found children with ASD to have impaired ability in reflective self-awareness (Hobson, 1993; Jackson, Skirrow & Hare, 2012). Recent research has also shown that individuals with ASD can have difficulties in the domain of episodic memory - the ability to recall past events (Southwick et al., 2011), especially linked to autobiographical memory (Crane, Pring, Jukes & Goddard, 2012). With these findings in mind, the researcher felt it could have been even more difficult for the children to reflect retrospectively, therefore gathering data at three stages: 1) at the beginning; 2) during; and 3) at the end of the programme aimed to collect a sounder representation of their lived experiences. Following analysis of each data set, the analysis will be commented on as a whole for each participant and finally as a whole for the group, in order to present the shared experience of the group.

4.3 Participant One: Me

Me had a diagnosis of Asperger's Syndrome. At the time of the research, she was 11 years old and in year six at school. She lived with her mum, dad, brother and guinea pig. Me tried hard at school and she described herself as "a bit of a worrier" and "a sensitive person". The school staff initially suggested Me to be a participant who could benefit from the programme because she seemed to have trouble calming down when she felt worried and anxious.

4.3.1 Me - interview one. The superordinate and subordinate themes that were developed through analysis of Me's interview one are shown in Table 4.3.1.

Table 4.3.1: Themes from Me - interview one

Superordinate themes	Subordinate themes
1. I can vs. needing help	1a. I can sort it out 1b. A place to fall back on
2. Struggling to fit in and belong	2a. Friendships are complicated 2b. I like different things
3. Makes me worry	3a. Feeling shivery 3b. Confusion leads to being wrong 3c. Worries depend on situations 3d. Worries are stuck inside 3e. Making sense – identifying anxiety in others 3f. Being secretive
4. Hopelessness	4a. Nobody can help 4b. Feeling unheard 4c. It just happens 4d. I can't
5. Inadequacy	5a. Being perceived as second best 5b. Feeling worthless
6. Meaningful experiences	6a. Enjoyment of being successful 6b. Usefulness vs. pointlessness
7. Impact of ASD	7a. It's quite special 7b. Downsides 7c. Feeling different
8. Experience of mindfulness	8a. A bit awkward to start but I could get used to it 8b. Awareness of the impact of mindfulness 8c. Understanding of 'doing' mindfulness 8d. Linking mindfulness to known experience 8e. Time you're on

4.3.2 Me - audio diary. The superordinate and subordinate themes that were developed through analysis of Me's audio diary are shown in Table 4.3.2.

Table 4.3.2: Themes from Me - audio diary

Superordinate themes	Subordinate themes
1. Positive impact of mindfulness	1a. Enjoyment 1b. Feeling calm and relaxed
2. Odd and unexplainable	2a. Difficulty articulating experience 2b. A sense of feeling odd
3. Feelings of belonging to the group	3a. Feelings of sadness due to the group ending 3b. Belonging to the group 3c. Awareness of, and interest in, the experience of others
4. Doing vs. being	4a. Objects support imagination 4b. Space to explore 4c. Variety 4d. Sensation and thoughts

4.3.3 Me - interview two. The superordinate and subordinate themes that were developed through analysis of Me's interview two are shown in Table 4.3.3.

Table 4.3.3: Themes from Me - interview two

Superordinate themes	Subordinate themes
1. Connecting with others	1a. Feeling satisfied in friendships - 'What really matters' 1b. Feeling understood and supported by others vs. feeling misunderstood 1c. Familiarity makes friendships easier 1d. People being different 1e. Feeling guilty for having a different point of view
2. Confidence	2a. Finding a balance between being small and bossy 2b. Free to be myself 2c. Standing up to others
3. Coping	3a. I can 3b. Special mind abilities 3c. No cares 3d. Feeling positive
4. Frustrations with the environment	4a. Being baffled 4b. Uncomfortable environments 4c. Not physical and seen 4d. Hard things lead to trouble
5. Relating to mindfulness	5a. Freedom and lack of judgement lead to acceptance 5b. Anywhere you want, whenever you want 5c. Frustrating 5d. Objects help thoughts
6. Opportunities for feeling and making whole	6a. Not about knowing, about feeling 6b. Sense of hope and belief in practice 6c. Mindfulness fills everything in - sense of making life meaningful and whole
7. Belonging to a group	7a. Enjoyment of being in the group 7b. Shared but individual experience of being in the group
8. Sometimes I get a bit worried but I don't have as many worries	8a. Knowing what to expect helps worries 8b. Reflecting on current worries 8c. Rationalising worries 8d. Past worries

4.3.4 Me - final themes. The following Table 4.3.4 presents the superordinate and subordinate themes that were developed through analysis of Me's data. The themes represent her experiences of her life and of mindfulness from the beginning to the end of the mindfulness intervention (overview of themes from all data sets - interview one, audio diary and interview two).

Table 4.3.4: Final themes from Me

Superordinate themes	Subordinate themes	Data set	Line	Key words/phrase
1. Relationships	Belonging to a group	Audio diary	94-95	*We've all been in a group*
	Interest in others	Audio diary	55-56	*How we all think to each other.*
	Struggling to belong	1	214-216	*I was different*
	Connection	2	155	*She shares the same interests as me.*
	Confidence – feeling small	2	298-304	*I don't have as much confidence…because sometimes if I am in a group I feel a bit small*
2. Focus on self	Perceptions of inadequacy	1	205-206	*I'm not worth it*
	Perceptions of hopelessness	1	105	*I can't do any of this*
	I can	2	292	*I can do things by myself*
3. Worries and stress	Worries inside me	1	230-233	*All crammed up in a cage*
	Worries don't last forever	2	508-513	*Not going to be there forever*
	Frustrations with the environment	2	75-77	*Baffle my mind*
4. Mindfulness	Relief from worries	Audio diary	37	*Relaxed*
	Free from judgement	2	460-463	*No right or wrong answer*
	Present moment	1	359-361	*Time you're on*
	Mindfulness is a feeling	2	459	*I think it's a feeling that anybody could really do*
	Helps make sense of everything	2	581	*Fills everything in*

4.4 Participant Two: Jack

Jack was 11 years old and in year six at school. He had diagnoses of Asperger's Syndrome and Attention Deficit Hyperactivity Disorder. Jack lived with his mum and dad and he liked the Lord of the Rings. The school staff initially suggested Jack to be a participant who could benefit from the programme because his worries seemed to affect his concentration during the school day. He worried about things that might happen in the future and described himself as "liking things to be perfect".

4.4.1 Jack - interview one. The superordinate and subordinate themes that were developed through analysis of Jack's interview one are shown in Table 4.4.1.

Table 4.4.1: Themes from Jack - interview one

Superordinate themes	Subordinate themes
1. Worries are a concern	1a. Fear of being hurt and rejected 1b. Catastrophising events 1c. Worries about the past being repeated
2. Awareness of physical sensations	2a. Heightened awareness of the environment 2b. Physical response to stressful situation
3. Sense of isolation	3a. Feeling isolated and alone 3b. Withdrawal to protect self 3c. Sense of being opposite to others - polarisation
4. Wish for connection	4a. Need to feel wanted 4b. Views of others validate and allow self belief and acceptance
5. View of self	5a. Negative beliefs about ASD due to people's comments 5b. Sense of self blame in friendship difficulties 5c. Lack of self belief
6. Reflection on struggles	6a. Inability to move on from past difficulties 6b. Fears and thoughts from the past overwhelm the present 6c. Some awareness of difficulties with frustration 6d. Difficulty relating to sequence of events
7. Understanding of mindfulness	7a. Understanding mindfulness is about being calm 7b. Difficulty explaining mindfulness concepts
8. Resiliency	8a. Self-reassurance 8b. Awareness of improvements

4.4.2 Jack - audio diary. The superordinate and subordinate themes that were developed through analysis of Jack's audio diary are shown in Table 4.4.2.

Table 4.4.2: Themes from Jack - audio diary

Superordinate themes	Subordinate themes
1. Connection to mindfulness	1a. Slowly is nice
	1b. Novelty and interest
	1c. Realisation of positive feelings about mindfulness
	1d. Surprise that it was enjoyable
	1e. Curiosity
	1f. Enjoyment of comfort
	1g. Awareness of struggles with being in the present
2. Too much to think about	2a. Confusion about the structure and activities
	2b. Discomfort due to sensory effects
	2c. Focus on the future not the present

4.4.3 Jack - interview two. The superordinate and subordinate themes that were developed through analysis of Jack's interview two are shown in Table 4.4.3.

Table 4.4.3: Themes from Jack - interview two

Superordinate themes	Subordinate themes
1. Struggles with relationships	1a. Feeling unwanted 1b. Pleasing others 1c. Anxieties about offending or disappointing others 1d. Enjoyment of privilege
2. Being in the moment vs. being in the past or present	2a. Worries about the past 2b. The present moment 2c. Scared about what might be
3. Being different	3a. 'Diseases and stuff'- Sense of being impaired 3b. Different to everyone else 3c. Identification vs. separation from others with Asperger's
4. Sense of belonging	4a. Similar people with the same issue - shared experience 4b. Sense of trusting other group members
5. Being inactive in the world	5a. Sense of being made to feel 5b. Sense of mindfulness being an inevitable, inactive process
6. Sense of empowerment	6a. Controlling external emotions 6b. I handle it
7. Awareness of self and struggles	7a. Reflections on sensory restrictions 7b. Awareness of physical sensations 7c. Keeping secrets
8. Resistance to mindfulness	8a. Difficulty understanding/ explaining mindfulness 8b. Difficulty with changes in routine
9. Relating to mindfulness	9a. Sense of interest in objects 9b. Activities create a connection with home 9c. Mindfulness helps feel calm 9d. Sense of contradiction - lack of enjoyment of mindful breathing vs. helpfulness of mindful breathing 9e. Shutting down to the external world 9f. Belief that mindfulness can help control Asperger's Syndrome
10. A sense of change	10a. A bit different 10b. Change in the brain 10c. Mindfulness reduces worries 10d. Perked up 10e. Sense of journey

4.4.4 Jack - final themes. The following Table 4.4.4 presents the superordinate and subordinate themes that were developed through analysis of Jack's data. The themes represent his experiences of his life and of mindfulness from the beginning to the end of the mindfulness intervention (overview of themes from all data sets - interview one, audio diary and interview two).

Table 4.4.4: Final themes from Jack

Superordinate themes	Subordinate themes	Data set	Line	Key words/phrase
1. Belonging	Validation from others	1	180-184	*A lot of people say that I'm…*
	Feeling unwanted	2	70	*It make me feel unwanted*
	Seeing similarities	2	243	*Similar to me*
	Being opposite	1	131	*I do the complete opposite*
2. Worries	Stuck in the past	2	127	*Usually from the past*
	Fear for the future	1	149	*What happened in the past I'm afraid will come in the future.*
3. Relating to mindfulness	Being curious to find out	Audio diary	41	*Trying to know something*
	Difficulty understanding and explaining	2	183	*I just think it's all linked to that maybe*
	A sense of feeling calm vs. excitement	2	335, 223	*Like shutting down, new things in my brain*
	Change of heart	2	190	*I actually enjoy mindfulness*
	Change in the brain	2	222-223	*It's like new things in my brain*
4. Perceptions of self	Handling Asperger's'	2	102	*I forget having Asperger's*
	External forces overwhelm internal control	1	217	*Makes me*
	Self concept	1	134-139	*I'm weird*

4.5 Participant Three: Jerry

Jerry was 13 years old and in year seven at school. He was due to transfer to upper school at the end of the summer term 2014. He lived with his mum, dad, older sister and his cat. He liked ICT, reading and jazz music. School staff initially suggested Jerry as a participant who could benefit from the programme, because he had trouble regulating his feelings when he felt anxious and they thought mindfulness might support him in the transition to upper school.

4.5.1 Jerry - interview one. The superordinate and subordinate themes that were developed through analysis of Jerry's interview one are shown in Table 4.5.1.

Table 4.5.1: Jerry - interview one

Superordinate themes	Subordinate themes
1. Anxieties	1a. Stress because of being unprepared for future events 1b. Worries about sleep 1c. Inability to manage worries 1d. Don't want to seem pathetic
2. Curious environments	2a. Creation of narratives when side-tracked 2b. Concentrating on everything going on 2c. Overwhelmed by information from the environment
3. Achievements and resources	3a. Need for familiarity 3b. Pride in achievements 3c. Ability to give a balanced view 3d. Distraction to avoid worries
4. Changes in mood	4a. Mood can change rapidly 4b. Recognition of the relationship between events and mood 4c. Mood is an independent force that controls experience
5. Struggles of ASD	5a. Negative view of ASD 5b. Shock and fear of what the diagnosis would change 5c. Belief that ASD causes barriers at school 5d. ASD changes the self at school
6. Disconnection	6a. Lack of reciprocity in friendships 6b. Disappointment in lack of friendships 6d Difficulty expressing opinion - disconnection with self 6c. Lack of connection and shared experience with friends 6d. Awareness of skills and labelling of self
7. Failure	7a. Messing up 7b. Everyone is better than me
8. Helplessness	8a. Attribute positives effects to external factors - mindfulness not the self 8b. Nothing I could do 8c. What it's done to me 8d. Feeling lost and helpless
9. Expectations of mindfulness	9a. A chance to talk through worries 9b. Hopes mindfulness will help manage feelings 9c. Positive hopes about mindfulness
10. Experience of mindfulness	10a. Calmer after mindfulness 10b. Mindfulness is about concentrating and staying calm 10c. Awareness of thoughts and sensations

4.5.2 Jerry - audio diary. The superordinate and subordinate themes that were developed through analysis of Jerry's audio diary are shown in Table 4.5.2.

Table 4.5.2: Jerry - audio diary

Superordinate themes	Subordinate themes
1. Positive benefits	1a. Belief that mindfulness can help with stress 1b. Own practice of mindfulness 1c. Enjoyment
2. Barriers to mindfulness	2a. Sensitivity to temperature 2b. Sensitivity to light 2c. Frustration at others causing distraction 2d. Dislike of activities
3. Change	3a. Positive change to mood 3b. Changes happening
4. Judgements	4a. Awareness and judgment of distraction 4b. Judging thoughts

4.5.3 Jerry - interview two. The superordinate and subordinate themes that were developed through analysis of Jerry's interview two are shown in Table 4.5.3.

Table 4.5.3: Jerry - interview two

Superordinate themes	Subordinate themes
1. External vs. internal factors- influence on feelings and experience	1a. Noticing the impact of hay fever on ability to engage 1b. Sensitivity to the environment 1c. Processing, attention, communication affected by hay fever 1d. Exhausting experience of PE 1e. ASD is to blame for negative performance 1f. Autism has little impact on life 1g. Few worries at the moment
2. Experience of mindfulness	2a. Mindfulness helps with sleep 2b. Mindfulness helps calmness and is soothing 2c. Enjoyment of mindfulness 2d. Dislike of listening activity
3. Beliefs about mindfulness	3a. Developing ownership of a skill 3b. Belief that mindfulness is about staying calm
4. Understanding of mindfulness	4a. Difficulty explaining mindfulness 4b. Reference to mindfulness language 4c. Concept of mindfulness as something to be 'done'
5. Awareness of self and others	5a. Awareness of difficulties talking with friends 5b. Awareness of being distracted by other group members 5c. Difficulty imagining how other people would find it helpful 5d. Sense of restricted expression 5e. Empathy and consideration of other people's experience 5f. Belief in self as funny
6. Application of mindfulness	6a. Application of mindfulness to own life challenges 6b. Engagement in own practice 6c. Continuation of own practice 6d. Little impact noticed on own life

4.5.4 Jerry - final themes. The following Table 4.5.4 presents the superordinate and subordinate themes that were developed through analysis of Jerry's data. The themes represent his experiences of his life and of mindfulness from the beginning to the end of the mindfulness intervention (overview of themes from all data sets- interview one, audio diary and interview two).

Table 4.5.4: Final themes from Jerry

Superordinate themes	Subordinate themes	Data set	Line	Key words/phrase
1. Experience of worries	Worries stopping sleep	1	330-331	*I start worrying and I can't sleep*
2. Experience of the world	Relationships are hard	2	32-32	*Hard because I don't know what to say…*
	Consideration of others' views	2	118	*It might be different for some people*
	Being overwhelmed by the environment	1	42-44	*Everything going on*
3. Sense of self	No control over physical sensations or mood	1	238-241	*Even the slightest change can change my mood [pause] rapidly*
	Feeling lost and helpless	1	37-39	*I just get lost in all of this*
	Failure	1	274-276	*I felt really stupid and I was like 'uh' I've failed again.*
	Ability to achieve	1	230-234	*I'm ok at things*
4. Experience of ASD	Barrier	1	144-146	*Something wrong with me*
	Problematic at school	1	1621	*The change is at school*
	Not noticeable	2	40-43	*I don't know I'm autistic half the time.*
5. Mindfulness experience	Own practice	2	87	*I do mindful breathing*
	Not changed much	2	115-116	*It hasn't changed too much*
	Calm	Audio diary	5-8	*Come down from my stress ball*
	Distractions cause difficulty concentrating	Audio diary	58-59	*Stopped me from being calm*
	Judgement of thoughts	Audio diary	37-38	*I struggled*
	Understanding of 'Doing' mindfulness	2	97	*I've been doing mindfulness*
	Shift in mood	Audio diary	117	*But I soon cheered up*

4.6 Participant Four: Amy

Amy was 10 years old and in year five at school. She had a diagnosis of ASD. She lived with her mum, dad, brother and dog. She liked reading and making cakes. The school staff initially suggested Amy to be a participant who could benefit from the programme because her anxieties were causing her difficulties with coming to school in the morning.

4.6.1 Amy - interview one. The superordinate and subordinate themes that were developed through analysis of Amy's interview one are shown in Table 4.6.1.

Table 4.6.1: Amy - interview one

Superordinate themes	Subordinate themes
1. Making links and understanding the outside world	1a. Difficult and 'weird' experience of change 1b. Difficulty with new things 1c. Difficulty connecting concepts 1d. Inability to differentiate 1e. Uncertainty about mindfulness concepts and usefulness 1f. Attention to routine 1g. Lack of understanding about new group 1h. Belief that mindfulness helps calmness
2. Sense of self and confidence	2a. Sense of self - real vs. ideal 2b. Responsive to encouragement 2c. Confidence when has developed rapport and familiarity
3. Expression	3a. Difficulty expressing feelings 3b. Struggles with self expression 3c. Assertiveness 3d. Wants to express herself and speak about her life

4.6.2 Amy - audio diary. The superordinate and subordinate themes that were developed through analysis of Amy's audio diary are shown in Table 4.6.2.

Table 4.6.2: Amy - audio diary

Superordinate themes	Subordinate themes
1. New words and no words	1a. Unable to express self
	1b. Use of mindfulness language
2. Enjoyment vs. dislike	2a. Enjoyment of moving - physical activities
	2b. Enjoyed taste sensation
	2c. Dislike of unfamiliar sensations
3. Noticing new things	3a. Enjoyment of learning new things
	3b. Connecting the new with the known
	3c. Different from normal
	3d. Unknown can be interesting

4.6.3 Amy - interview two. The superordinate and subordinate themes that were developed through analysis of Amy's interview two are shown in Table 4.6.3.

Table 4.6.3: Amy - interview two

Superordinate themes	Subordinate themes
1. Awareness and shared experiences – connecting with others	1a. Feelings of not being alone 1b. Insight into other people's experiences 1c. Friendships are sometimes hard and sometimes easy 1d. Struggles with unfamiliar people
2. Experiences of the world	2a. Ability to categorise and see connections 2b. Freedom from rules
3. Noticing change	3a. Shift in experience of school 3b. Awareness of change
4. Noticing the self	4a. Feelings of being different 4b. Noticing difficult feelings 4c. ASD restricts abilities others have
5. Experiences of mindfulness	5a. Mindfulness is helpful and calming 5b. Different
	5c. Relating to concrete activities

4.6.4 Amy - final themes. The following Table 4.6.4 presents the superordinate and subordinate themes that were developed through analysis of Amy's data. The themes represent her experiences of her life and of mindfulness from the beginning to the end of the mindfulness intervention (overview of themes from all data sets- interview one, audio diary and interview two).

Table 4.6.4: Final themes from Amy

Superordinate themes	Subordinate themes	Data set	Line	Key words/phrase
1. Sense of self	Lack of confidence in self identity	1	65-67	*I dunno*
	Being afraid	1	61-63	*I just go under my bed*
2. Experiences of ASD	Having autism is hard	1	42	*It's, like, hard*
	Different contexts	1	52	*It doesn't feel the same at school*
	Restricting	2	75-79	*They eat different things*
3. Relationships	Feeling isolated	1	57-59	*Don't know who to tell*
	Lack of awareness why friendships are hard	1	31-35	*[pause]*
	Not being alone	2	166	*It wasn't just me.*
	Insight into the experience of others	2	90	*People do have different feelings*
	Unfamiliar people	2	112-116	*I wouldn't*
4. Experience of mindfulness	Different feeling	2	146	*Different*
	Calm	2	126	*Calm*
	Enjoyment of new learning	Audio diary	45	*I learnt some new things*
	Connecting to past experiences	Audio diary	54	*Mine looked like a pond*
	Curiosity	Audio diary	18-26	*It was interesting what we were gonna do*
	Sensory discomfort	Audio diary	38-42	*Horrible*
	Difficulty articulated experience	1	29	*[pause] shakes head*
	Use of mindfulness language	Audio diary	51	*Sensations*
5. Experience of the world	Difficulty with new things	1	148-152	*Weird, I don't like change*
	Freedom	2	30-31	*There's nothing you should do or shouldn't do*
	Accepting change	2	6-11	*Going from one place to another*

4.7 Group Analysis

The six superordinate themes presented below were constructed during the IPA process of analysis, as described in Chapter 3. They aim to provide a rich yet clear picture of the patterns and relationships between the emergent subthemes and the experiences of mindfulness that were shared by the children. A table of the themes is presented in Table 4.7.1 and each superordinate and subtheme is discussed in an interpretative narrative, using extracts from participant interviews as supportive evidence.

Table 4.7.1: Master table of themes for the group

1. Worries
1a. Worries as disablers
1b. Stuck in worries about the past and the future
1c. Overwhelming feeling of worries
1d. Worries change
2. Perceptions of the self
2a. Feelings of failure and inadequacy
2b. Lack of control
2c. Growing strengths and resources
3. Relationships
3a. Being different
3b. Being alone and isolated
3c. Perceptions of friendships
4. Connecting to the environment
4a. Difficulties understanding the world around and preference for the known
4b. Acceptance of change and the unknown
5. Views of autism
5a. Perception of autism as a barrier
5b. Perception of autism changes over time
6. Perceptions and experiences of mindfulness
6a. Experience of calm
6b. Mindfulness principles
6c. Curiosity and interest
6d. Meaning of mindfulness
6e. Doing mindfulness – connection with the concrete and practical teaching of the programme
6f. Connecting with others in the group

4.7.1 Theme one - Worries. Worries were a concern for all members of the group and worries seemed to present challenges for all children, particularly in interview one, before the mindfulness intervention, for example, Amy described her worries causing fear:

> *"It's hard, because you don't know who to tell…I just go under my bed"* (Amy interview one, line 58-62).

Me's comment sums up this feeling for the group:

> *"When I'm sad it means - it makes me dwell on everything and then if - it sometimes ruins, like, the stuff I do."* (Me, audio diary, line 9-11).

During interview two, the lesser extent to which the children spoke about their worries indicated that the significance and negative experience of worries were reduced.

4.7.1.1 Worries as a disabler. The children's accounts revealed their feelings that worry disabled or interfered with their ability to do things they wanted or needed to do. Jerry described how worries interfered with his sleep:

> "*And I go to bed and I start worrying and I can't sleep. That's the time that they come back to me"* (Jerry interview one, line 330-331).

Me explained that a worry *"ruins, like, the stuff I do*" (Me, audio diary, line 9-11) giving the sense that worries prevented her enjoyment.

Jack changed the topic of discussion to tell me of a worry and he gave the sense that he was unable to stop thinking about the worry and focus on the present moment:

> *"There's one memory I can never get out of my head"* (Jack, interview one, 195-209).

4.7.1.2 Stuck in worries about the past and the future. Jack's experience of worries clearly relates to being 'stuck' in the past or in the future and being unable to think about the present. During interview one he said,

> "*Well, a lot in lower school. It's all to do with the past, my worries really. What happened in the past I'm afraid will come in the future"* (Jack, interview one,

line 148-149).

Jerry echoed this sense of difficulty with focusing on the present, although Jerry's worries were focused on the future:

> "*Because there could be an event that's going on and I haven't prepared anything for it and I need to have it done in a short amount of time…And I start thinking how am I going to get…they get me stressed"* (Jerry, interview one, line 193-199).

Me seemed aware of the concept of 'the present' from the beginning as she said in interview one:

> *"Like the time that you're on- it doesn't matter at the time that you're on. It's, like, many minutes away. And even if it's just a few minutes away then you can just enjoy those few minutes"* (Me, interview one, 359-362).

However, her concerns over the future appeared to prevent her from staying in the present moment:

> *"I find it quite confusing and that sometimes makes me worry a bit because if I don't-if I don't get it right I think oh no, like, what am I going to do?"* (Me, interview one, line 46-47).

In interview two her awareness seemed to develop into acceptance of the present and that moments in time change. She said,

> "*'Coz I get worried about that sort of thing and that was hard but I thought it's not going to be there forever it will go away eventually..." (*Me, interview two, line 508-513).

Jack seemed to become more aware of the concept of the present throughout the programme. Here an extract of the audio diary illustrates this:

> *"R: What about staying in the present, what was that like? Not thinking about what will happen next or what happened before- what was that like?*
> *Jack: I struggle a lot with that. That's about the most thing I struggle with"*
> (Jack, audio diary, line 106-110).

Later in interview two, Jack spoke more explicitly about the present moment. He said,

> *"I never think about the present moment"* (Jack, interview two, line 136).

4.7.1.3 Overwhelming feeling of worries. Jack gave the sense that his worries were linked to the catastrophisation of anticipated events and these become overwhelming,

> *"Well, I do something wrong that they don't like and then it leads to much more terrible things and stuff"* (Jack, interview one, line 62).

Jerry also catastrophised to form worries that were more extreme,

> "*I'm starting to worry that if I don't get enough sleep, I'm not sure, I'll get ill or something, I dunno".* (Jerry, interview one, line 212-218).

Me described her worries overwhelming her physically, noticing the sensations that she felt when her worries felt like they were filling her,

> "*And that sometimes feels like I've got them all crammed up in a cage and then I can just get the key, unlock it".* (Me, interview one, line 230-231). She also described these sensations in terms of feeling unstable *"I get scared in particular environments…I get a little bit flippery and stuff"* (Me, interview one, line 17-20).

4.7.1.4 Worries change. During interview two all children reported a different experience of their worries compared with how they experienced the worries at the start of the programme. Me gave the sense that she knew worries change and she described how being familiar with an anticipated event would help her not to worry about this event. In this case, she was speaking about past fears of doctors and operations due her lack of knowledge of them. She explained that, through drawing on her experience of this, she did not need to be afraid in the future. During interview two she said:

> *"I've been scared of going to the doctors ever since at the beginning of the year I had appendicitis...er...right at the first week back, our first full week on Wednesday I started being sick all the time, and then mum took me to the doctors 'coz that wasn't normal and then they sent me to the hospital and I got*

so nervous the whole way there and then the nurse told me you need an operations- and that was my first ever operation in my life - 'coz I'd never had one before and that was scary because...erm, it was my first ever operation and ever since then I got a bit scared of going to the doctors and stuff.

R: Yeah.

P: But I don't think I'd mind it anymore because I've had one".

(Me, interview one, line 373-384).

Me implied a feeling of coping with events and thoughts that previously worried her. Jack also described coping with worries:

"Well, I'm sort of like getting a bit better with my worries actually since I've done mindfulness actually. I'm just getting more calmer, a bit. I'm not worried as much" (Jack, interview two, 2, line 141-142). Jerry reports that he doesn't have any present worries *"Er...(cough)... I don't have many worries at the moment… Er, yeah, no worries"* (Jerry, interview two, line 57-59).

Amy did not report a reduction in her worries or an increase in feelings of coping, she explained that she still had worries about *"All different things... if I miss the lesson or something. Like Tuesdays - 'coz I miss tech".* However, she described them as "different" and her experience seemed to be that she recognised people have different feelings and had developed awareness of this. An extract that exemplifies this is:

"P: Different. [Pause]

R: How's it different? Can you tell me some more?

P: People do have different feelings.

R: Mmm. So people have different feelings? Is it different- do you notice it's different for you compared to other people.

P: (Nods)" (Amy, interview two, line 88-90).

This extract illustrates how Amy's experience of worries was *"different"* compared with *"hard"* as she reported previously (Amy, interview one, line 57).

4.7.2 Theme two - Perceptions of self. The children described feelings of failure, hopelessness and a lack of control. Jerry summarised this feeling:

> *"I thought I'd like, I thought I'd messed up. Which I did".* (Jerry, interview one, line 283).

4.7.2.1 Feelings of failure and inadequacy. It was interpreted that children shared similar feelings of inadequacy in comparison to peers or self-set expectations. Jerry spoke about feeling that he had failed,

> *"I felt really stupid and I was like 'uh' I've failed again"* (Jerry, interview one, line 274-276).

Me described past experiences of feeling she was not good enough,

> *"I'm not worth it"* (Me, interview one, line 205-206).

Jack compared himself to other children in his year group in terms of academic sets and seemed unhappy about his performance,

> *"Well.... English, like there's so, I'm in a low group at French and English - I'm not that good"* (Jack, interview one, line 35-36).

Amy noticed that her autism made her different and it was interpreted that she felt others could do more than she could,

> "*People doing what I wouldn't do [pause]"* (Amy, interview two, line 73).

4.7.2.2 - Lack of control. Me described feeling she was not capable in doing her work, she said:

> *"I can't do any of this"* (Me, interview one, line 105).

Jerry also spoke about not being able to process what was happening around him and feeling helpless in this experience,

> *"What happens then is I just get lost in all of this and I - my learning assistant needs to snap me back into concentrating on the actual lesson"* (Jerry, interview one, line 37-39).

For Jack, the language he used to describe his experiences gave the sense that he felt he lacked internal control and that external factors controlled his life, for example, he used

the term *"Makes me"* (Jack, interview one, line 217) which suggested an inevitability in his belief about events and lack of belief in free will.

Amy felt that when she was in a difficult situation that induced worry, she was unable to cope with this:

> *"R: What kinds of things do you worry about?*
> *P: All different things... if I miss the lesson or something. Like Tuesdays - 'coz I miss tech.*
> *R: What, doing mindfulness?*
> *P: Yeah...and I wanted to do both things.*
> *R: It's tricky that isn't it? When there's two things happening at the same time. How did you handle that?*
> *P: I didn't.*
> *R: It was just there with you?*
> *P: Yeah"* (Amy, interview two, line 97-104).

This extract provides us with a sense of how Amy felt she did not have an internal locus of control and autonomy in her life. She felt she could not change her experience and things appeared to be happening 'to' her.

4.7.2.3 Growing strengths and resources. Alongside children's experiences of inadequacy and lack of control, experiences of resiliency and awareness of strengths emerged. Most children were able to name some areas of personal strength during interview one.

Jerry explained:

> *"I think I'm ok at things but not so great at some things… it depends about my mood, because if I'm in a happy mood then I'm really bright and breezy and I feel very confident" (Jerry, interview one, line 22-25).*

This extract shows Jerry's ability to notice areas of satisfaction, although it also shows his connection of school achievement to his mood, regarding which he seems to

perceive a lack of control.

Jack was able to highlight his strengths and said "*I think I am quite clever"* (Jack, interview one, line 180) and Amy was able to identify one of her strengths as being *"Friendly"* (Amy, interview one, line 67).

Within the second interviews, Me and Jerry expressed a sense of feeling more resilient and in control of their lives. For example, during interview two, Me described feeling independent:

> *"I can do things by myself"* (Me, interview two, line 292).

Jack spoke of feeling he had resources to cope in adverse situations,

> "*If someone's following me, all I'll do now is pretend to like whatever they're saying to me. But I used to get really wound up, angry. Still sort of do, but I just try to hide it away inside me"* (Jack, interview two, line 174-176).

Jerry described being enabled to cope with adverse situations with mindfulness techniques:

> *"So I used mindful breathing to help me calm down"* (Jerry, interview two, line 108).

Amy did not express a feeling of being more in control. Although her *'different'* perception of her experiences of autism and her worries suggests a shift in her feelings about the difficulties with these areas of her life, it is unclear whether she attributes this to internal or external factors.

4.7.3 Theme three- Relationships. The children all seemed to experience challenges in their relationships with other people.

4.7.3.1 Being different. One aspect of relationships that children identified as meaningful to them was the sense of feeling different. Jack said:

> *"Well, one thing that I've always known through my entire life is I'm different to*

> *so many people like a lot of them do like - there's one thing that nearly all people do the same that I do the complete opposite [long pause]"* (Jack interview one, line 129-132).

This seemed a difficult feeling for Jack and he communicated a sense of frustration with this feeling, going on to say

> *"Well...mmm... a lot of people in lower school used to say I act stupid.... and also people, like when I first came into year 5 a lot of people said I'm weird. Something that I'll just never forget"* (Jack, interview one, line 124-126).

Jerry thought he:

> *"Can be a bit mental to stand because I don't really want to … I don't really like to seem pathetic in front of my friends"* (Jerry, interview one, 99-103) *"because they're all into like sports and things and I'm not"* (Jerry, interview one, line 105-106).

The interpretation of this example was that Jack's different interests led him to feel that he may be viewed as pathetic – his choice of words illustrates how difficult this was for him.

When asked about her story of autism, Amy expressed her feelings that other people do not understand her, therefore communicating this sense of difference,

> *"People don't know like, they don't understand"* (Amy, interview one, line 39).

Me felt that she had different interests to other girls and this caused uncomfortable sensations which she described as "flicker". A similar term "flippery" was used to describe her feelings of anxiety, so the term was interpreted to suggest uncomfortable feelings of anxiety and worry:

> *"(Sighs)… Because... I'm not the most popular person in the world because I, I like different things to girls, I'm not really much of a like you know dolls and make up and stuff, it just makes me all flickery as well"* (Me interview one, line 153-155).

4.7.3.2 Being alone and isolated. Jack spoke about his experience of autism and when asked if he talked about it at home or with friends, he said:

> *"Not really. If I did tell a friend they'd just say "what?" 'coz they wouldn't get any of it"* (Jack, interview one, line 141-142). This extract illustrates how Jack felt he could not talk to others because they would not understand and was therefore alone with his experience.

Me also explored hiding feelings and not being able to speak out,

> *"A little bit secretive sometimes. Like some things that are bothering me I can't say because I just think, you know, they can't be sorted. But, erm, yeah. That's it really"* (Me, interview one, line 327).

Jerry stated that talking to friends was *"Hard, because I don't know what to say"* (Jerry, interview two, line 32). Amy shared a sense of isolation in relation to discussing her worries with others,

> *"It's hard, because you don't know who to tell"* (Amy, interview one, line 57-59).

4.7.3.3 Perceptions of friendships. General perceptions of friendships were explored. Friendships were interpreted to be meaningful to the children and Jack explained the wish to be wanted by others and to have friends:

> *"Well, I'd just feel really like happy, like someone actually likes me a lot. Like even one of my best friends who's in my group, he wanted to be with someone else, he didn't want to be with me [PAUSE] Just makes me feel like I shouldn't be his friend. He doesn't want me. Never ever wants me in his group. He's meant to be my friend"* (Jack, interview two, line 87- 91).

Jerry seemed to be satisfied with his friendships to some extent he said that friendships were:

> *"Ok…I've got (xxx) and (xxx) as a friend. And I also have (xxx) as one of my friends as well coz he goes to the (xxx)"* (Jerry, interview one, line 94-95).

Amy expressed friendships being hard during interview one:

"R: Ok thank you for telling me. Erm…what…what are friendships like for you? P: Hard." (Amy, interview one, line 22-24).

In interview two there was a sense that things had changed slightly in her experience of friendships:

"R: And what are friendships like for you?

P: Hard. [Pause]

R: Can you tell me a bit more?

[Long pause]

P: Sometimes they're hard and sometimes they're easy" [Pause] (Amy, interview two, line 39-42).

It was interpreted that Me had a sense of acceptance and comfort during interview two in relation to her feelings about friendships,

"I don't have that many close friends I'm not very popular but I've got...but it doesn't matter how many friends I have really, it matters how good they are" (Me, interview two, line 101-103).

4.7.4 Theme four - Connecting to the environment. The children shared experiences of finding the environment confusing and they reported difficulties understanding the world around them and preferences for familiarity. They also described times when they were able to accept change.

4.7.4.1 Difficulties understanding the world around and preference for the known. Challenging sensory responses to the world were spoken about by Jerry, who said:

"Umm…There's a lot of shouting because there's a lot of like playing going on and they need to, because it's a big wide pitch they need to shout to each other...Yeah…also, I'm a bit sensitive when it comes to temperature so it can be very hot or it can be very cold and then that's - I don't really like it when it's like that" (Jerry, interview one, line 71-78).

Me also found information from the environment difficult at times and she described

this having a negative impact on her well-being, she said,

> *"Yeah [pause] yeah, I don't like things that give me a headache and things that baffle my mind a bit because it's not very enjoyable"* (Me, interview two, line 75-76).

Me also discussed her experience as one of frustration,

> *"I got really frustrated with that (mmm) and I got really cross, and I couldn't I couldn't keep track of it...and all these squiggly lines everywhere"* (Me, interview two, line 44-46).

Jack described a sense of being overwhelmed by verbal information, he said:

> *"Well.... English, like there's so, I'm in a low group at French and English - I'm not that good. But one thing there's so much in like English and French because of the languages. It's difficult to learn it all…But French, as I said it's difficult to understand coz it's a different language"* (Jack interview one, line 35-40).

This difficulty was interpreted to link to the children's preference for familiar and known environments. Amy spoke of starting the school in September and not liking the change, she said:

> *"Weird… I don't like change"* (Amy, interview one, line 149-152).

Jack discussed feeling sad about missing lessons he usually has and although this may have been because he enjoyed these lessons, it seemed to be an aspect that he talked about repeatedly, indicating there was something significant about the 'usual' routine. This extract demonstrates Jack's need to know what to expect:

> *"P: Well, I was quite upset that I was missing tech - that's all I was really thinking of.*
>
> *R: I did wonder that you were thinking about that.*
>
> *P: 'Coz I could hear the saws and it was making me feel more worried.*
>
> *R: Oh I see. Yes do you think it would it be ok when you don't miss tech and you do the sessions?*
>
> *P: It probably would.*
>
> *R: Good. Are you happy to join in then and not miss tech?*

P: First I'd like to know the lessons.

R: Yes, Mrs. (xxx) has the list of lessons" (Jack, interview one, line 214-223).

Jack ended up missing the technology lesson he spoke of in interview one, and a social skills session. He was in agreement with this as it was only one session but he found the different routine hard to move on from:

"Well, I quite enjoyed missing music because I don't really like music much at all (cough) and I was also missing tech which made me a bit sad, as well. And then at the start I was missing social skills, so again, made me quite upset" (Jack, interview two, line 226-229).

4.7.4.2 Acceptance of change and the unknown. Over time, Jack seemed to manage change better. He explained that he found his experience of mindfulness changed as he became used to the programme:

"Mmm, well, at the start, I really didn't like mindfulness, but then I was... I was beginning to quite enjoy it. About the fourth session I was starting to quite enjoy it. But then I kept that a secret. Actually, the last actual, like, session of it, I said I actually enjoy mindfulness (cough)" (Jack, interview two, line 186-189).

Me discussed her experience of feeling able to enjoy life and this seems to reflect a change from the worried sick feelings she had before mindfulness and acknowledgement that such feelings could relate to other feelings. She said,

"And er, we- I also like [pause] sometimes enjoy life and what is coming and sometimes get excited about - you know when I get worried I get that horrible sicky feeling... sometimes when I'm really excited I get that horrible sicky feeling (laughs)".

Amy also described noticing changes, she was *"Going from one place to another"* (Amy, interview two, line 409-413).

4.7.5 Theme five - Views of autism.

4.7.5.1 Perception of autism as a barrier. The children spoke about autism as a barrier in their lives. Jack said,

> *"Well, I just know one thing, right, because I know I've got Asperger's I just feel like I'm different to everyone else. Like, everyone's got like similarities and all that but I've just got a big difference in me… Like people that were like, got like diseases and stuff like Asperger's…"* (Jack, interview two, line 97-110).

Jerry shared this view of feeling afflicted by his autism, he said:

> *"Yeah…and I just (sigh) thought I was a normal boy and it turned out that there was something wrong with me"* (Jerry, interview one, line 144-146).

Amy thought *"It's like hard 'coz people don't know, like, they don't understand"* (Amy, interview one, line 39).

Me spoke of the difficulties caused by her Asperger's', she said:

> "*It does have a little downside being so worryful and not being able to concentrate much"* (Me, interview one, line 184).

Me also spoke during interview one of noticing times when her ASD did not affect her negatively, she said:

> *"I, I don't really mind it because it doesn't like... it does have a little downside being so worryful and not being able to concentrate much, but I don't mind it. Erm, it's not that bad. It doesn't really make me really angry about why I've got it. I sometimes wish I was just, you know, without it, but I sometimes think it's quite special because it has a few advantages"* (Me, interview one, line 182-188).

4.7.5.2 Perception of autism changes over time. During the second interview, the children spoke about their autism as being less of a burden and feeling 'different' to them. Jack said,

"Yeah, there are times... like, I forget like, having Asperger's or something means I'm like disabled and I get to do more stuff like at places…That other people don't get to do. That is one thing that does make me happy" (Jack, interview two, line 102-107).

Jerry said,

> "*I don't know I'm autistic half the time… (coughs) Er... I just don't really notice it"* (Jerry, interview two, line 40-43).

Amy spoke about her experience of autism being *"different"* (Amy, interview two, line 73-77) compared with her feeling of it being *"hard",* which she expressed during the first interview.

4.7.6 Theme 6- Perception and experiences of mindfulness.

4.7.6.1 Experience of calm. The children described their experiences of mindfulness as having a calming effect. Amy describes mindfulness as "calm" (Amy, interview two, line 126) and Jack describes how it feels in his body,

> "*Like it's just resting your body, like shutting down"* (Jack, interview two, line 335).

Me spoke of how she felt relaxed,

> *"I felt a little worried at the start about my friend, but then as the lesson went on I started to feel a little more relaxed because we were doing all these activities and I've calmed down a bit now"* (Me, audio diary, line 35-38).

Me discussed a calming effect that filters into her life to make her day better,

> *"I'm feeling relaxed about loads of things and having a- sometimes it makes me- like when I feel good, it makes the rest of my day very good"* (Me, audio diary, line 7-9).

Jerry described the relief from stress mindfulness brings to him,

> *"Very helpful and it helped me to come down from my stress ball- (gestured) oh my god, that was when I was stressed out, so when I'm stressed out it can help me to calm down so I can get to sleep"* (Jerry, audio diary line 5-8).

4.7.6.2 Mindfulness principles. The children expressed their understanding of, and connection with, the principles of mindfulness that they had learnt through the programme. Me discussed the freedom from judgement and subjectivity of mindfulness to the individual,

> *"So it's just your point of view...and you don't, you're not able to, erm, like, you can't, there's no right or wrong answer so you can just say what you want and you don't have to like have a guess thinking"* (Me, interview two, line 460-463).

Amy used mindfulness language to describe her experience,

> *" Yeah... new sensations"* (Amy, audio diary, line 51).

Jerry explored difficulty with what he experienced as being mindful,

> *"Er quite interesting at some points, about when I (cough) had hay fever like I (mumble)… I started becoming less mindful"* (Jerry, interview two, line 124-125).

4.7.6.3 Curiosity and interest. The children shared the experience of being interested in the activities that they engaged with during the mindfulness programme. Amy talked about being interested to find out about the mindfulness activities, expressing a sense of curiosity:

> *"It was interesting what we were gonna do"* (Amy, audio diary, line 18-26).

Jack shared this curiosity and he seemed to enjoy the experience of trying something new. He also seemed to connect with the concrete objects used to practice the mindfulness activities. He said,

> *"Today I quite liked the little jars. Like...I never really thought of doing something like that but I thought it was really good and all that"* (Jack, audio diary, line 121-123).

Me shared Jack's interest in the novelty of mindfulness and the concrete objects,

> *"Today... mindfulness was interesting...because we did a lot of interesting activities with different objects which was quite fun because it's, like, you get to investigate them how you don't usually do and things like that, which is...nice"* (Me, audio diary, line 72-75).

Jerry also described enjoyment of, and engagement with, the activities and seemed to relate to the concepts of mindful 'senses', he said,

> *"I enjoyed things like mindful looking and listening. I thought mindfulness was quite interesting, I enjoyed doing the outside listening and the mindful moving… I liked the shape one and the mindful moving"* (Jerry, audio diary, line 35-37, 118-119).

4.7.6.4 Mindfulness means calmness and being in control. Children explored what mindfulness meant to them. A mixture of meanings were interpreted to arise from

their experiences, but a common meaning that came through was a sense of learning a skill to develop calmness.

For Amy, mindfulness was *"Help ...calm"* (Amy, interview two, line 124-126).

Jack also felt that mindfulness related to calmness and spoke of how learning mindfulness impacted on self-control:

> *"Well, learning how to control your actions, sort of thing. Keep calm...I just think it's all linked to that maybe"* (Jack, interview two, line 180-183).

For Jerry mindfulness meant *"Staying calm (pause) staying calm in tricky situations… learning how to control your mind"* (Jerry, interview two, line 75-81).

Me described mindfulness being related to calmness. She also explored how it was a feeling and related to freedom:

> *"I think it's a feeling that anybody could really do if they want to...it helps them feel more calm and it helps you to not judge people...so it's just your point of view...and you don't, you're not able to, erm, like, you can't, there's no right or wrong answer so you can just say what you want and you don't have to, like, have a guess thinking, I think it means...,like, it's not, like, it's not what you think it means it's what you know, what you think, what you really really feel it means"* (Me, interview two, line 459- 465).

4.7.6.5 Doing mindfulness - connection with the concrete and practical teaching of the programme. The children described similar positive experiences and engagement with the practical and concrete resources and teaching style of the mindfulness programme.

Amy discussed feelings of interest and engagement with the visual resources:

> *"It was good. It was interesting...because we didn't have anything out of the magic box so it was interesting what we were gonna do...because normally you can see what's there...and you can look…"* (Amy, audio diary, line 18-26).

Jack shared a similar opinion with regard to the visual resources,

> *"I quite enjoyed that. Like, the erm, the watery jars with the glitter inside them, the jelly babies, the oranges, the seashell - I liked the seashell that was massive. Just never see this stuff in school"* (Jack, interview two, line 260-262).

Me thought that objects facilitated her imagination:

> *"Erm, today was interesting, we had a lot of different objects, like the oranges or the, and the jars and stuff like that which was interesting because usually I find it easier to imagine stuff with an object because you've got something in your hand that you can concentrate on for a little while and so you can think of loads of things to do with the objects"* (Me, audio diary, line 79-84).

Me also described interest in the range of activities:

> *"You could do anything with it, like you could focus on the carpet...or that chair or anything in the room, you could just do anything with mindfulness. You can even do it in thin air, you don't need anything special. You can do it in different ways like you can do it on your own, you can do it with someone else...loads of different things...yeah"* (Me, interview two, line, 471-475).

Jerry recalled a range of activities and made reference to 'doing' mindfulness, the multisensory techniques and the categorisation of the mindfulness activities:

> *"Umm... I've been doing, umm...mindfulness listening and breathing and looking…and activities like that such as illusion pictures, tasting things, erm, listening to sounds outside"* (Jerry, interview two, line 97-99).

4.7.6.6 Connecting with others in the group. The children shared a sense of enjoyment in being together in the group during the mindfulness programme and they expressed feelings of connection and belonging.

Amy talked about feeling in company and not being alone. She thought being in the group was:

> *"Good... because it wasn't just me"* (Amy, interview two, line 166).

Jack felt that he was with other who were similar,

> *"Umm.... being in the mindfulness group...well... I quite enjoyed it actually. Like there was a lot of people that I thought were quite similar to me"* (Jack, interview two, line 243).

Me described sadness at the group ending which conveyed a sense of how meaningful it had been to her. She spoke of the group collectively as "we", conveying a sense of belonging:

> *"It was interesting, it was a bit sad though because it was the last session... 'coz I've enjoyed mindfulness 'coz it's been fun and really really happy because we've all been in a group doing lots of different things"* (Me, audio diary, line 87-90).

4.8 Summary of Analysis

Each of the children expressed a sense of worries causing challenges to their lives, and they revealed feelings of being overwhelmed and stuck in their feelings of worry. There was a sense that worries changed somewhat for each participant during the course of the mindfulness programme.

The participants explored feelings of failure and inadequacy. This conveyed a sense of low internal loci of control for most. There were some signs of strengths and resources and, after participation in the mindfulness programme, it seemed that most participants felt a sense of control.

Each child expressed difficulties in relationships with other people and they explored feelings of isolation and loneliness. Understanding the external world was another challenge for most, as was accepting change and the unknown.

The children's stories gave the researcher a sense that autism was a barrier in their social lives. After participation in the programme, the children seemed to experience a sense of change in the extent to which autism challenged them.

Mindfulness was experienced as being a calming factor for each child and they explored a range of different understandings of mindfulness principles. For most children, mindfulness activities created interest and curiosity. All children engaged with the visual, concrete and multisensory teaching approach and experienced mindfulness as a means to calm and control themselves.

The next chapter uses the analysis of the participants' stories to answer the research questions and relates the data to the literature review.

Chapter Five: Discussion

5.1 Chapter Overview

Within the present study, a phenomenological exploration of autistic children's experiences of mindfulness has been undertaken. Children's life experiences have been explored and considerations have been made regarding the way in which these experiences may be impacted upon by mindfulness. There is an emerging quantitative research base investigating the benefits of mindfulness for children and this research adds to the limited research base that exists for children who have special educational needs (Beauchemin, 2012; Carelse, 2012) including autism (Singh et al., 2011; Russell, 2011; Bögels et al., 2008).

In this chapter, the key findings in relation to the research questions are presented and these are related to the findings of existing literature concerning the use of mindfulness with children. The implications of this research are explored including those that apply to the field of educational psychology, particularly in the context of the new SEN Code of Practice (Department for Education, 2014). The strengths and limitations of this research are critically examined and areas for future research are explored. The chapter concludes with the researcher's personal reflections on the research process and a summary of the current study.

5.2 Commentary on Key Findings in Relation to the Research Questions

The literature review identified mindfulness as having benefits in a number of social, emotional and cognitive areas. Due to the nature of the participants' needs, they were likely to have difficulties perceiving these benefits and being able to communicate about them explicitly and clearly. The researcher considered it appropriate to explore their lived experiences over time, to reduce the impact of the barriers to perception and communication. Therefore, it was important to explore how the children experienced their lives at the start of, during and at the end of the programme to ensure a full and rich picture of their journeys.

For this reason, children's experiences were explored through data collection at the start of (interview one), during (audio diary) and at the end (interview two) of the programme. The research questions have been answered with the data collected from the three data sets to gain a richer picture of the children's experiences of mindfulness, addressing the principal research question:

> *What do children with ASD say about their experiences of being part of the mindfulness programme?*

*C*hildren's general life experiences were explored primarily from the data collected within interview one and interview two, addressing the additional research question:

> *What do children with ASD say about their life experiences?*

Any change the children experienced as a result of the mindfulness programme was explored using the data collected from interview one and interview two. Children may have spoken about change specifically during interview two or the researcher may have interpreted a difference in the lived experiences children described during interview two in comparison with interview one. This data addressed the additional research question:

> *Does anything change in children's lived experiences during the course of the mindfulness programme?*

5.2.1 Children's experiences of being part of the mindfulness programme. The principal question that this research aimed to answer was:

> *What do children with ASD say about their experiences of being part of the mindfulness programme?*

The following superordinate and subordinate themes that were developed during the data analysis detailed in Chapter Four address this principal research question.

5.2.1.1 Feeling calm. Children described mindfulness helping them to feel calmer. They noticed calmness, physically and emotionally, during the programme and discussed the effects impacting upon their general lives and helping them when faced with difficult situations.

5.2.1.2 Limited understanding of mindfulness language and concepts.

Children used language and concepts relating to mindfulness principles, showing some awareness of these principles. Me communicated her experiences and understanding of mindfulness principles more easily than the other children, showing a divergence in her experience. There was limited understanding of mindfulness principles communicated by Amy, Jerry and Jack, which could suggest a limit to their engagement with mindfulness. However, it could also be a reflection of their social communication difficulties rather than their understanding.

5.2.1.3 Curiosity and interest. As Mayes and Calhoun (1999) highlighted, interest in activities for children with autism is fundamental. The mindfulness programme was interesting to the children and they described being curious and keen to explore it. They enjoyed the format of the programme and engaged with the different types of mindfulness activities.

5.2.1.4 Meaning of mindfulness. The children understood mindfulness to be a skill which they had learned to help themselves to be calm and have control over their feelings and actions. The meaning interpreted by Me was a sense of freedom and a 'feeling'. She expressed it as a "feeling you do" indicating her understanding of mindfulness as a task.

5.2.1.5 Connection with the concrete and practical. Children seemed to engage with the format and delivery of the mindfulness programme, as can be interpreted by their references to the visual and multisensory resources, the clear structure and the categorisation of the activities as mindful breathing, listening, mindful looking and mindful moving.

5.2.1.6 Connecting with others in the group. The children expressed the importance of being with other people in the group. This seemed important to them because they understood that they were not alone with the challenges that their worries and the impact of their ASD on their lives. A sense of belonging and unity started to develop as they shared similar experiences.

5.2.1.7 Summary of the children's experiences of mindfulness. Children shared calming experiences of mindfulness and these effects were helpful in their everyday lives to support them with difficult situations. The principles of mindfulness were not generally discussed by the children in any depth, therefore children may not have understood or found these principles meaningful. The children viewed mindfulness as a skill that could be learnt and one participant spoke of it as "a feeling". Mindfulness offered opportunities for the children to have freedom and develop curiosity in the activities they undertook. They connected with the practical and concrete teaching approach and the clear structure and categorisation of the programme. It was important to the children that they were sharing their mindful experiences with other children and this allowed a sense of connection and belonging.

5.2.2 Children's life experiences. The researcher was interested in exploring the participants' understanding of their lives, particularly their experiences of ASD and anxiety. The second research question asked:

What do children with ASD say about their life experiences?

The following superordinate and subordinate themes that were developed during the data analysis detailed in Chapter Four address this additional research question.

5.2.2.1 Worries. Children told stories of how worries disabled and interfered with their lives, for example affecting sleep and enjoyment. They commonly felt overwhelmed by their worries and spoke about them in relation to the past or the future.

5.2.2.2 Perceptions of the self. The children expressed some awareness of their personal strengths but these seemed to be overshadowed by feelings of failure, hopelessness and a lack of control. They shared similar feelings of failure and inadequacy in comparison to peers or self-set expectations.

5.2.2.3 Relationships. Most of the children's stories reflected their struggles with friendships and a sense of their wish for things to be different. They felt they were different to their peers, in terms of being understood, communicating and having different interests. Children felt isolated and unable to talk to others because they

thought other people would not understand or be able to help. The amount of time spent on discussing friendships indicated this to be an important aspect of the children's lives.

5.2.2.4 Connecting to the environment. The environment was confusing for the children and some sensory information had unpleasant physical effects and was emotionally overwhelming. Children explored the importance of familiar and known environments and routine.

5.2.2.5 Views of autism. The children spoke about autism as a barrier in their lives, in terms of causing them social difficulties and a sense of isolation. They explored the difficulties it brought, such as feeling different. Me noted barriers, but she also experienced "advantages".

5.2.2.6 Summary of the children's life experiences. The children experienced many worries, which they felt interfered with their lives, were often overwhelming and held the children in thoughts of the past or the future. The children identified areas of personal strengths but these seemed to be overshadowed by feelings of failure and inadequacy, hopelessness and a lack of control. Relationships were important to the children, but they experienced challenges in these relationships with other people. They felt they were different from other people and also that they were isolated and alone. The children experienced the environment to be confusing and they spoke of difficulties understanding the world around them and preferences for familiarity. Most children experienced autism as a social barrier, which caused them to feel isolated and different to their peers.

5.2.3 Change to children's lived experience. As aforementioned, it was important to explore the children's experience of their lives at the start of, during and at the end of the programme to fully answer the third research question:
Does anything change in children's lived experiences during the course of the mindfulness programme?

The following superordinate and subordinate themes that were developed during the data analysis detailed in Chapter Four address this additional research question.

5.2.3.1 Worries. Children's experiences of their worries seemed to change throughout the course of their mindfulness practice. During interview one, their stories held themes of worries being disabling and causing the children to be trapped in the past or in the future rather than enjoying the present moment. Children also described their worries to be overwhelming. Stories told during interview two were interpreted as reflecting a sense of belief that worries change. Most children experienced their worries less negatively than they did before their mindfulness practice. Amy did not report a reduction in her worries or an increase in feelings of coping, but she described them as "different" compared with "hard", which gave the researcher the sense that they were not as distressing.

5.2.3.2 Perceptions of the self. Most children during the second interviews indicated increased resilience, feelings of having resources to cope in adverse situations and feelings of control over their lives. Although children indicated some strengths during interview one, the experiences reported during interview two contrast with the other experiences discussed - lack of control and feelings of failure and inadequacy.

5.2.3.3 Connecting to the environment. During interview two, the children referred to abilities to notice and accept change, in comparison to their account in interview one, which reflected their experiences of needing familiarity in order to cope with the confusing information from the world around them. Me described mindfulness as a gestalt and said that it "helps fill everything in" (Me, interview two, line 581). Other children did not report a similar experience of gestalt, although Jack reported experiencing "a change in the brain" (Jack, interview two, line 222-223).

5.2.3.4 Views of Autism. The children described experiences of their autism being 'different' and of 'not noticing' their autism. This presents as a different experience compared with the accounts given in interview one, when most spoke of their autism as a barrier to social relationships.

5.2.3.5 Summary of change in children's lived experiences. Children's experience of their worries seemed to change throughout the course of their mindfulness practice, as most children experienced their worries less negatively than they did before

the practice. Most children during the second interviews indicated a sense of increased resiliency, feelings of having resources to cope in adverse situations and feelings of control over their lives. A shift was interpreted in their ability to enjoy new things and notice and accept change. The children reported experiences of their autism being different and not noticing their autism.

5.3 Commentary on Key Findings in Relation to the Literature Review

5.3.1 Perceptions and experiences of mindfulness. In this research, mindfulness practice appeared to be accepted by the children, as they experienced feelings of enjoyment and spoke of developing their own independent practice of mindfulness. This supports previous research findings that mindfulness practice is accepted by children (Kuyken et al., 2013) including those with SEN (Burke, 2009) and highlights the acceptability of mindfulness practice for the specific participant group of children with autism. As found through research with children who do not have autism (Dellbridge & Lubbe, 2009), this research shows that children with autism can learn to generalise their skills and use them across different contexts.

The children connected with the practical and concrete practice of mindfulness and their accounts reflect a limited understanding of mindfulness language and concepts. On the whole, they understood mindfulness to be a skill that they had learned, to promote calmness and control over their feelings and actions. This finding is similar to Dellbridge and Lubbe's (2009) single case study which revealed the participant understood mindfulness as being task-oriented (in terms of making an effort and practicing mindfulness).

Overall the children's reported positive experiences, so mindfulness seemed to promote positive well-being, in line with findings from previous research (Huppert & Johnson, 2010).

5.3.2 Relationships with others. Children commonly described feeling alone and isolated before the intervention. They reported continued difficulties with

friendships in interview two, but they also expressed the importance of being with other people in the group. A sense of belonging and unity started to develop as they shared similar experiences. Bögels et al. (2008) noted that mindfulness improves mindful awareness and other research has reported that mindfulness predicted high levels of self-esteem, low levels of social anxiety (Rasmussen & Pidgeon, 2011) and increased social skills (Beauchemin et al., 2012). The development of improved awareness throughout this research, as found in previous research (Hill & Updegraff, 2012), could have led the children to notice themselves in relation to other children and feel a stronger connection and sense of belonging. Perhaps this enabled their self-esteem to increase, which could have consequently decreased anxiety.

5.3.3 Worries. This research supported previous findings that mindfulness is beneficial for anxiety (Rasmussen & Pidgeon, 2011; Semple, et al., 2005; Lee et al., 2008; Semple et al., 2010) and reduces stress and improves well-being (Kuyken et al., 2013) because the children reported positive effects on their well-being due to the increase in calm feelings. Children reported their experiences of worries to be less severe following completion of the mindfulness programme. These experiences of reduced worries and increased calm feelings clearly relate to other themes, such as their connection with the environment, themselves and others.

5.3.4 Perceptions of the self. There seemed to be a shift in self-perception from a mostly negative outlook to a more positive belief in coping abilities. This was consistent with findings from previous research, which found mindfulness to have an impact on levels of optimism and positive emotions (Schonert-Reichl & Lawlor, 2010).

5.3.5 Connecting with the environment. Me described her experience of mindfulness helping her form a gestalt. This experience diverged from the other participants. Happe´and Frith (2006) discuss the weak central coherence of children with ASD and this has been suggested to lead to heightened anxiety. For Me, it seemed mindfulness gave her the experience of gestalt and this benefit to central coherence could relate to reduced anxiety levels.

Stories of change and acceptance of new experiences were told. Weare (2012) reports that mindfulness contributes to executive functioning and Carson and Langer (2006, p.26) state mindfulness can "increase cognitive flexibility and therefore behavioural flexibility and the ability to adapt to one's environment in a meaningful manner". This research supported these benefits with respect to this particular group of children.

5.3.6 Views of autism. No previous research to date has examined how mindfulness relates to children's views of having autism. Autism was expressed to be a barrier at the beginning of the programme but described as "different" after completing the mindfulness course. Many factors may have contributed to the change in children's experience of their autism, but possibly the benefits of mindfulness in increasing awareness, emotional regulation (Singh et al., 2013) and positive emotion found by previous research (Hill & Updegraff, 2012; (Schonert-Reichl & Lawlor, 2010) could have influenced the change in lived experience.

5.3.7 Relation to key theories in autism. Clearly, the areas in which mindfulness benefitted the children are related to theories of ASD deficits such as mindblindness, central coherence and executive functioning.

As outlined in Chapter One, restricted, repetitive behaviours and interests, problems with attention management and emotional self-regulation, that children with autism often present with, are proposed to be a result of executive dysfunction (Frederickson, 2008; Lerner et al., 2012). It emerged from this research that children were more able in their ability to notice and accept change after the intervention and according to previous research, it could be seen that this awareness helped contribute to the emotional benefits reported such as the increased sense of calmness and positivity.

Previous research has identified that anxiety in children may be caused by weak central coherence (Happe´ & Frith, 2006) and Me explored accounts of a reduction in her worries and an experience of 'gestalt' or central coherence. It has been suggested that weakness in theory of mind, the ability to mentalise other people's feelings and intentions (Baron-Cohen et al., 1985), could lead children to misinterpret situations in which they may need to understand another person's point of view, and this lack of

social understanding could cause anxiety. The children expressed the importance of being with other people in the group and the sense of belonging and unity started to develop as they shared similar experiences. Possibly improved mentalisation skills could have led to the reported shift in worries.

5.3.8 Summary of the research findings. This research has highlighted the value of examining the experiences of mindfulness practice. In the case of this group of children with anxiety and autism, these experiences have been positive and children engaged with the practical and concrete teaching of mindfulness concepts. The children's accounts did not attribute much importance to the concepts of mindfulness, so they appeared to experience mindfulness as a 'task-orientated' activity. Children explored positive changes in their experiences of having autism, their experiences of worries, their abilities to cope with worries, their feelings of empowerment and their resiliency. The children described of a shift in their ability to enjoy new things and notice and accept change. The literature review highlighted a need for further research into mindfulness with children, particularly whether it is suitable for children with additional needs, where levels of language, cognition and attention may create barriers to access (Iyaduri, 2013), and this research has highlighted the suitability of an adapted mindfulness programme for children with ASD.

5.4 Convergences and Divergences

Greater convergence was found between three of the children's lived experiences, compared to one individual who reported experiences that were different. These differences do not diminish the converging accounts, but are important to consider because they represent the unique perspectives of the participants. Me seemed to cope more positively with the social challenges her autism presented and was able to express herself more clearly during the interviews than the other children. Me had a diagnosis of Asperger's so it could be argued that her communication skills were less limited, in comparison to the two children who had autism and the child who had Asperger's comorbidly with ADHD. Gould and Ashton-Smith (2011) note that girls with ASD present differently to boys with ASD in a number of ways. Firstly, girls tend to observe other children and they can copy these observed behaviours, showing delayed imitation

in appropriate social situations, which seems to mask the symptoms of Asperger syndrome (Attwood, 2007, cited by Gould & Ashton-Smith, 2011). Secondly, girls with autism have been reported to have more active imaginations and more often engage in pretend and fantasy play (Knickmeyer et al, 2008, cited by Gould & Ashton-Smith, 2011). Overall, girls may find it easier to identify and copy social behaviours, compared with boys with autism. Their ability to do this relies on their intellect rather than their social intuition, so this is exhausting as they are repressing their natural autistic behaviour and perhaps there is a connection between this finding and the high number of women with mental health difficulties (Yaull-Smith, 2008, cited by Gould & Aston-Smith, 2011). Amy did not present with such well-developed social imitation skills or as active an imagination as Me. These factors accounting for the difference in behaviours of some girls with autism may explain the differences in Me's experiences compared to the other three children.

5.5 Limitations

Whilst the research explored an emerging phenomenon for child psychology in a way beyond possibility for quantitative methods, it is not without its limitations, which will now be considered.

5.5.1 IPA with children. The main aim of the research was to explore, interpret and understand the experiences of children who have autism and anxiety and have practiced a suitable mindfulness programme. The IPA methodology required the analysis of participants' language as a means of accessing their experiences and therefore it relied on the "representational validity of language" (Willig, 2008, p. 66). This factor may present difficulties when IPA is undertaken with participants who face challenges in communicating their views, so some prompt questions were necessary to elicit responses from the children and ensure they were comfortable. Nevertheless, IPA studies provide a person's experiential account of the phenomenon in context in a way that is less reliant on language than some qualitative methods such as discourse analysis (Smith et al., 2009). Prior to undertaking the research, the researcher reflected on ways to reduce the impact of these limitations. Firstly, as explained in Chapter Three, a pilot

interview was conducted prior to the research interviews, which aimed to improve the validity of the semi-structured interview schedule by ensuring it could be understood by children with autism.

Secondly, much IPA research is concerned with collecting phenomenological accounts which are based on the recollection of events and therefore require hindsight (Huws & Jones, 2008). The researcher was uncertain at the start of the research whether the children would have the hindsight and self-awareness to notice some of the subtle influences mindfulness had upon them. For this reason, the three data sets were collected which aimed to ensure rich accounts of the participants' experiences over time and reduce the difficulties children may have met with retrospective reflection.

Limitations lay within the research despite these considerations. In some ways the three point data analysis could have limited the research; there is a fine balance in the double hermeneutic of IPA analysis, and the participant-researcher relationship over time could have led to data being interpreted beyond the participant's meaning. To mitigate this, the researcher followed the sound analytic process outlined in Chapter 3 and evident in Chapter 4, which involved recurrent re-engagement with the original data. The process undertaken was very time-consuming but the researcher felt it was authentic and respectful of the data. The researcher kept a research diary detailing reflections and decisions at each stage of data analysis and took photographs of the practical process of analysis in order to support the development of an honest and authentic narrative.

Emergent themes were checked with the participants to gain participant feedback or "response validation" (Yardley, 2008, p.242) by asking for comments on the emergent themes. The researcher also validated her own perspectives with the views of other researchers in an informal manner at the London IPA group and with other researchers studying for the Doctorate in Educational and Child Psychology at UEL. This was with a view to ensuring that the analysis made sense to other people who had read transcript extracts. This checking was completed at the third stage of analysis when the researcher was developing emergent themes. To stay true to the double hermeneutic, it was important that the researcher's interpretation of the participant's interpretation remained at the heart of the analysis. The whole analytical process was based on the "researcher

trying to make sense of the participants making sense of their world" (Smith, 2008, p. 53), so constant re-engagement with the data and thorough analytical procedures were important to this process. The opinions of others helped the researcher to consider the depth of the emergent themes but did not shift the researcher's perspective.

The researcher was aware of the difficulties in presenting some themes as concepts of 'change' and has been transparent when divergence occurred between the participants. For example, it was been made clear that, for Amy, her worries remained but she described them as different rather than "hard", which the researcher interpreted as an improvement.

5.5.2 Researcher-participant relationship. The teaching assistant was trained to deliver the mindfulness intervention to eliminate researcher or participant bias in the research. However, the researcher needed to be present during sessions because the teaching assistant was a novice to mindfulness and could not be expected to have an adequate level of competence without supervision and support. The children became familiar with the researcher due to her presence throughout the intervention and this researcher-participant relationship could have impacted upon the way in which interviews were conducted and interpreted. Because the child participants were vulnerable in terms of their emotional and psychological needs, it could be argued that their familiarity with the researcher reduced the occurrence of anxiety related to meeting unfamiliar people. However, at times, they may have seen the researcher's presence as being affiliated with the school staff which may have limited their responses and led to demand characteristics relating to the researcher. Reflexivity involves the researcher engaging in "openness to the world and being able to reflexively restrain pre-understandings" (Finlay, 2008, p.2). The researcher needed to develop awareness in order to bracket her knowledge of the participants and of autism so that the participants' stories could be fully reflected in the analysis. Simultaneously, the researcher needed to be aware of her own interpretations- the double hermeneutic part of the IPA process. Awareness was developed through reflection upon each stage of analysis, beginning from the initial noting stage, in which the researcher noted comments and considered the possible impact of her questions and responses upon the participants. Moreover, the researcher needed to be clear about her role and position in the research. Due to the

nature of working with children, the researcher had a dual role; that of the researcher and that of the trainee EP who works with children and has their well-being in mind. The researcher held these different roles in mind during the interview and analytical process. The researcher reflected on her own positionality as a social constructionist; her role as creator of the mindfulness programme and as a trainee educational psychologist; her emotional responses to the participants; the way in which interview questions were presented; her interest and experience of mindfulness; her experience of working with children with additional needs; and her knowledge of the participants, all of which may have all impacted the research. One such event in which the researcher needed to reflect on her role occurred when it was necessary to facilitate the children to problem-solve concerning events that had happened before the interview. This promoted the child's comfort and engagement with the interview process (Jack, interview one).

5.5.3 Limitations in epistemology and methodology. The ontological position assumed by this research was constructionist, viewing that one objective world which can be discovered and measured does not exist and that there are multiple constructions of meaning. This led the research to an interpretive epistemology, which sought to explore interactively the individual experiences of the children. However, the researcher's position may have, at times, been affected by her knowledge of previous research. This could be argued to have impacted upon the researcher's expectations and led her to assume a position in line with critical realism or even positivism. Furthermore, the intention of this research was not to evaluate whether mindfulness was effective, but to explore the children's experiences. As previously explained, the researcher felt that these lived experiences would be better explored over time due to the participant's difficulties with social communication.

The information in the literature review informed the researcher's thinking; however, the researcher did not have a hypothesis to explore because there was not enough information presented by existing research to form a hypothesis. The researcher reflected on the knowledge gained from the literature review but bracketed this information and remained authentic to the data presented by each participant, as can be seen through the thorough and systematic analytical process.

Salmon (2003) discusses the unrealistic notion of choosing an epistemological position before undertaking research and comments on the rare occurrences of this in real life research. Sometimes the researcher's ontological and epistemological positions may not suit the methodology that is best for a particular area of research, hence it could be argued that it is better for the methodology to suit the topic of inquiry rather than the researcher's personal beliefs. In some respects, these positions may be fluid throughout engagement with the research process if the researcher assumes a social constructionist position because beliefs about reality and how one finds out about it are themselves but a construction of the researcher's understanding of the world at that point in time.
At times, the researcher found that it was difficult to interpret each individual's account as a case within its own right and not to be affected by knowledge of other participants or the interpretation of the previous participant's meaning. The rigorous and systematic approach reduced these difficulties.

The method used in this research with the three data sets is somewhat different from many IPA studies, which could be criticised as aforementioned, in terms of the purpose of the research seeming evaluative rather than exploratory. However, as Smith et al. (2009), outline, there are no rigid rules governing the use of IPA. Good research is "playful" and "real scientific progress results from imagination, creativity and common sense" (Salmon, 2003, p. 25). The children's stories are fundamental and central to this research and cannot be confined to fit into a pre-defined model.

Although IPA analysis offers a rich and unique insight into the experiences of individuals, it is not without limitations. The small sample size used in IPA research is recommended to ensure a manageable and deep analysis of participants' experiences. However, it is argued that this small sample is not generalisable to the wider population because the findings are unique and individual to the participants. The aim of IPA research is more focused on being able to transfer findings to other groups that are similar to the heterogeneous sample. Because autism is a spectrum disorder, there is no way to be certain as to whether the children's views of mindfulness were linked to their ASD or to their own individual personality traits. Nevertheless, this IPA study did consider the uniqueness of each case as well as the convergences, so some of the findings should be transferable to other children with ASD.

IPA methodology was utilised in this study as a holistic starting point to explore this novel area of research in great depth. Directions for future research may involve more structured grounded theory studies looking to create theory concerning mindfulness for children with autism. Further research may explore the mechanisms underlying the improvements in well-being that the children described, for example it would be interesting to better understand the improved central coherence or gestalt that Me discussed and to explore whether this contributed to her calmness or whether the calmness contributed to the increased central coherence. Similarly, it would be interesting to find out why the children were more accepting of change following the mindfulness practice and whether this related to executive functioning, a link which has been suggested by previous research (Frederickson, 2008). Furthermore, quantitative studies may be useful to evaluate the benefits of the programme with a wider population of children who have autism and possibly speech, language and communication difficulties. It would be interesting to explore the way in which mindfulness interventions are experienced by a varied range of children with SEN, including those of a younger age.

5.6 Implications of the Research

This research has offered unique insights into a little researched area; the experiences of children with autism. It has provided information about how these children experienced a mindfulness intervention. The research has led to an improvement in well-being for the group of children involved and has involved increasing the knowledge and skills of staff at the school where the intervention took place. Furthermore, this research has led to the development of a cost-effective resource that can be used to support the well-being of pupils with ASD. The researcher met with the school staff to give some initial feedback on the research conclusions and discuss the next steps to using mindfulness approaches in the school and plans to disseminate the findings formally to the head teacher and the school staff.

This information can be used to inform the teaching of mindfulness for other children with autism and could lead to the development of a range of adapted programmes for

pupils with varying special educational needs. It also serves as a foundation for the development of further research with younger children, as there has been a great emphasis on the importance of early intervention for children with ASD (Shannon & Posada, 2008). Additionally, this research has highlighted the benefits and accessibility of therapeutic support for children with autism. The findings with regard to promoting children's engagement and programme accessibility, for example, via the high level of interest and the concrete and structured teaching approach, may be generalised to other well-being interventions so that children can be taught more concrete understandings of well-being, something that educators can find difficult.

As well as implications for the implementation of mindfulness programmes for children and young people, this research was able to provide insights into some of the perceptions and understandings of autism from the perspective of children with autism. It emerged that the children enjoyed being in a group with others who had autism and they felt a sense of belonging. This provides a strategy for social and emotion support for young people with autism. The research showed that, through structured teaching, children were able to develop a toolkit of skills that supported them in situations outside of the teaching sessions, a set of tools that they can carry forward to help them to be resilient in their lives. This empowering factor could have started a chain of positivity for the children, as they reported positive beliefs in their resources and coping abilities after mindfulness practice. Pellicano et al. (2013) suggested in their review of autism research that there should be "efforts to develop cross-disciplinary research moving expertise from psychological science into education, from epidemiology into service delivery and design, from biomedical research into socio-cultural, legal and ethical investigations" (p.38). Although this research did not involve cross-disciplinary working, it has applied some of the psychological theory which comes from a range of research professions into the field of education, making sure that science translates into practice.

The experiences reported by the children are consistent with theories explaining features of ASD, such as Weak Central Coherence, and deficits in Theory of Mind and executive functioning, so this research provides support for these theories. The improvements in these areas, suggested by the children's narratives, could contribute to the existing

research and aid a better understanding of autism. The divergent experiences expressed by Me could contribute to research examining girls with ASD and how they may repress their natural autistic behaviour, which could explain the high number of women with ASD with mental health difficulties. Me's engagement with the programme suggests that it may be a suitable preventative programme for girls with ASD at risk of these later mental health issues.

The current study placed importance on listening to children and has contributed to the growing body of IPA, which enables the voices of children who are often unheard *(*Petalas et al., 2009), and additionally children who have autism. Pellicano et al. (2013) assert the importance of autism research "developing widespread mechanisms of engagement between researchers and the autism community" (p.21). This research ensured that the autistic children were actively engaged in the research process and that the research created opportunities to make their voices heard.

With specific regard to IPA, Hefferon and Gil-Rodriguez (2011) discuss their concerns about the quality of much IPA research and state there is a lack of peer-reviewed educational psychology IPA research (Hefferon & Gil-Rodriguez, 2011). It is hoped that this research will contribute to the educational psychology IPA evidence base by being peer-reviewed and published upon completion of the thesis write up.

5.7 Implications for Educational Psychologists

This research will be disseminated to the Educational Psychology Service within the LA in which the research has been undertaken. As aforementioned, the researcher hopes to publish a peer-reviewed journal paper based on this research so that the findings may be disseminated to the wider EP profession. The imperative of this dissemination is to inform EPs of the research, encourage EPs to take these research findings into their practice by direct work with children, in consultation with schools and other professionals, and to provide further evidence to the research base, in ways which will now be discussed.

Fallon, Woods and Rooney (2010) deliberate over the constraints that LA statutory assessment procedures have placed on the range and development of EP work. This has limited the opportunities for EPs in many LAs in the areas of "intervention, research, and within community and health-related settings" (DfEE, 2000; Farrell et al., 2006; Maliphant, 1997; Norwich, 2000 cited in Fallon, Woods & Rooney, 2010, p. 2). The new guidance in the SEN Code of Practice introduced from September 2014 (DfE, 2014) may bring new opportunities for, as well as restrictions on, EP work.

5.7.1 Intervention work. The first of these new opportunities relates to the EP profession being aware of and involved in well-being and mental health interventions. Recent governmental messages concerning mental health and well-being have been communicated through the publication of guidance documents, with the specific term 'mental health' (DfE, 2014, 2015). Interestingly, the term child psychologist is referred to in the advice for schools (DfE, 2015), and there is no clear distinction made between the roles of the clinical and the educational psychologist. Considering the challenging times for public services, with increasing financial constraints, the future may hold a more formal amalgamation of the educational and clinical psychology professions beyond the "considerable degree of overlap" that has already been identified (Farrell et al., 2006, p. 654). A fundamental tenet of this overlap might be a change in EP practice and a larger proportion of EP time spent on implementing and delivering psychological well-being interventions, which could include mindfulness programmes. Furthermore, the EP profession seems to be entering a changing world of employment, "with an

emphasis on increased flexibility, mobility, independence, more self-employment and portfolio careers. It is likely that many professionals will be working for themselves and a number of agencies rather than for a single employer" (Gersch, 2004, p.144). It is therefore fundamental that EPs are able to diversify and use a range of psychological skills to cope with the demands of this changing world (Gersch, 2009). Mindfulness may be one such skill that EPs can deliver directly and through training with clients within both LA and independent services, but EPs will first need to be competent themselves in mindfulness approaches and have developed their own practice.

5.7.2 Evaluation of interventions contributing to the research base. Following this exploratory research, evaluation of this programme and others will be necessary. EPs may be best placed to evaluate mindfulness interventions and previous research indicates the necessity of EPs being involved in creating their own evidence base for their practice (Fox, 2003). It is clear that a range of research is needed from different professions with a focus on research "targeting how autistic people think and learn, how we can promote the life skills and independence of people with autism" (Pellicano et al., 2013, p.20).

5.7.3 Collaborative and systemic working. The principles of co-production and collaborative multi-agency working focused upon within the SEN Code of Practice (2014) place an increased emphasis on the responsibility of all professionals in supporting emotional well-being and targeting mental health at a preventative level. As Roffey (2015) explains, "when schools focus on the well-being of the whole child, this not only benefits individuals, but the communities in which they participate" (p.21). It might be that mindfulness can be implemented as a whole school approach and a 'narrative' that grows within schools and LAs and, in this instance, the role of the EP might be to act as an agent of change and work in a holistic and "pro-active way to advocate for the needs of vulnerable young people at a systemic level" rather than be "reactive to demands" (Roffey, 2015, p.21). This research may be disseminated to the public health team at the LA in which the research has been undertaken and to other professionals who work in the LA, for example the CAMHs team and paediatricians. This will be useful, not only in terms of information sharing, but also possibly create opportunities for joint-working and future community-based psychology.

This research has emphasised the voices of children with ASD and provides EPs with evidence of the insight that children with ASD have into their own lives. This may be used to challenge views that do not advocate the voices and rights of young people with SEN. Many legislative imperatives will lead to an increased need for training and development in the educational profession. The Carter Review (Carter, 2015) outlined the need for initial teacher training programmes to include training in child development, managing pupil behaviour and special educational needs and disabilities. Whilst there used to be a wider range of educational professionals that held the knowledge and expertise to contribute to these aspects of Initial Teacher Training, it seems that in light of the budget cuts over recent years creating losses of specialist and advisory teacher roles (Cowie, 2012), EPs may be the best placed professionals to assist with the delivery of teacher training in these areas within their LA. The role of the EP has constantly evolved in response to social and political priorities (Fallon, Woods, & Rooney, 2010). This research has demonstrated the unique role of the EP in up-skilling, empowering and supervising the practice of school staff. This is valuable in the current climate of traded delivery models, as EP services are faced with the pressures of making a unique and valuable contribution in order to generate revenue and to "expand the influence of the EP role beyond previous limitations of ring-fenced EPS budgets" (Fallon, Woods & Rooney, 2010, p.15).

Previous research has highlighted that teacher and EP collaboration fosters "a greater understanding and appreciation of what a psychological perspective can bring to learning and teaching" (Doveston & Keenaghan p.137). The joint delivery of this mindfulness programme may provide opportunities for such psychological appreciation, which is of additional merit due to the responsibilities of LAs to ensure that teachers are adequately trained to support emotional and social well-being (DfE, 2015; Carter, 2015). The researcher's hope is that this research will encourage EPs to apply mindfulness- based approaches into their work with young people.

5.8 Researcher's Reflections of the Research Journey

The following reflections are based on the researcher's own personal experience and engagement with the research process, so a first-person narrative will be adopted for this section to enable discussions about the research process, personal experiences and the impact of this research on the researcher's professional role.

5.8.1 Overview of my reflective process. Reflection is an essential part of the process for many types of qualitative research, but particularly so for IPA studies concerned with phenomenological perspectives which are inherently linked to cognition (Smith et al., 2009). Phenomenology is comprised of several layers of reflection which shift from unconscious to conscious states. Smith et al. (2009) outline four stages of reflection: 'pre-reflective reflexivity' which is a state of which we have a minimal level of awareness; 'reflective glancing at a pre-reflexive experience' which includes memories, daydreams and intuition, for which we are not quite in the state of awareness; 'attentive reflection on the pre-reflective' which involves reflection that occurs based on an event bringing our attention to an experience; and 'deliberate controlled reflection' which is the purposeful reflection on what is happening in our known experience.

The latter would commonly be understood as 'reflection', as ultimately this purposeful reflection may bring to light the deeper layers of reflections and help us to develop an understanding of what is happening and our interpretations of this in the present moment (Smith et al., 2009), similar to the way in which purposeful mindfulness practice leads to increased awareness. My approach to engaging in this deliberate controlled reflection throughout this research was facilitated through use of a research diary which I wrote in as ideas came to me during the review of literature, the research design, interviews, analysis and write-up. I also used my research diary throughout the programme to write notes and reflect on my ideas and how best to support the teaching assistant.

I also used the space during tutorials with my research supervisor and at IPA meetings to reflect on more practical aspects of the study and my interpretation of the data. The

methods of reflection provided opportunities for me to consider the impact of the ontological and epistemological positioning in the research, as detailed in Chapter Three (see Appendix 31 for extracts). As I was a novice to IPA, I used my research diary and supervision to make sense of my thoughts and my journey into this unfamiliar field.

5.8.2 The research process. During the analytic process, I questioned my reflexivity during interviews and the way in which my presence and questions may have influenced the children's responses. For example, at times I needed to offer children a prompt because an open question did not elicit an adequately detailed response, as it had during the pilot interview. I was apprehensive at the beginning of the research as I did not know what to expect; despite my readings and discussions with other researchers who had IPA experience, I myself had no such experience. An example of how challenging it was to follow this unknown path is apparent in the following extract from my research diary referring to the design of my interview schedule: *"I did feel a bit worried that I haven't got enough questions, what if the children don't say enough for me to analyse? I read Hefferon and Gil-Rodriguez and they say that many novices create schedules that are too long and detailed, and then don't create a balance between the researcher listening and leading. I suppose it will be ok"* (research diary extract dated 9th February 2014). This feeling of uncertainty continued into the analysis for me, as another extract notes: *"I am choosing and interpreting what has meaning and what is less significant. What if I choose the wrong information and end up with the wrong themes? I need to remind myself there is no right or wrong answer, I just need to keep checking back to the original transcripts"* (research diary extract dated 23rd January 2015).

I was consistently aware of the power-imbalance between the children and myself as a researcher and I was conscious of the role in which they saw me; whether they saw me as an outsider or as a member of staff. During the interview with Jack, he described wanting to tell me he had been practicing mindfulness because he thought I would be happy with him. I reflected on this comment and the importance of his desire to please others during my interpretation and I wondered whether his need to please impacted any of his other responses. However, he was quite open and honest with his feelings about being resistant towards mindfulness in the beginning, so I felt assured of his responses.

When developing the emergent themes I tried to keep my research questions in mind but not to let them lead the themes. My interview schedule was clearly designed to gain the answers relevant to the research questions and I feel that was successful, despite my initial concerns. I did not separate themes to answer the research questions until the point of presenting them in the discussion, which I feel presented inductive, thorough and valid narratives of participant experiences.

5.8.3 Personal impact of this research. My previous interest and experience in working with children with social and emotional difficulties inspired me to carry out research in this area. Also my personal interest in spirituality and well-being led me to develop an interest in mindfulness and in August 2013 I began to consider it as a thesis topic. I have developed my own practice since that time and have found it to contribute greatly to my own well-being and capacity for awareness, calmness and acceptance. The research has been very time-consuming and I had the additional task of designing the adapted mindfulness programme, which was challenging but immensely creative and interesting.

5.8.4 Impact on my role as trainee Educational Psychologist. In my role of a trainee EP I feel that undertaking this research has brought a great deal to my ideologies and principles regarding EP practice and its contribution to children's and young people's lives. The research has increased my skill set and broadened my horizons in terms of the work one can undertake as an EP and it has allowed me to focus on my interest in emotional well-being and therapeutic work in my day-to day practice. I feel hopeful about the future directions of my work and excited about the broad range of activities that I may be able to undertake. I am keen to expand my application of mindfulness-based approaches and I believe that a move towards some EPs working at an interventions level would be beneficial and useful for many young people.

5.8.5 Final reflections and conclusions. This study identifies positive opportunities for children with ASD to engage with mindfulness-based approaches. The themes that emerged from the data analysis appear to indicate that mindfulness-based approaches may be useful in promoting the psychological well-being of children with

ASD. Themes presented by the children's stories included enjoyment of mindfulness, engagement with the practical and concrete teaching of the intervention, positive changes to their experiences of having autism and worries, feelings of empowerment and resiliency, enjoyment of new experiences and developing abilities in noticing and accepting change. The fact that the prevalence of mental health issues in children and young people appears to be increasing places a moral imperative on EPs to offer support for the psychological well-being of pupils in schools. The research highlights the broad role that can be undertaken by the EP in such interventions, for example through the training of school staff, research and evaluation of interventions, systemic projects, collaborative work and direct programme delivery with individuals and groups. Furthermore, the research adds to the growing body of IPA research from the educational psychology profession and research focused on listening to children.

Ultimately, psychology should be about helping people with the way they think and feel about themselves and about the world around them. This research has made a positive contribution to the lives of the children who took part and has highlighted the potential for mindfulness-based interventions in promoting the well-being of many other children and young people with ASD.

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Appendices

Appendix 1: List of Abbreviations

Acceptance and Commitment Therapy	ACT
Attention Deficit Hyperactivity Disorder	ADHD
Autistic Spectrum Disorder	ASD
Child and Adolescent Mental Health Service	CAMHS
Department of Education	DfE
Department for Education and Skills	DfES
Department of Health	DoH
Diagnostic and Statistical Manual	DSM
Dialectical Behaviour Therapy	DBT
Division of Educational and Child Psychology	DECP
Education Health and Care Plan	EHCP
Educational Psychologist	EP
Executive Functioning	EF
Initial Teacher Training	ITT
Interpretative Phenomenological Analysis	IPA
Local Authority	LA
Mindfulness Based Cognitive Therapy	MBCT
Mindfulness Based Cognitive Therapy for Children	MBCT-C
Mindfulness in Schools Project	MiSP
Mindfulness Based Stress Reduction	MBSR
National Health Service	NHS
National Institute for Health and Clinical Excellence	NICE
Principal Educational Psychologist	PEP
Social Communication, Emotional Regulation and Transactional Support	SCERTs
Social and Emotional Aspects of Learning	SEAL
Special Educational Needs	SEN
Special Educational Needs Co-ordinator	SENCo
Spence Children's Anxiety Scale	SCAS
UEL	UEL

Appendix 2: Summary of the results from systematic literature review

1	Singh, N. N., Lancioni, G. E., Singh, A. D. A., Winton, A. S. W., Singh, A. N. A & Singh, J. (2011). Adolescents with Asperger syndrome can use a mindfulness- based strategy to control their aggressive behavior. *Research in Autism Spectrum Disorders 5,* 1103–1109.
2	Liehr, P. & Diaz, N. (2010). A pilot study examining the effect of mindfulness on depression and anxiety for minority children. *Archives of Psychiatric Nursing*, *24 (1),* 69-71.
3	Gould L. F., Dariotis, J. K., Mendelson, T. & Greenberg, M. T. (2012). A school-based mindfulness intervention for urban youth: exploring moderators of intervention effects. *Journal of Community Psychology, 40 (8),* 968-982.
4	Montgomery, K. L., Kim, J. S., Springer, D. W. & Learman, J. A. (2013). A systematic and empirical review of mindfulness interventions with adolescents: a potential fit for delinquency intervention. *Best Practices in Mental Health, 9 (1),* 1-19.
5	Ames, C. S., Richardson, J., Payne, S., Smith, P. & Leigh, E. (2014). Innovations in Practice: Mindfulness-based cognitive therapy for depression in adolescents. *Child and Adolescent Mental Health*, *19 (1),* 274–278.
6	Dellbridge, C. & Lubbe, C. (2009). An adolescent's subjective experiences of mindfulness. *Journal Of Child And Adolescent Mental Health, 21 (2),* 167–180.
7	Russell, J. (2011). Mindfulness: A tool for parents and children with Asperger's syndrome. *Mindfulness, 2,* 212-215.
8	Iyadurai, S. (2013). Research in brief: Mindfulness meditation with children: A universal preventative approach? *Debate 148,* The British Psychological Society, Division of Educational and Child Psychology.
9	Burke, C. A. (2009). Mindfulness-based approaches with children and adolescents: a preliminary review of current research in an emergent field. *Journal of Child and Family Studies, 19 (2),* 33-144.
10	Beauchemin, J., Hutchins, T. L., & Patterson, F. (2008). Mindfulness meditation may lessen anxiety, promote social skills, and improve academic performance

	among adolescents with learning difficulties. *Complementary Health Practice Review, 13,* 34–45.
11	Huppert, F. A. & Johnson, D. M. (2010). A controlled trial of mindfulness training in schools: The importance of practice for an impact on well-being. *The Journal of Positive Psychology, 5 (4),* 264–274.
12	Bögels, S., Hoogstad, B., van Dun, L., de Schutter, S. & Restifo, K. (2008). Mindfulness training for adolescents with externalizing disorders and their parents. *Behavioural and Cognitive Psychotherapy, 36,* 193–209.
13	Schonert-Reichl, K. A. & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. *Mindfulness, 1,* 137-151.
14	Semple, R. J., Reid, E. F. G. & Miller, L. (2005). Treating anxiety with mindfulness: An open trial of mindfulness training for anxious children. *Journal of Cognitive Psychotherapy, 19,* 379- 392.
15	Lee, J. L., Semple, R. J., Rosa, D. & Miller, L. (2008). Mindfulness-based cognitive therapy for children: a pilot study. *Journal of Cognitive psychotherapy: An International Quarterly, 22 (1),* 15-28.
16	Semple, R., Lee, J., Rosa, D., & Miller, L. (2010). A randomized trial of mindfulness-based cognitive therapy for children: Promoting mindful attention to enhance social-emotional resiliency in children. *Journal of Child and Family Studies*, *19 (2),* 1573–2843.
17	Kuyken, W., Weare, K., Ukoumunne, O. C., Vicary, R., Motton, N., Burnett, R., Cullen, C., Hennelly, S., Huppert, F. (2013). Effectiveness of the Mindfulness in Schools Programme: non-randomised controlled feasibility study. *British Journal of Psychiatry, 203 (2),* 126-131.
18	Pahnke, J., Lundgren, T., Hursti, T. & Hirvikoski, T. (2014). Outcomes of an acceptance and commitment therapy-based skills training group for students with high-functioning autism spectrum disorder: a quasi-experimental pilot study. *Autism, 18 (8),* 953-64.

Appendix 3: Copy of ethical approval

SCHOOL OF PSYCHOLOGY
Dean: Professor Mark N. O. Davies, PhD, CPsychol, CBiol.

UEL University of East London
www.uel.ac.uk

School of Psychology

Professional Doctorate Programmes

To Whom It May Concern:

This is to confirm that the Professional Doctorate candidate named in the attached ethics approval is conducting research as part of the requirements of the Professional Doctorate programme on which he/she is enrolled.

The Research Ethics Committee of the School of Psychology, University of East London, has approved this candidate's research ethics application and he/she is therefore covered by the University's indemnity insurance policy while conducting the research. This policy should normally cover for any untoward event. The University does not offer 'no fault' cover, so in the event of an untoward occurrence leading to a claim against the institution, the claimant would be obliged to bring an action against the University and seek compensation through the courts.

As the candidate is a student of the University of East London, the University will act as the sponsor of his/her research. UEL will also fund expenses arising from the research, such as photocopying and postage.

Yours faithfully,

Dr. Mark Finn

Chair of the School of Psychology Ethics Sub-Committee

Stratford Campus, Water Lane, Stratford, London E15 4LZ
tel: +44 (0)20 8223 4966 fax: +44 (0)20 8223 4937
e-mail: mno.davies@uel.ac.uk web: www.uel.ac.uk/psychology

Appendix 4: Example of research request letter for school staff

Dear _____,

My name is Jodie Lambert and I am a Trainee Educational Psychologist completing the Doctorate in Educational and Child Psychology at the University of East London.

I am researching children's experiences of participating in a mindfulness course. Mindfulness is a way of paying attention to events in the present moment and non-judgementally. Previous research has shown that increased levels of mindfulness are associated with increased ability to organise and plan, attention, decreased levels of anxiety and depression and increased well-being.

I am looking for 4 Key Stage 2/ lower Key Stage 3 pupils who have a diagnosis of ASD (with no other diagnoses) and anxiety difficulties to take part in a mindfulness intervention to be run by a teaching assistant for 5 weeks in school. Two 45-minute sessions need to be delivered each week and I will provide training and resources and visit twice per week to supervise the programme.

Please find attached a research information guide to inform you and parents about mindfulness, an information guide for children and consent forms for parents and children to complete if there are any children who wish to take part.

Many thanks,

Jodie Lambert

Appendix 5: Example of research information guide for school staff and parents

Research information guide for schools and parents/carers

Title: An exploratory study of mindfulness experiences with children who have Autistic Spectrum Disorder and anxiety
Date:
Dear.....
I am a Trainee Educational Psychologist who is completing the Doctorate in Educational and Child Psychology at University of East London. I am researching children's experiences of participating in a mindfulness course.

What Is Mindfulness?

Mindfulness means paying attention in a particular way; on purpose, in the present moment, and nonjudgmentally. — Jon Kabat-Zinn (1994)

The aim of mindfulness is to develop attention and greater present moment awareness in our lives. Research has shown that mindfulness practices can help reduce symptoms of anxiety for children. With practice, children can learn to stay in the present and not ruminate about the past or worry about the future. With greater awareness, they may become aware of more choices in how to respond to stressful events. This creates greater freedom to choose to disengage from unhelpful *automatic pilot* reactions. In mindfulness, children develop a mindful relationship to all their thoughts and feelings—including anxious thoughts and feelings. Children often learn that they can handle stressful situations with greater ease and skilfulness when they bring awareness to the present moment.

Why is this research being done?

This research aims to explore the experiences of children who have autism and anxiety and take part in a mindfulness intervention. The research aims to increase the understanding of mindfulness through exploring any changes in anxiety reported by children, changes in their understanding of mindfulness and their views on how to teach mindfulness.

Why this particular pupil?

This pupil has been chosen because they have been identified as having ASD and some difficulties with anxiety. Their participation will hopefully help professionals to use mindfulness and help other children with anxiety difficulties.

What does this study involve?

I will support the school to deliver a small group mindfulness programme for a period of 5 weeks in school time. Two 45-minute sessions will be delivered weekly.

Each session will be 45 minutes, during which the children will learn practices to help them focus on their breathing and develop self-acceptance and attention to the present task. They will also be expected to write, draw about and discuss their experiences. I will meet the children before we begin the programme and explain what it is about. I will deliver a taster session so they are fully informed when giving their consent.

I will interview the children at the beginning, middle and end of the intervention for around 20 minutes each time. I will be video recording the interviews and making notes about the programme and what the children say. I will keep all the recordings and notes in a safe lockable place until I have drawn conclusions from the information at which point it will be destroyed. Also, later, when I report the research, all of the details will be made anonymous. The content of the sessions will be kept confidential, unless there is a risk of someone being hurt or harmed.

If children want to stop taking part in the programme we will stop straight away. I will reserve the right to use any data collected.

What if I have any more questions?

If you have any more questions or want to discuss further please contact Jodie Lambert on:

Email: xxxxxxxxxxxxx

Contact number: xxxxxxxxxxxxxx

Who should I contact if I am worried about the study?

The Research Ethics Committee of the School of Psychology, University of East London 0208 223 4966.

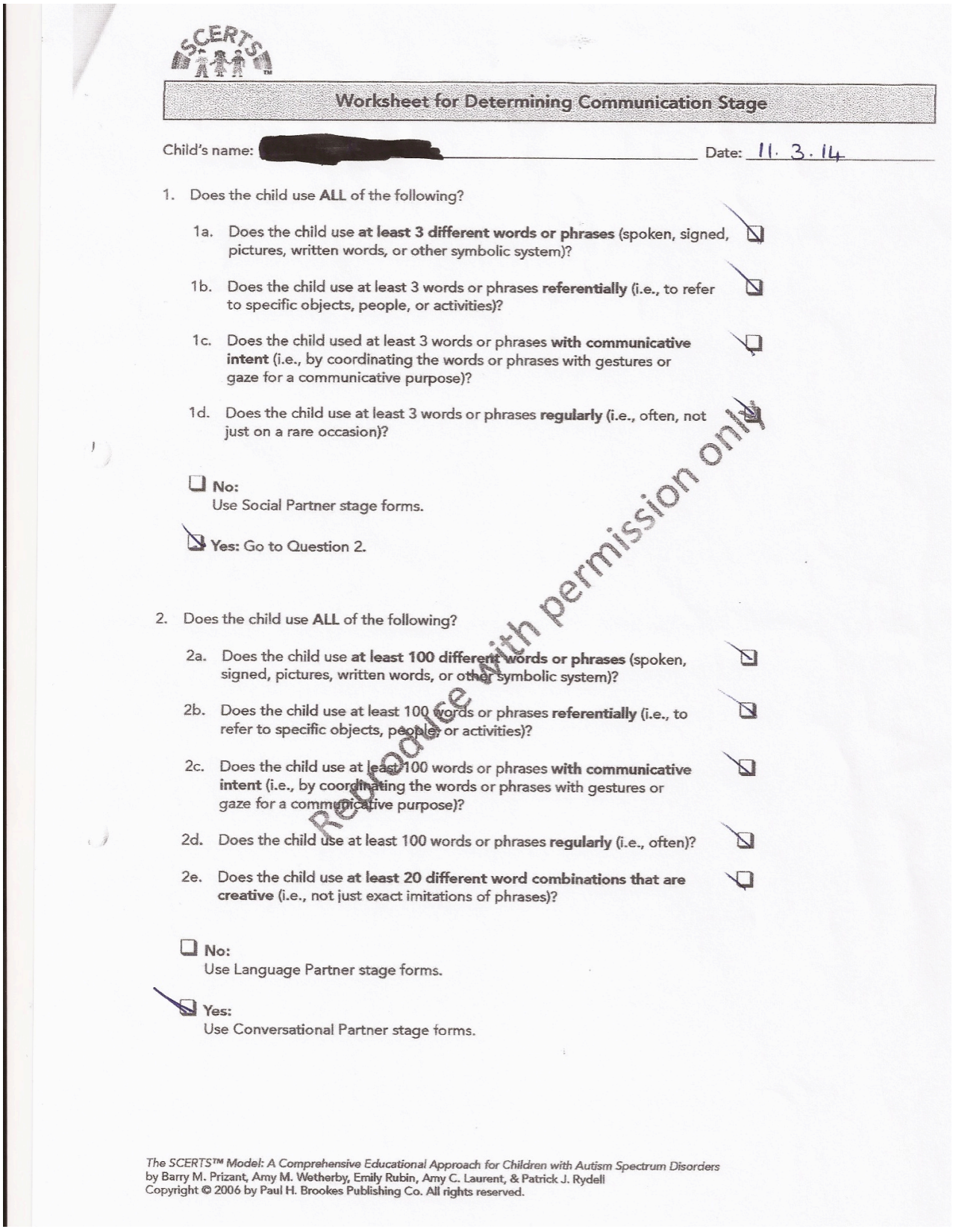
Thank you for taking time to consider this research study.

Please complete the consent form if you give permission for your child to participate in the research. Please find a stamped addressed envelope attached.

Many thanks,

Jodie Lambert

Appendix 6: Example of SCERTS worksheet for assessing communication



SCERTS™

Worksheet for Determining Communication Stage

Child's name: [redacted] Date: 11.3.14

1. Does the child use **ALL** of the following?

   1a. Does the child use **at least 3 different words or phrases** (spoken, signed, pictures, written words, or other symbolic system)? ☑

   1b. Does the child use at least 3 words or phrases **referentially** (i.e., to refer to specific objects, people, or activities)? ☑

   1c. Does the child used at least 3 words or phrases **with communicative intent** (i.e., by coordinating the words or phrases with gestures or gaze for a communicative purpose)? ☑

   1d. Does the child use at least 3 words or phrases **regularly** (i.e., often, not just on a rare occasion)? ☑

☐ **No:**
Use Social Partner stage forms.

☑ **Yes:** Go to Question 2.

2. Does the child use **ALL** of the following?

   2a. Does the child use **at least 100 different words or phrases** (spoken, signed, pictures, written words, or other symbolic system)? ☑

   2b. Does the child use at least 100 words or phrases **referentially** (i.e., to refer to specific objects, people, or activities)? ☑

   2c. Does the child use at least 100 words or phrases **with communicative intent** (i.e., by coordinating the words or phrases with gestures or gaze for a communicative purpose)? ☑

   2d. Does the child use at least 100 words or phrases **regularly** (i.e., often)? ☑

   2e. Does the child use **at least 20 different word combinations that are creative** (i.e., not just exact imitations of phrases)? ☑

☐ **No:**
Use Language Partner stage forms.

☑ **Yes:**
Use Conversational Partner stage forms.

Appendix 7: Example of consent form for parents

Consent form for parents/carers

I …….. (parent/carer's name)agree to my child ..... …… (child's name) participating in this research project. I am aware that I may withdraw my consent at any time but the collected data may still be used for research purposes.

Signed..... Date .....

Name of your child's school ……...

Thank you

Appendix 8: Example of information sheet for pupils

Information form for pupils

Dear

My name is Jodie and I am training to work as an Educational Psychologist. Educational Psychologists are trained to help people with their learning and development. Here is my photo so you know who I am:

I am researching something called mindfulness. Mindfulness is a way of focusing your mind on whatever is happening in the moment and accepting the thoughts and feelings instead of worrying about what happened before or what will happen next. Some people have found that when adults and children do this, it helps them to pay attention, think in clearer ways and to manage feelings like worry, fear and anger.

I will be working with your teachers to run a 5-week course at your school to find out what it would be like for children to practice mindfulness. This 5-week course will mean that you will meet one of your teaching assistants for 45 minutes twice a week at your school and I will visit for these sessions. You will practice different ways of paying attention by breathing, looking, listening and moving. You will be invited to talk, draw and write about your experiences of doing this, so that it will help us to teach this to children in better ways. You can try some mindfulness activities at home too.

In each session, your teaching assistant and I might make notes on whatever we do in the sessions, including any discussions that we have. I will do a short interview with you at the beginning, middle and end of the programme. I will video-record the interview and I will keep all the recordings and notes in a safe lockable place. When I talk about the research and write about what we found out, I will change the names so that your views are anonymous- that means nobody will know it is about you. Also, I will not talk to anyone you know about what you tell me unless you say something that makes me think that you or someone else is not safe. If this happens, I will talk with you first about what could be done to help.

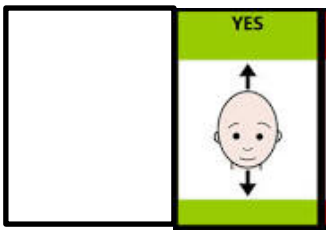
If you would like to be on the course and to learn mindfulness practices, then please sign the consent form. You don't have to take part, it is completely your choice.

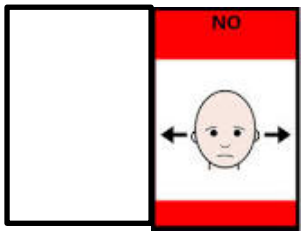
Appendix 9: Example of consent form for pupils

This is the consent form to fill out if you want to take part in the mindfulness course. Please complete the form and if you do not understand any parts we can go through it together.

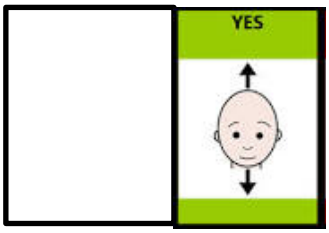
Please choose a box to tick yes or no.

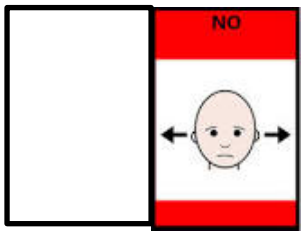
1. I have read all the information about the research and I understand what it is about.



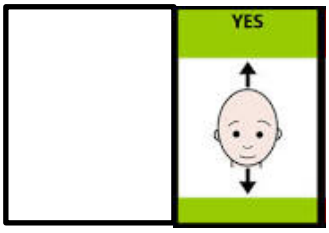


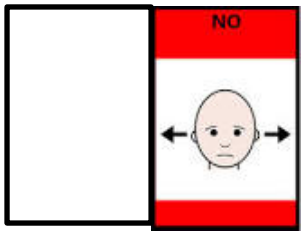
2. I understand that I do not have to answer any questions or do any activities that I do not want to do.



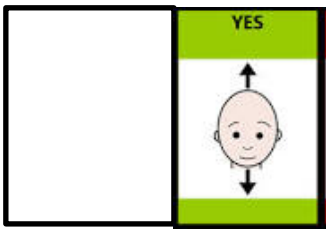


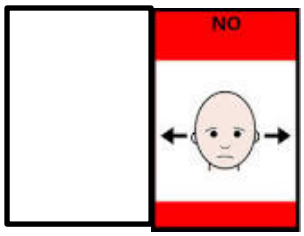
3. I understand that I can stop taking part in a mindfulness activity or talking about it if I want to and Jodie may use the information she has already collected.



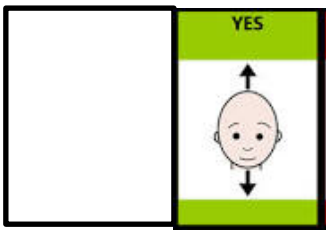


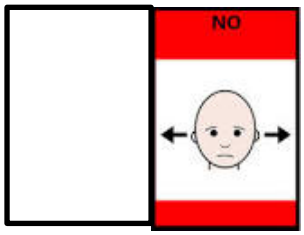
4. I understand that my answers to questions will be video recorded and notes will be written too.



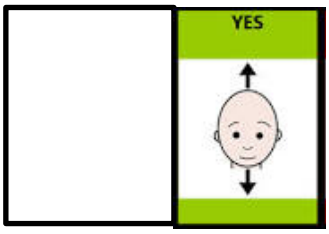


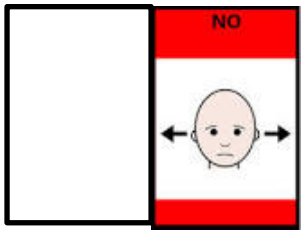
5. I understand that all video recording and notes will be kept safe and be destroyed when they have been written about.



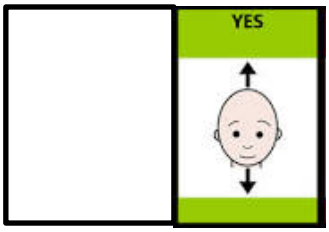


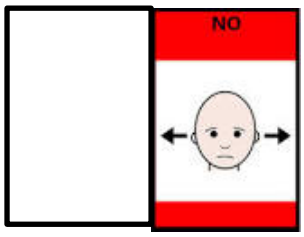
6. I understand that when the research is written up into a book Jodie will change names so that my views are anonymous.



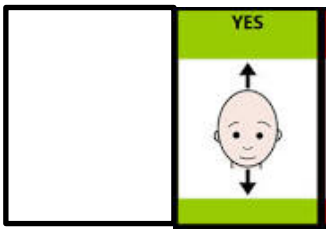


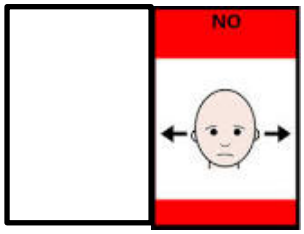
7. I understand that Jodie will not talk to anyone about what I say unless I say something which means I or someone else might be unsafe.





8. I understand that if I decide to say yes to the mindfulness course, I can do whatever parts of the course that I want to and I can leave at any time.





My name is ..... and I agree to take part in the mindfulness research project.

I go to school at ……..

Signed..... Date .....

Appendix 10: Example of Spence Children's Anxiety Scale

SPENCE CHILDREN'S ANXIETY SCALE

Your Name: _____ **Date:** _____

PLEASE PUT A CIRCLE AROUND THE WORD THAT SHOWS HOW OFTEN EACH OF THESE THINGS HAPPEN TO YOU. THERE ARE NO RIGHT OR WRONG ANSWERS.

1.	I worry about things	Never	Sometimes	Often	Always
2.	I am scared of the dark	Never	Sometimes	Often	Always
3.	When I have a problem, I get a funny feeling in my stomach	Never	Sometimes	Often	Always
4.	I feel afraid	Never	Sometimes	Often	Always
5.	I would feel afraid of being on my own at home	Never	Sometimes	Often	Always
6.	I feel scared when I have to take a test	Never	Sometimes	Often	Always
7.	I feel afraid if I have to use public toilets or bathrooms	Never	Sometimes	Often	Always
8.	I worry about being away from my parents	Never	Sometimes	Often	Always
9.	I feel afraid that I will make a fool of myself in front of people	Never	Sometimes	Often	Always
10.	I worry that I will do badly at my school work	Never	Sometimes	Often	Always
11.	I am popular amongst other kids my own age	Never	Sometimes	Often	Always
12.	I worry that something awful will happen to someone in my family	Never	Sometimes	Often	Always
13.	I suddenly feel as if I can't breathe when there is no reason for this	Never	Sometimes	Often	Always
14.	I have to keep checking that I have done things right (like the switch is off, or the door is locked)	Never	Sometimes	Often	Always
15.	I feel scared if I have to sleep on my own	Never	Sometimes	Often	Always
16.	I have trouble going to school in the mornings because I feel nervous or afraid	Never	Sometimes	Often	Always
17.	I am good at sports	Never	Sometimes	Often	Always
18.	I am scared of dogs	Never	Sometimes	Often	Always
19.	I can't seem to get bad or silly thoughts out of my head	Never	Sometimes	Often	Always
20.	When I have a problem, my heart beats really fast	Never	Sometimes	Often	Always
21.	I suddenly start to tremble or shake when there is no reason for this	Never	Sometimes	Often	Always
22.	I worry that something bad will happen to me	Never	Sometimes	Often	Always
23.	I am scared of going to the doctors or dentists	Never	Sometimes	Often	Always
24.	When I have a problem, I feel shaky	Never	Sometimes	Often	Always
25.	I am scared of being in high places or lifts (elevators)	Never	Sometimes	Often	Always

Appendix 11: Spence Children's Anxiety Scale scores

Jerry

Anxiety symptoms	SCAS score results	Sub scale t-score
Panic attack and agoraphobia	7	60
Separation anxiety	5	60
Physical injury fears	8	65
Social phobia	8	60
Obsessive compulsive	7	60
Generalised anxiety disorder	9	60
Total	44	65 Elevated

Jack

	SCAS score results	Sub scale t-score
Panic attack and agoraphobia	10	65
Separation anxiety	4	50
Physical injury fears	4	55
Social phobia	9	60
Obsessive compulsive	10	60
Generalised anxiety disorder	8	55
Total	45	62 Elevated

Me

	SCAS score results	Sub scale t-score
Panic attack and agoraphobia	8	55
Separation anxiety	9	55
Physical injury fears	9	65
Social phobia	7	50
Obsessive compulsive	7	50
Generalised anxiety disorder	12	65
Total	52	61 Elevated

Amy

	SCAS score results	Sub scale t-score
Panic attack and agoraphobia	13	65
Separation anxiety	8	55
Physical injury fears	7	60
Social phobia	5	45
Obsessive compulsive	12	65
Generalised anxiety disorder	6	50
Total	51	60 Elevated

Appendix 12: Considerations made in the design of the mindfulness programme in relation to the needs of children with ASD

Area of need	Programme considerations
Social interaction	A balance of individual activities and discussion of these activities.
Communication	• Literal and concrete language used where possible. • Use of visual information in the form of objects and pictures. • Limiting the use of open questions in the mindfulness scripts - children with ASD may take these literally, detracting from the thoughts, feelings and sensations directly related to mindfulness.
Flexible thinking	• Clear structure for each session with a visual timetable. • Repetition in the nature of the activities so children knew what to expect.
Sensory regulation	• Reduced information given, as children with ASD may find it overloading. Time to process what has been said.

Appendix 13: Mindfulness programme overview

Session	**Welcome**	**Mindful breathing**	**Mindful looking**	**Mindful listening**	**Mindful moving**	**Ending**
Introduction		Mindful Breaths	Looking at Leaves	The Ringing Bell	The Raisin Task	
1		Mindful Breaths	Looking at Leaves	The Ringing Bell	The Raisin Task	
2		Balloon Breaths	Floating Bubbles	This Noisy Room	Mindful Growing	
3		Three Mindful breaths	Eye Illusions	The Song	Cold Hands	
4		Body Scan (introduction)	Picture Train Tracks	Noisy World Outside	Stand Up in Turn	
5		My Calm Place	My Calm Picture	Mindful Music	Mindful Tortoises and Not Mindful Pandas	
6		Kind Breaths	Seeing Differently	Guess the sound	Mindful Yoga	
7		Three Mindful Breaths	Spot the Difference	Tricky Sounds	Mindful Teeth	
8		Blowing Away Tricky Feelings	Look to the Light	Ocean Waves	Feel it	
9		Body Scan	Mind Jars	Say Hello!	Satsuma from the Sunshine	
10		Blowing Away Tricky Feelings	Mindful Mandalas	Connecting Beats	Jelly Bean Jumble	

Appendix 14: Example mindfulness session outline

Facilitators outline to session 2 (1 hour)

Welcome:	• Welcome students • Blob people hand-out • Review last session • Talk about mindfulness activities practiced at home/school since last session and share mindfulness records.
Mindful breathing:	• Balloon Breaths
Mindful looking:	• Floating Bubbles
Mindful listening:	• This Noisy Room
Mindful moving:	• Mindful Growing
Resources:	Register, cushions, mats, worry bin, pens/ pencils, balloon, bubbles, mindfulness bell. Hand-outs: Blob time 1.1, What is mindfulness 1.3, Schedule 1.4 or 1.4b, Word list 1.5, Homework record 1.7, Photocopiable Mindful Moment cards for home practice.

Appendix 15: Example mindfulness session guide

Session Guide

Welcome

At the outset, the facilitator can remind the children to write their name on the register, colouring the blob person they feel like that day (appendix 1.2) and leave their worries in the worry bin if they wish. There can then be a review of the previous session with the children given an opportunity to recall the key activities, what they learnt about mindfulness, and the extent to which they practiced the activities during this last week. Children can share their journals if they would like to.

Have you been able to be mindful at home or school?

Remind children what the principles of mindfulness are (hand-out 1.3) and of the schedule which should be on display (hand-out 1.4). Reinforce the vocabulary (hand-out 1.5) by reading through together and explaining in necessary.
Ring the mindfulness bell.

Mindful breathing- Balloon Breaths
The facilitator can next take the children through the balloon breaths activity using the following script and a balloon to demonstrate to the children before beginning:

- *Choose to sit in your mindful sitting position or lie down flat on your back.*
- *Think about the words I will say while focusing on your breathing.*
- *Close your eyes and be very still*
- *Picture you are holding a big balloon like the one I just showed you.*
- *This balloon is so light it starts to float up into the sky*
- *Hold on tight and feel the balloon gently rising into the sky*
- *The big balloon is pulling you higher and higher in the sky*
- *Take a deep breath in and then breathe out slowly*
- *Breathe in deeply, breathe out slowly (MODEL TO CHILDREN)*
- *Each time you breathe in and out*
- *You gently glide higher into the warm sky*
- *Breathe in, breathe out. Breathe in, breathe out.*
- *Breathe in, breathe out. Breathe in, breathe out.*

Experience inquiry

- *What did that feel like?*
- *Was it different to the way you usually breathe?*
- *How did it feel in your body doing balloon breaths?*
- *Did you notice your mind wander to think about other things?*

Mindful looking- Floating Bubbles

The facilitator can next take the children through the floating bubbles activity using the following script and bottle of bubbles to show the children first:

- *Sit it in your mindful sitting position with your back straight. I am going to blow some bubbles in the air and I would like you to watch them.*
- *Picture that each bubble contains a thought or feeling, think of a thought or feeling that it might be to you.*
- *See the first bubble rise up. Think about what is inside. See the thought, watch it, and see it slowly float away.*
- *Try not to judge or think about it more deeply. Once it has floated out of sight, watch the next bubble appear.*
- *Think about what is inside. Watch it, and see it slowly float away. If your mind goes blank, then watch the bubble rise up with "blank" inside and slowly float away.*
- *Now close your eyes and see if you can picture the bubbles. Think about what is inside, watch it, and see it slowly float away. If your mind goes blank, then watch the bubble rise up with "blank" inside and slowly float away.*

Experience inquiry

- *What did that feel like?*
- *Was it different to the way you usually look at bubbles?*
- *What did you notice about the bubble? Were you able to picture the bubbles floating away?*
- *Was it easier to actually see the bubbles or picture them with your eyes closed?*
- *Did you notice your mind wander to think about other things?*

Mindful listening- This Noisy Room

The facilitator can next take the children through the noisy room activity using the following script:

- *Close your eyes and sit in your mindful sitting position we are going to focus on the sounds that you can hear in this room.*
- *Notice sounds you can hear. They might be sounds that most people would not pay attention to if they were not doing 'mindful listening'.*
- *Maybe you can hear children playing, computers whirring, lights buzzing, clocks ticking etc.*
- *The sounds might sound close to you or they might sound far away.*
- *Pay attention to each sound and think about how it feels to listen in this way.*

Experience inquiry

- *What did that feel like?*
- *Was it different to the way you usually listen?*
- *Did your mind wander?*
- *Where did your attention go?*
- *Where is it now?*

Mindful moving- Mindful Growing

The facilitator can next take the children through the Mindful moving- Mindful Growing activity using the following script:

- *Find a comfortable space in the room and sit in your mindful sitting position.*
- *We are going to do some mindful movements- I will make the movements and you can try to pay attention as much as you can. Try to copy my movements as best as you can.*
- *Begin by curling as small as you can, breathe in and out.*
- *Notice how it feels.*
- *Gently begin to uncurl and stretch up to the sky, very slowly and carefully.*
- *There is no rush, just try to take notice of each muscle moving and stretching.*
- *Notice how your legs feel as you stretch them.*
- *Notice your arms, your tummy, your back, your neck.*
- *Think about the muscles and bones helping you to move.*
- *Take a breath when you are stretched out as tall as you can be.*
- *Breathe out and curl up as small as you can be.*
- *Breathe in and stretch as tall as you can be.*
- *Breathe out and curl up as small as you can be.*

Experience inquiry

- *How did that feel?*
- *Was it different to the way you usually move?*
- *What did you notice about your body?*
- *Did your mind wander?*
- *Where did your attention go?*

Ending

The facilitator can then end the session by thanking the children for their contributions and reinforcing the importance and value of practicing the activities at home. The following script can be used:

Thank you for coming to our mindfulness session today. You could do some mindfulness activities at home if you would like to- you have the activities from last time and here are some more activities (have photocopiable Mindful Moment cards available - either choose one or let the children choose*) and the record sheets so you can write down the ones you have practiced.*

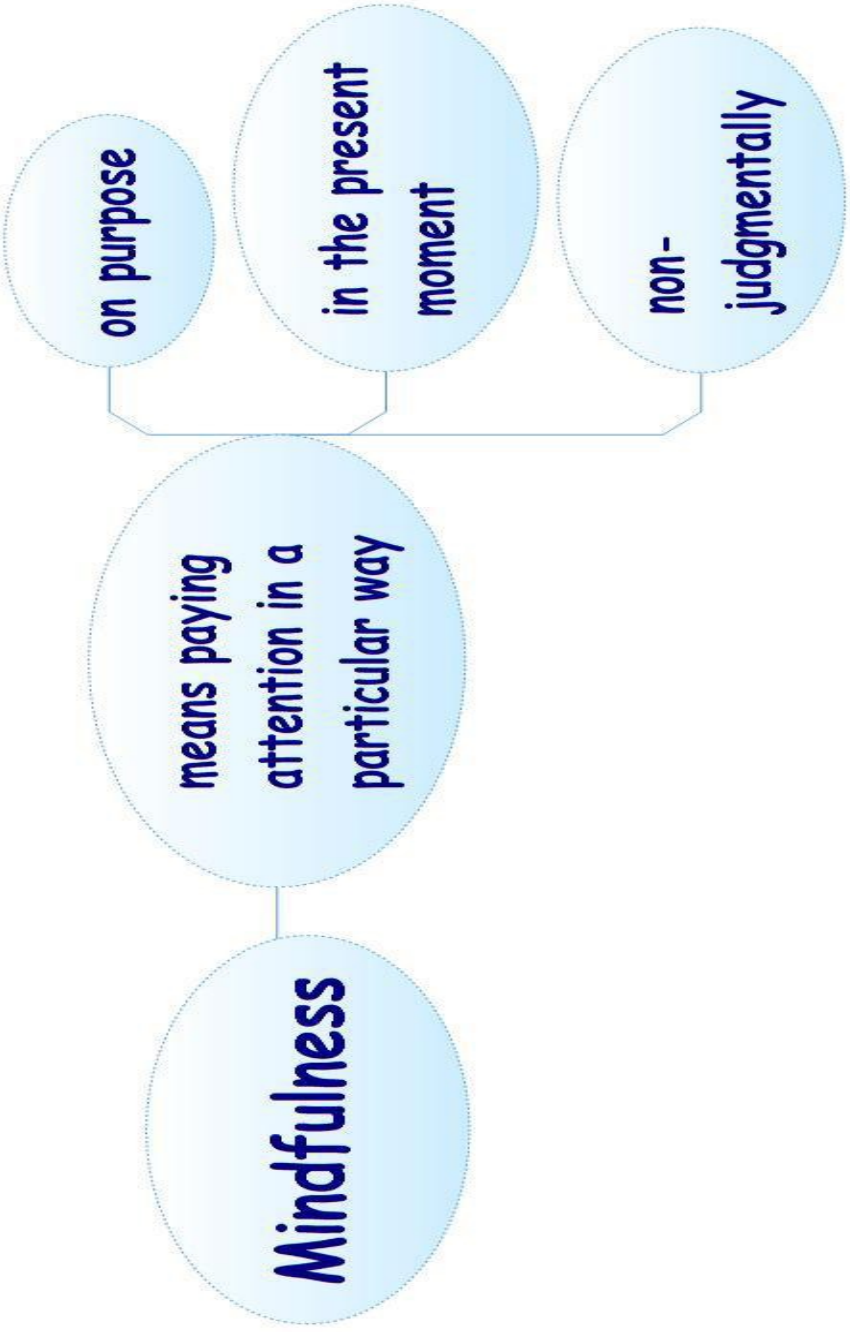
Remember to keep using your mindfulness journal and put your record sheets inside. You can also write down or draw pictures of any thoughts, feelings and sensations you have about mindfulness- it is your journal to use for anything about mindfulness. You can use your cards at school or at home whenever you need to.

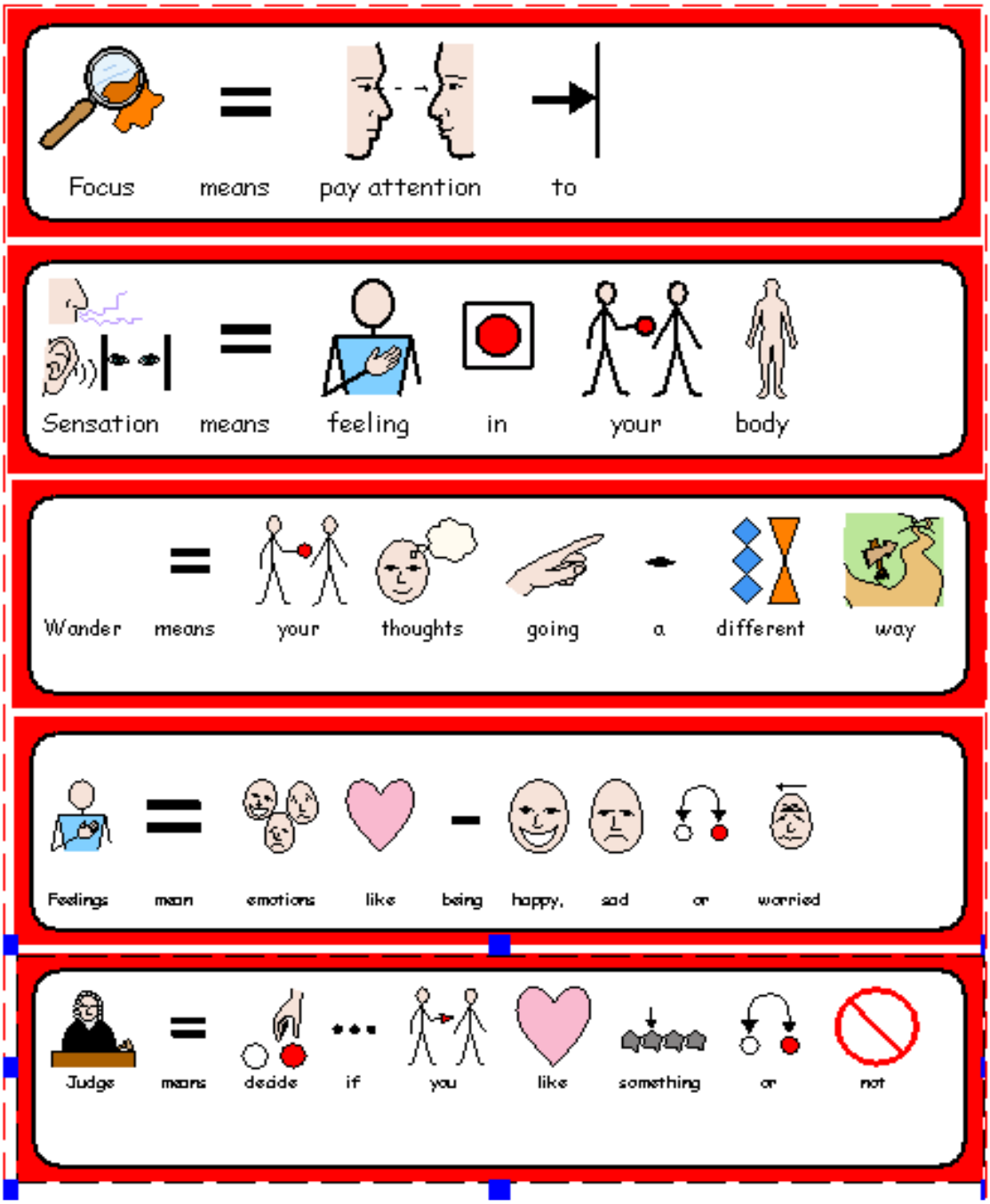
Let's do our ending breaths:

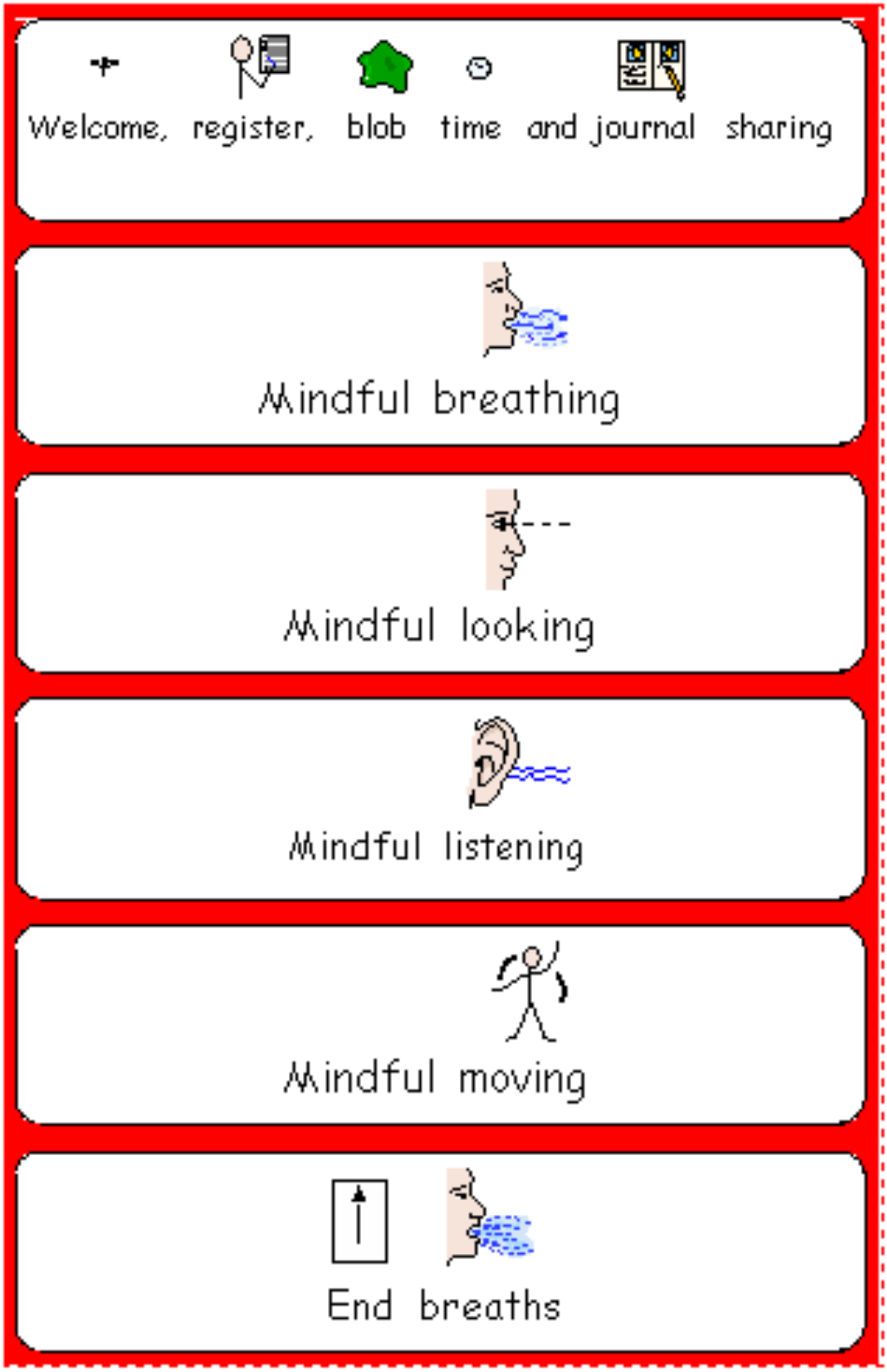
- *Sit in your mindful sitting position.*
- *As you breath in, think in your head 'May I be happy'*
- *As you breath out, think in your head 'May other people be happy'*
- *As you breath in, think in your head 'May I be kind to myself'*
- *As you breath out, think in your head 'May we be kind to each other'.*

Ring the mindfulness bell

Appendix 16: Example visual resources




Focus means pay attention to
Sensation means feeling in your body
Wander means your thoughts going a different way
Feelings mean emotions like being happy, sad or worried
Judge means decide if you like something or not


Welcome, register, blob time and journal sharing
Mindful breathing
Mindful looking
Mindful listening
Mindful moving
End breaths

Appendix 17: Example of pilot session plan

Starter

1. Explain mindfulness and the session outline
   Butterfly example
   Talk about feelings in a group
2. Blob people colouring (20 minutes)

Activities

3. MINDFUL BREATHING - balloon breaths (30 minutes)
4. MINDFUL LOOKING - This noisy room (40 minutes)
5. MINDFUL LISTENING - Picturing train tracks (50 minutes)
6. MINDFUL MOVING - mindful tortoises and pandas (1 hour)
7. Children can choose an extra activity if there is time.

- MINDFUL BREATHING - body scan
- MINDFUL LOOKING - eye illusions
- MINDFUL LISTENING - connecting beats
- MINDFUL MOVING - raisin exercise

Plenary

8. Blob people colouring (5 minutes)

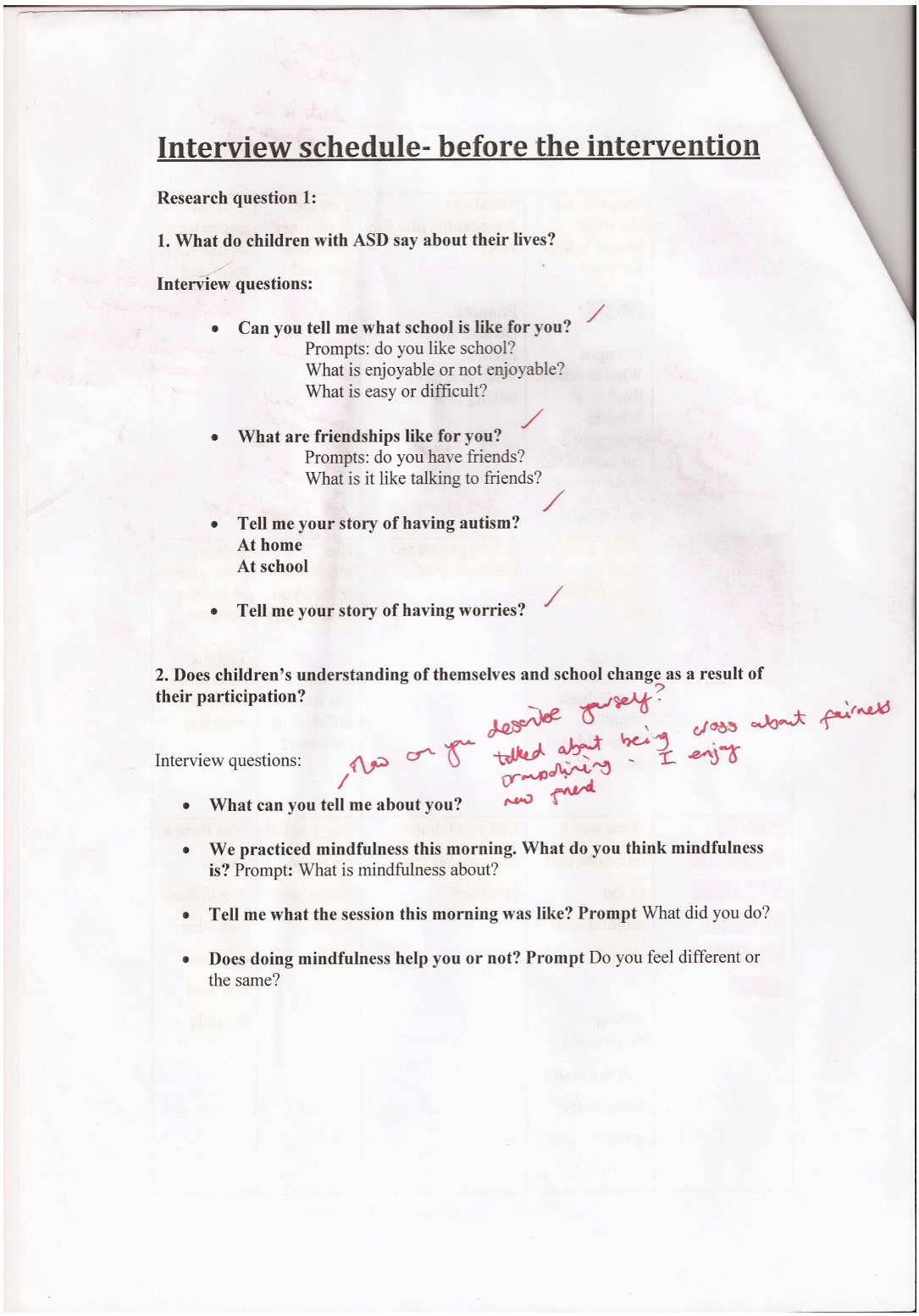
9. What mindfulness means to me picture

10. Come together and talk about what we liked etc.

Appendix 18: Initial interview question table used to plan questions to meet the research questions

Research question	Interview questions			
1. What do children with ASD say about their life experiences?	**Can you tell me what school is like for you? Can you tell me what home is like?** Prompts: What is school like?	**What are friendships like for you?** Prompts: Do you have friends?	**Tell me your story of having autism?**	**Tell me your story of having worries?** Prompts: Do you have worries?
2. Does anything change in children's lived experiences during the course of the mindfulness project?	What do you think mindfulness is? Prompt: What is mindfulness about? What did you do?	What can you tell me about you?	Has mindfulness helped you in any way? Prompt: Do you feel different or the same?	**Tell me your story of having autism?** **Tell me your story of having worries?**
3. What do children with ASD say about their experiences of being part of the mindfulness project?	What was it like to be part of the mindfulness group?	Can you tell me some things that you liked?	Can you tell me some things you did not like?	Was there a part of mindfulness that other children will find helpful?

Appendix 19: Initial interview schedule used in the pilot interview



Interview schedule- before the intervention

Research question 1:

1. What do children with ASD say about their lives?

Interview questions:

- **Can you tell me what school is like for you?**
  Prompts: do you like school?
  What is enjoyable or not enjoyable?
  What is easy or difficult?

- **What are friendships like for you?**
  Prompts: do you have friends?
  What is it like talking to friends?

- **Tell me your story of having autism?**
  At home
  At school

- **Tell me your story of having worries?**

2. Does children's understanding of themselves and school change as a result of their participation?

Interview questions:

- **What can you tell me about you?**

- **We practiced mindfulness this morning. What do you think mindfulness is?** Prompt: What is mindfulness about?

- **Tell me what the session this morning was like? Prompt** What did you do?

- **Does doing mindfulness help you or not? Prompt** Do you feel different or the same?

Appendix 20: Final interview question table used to plan questions to meet the research questions

Research question	Interview questions			
1. What do children with ASD say about their life experiences?	**Can you tell me what school is like for you?** **Can you tell me what home is like?** Prompts: What is school like? What would you say about school? What is enjoyable or not enjoyable? What is easy or difficult?	**What are friendships like for you?** Prompts: Do you have friends? What is it like talking to friends?	**Tell me your story of having autism?**	**Tell me your story of having worries?** Prompts: Do you have worries?
2. Does anything change in children's lived experiences during the course of the mindfulness project?	What do you think mindfulness is? Prompt: What is mindfulness about? What did you do?	What can you tell me about you? Prompt: How could you describe yourself?	Has mindfulness helped you in any way? Prompt: Do you feel different or the same?	**Tell me your story of having autism?** **Tell me your story of having worries?**
3. What do children with ASD say about their experiences of being part of the mindfulness project?	What was it like to be part of the mindfulness group? Prompt: What could you say about being in the group?	Can you tell me some things that you liked?	Can you tell me some things you did not like?	Was there a part of mindfulness that other children will find helpful?

Appendix 21: Final interview schedule used in the interviews

Interview schedule- before the intervention

Research question 1: What do children with ASD say about their life experiences?

Interview questions:

- ***Can you tell me what school is like for you?***
  Prompts:
  What is school like? What would you say about school?
  What is enjoyable or not enjoyable?
  What is easy or difficult?

- ***What are friendships like for you?***
  Prompts: do you have friends?
  What is it like talking to friends?

- ***Tell me your story of having autism?***
  At home
  At school

- ***Tell me your story of having worries?***
  Prompt: do you have worries?

2. Does anything change in children's lived experiences during the course of the mindfulness project?

Interview questions:

- ***What can you tell me about you?***

3. What do children say with ASD say about their experiences of being part of the mindfulness project?

Interview questions:

- ***We practiced mindfulness this morning. What do you think mindfulness is?*** *Prompt: What is mindfulness about?*

- ***Tell me what the session this morning was like? Prompt*** *What did you do?*

- ***Does doing mindfulness help you or not? Prompt*** *Do you feel different or the same?*

Interview schedule- after the intervention

Research question 1: What do children with ASD say about their life experiences?

Interview questions:

- ***Can you tell me what school is like for you?*** *Prompts: do you like school?*
  What is enjoyable or not enjoyable?
  What is easy or difficult?

- ***What are friendships like for you?*** *Prompts: do you have friends?*
  What is it like talking to friends?

- ***Tell me your story of having autism?***

- ***Tell me your story of having worries?***

Research question 2: Does anything change in children's lived experiences during the course of the mindfulness project?

Interview questions:

- ***What can you tell me about you?***

- ***We have been practising mindfulness over the last weeks. What do you think mindfulness is?*** *Prompt**:** What is mindfulness about?*

- ***Tell me what the session this week was like?*** *Prompt: What did you do?*

- ***Do you think mindfulness has helped you in anyway?*** *Prompt: Do you feel different or the same?*

- ***Did mindfulness change anything in your life?***

Research question 3: What do children say with ASD say about their experiences of being part of the mindfulness project?

Interview questions:

- ***What was it like to be part of the mindfulness group?*** *Prompt: What could you say about being in the group?*
- ***Was there anything that you liked?***
- ***Was there anything that you didn't like?***
- ***How can mindfulness help other children?***

Appendix 22: Transcript example

R: Can you tell me what school's like for you?
P: Ok... I don't... I don't hate it but I don't like it...so sort of in the middle. I like some subjects and some subjects I don't like. Like, my favourite is science, that's ok, that's it... and I quite like tech and I don't mind ICT...and I like art... and that's it. And, er, I don't like- I also like English and I don't really like Maths. My least favourite is French; I really don't like French (mumble) because I think- I just think it's a bit pointless. What if someone- what if you never go to France? You don't really need to know- I just don't think you really need to know it that much.
R: Mmm.
P: I mean, you can learn French from a book if you want [pause]. Yeah.
R: W-what about the other lessons that you don't like? Have you got reasons that you don't like them?
P: Well, I don't like Maths because...I like more lessons than I don't. I don't like Maths because I'm not that good at it and it gets too complicated and I get in trouble...and I don't really like my new teacher much either (mmm). I used to have a really nice teacher and she's still in this school, but she's not doing it anymore and now I've got a different teacher and I don't get along with her very well [mumble].
R: Ok. And what about the things that you like? Why do you think you like-?
P: Well I like Science because I find it's very interesting because it's also very useful- like if we didn't have that then-like almost everything

in the room is to do with that subject and I find it useful (mmm) and it's kind of fun because we do a lot of physical stuff and experiments (mmm) and we don't do as much writing.

R: Ah, ok, mmm.

P: I like tech because you don't do any writing in tech. Unless you've got a booklet to do or something, it's mostly drawing (mmm). And I like the activities you do. [pause] I like art because you also don't do as much writing. And I love drawing and when I'm older I want to be a children's book illustrator. [pause]

R: Do you? And...So you like Science, Tech and Art because you don't do much writing?

P: Yeah, I'm not so keen on writing things down. I like... I like erm [pause] oh I like English ...because... well, we do a lot of writing which is my only problem, I don't like it when we do loads of writing. But, it's quite fun, it's good at the moment we're doing a good subject. It's a lot of fun to do, I do think it's a lot of fun and I like my teacher as well.

R: Mmm

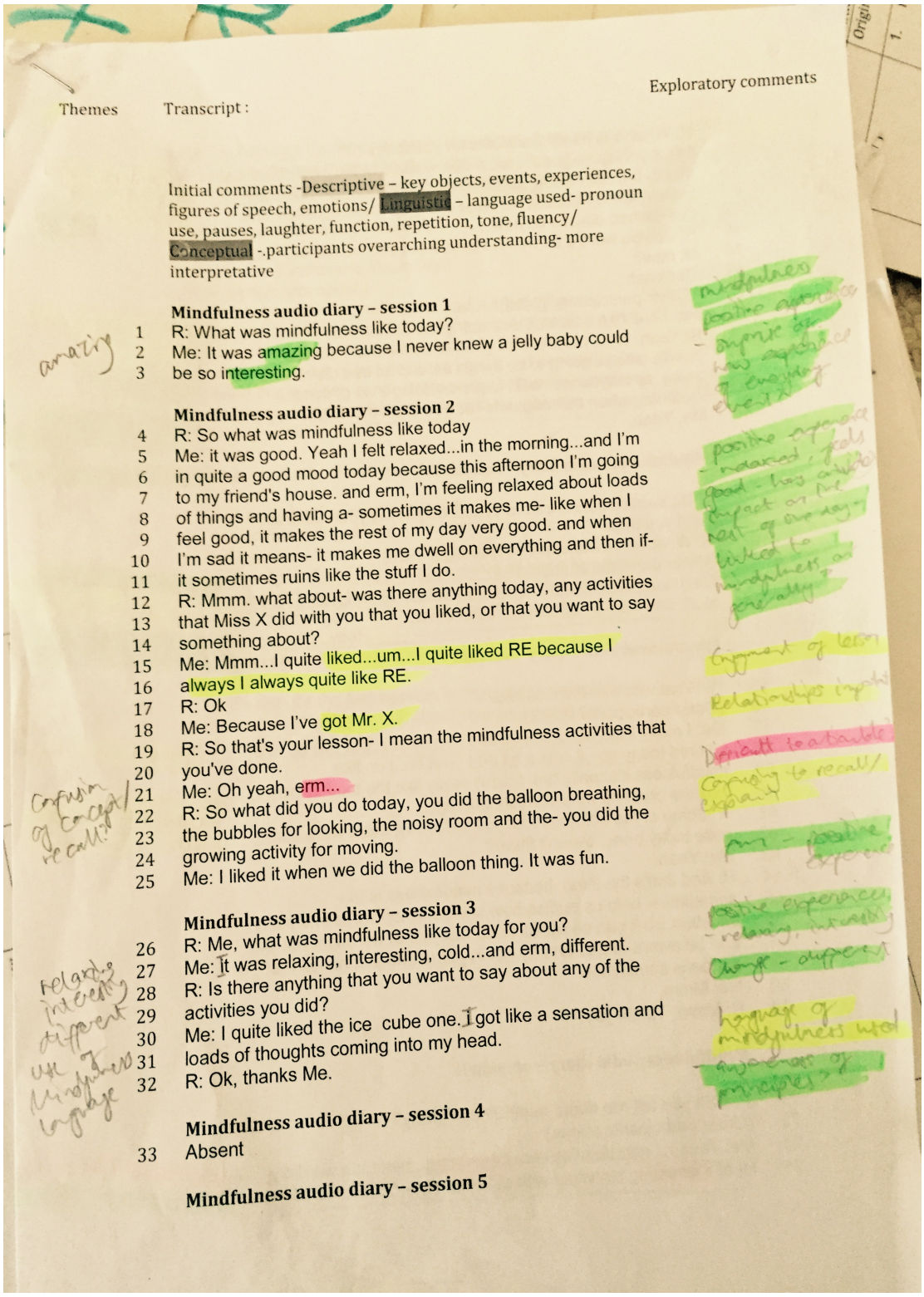
P: And we've also got [pause] we've also got, erm, music- which I like...because... music is sort of in the middle 'coz sometimes I don't like writing in music because you have to write down notes. Like one subject we had was writing down like key notes...like C and G and I got really frustrated with that (mmm) and I got really cross, and I couldn't I couldn't keep track of it...and all these squiggly lines everywhere. And the last subject I like is, um, ICT. I used to not like it 'coz I didn't really like my teacher and I wasn't so good- I'm not that good with computers

really. I do- I like it because you don't do any writing. You just type stuff which is easier because you don't have to write like whole words... and I get frustrated with it sometimes though because I used to do like only hard things and erm I used to struggle with it because it was quite complicated and I used to get in trouble for not knowing what to do. Once, we did this code thing... we had to find out this like mystery- we had to delete some of the suspects on the paper, and I didn't know how to delete them so I just wrote- so I just scratched them off in my mind. And then I got the answer without deleting any of the things, and I thought well that's ok because I didn't have to like get all confused about deleting stuff. And then my teacher came along and saw I'd done it but then she frowned me for copying the person next to me just 'coz I got it without deleting it and I got so frustrated with her and then when I got home I thought I officially don't like my ICT teacher. [pause]

R: That sounds really - really tricky that situation.

P: Yeah because she just said - well this boy next to you has done that, with the same answer so I think you've copied him. But I didn't, I just did it by myself. [pause] But this year's better 'coz our teacher's much nicer and, and she understands about it more.

Appendix 23: Initial noting example 1



Themes

Transcript :

Exploratory comments

Initial comments -Descriptive – key objects, events, experiences, figures of speech, emotions/ Linguistic – language used- pronoun use, pauses, laughter, function, repetition, tone, fluency/ Conceptual -.participants overarching understanding- more interpretative

Mindfulness audio diary – session 1

R: What was mindfulness like today?
Me: It was amazing because I never knew a jelly baby could be so interesting.

Mindfulness audio diary – session 2

R: So what was mindfulness like today
Me: it was good. Yeah I felt relaxed...in the morning...and I'm in quite a good mood today because this afternoon I'm going to my friend's house. and erm, I'm feeling relaxed about loads of things and having a- sometimes it makes me- like when I feel good, it makes the rest of my day very good. and when I'm sad it means- it makes me dwell on everything and then if- it sometimes ruins like the stuff I do.
R: Mmm. what about- was there anything today, any activities that Miss X did with you that you liked, or that you want to say something about?
Me: Mmm...I quite liked...um...I quite liked RE because I always I always quite like RE.
R: Ok
Me: Because I've got Mr. X.
R: So that's your lesson- I mean the mindfulness activities that you've done.
Me: Oh yeah, erm...
R: So what did you do today, you did the balloon breathing, the bubbles for looking, the noisy room and the- you did the growing activity for moving.
Me: I liked it when we did the balloon thing. It was fun.

Mindfulness audio diary – session 3

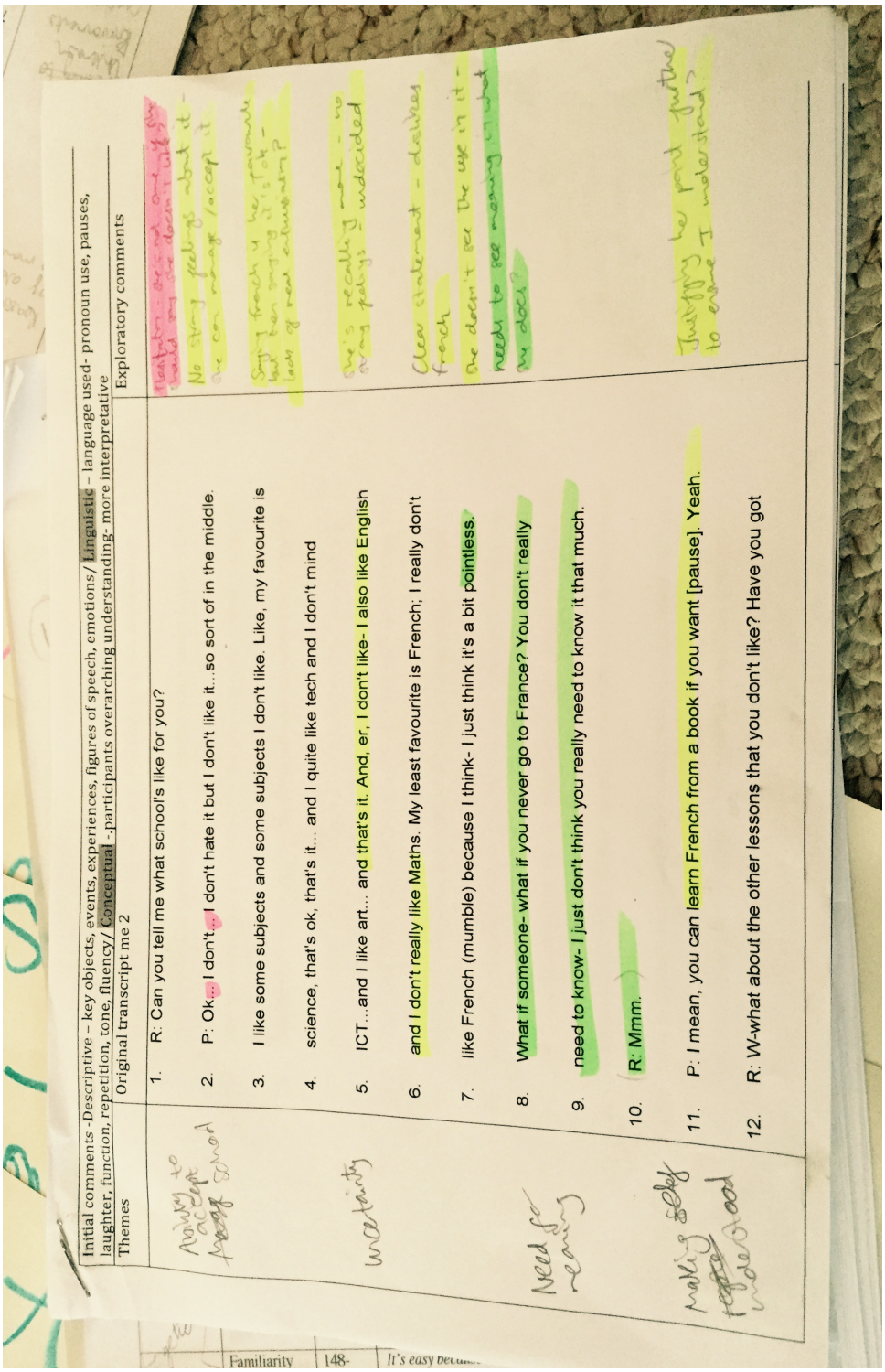
R: Me, what was mindfulness like today for you?
Me: It was relaxing, interesting, cold...and erm, different.
R: Is there anything that you want to say about any of the activities you did?
Me: I quite liked the ice cube one. I got like a sensation and loads of thoughts coming into my head.
R: Ok, thanks Me.

Mindfulness audio diary – session 4

Absent

Mindfulness audio diary – session 5

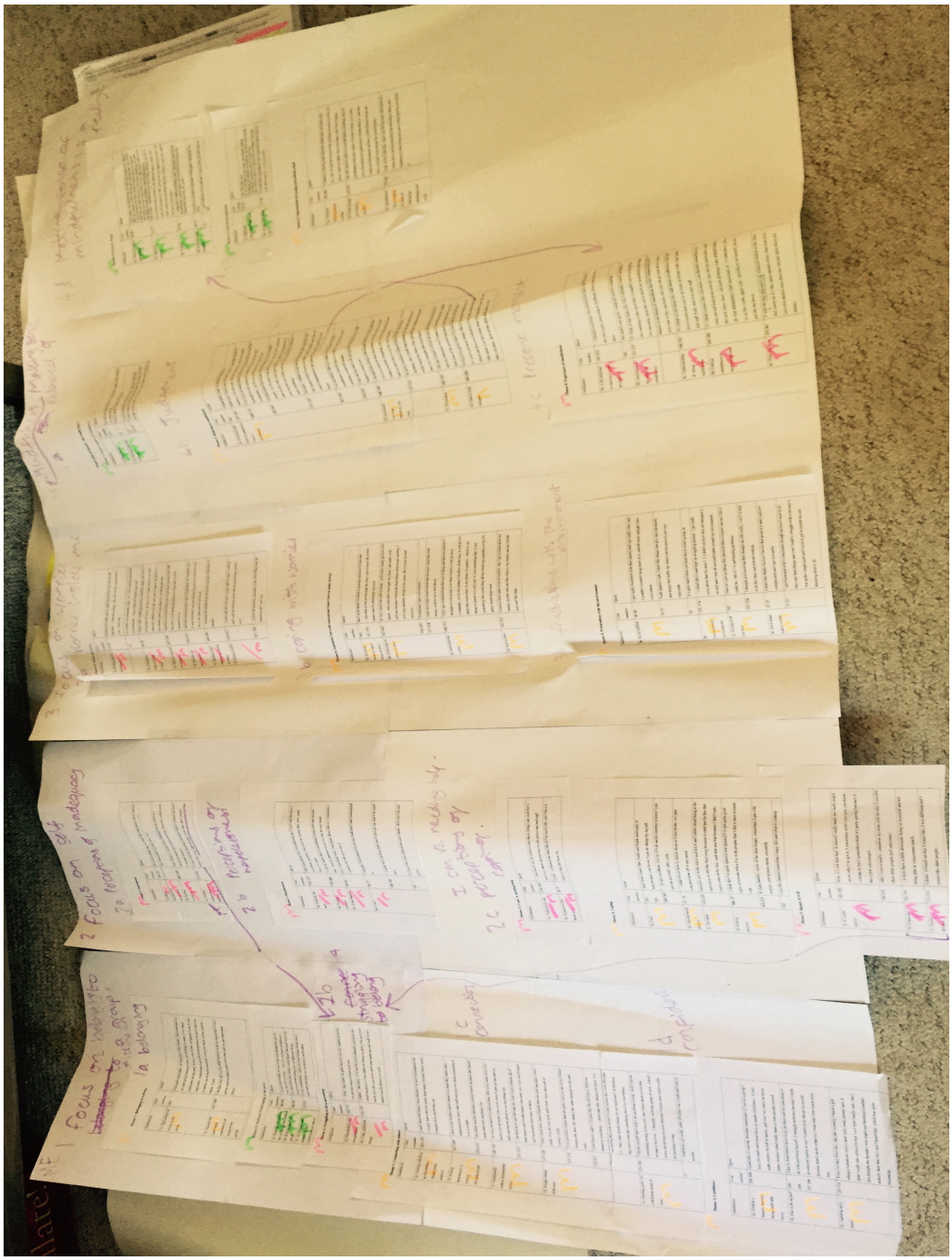
Appendix 24: Initial noting example 2



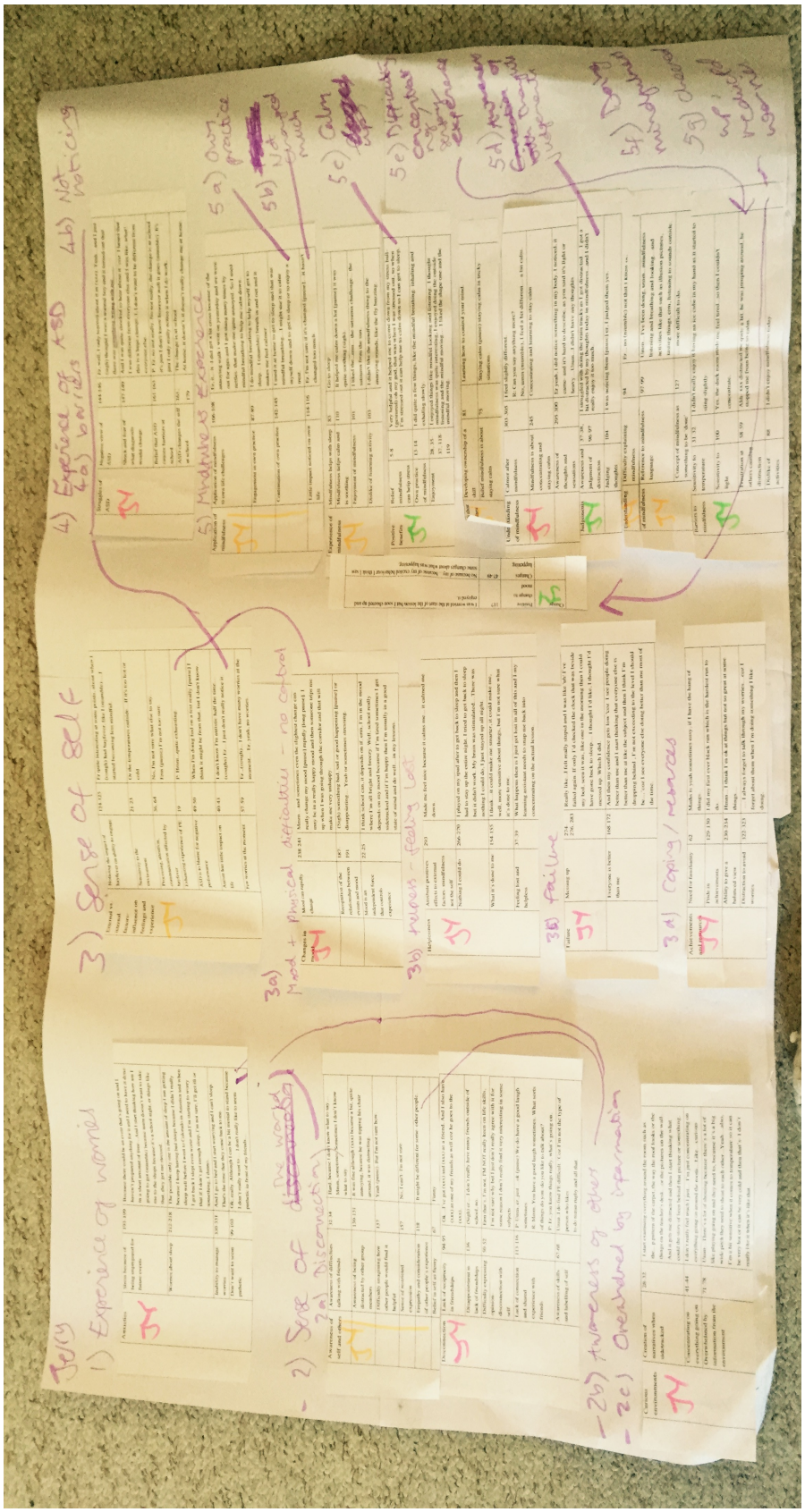
Initial comments -Descriptive – key objects, events, experiences, figures of speech, emotions/ Linguistic – language used- pronoun use, pauses, laughter, function, repetition, tone, fluency/ Conceptual -participants overarching understanding- more interpretative

Themes	Original transcript me 2	Exploratory comments
	1. R: Can you tell me what school's like for you?	
	2. P: Ok... I don't... I don't hate it but I don't like it...so sort of in the middle.	
	3. I like some subjects and some subjects I don't like. Like, my favourite is	
	4. science, that's ok, that's it... and I quite like tech and I don't mind	
	5. ICT...and I like art... and that's it. And, er, I don't like- I also like English	
	6. and I don't really like Maths. My least favourite is French; I really don't	
	7. like French (mumble) because I think- I just think it's a bit pointless.	
	8. What if someone- what if you never go to France? You don't really	
	9. need to know- I just don't think you really need to know it that much.	
	10. R: Mmm.	
	11. P: I mean, you can learn French from a book if you want [pause]. Yeah.	
	12. R: W-what about the other lessons that you don't like? Have you got	

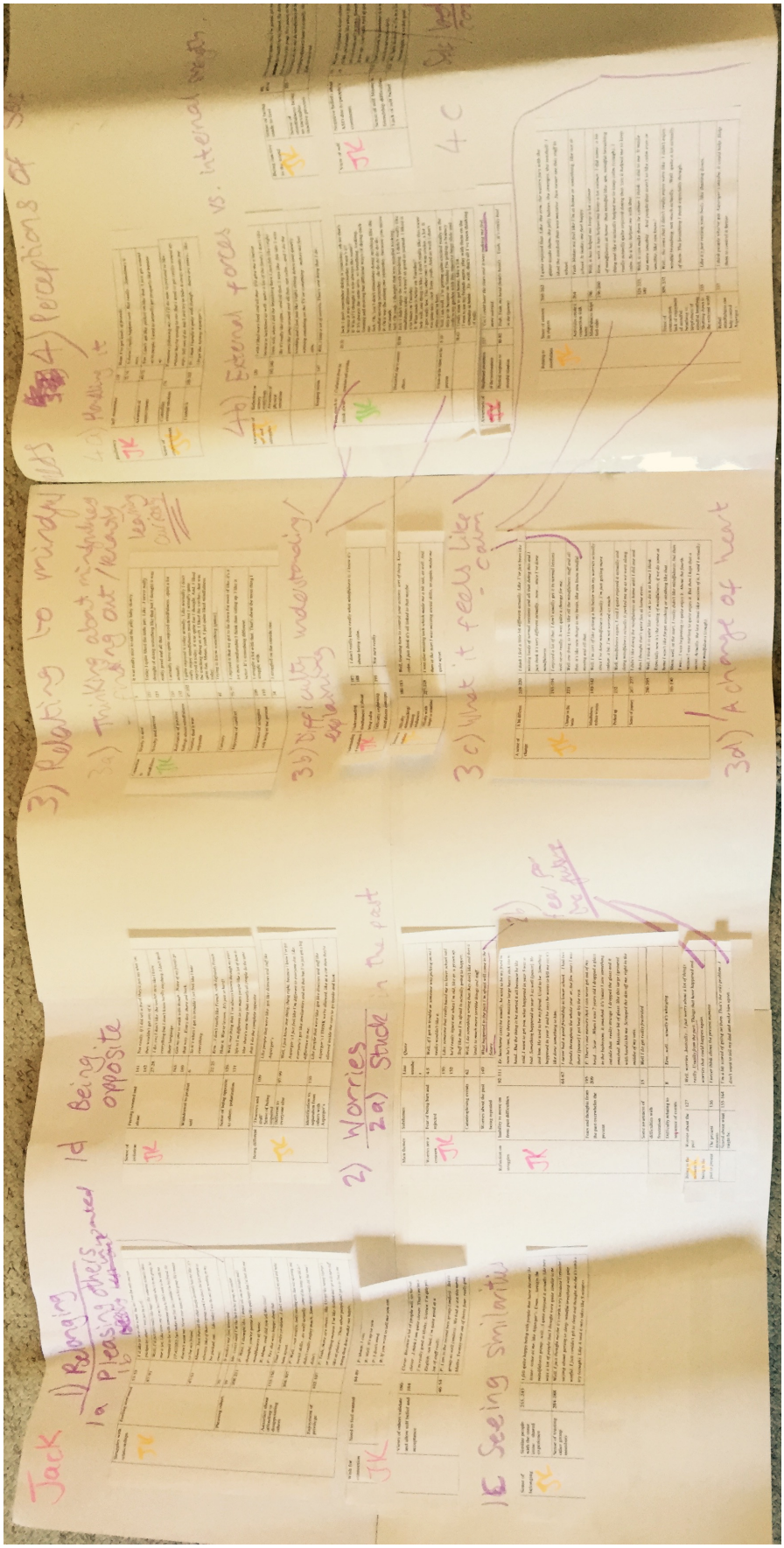
Appendix 25: Final themes poster for Me



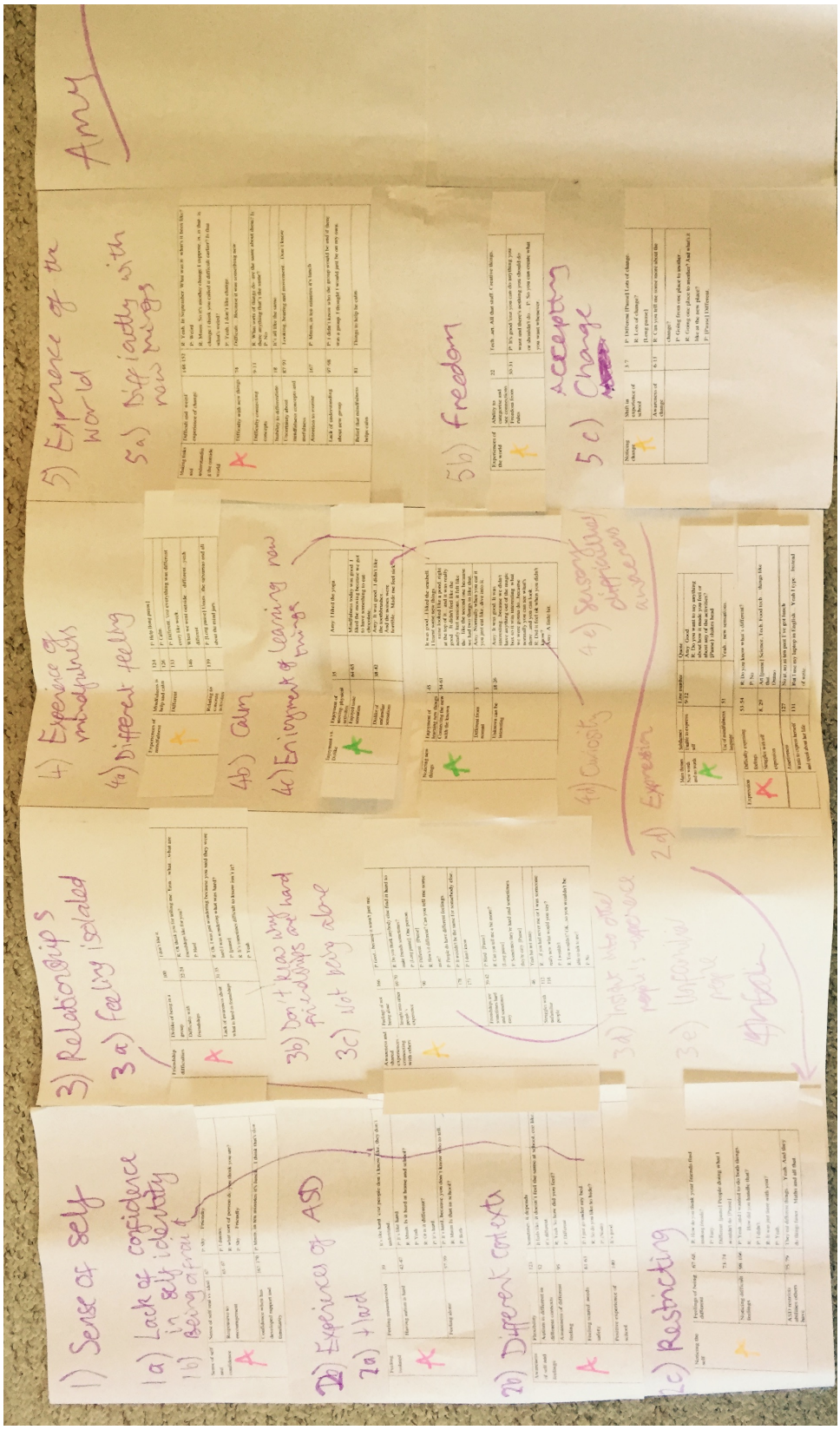
Appendix 26: Final themes poster for Jerry



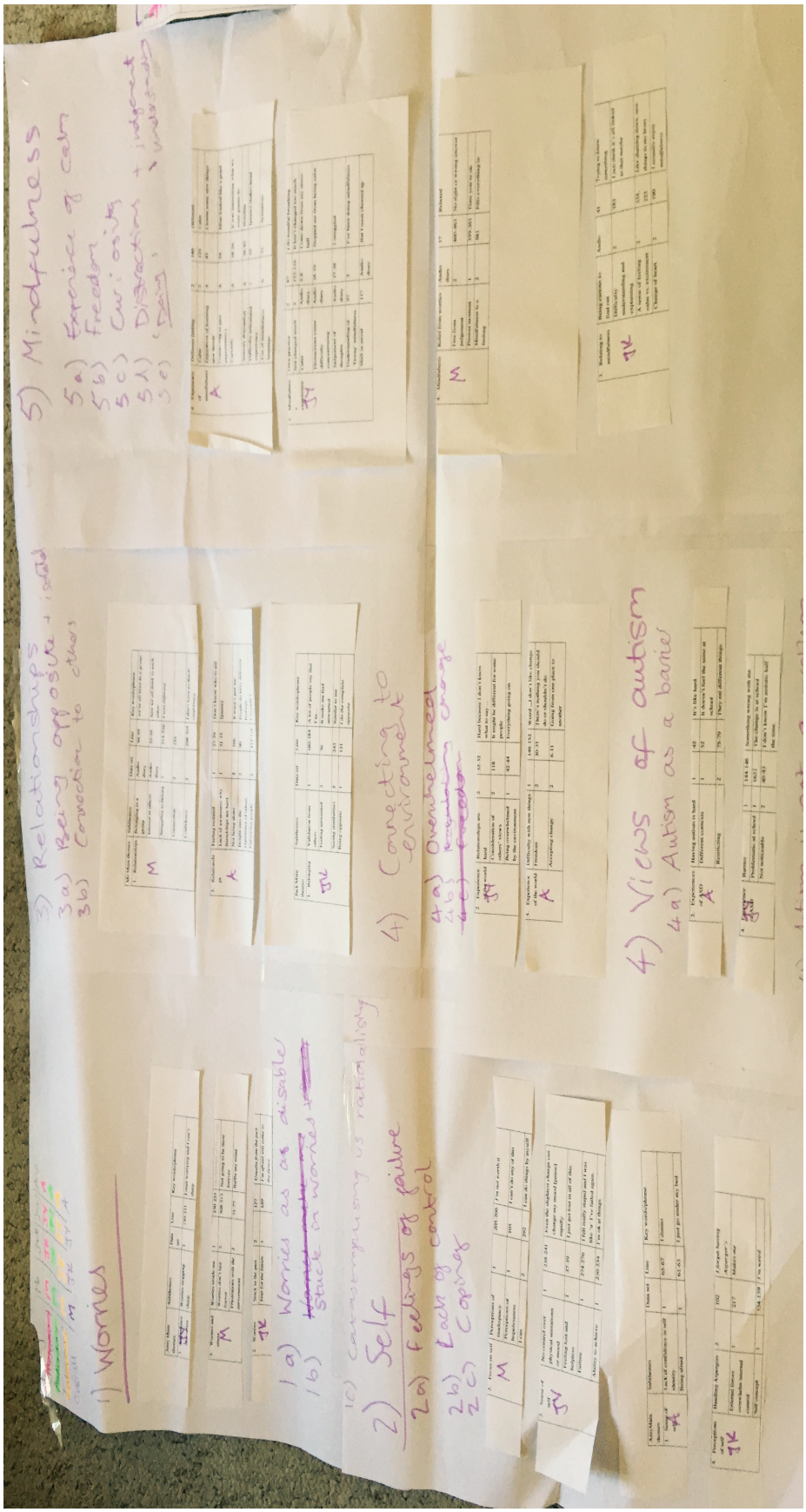
Appendix 27: Final themes poster for Jack



Appendix 28: Final themes poster for Amy



Appendix 29: Final theme poster for the group



Appendix 30: Minutes of IPA meeting

Summary of November 2014 IPA Meeting

Thank you to everyone that was able to come to the November meeting of the London IPA group, especially to xxx, Jodie and xxx who presented. Please email us at Londipagroup@yahoo.co.uk if you would like to join the group.

Jodie Lambert presented her IPA research entitled **"Mindfulness experiences of children who have Autistic Spectrum Disorder and anxiety – an exploratory study"** from her Doctorate in Educational Psychology at UEL. Jodie shared a concise overview of her work so far and then opened up the time for discussion. Some of the time was spent fielding questions regarding the philosophical stance of IPA and different researchers were able to share their varied perspectives. The group then responded more directly to Jodie's questions and suggested ways of developing the format of her transcription and emergent themes and considered how she might be able to integrate her three different data sets (4 pre intervention interviews, 4 post interviews and 4 audio diaries), shared general tips regarding analysis and discussed the influence of gender on homogeneity. Our next meeting is on **Wednesday 14th January 2014 between 6-8pm in SR9** (ground floor) **at the Tavistock Clinic, Swiss Cottage.** The nearest tube stations to this venue are Swiss Cottage, Belsize Park and Finchley Road.

Everyone is welcome to attend to join the discussion – there is no need to book for this. We do have space in **March 2015** for presenters but these usually fill up quickly so please get in touch if you would like one or would like more information. In addition to individual discussion about research we will have the usual discussion and Q&A/troubleshooting session for members who wish to discuss general issues relating to their IPAs.

We are pleased to announce our upcoming meetings for the academic year, all are on Wednesdays at the Tavistock Clinic, as follows:

11th March SR10

6th May SR10

8th July SR9

Appendix 31: Research diary reflections

Extract 1

I was analysing Jerry's transcript and he said he thought he was a normal boy. I felt sad to know that that he felt his diagnosis meant he was abnormal. It made me reflect how individuals with ASD view themselves and how they might see themselves as different. Should they fit in? Are we as educators doing enough to protect their self-identity and respect their uniqueness? I wonder if this research has helped them in any way with feeling they are not alone.

Extract 2

I am reflecting on my analysis of Me's transcript and realised that I felt glad that she named some positive aspects of ASD. I need to be aware of how this might have an impact on the data; did she really think this? Did I then expect the other children to find positives? The other children did not find positives in interview 1 and Me was clear to address her views so I feel that they are her true views with little demand characteristics.

Extract 3

I'm thinking through the benefits that children's stories described in relation to their experience of mindfulness. I am aware that I am happy about this, because it is an area of novel research and based on the literature review I suppose I was hoping that it would be beneficial, although I did not know whether it would be. I am aware of needing to give a balanced view because Amy, for example, still had worries and Jerry said it didn't change too much in his life, so I need to reflect these findings too. I do think that particular question 'Did mindfulness change anything in your life?' was too abstract and broad for Jerry.

Extract 4

I wonder what impact my role as a novice researcher and trainee has had on the research. I suppose I've positioned myself as the 'expert' on mindfulness in some ways to the teaching assistant as I am assuming a supervisory role and in some ways the children are aware of that and that I am behind the programme and the reason it is

available to them. This will have an impact on our relationship compared with if I had never met them.