IMPROVING EMOTIONAL UNDERSTANDING

IN CHILDREN WITH AUTISM

by

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ABSTRACT

A small-scaled qualitative pilot study, using a multiple case-study design, was carried out with three primary mainstream schools within the West Midlands to explore how emotional understanding is taught to pupils with autism. Research questions focused on identifying strategies and/or programmes utilized to teach emotional understanding and priority areas for teaching. Data was garnered from interviews and documentary analysis of teaching resources. Findings indicated that emotional understanding was mainly targeted through whole-classroom approaches, the Social and Emotional Aspects of Learning (SEAL), or Promoting Alternative Thinking Strategies (PATHS), and through mixed small-group social skills programmes. Schools also drew on principles and strategies, outlined by autism-related literature. While all areas in emotional understanding were being addressed, expression and management of own emotions were considered as priority areas. Future directions for research indicated the importance of extending this pilot study into a major study, and examining the effectiveness of whole-school and social skills programmes adopted by schools in improving the emotional understanding of pupils with autism. The teaching of emotional understanding to pupils with autism is clearly an area which needs to be explored further by researchers, which is ideally done alongside teaching staff so as to impact upon practice within schools.

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CHAPTER 1

INTRODUCTION

The key focus of this pilot study is researching how emotional understanding is being taught to children with autism within mainstream primary schools and identifying priority areas for teaching in emotional understanding. In the last three decades the challenges in the area of emotional understanding experienced by persons with autism has been researched thoroughly, as these difficulties have been linked to their social/communication difficulties (Begeer et al., 2008). This has led to the development of various training programmes and strategies designed to improve emotional understanding in persons with autism. These have stemmed from various sources which include initiatives from Local Education Authorities (LEAs), practitioners or autism teams and more comprehensive programmes, such as the Social Communication Emotional Regulation Transactional Support (SCERTS) Model (Prizant et al., 2003). In recent years there have also been several initiatives to develop emotional literacy in mainstream schools (Perry et al., 2008), such as the Social and Emotional Aspects of Learning curriculum (SEAL) (DfES, 2005a), or the Promoting Alternative Thinking Strategies (PATHS) curriculum (Greenberg et al., 1995). These programmes are targeted at a whole school level, as the importance of targeting the emotional domains are increasingly recognised as having an important impact on the academic achievement and overall wellbeing of pupils (Humphrey et al., 2007). Furthermore, among the programmes reviewed in this study, only programmes stemming from a developmental model, such as the SCERTS Model indicate which areas in

emotional understanding should be addressed first. This intervention postulates about the importance of targeting emotion regulatory strategies before addressing other social-emotional skills (Prizant et al., 2006b).

This research is mainly exploratory and it involves identifying teaching strategies and programmes currently implemented by schools to improve emotional understanding in pupils with ASD, and identify priority areas for teaching. Although a large number of teaching programmes or strategies have been developed, to the author's knowledge there is no literature examining how emotional understanding is being taught to pupils with autism in mainstream schools. Yet this exploration is rendered problematic because of two issues. First, there is great variability in the type of interventions aimed at teaching emotional understanding to children with autism. The latter issue is confounded by a further dilemma confronting contemporary researchers. The value of evidence-based practice in educational contexts has been questioned by several researchers (e.g. Webster et al., 2002). Knowledge produced by the research community, who isolate features of teaching, is often not useful for teachers because teaching involves the interaction of several rather than isolated features (Hiebert et al., 2002). What works in the laboratory/clinic might be impractical in the classroom. Practitioners in the natural settings, such as schools, will often have eclectic theoretical backgrounds and less training or experience on intervention techniques (Smith et al., 2007).

A bottom-up research approach (Blaikie, 2007) has been therefore adopted to answer the main aim of the study and bridge the so-called "chasm" between research knowledge and

practice in schools (Kennedy, 1997). The underlying premise of this research is that researchers will have different understandings from priorities identified by teachers of what should be taught and how it should be taught to pupils with autism – teachers know what can be taught and what works best in a school (Hiebert et al., 2002). An abductive research strategy will be implemented which will involve developing an understanding, through teaching staff, of the areas in emotional understanding which are currently tackled by the studied schools for teaching, and identify priority areas in emotional understanding for children with autism. This exploratory stage also involves identifying teaching strategies and programmes currently being used by schools to improve emotional understanding in children with autism.

The first chapter will focus on defining emotional understanding, followed by a brief review of the developmental milestones achieved in typically developing children, and an analysis of the challenges in emotional understanding experienced by persons with autism. Main policy documents in England, highlighting areas in emotional understanding expected to be targeted within schools, in both typically developing pupils and pupils with autism, will be reviewed, followed by an analysis of programmes and strategies targeting the teaching of emotional understanding, which are either general (non-autism specific) or autism specific. The aims and objectives of the study and the main research questions will be outlined. The second chapter will analyse the design of this research, which adopted a multiple case study design involving three mainstream primary schools. The research strategy and epistemology of the study will be discussed, followed by a review of the data collection instruments (semi-structured interviews and documents) and the strengths and weaknesses of these methods. This chapter will also focus on a critical issue encountered

throughout the research process, the difficulties incurred with being an external researcher in 'real world settings', and ethical issues.

The third chapter will present the main findings, highlighting the strategies and programmes used for teaching emotional understanding to pupils with autism. This chapter will also highlight areas in emotional understanding which are typically addressed for teaching within schools, and identify priority areas ideally targeted for teaching. The discussion will be presented in lieu of the literature on programmes and principles related to the teaching of emotional understanding to pupils with autism. The final chapter will highlight the major findings of the research and implications for future research and practice, and discuss alternative routes for the current research.

CHAPTER 2

REVIEW OF THE LITERATURE

Definition of emotional understanding

Across literature there is no universal definition of the term 'emotional understanding'. Various terms such as 'emotional competence' (Denham et al., 2003), 'emotional literacy' or 'emotional intelligence' (Humphrey et al., 2007), have been used to denote 'emotional understanding. According to Denham et al. (2003) emotional and social competence are highly related, yet emotional competence is still a separable construct. 'Emotional competence' is defined as comprising of three components: emotional expressiveness, which involves the appropriate display of more positive emotions than negative emotions in social situations, emotional knowledge, the ability to identify expressions on others faces, comprehending emotions elicited by social situations and reacting pro-socially to others' displays of emotions, and emotional regulation which is vital to meet the goals and expectations of the child or social partner, when the intensity, duration, or other parameters of the experience and expression of emotion are 'too much' or 'too little' (Denham et al., 2003). Humphrey et al. (2007) refer to the term 'emotional intelligence' as comprising of 'emotional literacy' and 'emotional competence', with the term 'intelligence' indicating that the attributes are distinct and measurable. According to McPhail (2004) 'emotional intelligence' involves awareness of the individual's own and of other persons' emotions,

and is comprised of four stages with the initial stage relating to cognitive capacities, and the

second stage involving learned socio-cultural behaviour:

"This initial stage involves the ability to identify that one is feeling a particular emotion: for example, that I am happy or ashamed…This first stage may also include and involve the ability to recognise (in the sense of naming) the emotions of others. To appreciate that your mother or father is angry, or sad…

The second stage relates to the ability to identify which emotions are appropriate for specific situations…

The third stage: Emotional empathy involves the ability to enter into the feelings of others. This primary competence is a stage beyond identifying an individual's emotional state and selecting an appropriate response…

The final stage: emotionality relates to a more basic emotional self-awareness that is used consciously to guide decision making…"

(McPhail, 2004, p638)

This dissertation will be drawing on both definitions, and the term 'emotional

understanding' will be adopted in reference to the skill areas which are targeted for

teaching for pupils with autism. Emotional understanding will be seen as comprising of two

separate but related areas, namely 'understanding own emotions' and 'understanding

others' emotions', as identified by McPhail (2004). **Understanding own emotions** will

comprise of McPhail's (2004) initial stage, involving the ability to identify that one is

feeling a particular emotion, and appropriate 'emotional expressiveness' (Denham, et al.,

2003), the ability to display emotions according to the social situation. This area also

involves 'emotional regulation' (Denham et al., 2003), which involves regulating

expression of emotions, which may be too intense or too little, according to the goals of the

child or social partner. **Understanding of others' emotions** involves 'emotional

knowledge' (Denham et al., 2003), identifying emotions displayed by others and reacting appropriately to others' display of emotions, as identified by McPhail (2004) when defining 'emotional empathy'.

Major developmental milestones in emotional understanding

The area of the development of emotional understanding has been researched extensively in developmental psychology. The various areas in emotional understanding develop concurrently and are embedded in the children's social relations with significant others, and are mediated by children's developing cognitive and linguistic skills (Woodhead et al., 1995).

<u>Understanding own emotions</u>

The capacity for emotional **expression** is present at birth and develops further within a social-communicative system that co-regulates the behaviour of the child and caregiver (Woodhead et al., 1995). The expression of basic emotions, which require no cognitive construction for their expression, appears by six months of age (Cicchetti et al., 1995; Shaffer, 1993). Language provides children with a 'powerful tool' for understanding, expressing and regulating emotions (Kopp, 1989). Between the first and second year of life, vocabulary growth leads to the emergence of emotion terms (Prizant et al., 2006a), leading

to the ability to talk about and label feelings and talk about antecedents and consequences of emotions (Bretherton et al., 1986; Woodhead et al., 1995).

The ability to **regulate** emotions is dependent on factors within the child (motor, cognitive and language factors) and factors external to the child (socialization), with external support particularly important in infancy and early childhood (Kopp, 1989; Woodhead et al., 1995). Prizant at al. (2006a) identify three stages of development which emerge along a continuum. Emotion regulation skills develop concurrently with social-communicative skills: at the Social Partner Stage, (in the first year communication is achieved through gestures and vocalizations); at the Language Partner Stage (between the ages of one and two years children start using symbolic means to communicate) and at the Conversational Partner Stage (between preschool and school age, children acquire advanced language abilities and social awareness skills) (Prizant et al., 2006a).

At the Social Partner Stage caregivers play a crucial role in supporting the infants' dysregulated state and mutual and self-regulatory strategies are co-dependent. Infants rely on behavioural strategies to self-regulate, such as, simple sensory-motor strategies. By the end of the first year, with the development of communication (gestures and vocal signals) and the ability to recognise others' emotions, initiated mutual regulation strategies emerge as children learn how to request caregivers to assist them with emotional regulation. At the Language Partner stage, language (words or symbols) helps to regulate children's level of arousal through self-talk and inner language. These language strategies, besides enabling children to express their emotions, also help them to calm down. At this stage there is still

reliance on caregivers for regulating emotions. Yet increased self-awareness, autonomy and symbolic capacity and ability to identify and express basic emotions further promote their ability to regulate their emotions (Prizant et al., 2006a). At the Conversational Partner Stage, increased language and meta-cognitive skills allow children to plan beforehand, tolerate frustration, integrate different perspectives, use past experience and successful strategies, adjust their emotional expressions based on social-cultural norms, leading to better control of emotions. Caregivers provide further feedback regarding appropriateness of children's emotional reactions, using more complex emotion vocabulary and words reflecting intensity of emotions (Prizant et al., 2006a).

Success in self-regulation is indicated by how closely children meet family and social standards of appropriate behaviour in particular situations, so-called 'display rules' (Kopp, 1989; Woodhead et al., 1995). Children's ability to disguise their own emotions starts emerging at the age of three, and steadily improves when the distinction between 'actual' and 'expressed' emotion and the misleading impact of the discrepancy is understood (Harris, 1994; Woodhead et al., 1995).

<u>Understanding others' emotions</u>

An important milestone in understanding others' emotions occurs with the so-called 'social referencing' phenomenon, around 10 months, whereby others' emotional reactions are used to guide their own feelings about situations, objects and other people (Woodhead et al.,

1995). Both the child's experience of emotions within the family, and the cognitive capacity for mental state understanding contribute to the development of 'understanding of others' emotions' (Woodhead et al., 1995). The understanding of emotions in children is partly dependent on the conversational experiences in the family (Taumoepeau and Ruffman, 2006; Woodhead et al., 1995). Age-dependent insights into the nature of emotions are also important (Harris, 1994). Two and three year olds start understanding situation-based and desire-based emotions, (Harris, 1994; Woodhead et al., 1995). Four and five years olds undergo a major cognitive change with the understanding that actions and emotions depend on beliefs of the person (theory of mind), even when those beliefs are mistaken – an important prerequisite for the development of empathy and understanding of complex emotions in the self and others (Harris, 1994; Shaffer, 1993; Woodhead et al., 1995). As children grow older they also start demonstrating distinct patterns of **responding** to other persons' emotions and the first steps in the development of empathy are acquired – in response to others' distress behaviours ranging from personal distress, emotional contagion and 'egocentric empathy' (the child tries to comfort the person using objects which they find comforting) start emerging (Woodhead et al., 1995).

Literature indicates that children's ability to express their own emotions, their emotion knowledge (their understanding of others' emotions and ability to respond to them) as well as their effectiveness in regulating their own emotions is intricately tied to their level of social competence, as they frequently draw on this understanding in their social interactions (Denham et al., 1994; Denham et al, 2003).

Challenges experienced by children with autism in emotional understanding

The difficulties in emotional understanding experienced by persons with autism have been researched extensively over the last three decades. Difficulties in emotional understanding are closely linked to the social-communication difficulties experienced by persons with autism (Begeer et al., 2008). This link is reflected in the recent revisions of the Diagnostic Statistical Manual, the DSM-5 (APA, 2011), which has integrated the social impairments with the communication impairments which were originally classified separately in the DSM-IV (APA, 2000). Recent revisions provide more explicit reference to the emotion-related difficulties experienced by persons with autism. For instance, the 'social-emotional reciprocity impairments' experienced in autism, are described as involving, reduced sharing of interests, emotions, and affect with others, while deficits in non-verbal communication are partly contributed by lack of facial expressions and gestures (APA, 2011).

<u>Understanding own emotions</u>

Children with autism may have difficulties in **regulating** their emotions. Prizant et al. (2006a) provides a comprehensive account of the emotional regulatory difficulties experienced by children with autism, which are linked to difficulties in social-communication, and challenges in the development of language and meta-cognitive skills, and are exacerbated by hyper/hypoactive biases to sensory stimuli, regulatory disturbances, delayed motor skills, communication difficulties and problems in focusing and shifting

attention (Konstantareas and Stewart, 2006; Prizant et al., 2006a). When children's cues indicating their emotional state cannot be read by caregivers because they express emotions unconventionally, respondent mutual regulation is compromised (Prizant et al., 2006a). The ability of children with autism to initiate mutual regulation can be compromised in all three stages when they experience extreme emotions and/or arousal states – so-called 'periods of extreme dysregulation', and they cannot therefore direct their signals to secure assistance from others or self-regulate (Prizant et al., 2006a). Difficulties with self-regulatory strategies are likewise experienced at all stages. Self-regulatory strategies at the Social Partner Stage are idiosyncratic and unconventional. At the Conversational Partner stage children may also experience difficulties attending to the relevant information in a social setting and controlling impulses - and challenges in cognitive appraisal of the social context lead to further self-regulatory difficulties. Difficulties in self-regulation may persist as children grow older and across social settings (Prizant et al., 2006a).

Closely tied to the regulation of emotions, is the **expression** and **sharing of emotions** with others. A study by Attwood et al. (1988) demonstrated that children with autism while able to understand and produce deictic and instrumental gestures during play-time, however failed to understand and use gestures expressing basic feeling states (so-called expressive gestures). Other researchers have described children's non-verbal expression of emotions as unusual, lacking subtlety and precision (Attwood, 1998) or as bizarre, rigid and mechanical (Loveland et al., 1994), with Loveland et al. (1994) suggesting a developmental relationship between language competence and the ability to express affect. Yet interviews with parents of children with autism, indicate that their children were able to display basic

emotions, with abnormalities shown in manifestations of complex or social emotions (Hobson et al., 2006).

Therefore while children with autism can express emotions to a varying degree, it is less clear whether they are able to understand their own emotions. On the one hand, Hill et al. (2004) reported alexithymic traits in adults with autism – they had difficulties in identifying and describing their own feelings, finding it difficult to focus on their inner experiences. On the other hand, other studies argue that children with autism have an awareness of their own emotions but differ in the way they analyse them. Losh and Capps (2006) assessed understanding of simple and complex emotions. Children with autism produced appropriate accounts for causes of simple emotions but less appropriate accounts for complex ones, using script-like accounts, with less ability to relate personalized accounts, or evaluate the causes of emotional experiences. Furthermore they tended to describe visually salient elements from their emotional memories – that is, observable behavioural elements (characteristic of simple emotions) rather than decipher those dependent on reflective, evaluative processes for interpretation (such as complex emotions), which leads to questions regarding their depth of emotional understanding (Losh and Capps, 2006).

Understanding others' emotions

Williams and Happe (2010) maintain that recognition of emotions in self are closely associated with recognition of emotions in others. There is a whole controversy regarding the ability of persons with autism to identify emotions in others. Studies have shown mixed results, with some studies indicating that children with autism have difficulties recognizing others' simple emotions (e.g., Celani et al., 1999; Hobson et al, 1986a, 1986b). Hobson (1986a, 1986b) found that children with autism have difficulties in recognizing emotions expressed either vocally, facially, or through body language (Hobson, 1986b,). Studies indicate that children with autism fail to decode emotional information efficiently when presented with multiple contextual cues (Da Fonseca et al., 2009), or when emotional stimuli are presented briefly (Celani et al., 1999), such that children with autism, who are relatively very able, cannot apply compensatory strategies efficiently in these situations.

Other studies maintain that children with autism without additional learning difficulties are able to identify simple emotions, with difficulties experienced in identifying complex emotion (e.g. Baron-Cohen, 1991; Baron-Cohen et al., 1993). These studies have attributed these emotion recognition difficulties to difficulties with 'theory of mind' or 'empathizing', a cognitive theoretical model in autism (Golan et al., 2008). According to Baron-Cohen (1991) children with autism have no difficulty in understanding basic emotions which are situation and desire-based. Difficulties in emotion recognition are related to problems with complex emotions, that is, belief-based emotions requiring mental state understanding of the self and others (theory of mind) (Baron-Cohen, 1991; Baron-Cohen et al., 1993).

Difficulties in identifying complex emotions are more pronounced when children with autism are required to recognize emotions using multi-modal information (e.g., films) (Golan et al., 2008).

Given the difficulty in recognizing others' emotions, it is questionable whether children with autism are able to respond appropriately to others' emotions. Frith (1989) distinguished between instinctive and intentional empathy. Instinctive empathy is an autonomic response in response to other people's distress, and according to Frith (1989) persons with autism have this capacity. Intentional empathy, however, requires an ability to mentalize and is linked to an understanding of another person's negative emotions and producing an appropriate response (Frith, 1989). Persons with 'theory of mind' difficulties will not know how to respond although they feel sympathy for the 'distressed' person (Frith, 1989). Other studies also indicate that children with autism do not know how to respond appropriately to others' negative emotions. For instance, in response to the distress and neutral affects displayed by the experimenter after hitting her knee, children with autism did not show the typical orienting response to the experimenter and looked for shorter durations at the experimenter's knee and face (Corona et al., 1998). These difficulties in interpreting and responding to others' emotions stem because of a lack of understanding of these events, which Sigman et al. (1992) attribute to 'theory of mind' difficulties.

Improving emotional understanding in the primary years

While it is clear that children with autism experience various difficulties related to the area of emotional understanding, an important question relates to which areas in emotional understanding are being targeted in schools catering for children with autism? Pupils with autism in England either attend an ordinary mainstream school, or a special unit, or school for pupils with learning difficulties, or an autism-specialist school (DfES, 2002). An overview of the various guidance and policy documents indicates that emotional understanding is recognised as an important area which should be targeted through educational programmes ranging from the Foundation Stage (ages 3 to 5) and throughout Key Stage 1 (year 1 and 2) till Key Stage 2 (years 3 till 6), in both typically developing and Special Educational Needs (SEN) pupils.

Foundation Stage targets on emotional understanding

Work on the social and emotional aspects of learning in the Foundation Stage builds on the guidance for Personal, Social and Emotional Development (DfES, 2005a). According to the recent Statutory framework for the Foundation Stage (DfE, 2012), schools should teach young pupils how to manage their feelings and behaviour within groups, how to develop an understanding of their own and others' emotions and how to show sensitivity to the feelings of others within relationships. This teaching is tackled within the 'Personal, Social and Emotional Development' area which is a prime area of learning and development, essential

for preparing young pupils for school. According to the DfE (2008) pupils should also be encouraged to express their feelings and develop strategies for coping with challenging and stressful situations. The document for the inclusion of pupils with autism in Foundation Stage (DCSF, 2009), however recognizes that the pupils with autism will need additional support to develop an understanding of the needs, views and feelings of others, as well as to express their thoughts, ideas and feelings.

Key Stages 1 and 2 targets on emotional understanding

Various subjects across the National Curriculum in primary schools (DfEE and QCA, 1999), such as Personal Social and Health Education (PSHE), English (literacy), drama, art and design and music, provide opportunities for pupils to enhance their emotional understanding. PSHE focuses on improving the personal, social and emotional development of students. According to the PSHE curriculum (DfEE and QCA, 1999) at Key Stage 1 pupils should be taught about their own and other people's feelings, and how to recognize, name and manage their feelings. By the end of Key Stage 1 pupils should be able to identify and name some feelings, and demonstrate that they can manage their feelings effectively. At Key Stage 2 pupils should be taught how to recognise how people's emotions change and how to deal with their feelings towards themselves, and others in a positive way. Pupils should also be taught the consequences of their behaviour on themselves and others, to care about other people's feelings and to try and see things from others' point of view. By the end Key Stage 2 pupils are expected to be able to discuss

some of the emotional changes at puberty and demonstrate some ways of dealing with these positively (DfEE and QCA, 1999).

Policy documents related to planning the curriculum for pupils with learning difficulties (e.g., QCA, 2009a; 2009b; 2009c) accords importance to providing pupils with the opportunity to acquire, develop and practise their emotional skills. Individual support programmes should ideally teach pupils personal skills how to manage their own difficult emotions and behaviours, such as, providing thinking skills to help pupils progress from 'external control' to 'self-monitoring' (QCA, 2009a; 2009b). Furthermore, pupils with learning difficulties should be provided with opportunities to develop social skills, enabling them to work with others such as, empathy and awareness of the feelings and perspectives of others (QCA, 2009b). When adapting the National Curriculum to pupils with autism, their difficulties in emotional understanding should be addressed through educational programmes. Areas in emotional understanding which should be tackled for teaching include: empathy, providing opportunities for pupils to reflect on and rehearse feelings, and creating opportunities to teach feelings explicitly. The document also argues about the importance of managing problematic behaviour which might hinder learning (through external support structures) and teaching pupils how to manage their own emotions (QCAA, 2000).

Programmes to improve emotional understanding

Policies highlight the importance of teaching emotional understanding to all pupils within mainstream schools, including pupils with autism and other SENs. Yet what programmes or strategies are available for improving emotional understanding to pupils with autism? There are a wide variety of programmes and strategies, for helping pupils with autism improve their emotional understanding. On one end of the continuum, there are programmes which have been developed for all pupils in primary schools taught at a whole school level, such as PATHS (Promoting Alternative Thinking Strategies) (Greenberg, 2006) or the SEAL curriculum (Social and Emotional Aspects of Learning) (DfES, 2005a). Literature is also indicative of various strategies developed by LEAs (LCC and LCC, 1999; NCCCSS, 2004), Autism Teams (e.g., Erbes, 2010; Hannah, 2001) and practitioners (e.g., Attwood, 1998) for improving emotional understanding in pupils with autism. On the other end of the continuum, emotional understanding has been targeted within comprehensive programmes, such as the SCERTS Model (Prizant et al., 2003), or have stemmed from University-based research whose programmes have been assessed in peer-reviewed journals.

General programmes on emotional understanding at a whole-school level - not autism-specific

PATHS curriculum

PATHS is a social and emotional learning curriculum, based on neuro-scientific principles (Greenberg, 2006), delivered within a classroom-wide approach, which focuses on building emotional awareness and regulation, and enhancing social problem solving skills in primary school aged children (Kam et al., 2006). The PATHS programme is based on the ABCD (affective-behavioural-cognitive-dynamic) model of development which integrates and relates affect (and emotion language), behaviour and cognitive understanding to social and emotional competence (Kam et al., 2006). A basic assumption of PATHS is that children's ability to understand, discuss and manage emotions is dependent not only on the child's own developmental level, but also on the ecological environment of the school, with focus also being on creating opportunities within the school to generalize skills so as to help the child internalize the concepts learned (Domitrovich et al., 2007; Kam et al., 2006).

PATHS is delivered by teachers and taught regularly throughout the school year through didactic instruction, role plays, modelling by teachers and peers, social and self-reinforcement and worksheets (Greenberg et al., 1995; Kam et al., 2006). The core of the curriculum is its' emotional content which emphasizes affective awareness in oneself and in others, and supporting children's own ability to self-regulate (Riggs et al., 2006). Self-

control is taught by providing opportunities to practise conscious strategies for self-control

using cognitive/behavioural techniques (Greenberg, 2006). For instance, the 'Turtle

Technique', involves children folding their arms and following three steps for calming

down, followed by a discussion of their problems and feelings. A 'Control Signals Poster'

(CSP) is also included which teaches children the steps for problem-solving in social

contexts. Self-control is also facilitated by teaching children to verbally identify and label

feelings so as to manage them (Greenberg, 2006). For instance, curriculum lessons and

integration of 'Feeling Face Cards' throughout the day help the children identify their own

and others feelings (Greenberg, 2006). The 'Feelings and Relationships Unit' focuses on

teaching emotional and interpersonal understanding, with 35 different affective states

taught in a developmental hierarchy, starting with basic emotions and proceeding to more

complex emotions. Children are taught it is acceptable to experience all the feelings, with

some feelings being comfortable and others uncomfortable and to judge/evaluate

behaviours not feelings (Greenberg, 2006; Kam et al., 2006).

Several studies, including randomized controlled trials (RCTs) have assessed the

effectiveness of PATHS. Domitrovich et al. (2007) reported improvements, among

typically developing pupils, in social interaction, emotion regulation and social skills, an

increase in emotion vocabulary, accuracy in identifying facial expressions, and improved

identification of situation-based emotions. PATHS was also effective with children with

poor language abilities (Domitrivich et al., 2007). Greenberg et al. (1995) who assessed the

impact of PATHS in typical and SEN pupils (with learning difficulties, severe behaviour

disorders and multiple disabilities), for one year, reported that all pupils showed an

improvement in affective vocabulary, knowledge of basic feelings and display rules and

ability to recognize others' feelings, with improvements in self-control and ability to discuss feelings. A significant finding was that only the typically developing pupils improved in their understanding of their own complex emotions. According to Greenberg et al. (1995) however, both typical and SEN pupils can make advances in emotional fluency and understanding through PATHS.

SEAL curriculum

SEAL is a whole-school curriculum for developing children's social, emotional and behavioural skills, starting at Foundation Stage and continuing in Key Stage 1 and Key Stage 2, providing links to the National Healthy School Standards (NHSS) for emotional health and wellbeing, curriculum guidance to the Foundation Stage as well as to PSHE/Citizenship education (DfES, 2005a). SEAL is delivered by class teachers in primary schools in England, centring around seven themes covering: personal skills (self-awareness, managing feelings, motivation) and interpersonal skills (empathy and social skills). Consideration is given to the developmental aspect of social, emotional and behavioural skills, and rather than teaching skills as one-off they are revisited over time, building on previous learning. SEAL focuses on teaching children how to use thinking skills and feelings to guide their behaviour, using calming down, problem solving and conflict management techniques (DfES, 2005a). The SEAL curriculum is delivered at three waves of intervention: first at a whole school level where provision is made within schools to deliver the curriculum to everyone, secondly as a small group intervention for children who need additional help for developing skills and for their families, and thirdly through

individual intervention for pupils whose difficulties necessitate more individualised and multi-agency support (DfES, 2005a).

Learning strategies accommodate different learning styles, such as, verbal, visual or kinaesthetic, and appropriate scaffolding is provided to pupils with SEN who benefit further from increased opportunity for practice and generalization. The SEAL curriculum gives importance to generalizing learning to different situations within the school by referring to calming down or problem solving strategies, posters (e.g., the 'Feelings Detective Poster'), or visual aids displayed around the school, and reinforcing pupils for applying the skills learned in SEAL (DfES, 2005a). Emotion-related skills are included in every theme and different emotions are explored depending on the theme and are taught in a developmental sequence. For instance, in the first theme New Beginnings, at Foundation Stage children are taught how to recognize and express basic emotions. Strategies for management of own emotions become more sophisticated as children progress from Foundation to Key Stage 2 (DfES, 2005b). The theme 'Getting on and Falling Out' focuses on 'anger' with focus on the physiological changes associated with anger at Key Stage 1, to awareness of short and long-term consequences of one's behaviour on others at Key Stage 2 (years 5 and 6) (DfES, 2005c).

Two units which deal directly with emotions are the 'Good to be Me' theme and the 'Relationships' themes (DfES, 2005d, 2005e). The former unit deals with understanding of basic and complex feelings and their link to behaviour. At Foundation Stage pupils are taught to show and tell about their own understanding of 'pride' or 'excitement', with focus

at Key Stage 1 on identifying things which make them feel 'proud', 'worried' or 'anxious', expanding their emotional vocabulary, and identifying emotions which vary in intensity. At Key Stage 2 focus is on complex emotions (e.g., disappointment), how they are experienced in the self, and how to manage intense emotions and calm down before becoming overwhelmed by them. Relaxation techniques for calming down are taught at Key Stage 1, with more advanced tools on expressing and managing emotions, such as, display rules are taught at Key Stage 2. Emotions experienced in the context of relationships are explored in the theme on 'Relationships', which deals with own understanding and management of more complex emotions. Although, 'guilt' and 'embarrassment' are explored in Key Stage 2, at every stage pupils are taught how to share their complex emotions with others, manage them, and identify emotions in others'. Older pupils in Key Stage 2 are taught how to respond to negative emotions experienced by others and how to help others feel better (DfES, 2005d, 2005e).

The SEAL programme is used extensively in primary schools in England (Humphrey et al., 2010). SEAL has not been evaluated for its impact among pupils with autism, yet studies have evaluated its delivery at the second wave of intervention – small group interventions for pupils 'at risk' for social and emotional problems with the inclusion of typical pupils who serve as role models (e.g., Humphrey et al., 2010). Humphrey et al. (2010) evaluated the delivery of a small group intervention, from the theme New Beginning, over a seven week period (45 minutes per week), for a group of pupils who were not adjusting to school life, in 37 schools. The programme dealt with basic emotions, and learning strategies for calming down and problem solving. While pupils' own self-reported data indicated improvements in their social and emotional competence, this was not replicated by teacher

or parent-reported data, and gains declined after a seven week follow-up (Humphrey et al., 2010).

Research (e.g., Humphrey et al., 2009, 2010; Lendrum et al., 2009) indicates that intervention outcomes would be greater and maintained in the long-term if the programmes were lengthier and more intensive. Humphrey et al. (2010) maintain that 'at risk' pupils require continual support rather than one-off interventions. Lendrum et al. (2009) and Humphrey et al. (2009) provide a model of best practice in schools for small group interventions of SEAL (for pupils with poor social skills, emotional difficulties and conduct disorders), through detailed case studies of five primary schools. Findings revealed that while small group interventions had a positive impact on the social and emotional skills of pupils who are vulnerable, impact was sustained outside the group when there were explicit strategies to facilitate sustainability, when targets were achievable, when the facilitator was skilled and experienced, constantly reinforcing desirable behaviour, providing opportunities for pupils to verbalize their emotional experiences, making learning fun and allocating enough time and space for small group work. Parental involvement was also seen as crucial to help pupils generalize their skills beyond the school environment, which may serve as barriers to outcomes (Humphrey et al., 2009; Lendrum et al., 2009).

Resources and strategies created by Local Education Authorities, practitioners, and autism
teams on emotional understanding – autism specific

Teachers of pupils with autism in England can have access to a variety of resources or
strategies on teaching emotional understanding. These resources or strategies, developed by
LEAs, practitioners, and autism teams, often target the teaching of emotional understanding
in combination with other social skills, such as part of communication (Erbes, 2010),
developing imagination and flexible thinking (Hannah, 2001), or social relationships (LCC
and LCC, 1999). These resources have a set of principles regarding the teaching of
emotional understanding to children with autism, which include: addressing basic emotions
first (Attwood, 1998; Erbes, 2010; Hannah, 2001), dealing with positive emotions before
negative ones (Attwood, 1998; Erbes, 2010), and then steadily progressing to the teaching
of more complex emotions (Attwood, 1998; Erbes, 2010); using daily or 'here-and-now'
situations as stimuli or opportunities for teaching emotional understanding (Attwood, 1998;
Hannah, 2001; LCC and LCC, 1999; NCCCSS, 2004), as well as targeting emotional
understanding through explicit lessons (Attwood, 2001; Baker, 2001; Erbes, 2010; Hannah,
2001; LCC and LCC, 1999; NCCCSS, 2004). Further principles include the importance of
capitalizing on the visual strengths of children with autism when addressing their
difficulties (Attwood, 1998; Baker, 2001; Hannah, 2001), teaching skills in small steps
(Hannah, 2001), or using people they know as stimuli for teaching (NCCCSS, 2004).
Various strategies are proposed for teaching which include, schematic drawings of faces,
emotion scales, Social Stories®, film scenes, or photographs (Attwood, 1998; Baker, 2001;
Erbes, 2010; Hannah, 2001; NCCCSS, 2004), particularly of people pupils are familiar with
(NCCCSS, 2004), toys and puppets to model feelings (Hannah, 2001), computer software,

as well as practising the skills through role-plays or video-recordings of pupils' expressions of emotions (Attwood, 1998; NCCCSS, 2004).

An analysis of the content of the resources indicates that there is a similarity in how the emotion-related areas are taught. For instance, the expression/communication of emotions are taught by helping pupils understand the causes/situations leading to particular emotions (e.g., Attwood, 1998; Erbes, 2010), by enhancing pupils' emotion vocabulary, verbally, pictorially or in written format, and by teaching pupils how to express emotions (verbally and non-verbally) particularly those which vary in intensity, by using an 'emotion barometer' (e.g., Attwood, 1998; Erbes, 2010; Hannah, 2001; LCC and LCC, 1999). Management of own emotions is taught, (e.g., Baker, 2001; Erbes, 2010; LCC and LCC, 1999; NCCCSS, 2004) by focusing on appropriate and inappropriate behaviours associated with negative emotions and their consequences, and identifying intense/escalating emotions and strategies to deal with these. Strategies identified are either external to the child, such as arrangements to remove the child from the context or structuring the environment, or rely on the pupil's own (internal) resources, such as, using a prompt card or signal as a warning. Teaching pupils how to identify other persons' emotions seems to be the most popular area targeted for teaching. Focus is generally on teaching the identification of others' emotions from facial expressions, tone of voice and body language, as well as feelings elicited from emotion-related situations (Attwood, 1998; Hannah, 2001; LCC and LCC, 1999; NCCCSS, 2004). It is however difficult to come across exercises which teach pupils with autism how to respond to the emotions displayed by others (i.e., initial steps in empathy). Exercises (e.g., Attwood, 1998; Baker, 2001; NCCCSS, 2004) mainly focus on the appropriate thing to say or do in response to others' negative feelings, by using social

stories, daily scenarios or role-plays (e.g., Attwood, 1998; NCCCSS, 2004), with Baker (2001) providing information (through photographs) of the consequences of one's behaviour.

<u>An autism specific intervention of which emotional understanding is a part – SCERTS Model</u>

Emotional understanding has also been addressed in a comprehensive intervention programme – the SCERTS Model (Social Communication, Emotional Regulation and Transactional Support) – which is targeted exclusively for children with autism (Prizant et al., 2003). While this review is not exhaustive, a number of principles regarding this intervention are worthwhile mentioning. The SCERTS Model is a systematic, semi-structured and flexible intervention, with the child's unique profile of strengths and weaknesses (learning styles, arousal bias), developmental appropriateness, functionality of the skill (relevance of skill to child) and family priorities determining the appropriate accommodations (Transactional Supports) for facilitating competence in the domains of Social Communication and Emotional Regulation. Functional communication abilities and emotional regulatory capacities are considered as a priority in education and treatment, and all domains of a child's development are seen as interrelated (i.e., communicative, socio-emotional, cognitive, sensory, motor abilities). The core skills of Social Communication (SC) and Emotional Regulation (ER) rather than being taught in isolation are taught in combination within the child's natural environment, through the implementation of

Transactional Supports (TS) across social partners so as to facilitate generalization of skills (Prizant et al., 2003, 2004, 2006b).

Areas in emotional understanding are also tackled in the Social Communication (SC) component, which focuses on developing joint attention and symbol use. For instance, emotion-related skills include teaching the child how to express and share feelings with others (related to joint attention skills), or using language to express feelings (related to symbolic use skills). Problems in Emotional Regulation (ER) and arousal are perceived as detrimentally influencing the child's capacity for attention and availability for learning, leading to further problem behaviours and limitations in social-interaction and social-emotional development. The ER component focuses on supporting the child in regulating arousal through sensory/motor and/or cognitive/linguistic strategies whose use is dependent on the developmental level of the child – that is, whether the child is operating at the Social Partner or Language Partner or Conversational Partner Stage. The ER component mainly focuses on teaching children how to self-regulate or maintain an organized well regulated state independently; how to request assistance or respond to others' efforts to support emotional regulation (mutual regulation) and recover from states of extreme emotional dysregulation/arousal (recovery from dysregulation). Situations known to be stressful for the child are modified in a preventative effort, and the child is also supported to develop specific emotional regulatory strategies to cope in the latter contexts (Prizant et al., 2003, 2004, 2006b).

The SCERTS Model recognizes that progress is inhibited not only because of factors within the child, but also because of partners' and environmental factors. TS are therefore implemented which include interpersonal supports, whereby professionals, family members or peers, are taught how to adjust their language, emotional expression and interactive style with children with autism so as to enable them to participate in social interaction and maintain optimal arousal; and learning and educational supports, learning aids/supports, environmental arrangements and curriculum adaptations are made to improve social communication and emotional regulation, such as visual (photographs, logos or picture symbols) and augmentative communication supports. TS are implemented in a planned manner or through more natural activities so as to improve generalization (Prizant et al., 2003, 2004, 2006b).

Earlier abilities in the SC and ER domains provide the foundation for more developmentally sophisticated abilities (Prizant et al., 2006a). At the Social Partner Stage behavioural self-regulatory strategies such as, mouthing fingers or objects, or repetitive motor activity are more commonly used to assist the emotional regulation of the child. Mutual Regulatory strategies at this stage focus on non-verbal means (e.g., gestures to request, protest or reject), with verbal means (such as, using specific vocabulary for expressing emotions) taught at the Language and Conversational Partner Stage. In these stages, focus is on developing the language and cognitive problem-solving skills to facilitate the ER domain. Self-regulatory strategies for the child at the Language Partner Stage focus on using delayed echolalia in the form of self-talk, or preparing the child for activities using picture sequences or break cards. While at the Conversational Partner Stage

the child is helped to reflect on and develop useful coping strategies when faced with dysregulating circumstances (Prizant et al., 2006a).

In a preliminary pilot study of the SCERTS Model O'Neill et al. (2010) reviewed implementation of the SCERTS Model with four pupils with autism within a special school in England. Principles of the SCERTS Model were applied and targets vis-à-vis Social Communication, Emotional Regulation and Transactional Support were agreed for the four pupils. Results indicated that both the pupils and staff benefitted from the SCERTS Model. All four pupils had progressed on all four skill areas: joint attention, symbol use, mutual and self regulation. Children were calmer and more focused on tasks and ready to learn. They were more aware of their own needs using regulations when required. Non-verbal children were communicating more and some pupils were identifying their own and others' emotions. Staff indicated increased understanding of their own roles in supporting children when dysregulated, increased awareness of the benefits of a sensory curriculum and increased use of resources which were shared across settings. Strategies which worked well included, allowing children to emotionally regulate themselves, using adult photos to get their attention, availability of more symbols and allowing pupils freedom to move around the classroom. While the pilot study strengthened liaisons with families, it highlighted areas for further development. SCERTS also enabled collection for more specific data about pupil progress in relation to specific skill areas relating to social difficulties in autism (O'Neill et al., 2010).

Autism-specific programmes which target emotional understanding

A number of programmes have been developed, often within Universities, to address difficulties in emotional understanding in children with autism. These programmes are either bespoke and have developed from a theoretical understanding of autism, such as 'theory of mind' or the 'empathising-systemising' theory, or involve the teaching of multiple components, or have stemmed from general learning theories in psychology, such as cognitive-behavioural approaches.

Bespoke programmes

Studies originating from the 'empathising-systemising' theory of autism have generally addressed recognition of others' emotions. Several studies have developed computer software, to draw on the systemising strengths of persons with autism, who find computers an attractive medium for learning, being free from social demands, allowing repetition and appropriate pacing of the learning material (Golan and Baron-Cohen, 2006). For instance, the latter researchers developed a programme 'Mind Reading an Interactive Guide to Emotions' which focuses on teaching 412 emotions, varying from basic to complex emotions. The programme teaches recognition of emotions from realistic facial expressions and prosody of speech, and provides examples of situations associated with emotions, using games, quizzes and rewards to enhance learning. Several studies have assessed Mind Reading with children who are on the high functioning end of the spectrum (e.g. Lacava et

al., 2007, 2010; Thomeer et al., 2011). Lacava et al. (2007, 2010) reported on the teaching of Mind Reading for 10 weeks where participants used the software individually with some tutor assistance. While the participants correctly learned how to identify emotions expressed facially or vocally (from a single mode of expression), yet they failed to identify emotions from situational contexts, such as films (Lacava et al., 2007), nor were there improvements in social interaction skills (Lacava et al., 2010).

Previous studies based on similar conceptual understandings of autism (e.g., Hadwin et al., 1996, 1997) indicate that while children with autism might learn how to pass (emotion-related) tasks, yet they do not generalize their learning to other areas (e.g., play or conversation) or to non-taught emotion-related tasks, with the possibility that they learn to pass the tasks without an understanding of the concepts behind them. Hadwin et al. (1996) also indicates that focused and intensive short-term teaching programmes are not enough to have a significant impact on understanding, highlighting the importance of targeting mental state concepts over a longer period as part of a school curriculum.

Multi-component interventions

There has also been a trend to integrate the teaching of emotional understanding using a multi-component treatment. Thomeer et al. (2011) have implemented Mind Reading in a group format, and included 'in vivo rehearsal trials' to practise emotion recognition skills, whereby participants identified (decoded) or displayed (encoded) the emotion, and were

reinforced for correct identification and display of emotions by clinicians and parents. Results indicated significant improvements in the participants' ability to recognise and display the emotions, and the effects generalised to broader social behaviours and interactions which included social awareness, communication and motivation. In fact, other researchers argue that generalization of taught skills is improved when skills are taught in small groups and involve parents (Ryan and Charragain, 2010). Ryan and Charragain (2010) taught emotion recognition in children with autism by capitalizing on their systemizing strengths whereby children were taught to recognise facial features associated with emotions. The intervention which included role-plays, matching games, and homework involving support from parents (where episodes of emotional expression occurring at home were identified) led to improvements in emotion recognition generalizing to non-taught material.

Cognitive-behavioural approaches

Emotional understanding has also been addressed in cognitive-behavioural approaches. These have proved especially effective for children with autism on the high functioning end of the spectrum and generally are addressed within a group format (e.g., Bauminger, 2002, 2007). Cognitive-Behaviour Therapy involves the integration of behavioural (social interaction skills), cognitive (accurate processing of information, problem solving) and affective skills (emotion knowledge) necessary to adapt flexibly to diverse social contexts and demands (Bauminger, 2007).

Bauminger (2002, 2007) implemented a cognitive-behavioural therapy (CBT) approach, through a social skills programme for pupils with autism which was implemented within a school by teachers, which included typically developing peers and parents of children with autism. The curriculum was implemented for 7 months, three times a week and children with autism practised the skills with the assigned peer twice weekly (Bauminger, 2002). The curriculum focused on friendship and problem solving skills, and affective education. Affective education involved teaching simple emotions, describing the rule for each emotion, teaching how to identify the emotion in oneself and others from facial expressions, gestures and vocalizations and how to identify emotions in social situations. Homework assignments requested participants to implement goals with the assigned peer (Bauminger, 2002, 2007). Results indicated a growth in social interaction behaviours particularly in speech and eye contact (Bauminger, 2002, 2007) which were generalized to other peers and other social settings (e.g., school breaks) (Bauminger, 2007). Increased co-operation and assertion were reported by teachers in both studies, and both studies demonstrated progress in participants' problem-solving abilities. Children with autism also demonstrated improvement in emotional knowledge, particularly of complex emotions, with greater attention paid to the role of an audience in exemplifying emotions (Bauminger, 2002, 2007). Bauminger (2007) maintains that incorporating CBT lessens social cognition deficits in children with high functioning autism.

Practices in schools in teaching emotional understanding to pupils with autism

In line with the latter studies, recent studies indicate that the teaching of emotional understanding within schools is incorporated within social skills programmes. Several characteristics are highlighted as ideally informing practice among teachers. First, social skills programmes are more effective when implemented within a group setting, as children with autism learn by observing peers (Leaf et al., 2009, 2010, 2011). Secondly, the natural school environment for the teaching of social skills offers unique learning opportunities for pupils with autism. (Kasari et al., 2012). Thirdly, social skills programmes are more effective when typical peers are included within the group hence increasing opportunities for social interaction (Leaf et al., 2009, 2010; Kasari et al., 2012).

Leaf et al (2009) implemented a programme, 'Teaching Interaction', for 8 weeks to three children with autism, in a classroom setting, to teach them how develop and maintain friendships. The classrooms also incorporated typically developing peers. Skills in the domains of social-communication, play, emotion and choice/selection skills were taught. Emotion skills focused on teaching how to include a peer in an activity and giving peers a compliment. Target skills were practised with typically developing peers. All participants increased their emotional skills vis-à-vis including a friend and giving compliments, and increased their conversation and play behaviour. Yet as generalisation was not assessed it is not known whether behaviours generalized to other settings or peers (Leaf et al., 2009).

In a follow-up study 'Teaching Interaction' was implemented in an afterschool programme which included typically developing peers and pupils with autism (Leaf et al., 2010). Skills taught included showing appreciation, giving a compliment, making an emphatic statement and changing the game when someone is disinterested. Participants improved in all of the skills taught which were maintained up to 8 weeks later. Leaf et al. (2010) argue that generalization could be improved if multiple teachers implemented the social skills programme. In a later study, (Leaf et al., 2011) children with autism were taught how to label facial expressions in a small group format. Participants improved their ability to correctly label emotions taught to them directly and non-directly (by observing instruction delivered to their peers). Leaf et al. (2011) argue that the results suggest that high-functioning children with autism might benefit from observational learning occurring during group instruction.

The effectiveness of including typically developing peers within interventions has also been demonstrated by Kasari et al. (2012) who compared to a CHILD intervention which included didactic instruction, role-playing and practice, to a PEER intervention where typically developing peers, within the participants' class, were selected based on their social network salience (SNS). Peers were taught how to interact with children who had difficulty making friends. Pupils with autism who received the PEER intervention improved more significantly than participants receiving the CHILD intervention, resulting in improved social networks, and a decrease in solitary play in the playground. Kasari et al. (2012) argue that peer tolerance and engagement are powerful agents of change for pupils with autism, and working with typically developing peers within the school environment is

more ecologically valid for improving their social outcomes. The researchers also argue that generalization is increased when school personnel carry out the interventions.

This literature review therefore indicates that there are a considerable amount of programmes or strategies available to teach emotional understanding. Several strategies and tools have been suggested and developed by autism specialists or LEAs for improving emotional understanding in children with autism (Table 1, Appendix 1). The literature also indicates mixed evidence regarding the effectiveness of training studies in improving emotional understanding in children with autism (Table 2, Appendix 2). Although there is a large variability of programmes and strategies, yet to the author's knowledge there is no direct research examining how emotional understanding is being taught in England by teachers in schools to children with autism.

A recent study examined educators' awareness of general strategies which promote inclusion for pupils with autism. Segall and Campbell (2012) studied the relationship between the experience of educational professionals (school administrators, general education teachers, SEN teachers and school psychologists) to their knowledge about autism, their attitudes towards inclusion, and their awareness of inclusive strategies for pupils with autism and their reported implementation. Results indicated that in contrast to SEN teachers and school psychologists, general education teachers and administrators had heard of fewer strategies for pupils with autism. While knowledge of autism predicted awareness of strategies, experience predicted the implementation of empirically validated treatments. The researchers however caution that without observational data educators'

reports of awareness and use of strategies derived from questionnaires, may not realistically reflect precise understanding and implementation of the strategies and interventions (Segall and Campbell, 2012).

This leads us to the general aim and rationale of this study which will primarily seek to understand how emotional understanding is being taught to pupils with autism.

Aims, rationale and research questions

The general aim of the study is to examine how teachers of children with autism address the emotional difficulties experienced by children with autism. The research is also interested in delineating the areas in emotional understanding which should be addressed first for teaching. This literature review has illustrated the large number of programmes and strategies available to teach emotional understanding to children with autism ranging from programmes targeted at a whole school level (e.g., SEAL or PATHS), strategies developed by autism specialists and LEAs, a comprehensive intervention (the SCERTS Model) which addresses emotional understanding with social-communication skills, and programmes specifically commissioned to improve emotional understanding sometimes taught in combination with other social skills, which are evidence-based.

This research is however aware that there is a wide gap between practice in controlled experimental studies and practice within the classroom – resulting in a 'disconnect' between research in university or clinical settings and the school setting (Riley-Tillman et al., 2005). Various factors within the school context such as, heterogeneity of pupils with autism, demands in time, effort and resources, or expertise of teaching staff, may determine whether a programme is implemented or not, and which strategies are used (Dingfielder and Mandell, 2011). Various researchers (e.g., Jones and Jordan, 2008; Webster et al., 2002) argue that traditional 'top-down' forms of research hold less relevance in the educational context and argue about the importance of making research more relevant for educational contexts, by drawing directly on the knowledge base of practitioners, such as educators, working directly with children with autism.

A further issue which needs to be explored is identifying the areas in emotional understanding which should be addressed first. The literature (e.g., SEAL, DfES, 2005a) indicates that basic emotions should be addressed before teaching the more complex ones. Programmes based on a developmental model of learning (e.g., SCERTS Model) argue that skills should be addressed according to the developmental stage of the child with autism, with more complex meta-cognitive strategies for regulating/managing emotions taught when children are at the Conversational Partner Stage (Prizant et al., 2006a). The latter practitioners maintain that Emotional Regulation is a priority area, as the child is available for learning and able to relate to others only when operating at an optimal level of arousal.

In line with arguments presented by Hiebert et al. (2002), this research therefore postulates about the importance of practitioner knowledge – so-called 'craft knowledge' because it is linked to problems in practice, and rather than being abstract is detailed, concrete and specific. Teachers also have the knowledge of their own pupils – <u>what</u> they know and <u>how</u> they learn best (Hiebert et al., 2002) - and teachers are ideally placed at identifying areas in emotional understanding which can be realistically taught to pupils with autism and identify the strategies or programmes which work best within the school context.

This research will be exploratory and a 'bottom-up' research approach (Blaikie, 2007) will be adopted to answer the research questions, with the overarching research question being:

How do teachers teach emotional understanding to children with autism?

The main research question will be answered through the following specific research questions:

1)   What programmes and/or strategies are used by teaching staff to teach emotional understanding to pupils with autism?

2)   Which areas in emotional understanding are addressed for teaching and which areas should be addressed first?

CHAPTER 3

RESEARCH SAMPLE AND METHODS

This research is a small-scaled pilot study carried out within three primary mainstream schools in the West Midlands. Qualitative research is ideal when research is exploratory and is interested in how participants interpret the social world (Bryman, 2008). A multiple case study design has been implemented, to gain maximal understanding of the substantive issue (how emotional understanding is taught), with the purpose of identifying common or distinct patterns (Thomas, 2011) of strategies and/or programmes used for teaching emotional understanding, and priority areas in emotional understanding targeted for teaching pupils with autism. Thomas (2011) differentiates between the 'subject' and the 'object' of a case-study. The 'subject' will be a mainstream primary school which has pupils with autism, and which is targeting the teaching of emotional understanding to pupils with autism. The 'object' of the study will be focusing on <u>how</u> emotional understanding is taught to children with autism. Information on how emotional understanding is taught to children with autism (research question 1) and priority areas related to emotional understanding (research question 2) will be gleaned from two levels of evidence/methods – semi-structured interviews of teaching staff and documentary analysis of resources.

Research strategy and epistemology

"The case study thus offers an example from which one's experience, one's phronesis, enables one to gather insight or understand a problem."

(Thomas, 2010, p578)

This research has been guided by an 'abductive' research strategy (Blaikie, 2007), and as indicated in the quote, with focus being on 'phronesis', that is, practical and 'craft' knowledge (Thomas, 2010) of teachers. Phronesis involves experiential or practical knowledge, whereby judgement is made on the basis of experience without relying on the external guide of theory (Thomas, 2010). Hence knowledge achieved through phronesis has more a sense of tacit or practical knowledge (Thomas, 2010). The aim of abductive research strategy is to discover how social actors construct reality, the meaning they give to the social world, and their tacit knowledge (Blaikie, 2007). The practical (or tacit) knowledge of phronesis is about understanding and behaviour in particular situations (Thomas, 2010) and why participants do what they do (Blaikie, 2007). According to Hiebert et al. (2002) tacit or 'craft' knowledge produced by practitioners is useful besides being concrete and contextually rich, it develops in response to specific problems of practice within the classroom. As a 'bottom –up' researcher stance (Blaikie, 2007) has been implemented in this study, a 'learner' approach will be adopted so as to help teaching staff reveal their own 'tacit' knowledge regarding how emotional understanding is taught to children with autism. Thomas (2010) asserts that the data/information of abduction and phronesis can never be representative - rather it is a representation of a given context and

which can only be understood in that context. Hence this research understands that priorities in the area of emotional understanding in one school might differ from those in other schools, and strategies and programmes may thus vary across schools.

Ontological assumptions of the abductive research strategy view social reality as a social construction of social actors (Blaikie, 2000). The ontological ('idealist') and epistemological ('constructionism') assumptions assume that social reality cannot be viewed independently from the 'knowledge' held by social actors (Blaikie, 2000). The idealist ontology views the external world as consisting of subjective ideas – reality is what is constructed by human beings - the meanings and interpretations created by social actors (Blaikie, 2007), with members of a group sharing common meanings and interpretations (Blaikie, 2000). The epistemological assumption of 'constructionism' stresses the active role of individuals in the social construction of social reality – social phenomenon and categories are produced through social interaction (Bryman, 2008). Knowledge is the outcome of how people make sense of their encounters with the world and with other people (Blaikie, 2007). Constructionism recognizes that different cultures or communities will have different understandings of social reality (Blaikie, 2007). Therefore multiple realities can be present in any social context (Blaikie, 2007).

Constructionism applies to both the social actors and researchers (Blaikie, 2007). Social actors construct their reality – their own actions, experiences, actions of others and social situations, while researchers construct their knowledge of social actors' realities and their interpretations (Blaikie, 2007). In fact, this research has been influenced by the research

paradigm of 'interpretivism' which requires the researcher "to grasp the subjective meaning of social action" (Bryman, 2008, p16). Schutz (1963) (cited in Blaikie, 2007, p128) regarded the meanings and interpretations people give to their actions and situations as a distinctive feature of social phenomenon. According to Schutz (1962) (cited in Bryman, 2008, p16) the role of the researcher is to gain access to people's 'common-sense thinking' and interpret their actions and social world from their perspective. Yet according to Denzin & Lincoln (1994) (cited in Miller et al., 1998, p392, 393), since interpretivism tries to interpret phenomena according to the meanings/interpretations given by the people in the context, it is inappropriate to generalize the results across time and place (Miller et al., 1998). Hence generalization is not a goal for interpretivism.

Yet, as cautioned by Bryman (2008), when presenting findings using an interpretative stance, the researcher cannot simply lay "bare" the interpretations of a particular social group. The researcher has to interpret the results within a social scientific framework – they have to be interpreted in terms of the concepts, theories or literature within the discipline (Bryman, 2008). Therefore, rather than simply presenting the research findings in a vacuum on strategies and programmes, and priority areas, this research will be interpreting the results according to literature-based guidelines for teaching emotional understanding.

Multiple case study design

Three primary mainstream schools were selected to achieve an understanding of the substantive issue. Various elements determine the actual design of the study (Thomas, 2011). Choice of elements was however determined by three constraints faced during the study: constraints in gaining access to schools, the limited time scale of the study, and constraints in the resources which concur with being a single student-researcher. A 'sequential strategy' (De Vaus, 2001) was therefore adopted, with each case/school contributing to creating a typology or understanding on how emotional understanding is taught in schools, and identify priority areas in emotional understanding.

Rationale for adopting a multiple case study design

"….the proximity to reality, which the case study entails, and the learning process that it generates for the researcher will often constitute a prerequisite for advanced understanding."

(Flyvbjerg, 2006, p236)

As indicated in the quote, case studies allow the researcher to investigate a phenomenon in its context (Rowley, 2002; Yin, 1981).) They provide information that is close to the information held by teachers – that is, knowledge that is context sensitive and descriptive (Hiebert et al., 2002) and might better approximate the reality of the classroom (Kennedy,

1997). A further rationale for adopting the case study design is that it presents an 'idiographic' explanation (De Vaus, 2001) - the detailed and precise information provided by case studies, is particularly useful when focusing on particular issues (Hakim, 2000; Rowley, 2002; Yin, 1981).

As this study explores a focused teaching area in autism, and is interested in the perspectives of teachers vis-à-vis how emotional understanding is taught, what strategies/tools are used and what should be taught - the case study design is ideally placed at answering the research questions.

Sampling

Selection of schools

In line with Flyvberg's (2006) recommendations, cases were selected on the basis of expectations which their information content would yield. The selection of the three schools was guided by whether the schools fulfilled certain criteria: being a mainstream primary school in the West Midlands, having pupils with autism, and emotional understanding was taught to pupils with autism. Yet ultimately practical issues determined selection of the schools - the ability of the researcher to gain 'access' to the schools. In fact a 'convenience sample' was adopted whereby schools were selected by virtue of their

accessibility (Bryman, 2001). Using a convenience sampling for this study was justified by the fact this research is an exploratory and pilot study which "could provide a springboard for further research" (Bryman 2001, p97)

The three schools are all based within the West Midlands area. The first two schools are non-denominational while the third school is a denominational one. The three schools are similar on various characteristics: they are primary mainstream schools for pupils aged between 3 and 11 years old, and pupils with autism attend mainstream classes with additional support provided to improve their socio-emotional skills. The non-denominational schools receive external support from a member of the Autism and Communication Team (CAT). The team is responsible for offering support to pupils with autism and their parents/guardians, and delivering training and advice to schools. The third denominational school buys in private support from external agencies.

School 1 is a primary mainstream non-denominational school of 478 pupils having a large proportion of pupils with SEN. There are six pupils in the school with autism. **School 2** is a primary mainstream non-denominational school of 319 pupils with a resource class (purple room) for pupils with SEN requiring different or additional support for part of the school day. The proportion of pupils with SEN is also slightly higher than average. The school has eight pupils with autism. **School 3** is a denominational primary mainstream school having 323 pupils. There is a larger than average number of students with a statement of SEN. The school has twelve pupils with autism.

Sampling issues

A 'theoretical sample' design was adopted whereby participants knowledgeable regarding the substantive issue were selected (Stringer & Dwyer, 2005). Within every school a 'stakeholder' (initially contacted by e-mail or phone), was responsible for identifying teaching staff who were addressing the teaching of emotional understanding among pupils with autism. However, as an external researcher, difficulties were experienced both in gaining access to the schools and their teaching staff. With the exception of School 1, none of the teaching staff identified by the 'stakeholders' were classroom teachers – rather they were a mix of support staff and SEN teachers with a managerial role. A total of six participants across the three schools gave their consent to participate in the study. These included:

School 1:

•   Acting Special Educational Needs Coordinator (SENCO) (a general education teacher who is temporarily an acting SENCO; the SENCO is responsible for facilitating the PATHS programme besides delivering general teaching duties. Experience of teaching pupils with autism is 3 years)

School 2:

•   SENCO (responsible for setting targets through Individualised Educational Programmes (IEPs); liaising with teaching staff, parents and external agencies, to further support pupils with SEN. Experience of teaching pupils with autism is 11 years).

• A member from the CAT (supports pupils with autism across primary schools in the West Midlands. Responsible for training and advising staff how to provide support to pupils with autism. Experience of teaching pupils with autism is 8 years).

• Lead autism Teaching Assistant (TA) Practitioner (supports pupils with autism and is responsible for facilitating the small group interventions targeted for pupils with autism. Experience of teaching pupils with autism is 7 years).

School 3:

• Inclusion Coordinator (INCO) (responsible for facilitating the Transition Plans for pupils with autism; coordinating Provisional Plans for pupils with SEN; supporting classroom teachers; and scheduling the time-table for pupils with SEN. Experience of teaching pupils with autism is 18 years).

• TA (responsible for facilitating small group interventions targeted for pupils with autism. Experience of teaching pupils with autism is 9 years).

There are two sampling issues related to this study: the first relates to the generalization of the cases and the second relates to the level of understanding achieved per case/school. A "case is just that – a case" (De Vaus, 2001, p237) and can never be representative or generalizable (Flyvbjerg, 2006; Thomas, 2011) - three mainstream primary schools are not representative of schools in the West Midlands. The second issue relates to the 'theoretical sample' identified within each school. Since a small number of teaching staff per school

have been interviewed, only a preliminary understanding of how emotional understanding is taught to pupils with autism can be achieved.

Instruments used to gather data

Case studies typically draw on multiple sources of evidence (Rowley, 2002). This study drew on two sources of evidence – semi-structured interviews and documentary analysis of resources, each with their own strengths and weaknesses and yielding different kinds of insights (Rowley, 2002).

Checklist

As there is no formal definition of the term 'emotional understanding' it was envisioned that different teaching staff might interpret the term differently. Hence 'construct validity' was increased by conceptualizing the concept (Rowley, 2002) 'emotional understanding' through the development of an 'Emotional Understanding Checklist' (Appendix 3). The aim of the checklist was to answer the second research question regarding areas in emotional understanding addressed for teaching. It also formed part of the semi-structured interview to identify strategies and resources used by teaching staff to address the various teaching areas in emotional understanding.

While the format of the Checklist is similar to that of the questionnaire or structured interview, by having close-ended answers (Dunne et al., 2005), yet it was not developed for quantification purposes. Unlike the questionnaire or structured interview, which are a one-off chance for data collection, interviewees provided in-depth information on how each item/area on the checklist was being addressed. In line with the interviewing technique adopted in semi-structured interviews (Denscombe (2007), flexibility was adopted in the order in which items on the checklist were questioned.

Emotional understanding has been defined as involving two areas: 'understanding of own emotions' - 'emotional expressiveness' and 'emotional regulation, and 'understanding others' emotions' - 'emotional knowledge' and 'emotional empathy'(Denham et al., 2003; McPhail, 2004). The Checklist was created to delineate the areas in emotional understanding which could be targeted for teaching. The items were derived from programmes identified in literature. The area of 'expression of own emotions' (items 1 till 4) included teaching pupils to: "talk" about simple emotions (Erbes, 2010), express intense emotions (Attwood, 1998), "talk" about more complex emotions (Erbes, 2010), and express feelings in writing (Hannah, 2001). 'Management of own emotions' (items 5 till 8) included teaching pupils: to understand the causes of their emotions (Erbes, 2010), about appropriate and inappropriate behaviours associated with emotions (Baker, 2001; Erbes, 2010), to use strategies to calm down when upset, angry, excited (LCC and LCC, 1999), and to seek help from adults/peers to regulate their emotional state (Prizant et al., 2006b). 'Understanding others' emotions' (items 9 and 10) included teaching pupils to: understand simple emotions in others (Golan et al., 2010; Howlin et al., 1999) and understand more complex in others (Golan and Baron-Cohen, 2006; Golan et al., 2010). The final area

'Responding to others' emotions' (items 11 and 12) included teaching pupils: to know what to do and/or say to help someone who is sad, angry, or hurt, feel better (Attwood, 1998; Baker, 2001; NCCCSS, 2004) and the consequences of what they do and/or say on the feelings of others (Baker, 2001).

Semi-structured interview

An 'Interview Schedule for Staff on Teaching Emotional Understanding' was developed (Appendix 4). The interview schedule focused on answering Research Question 1 – to identify programmes and/or strategies used by teachers to teach emotional understanding to children with autism - and Research Question 2 – to identify areas in emotional understanding addressed for teaching and identify priority areas. In line with features of interviews, identified by Dunne et al. (2005), a formal, semi-structured interview schedule was administered on an individual basis. As a 'learner' researcher stance was adopted in this research, importance was accorded to the process of interviewing. Rather than viewing the teaching staff as 'repositories of knowledge' they were viewed as 'constructors of knowledge' (Holstein and Gubrium, 1997). A position of 'active' interviewing was adopted (Holstein and Gubrium, 1997) with focus not only on the what, the substantive issues guiding the interview, but also on the how of the interview process that is, creating a rapport to put the interviewees at ease which is also important given the case study nature of the design (Blaikie, 2000). The active interview process was conceived in Holstein and Gubrium's (1997) terms as a 'give and take' process, and the latter provided the rationale

for the development of a Resource File (Appendix 5) which was provided to each school during the interview.

The semi-structured interview method was selected because it is an adaptable and flexible method of collecting data allowing depth of understanding of the substantive issue (Dunne et al., 2005; Gillham, 2005), which fits in well with the constructivist epistemology adopted in this study. Interviews facilitate a strong element of discovery (Gillham, 2005). The responsive relationship between the researcher and interviewee allows for adjustment, clarification and exploration during the interview process hence yielding valid accounts from interviewees (Denscombe, 2007; Gillham, 2005). The interview method is however limited by the fact that success of the interview is partially dependent on the interpersonal skills and personal attributes (e.g., age, accent, nationality) of the researcher which might positively or negatively impact on the reliability of data (Denscombe, 2007; Gillham, 2005; Roulston et al., 2003). Although one-to-one interviews are relatively easier to arrange and easier to control (Denscombe, 2007), yet a large amount of time is involved for preparing an interview, analyzing data and interpreting findings, with costs in time and travel also incurred for arranging interviews (Denscombe, 2007; Gillham, 2005). Despite these limitations, the semi-structured interview was adopted because it was conceived as the best method of garnering the 'tacit knowledge' of teachers. The major benefit being, as outlined by Gillham (2005), that implementation of similar questions ensured equivalent coverage of the issues across all interviewees, with prompts facilitating responses to questions not answered spontaneously.

The 'Emotional Understanding Checklist' (Appendix 3) and a Resource File on programmes targeting emotional understanding were used during the interviews. The schedule of questions included in the interview schedule (Appendix 4) was guided by the research questions. Question item 1 was related to the first research question and focused on identifying resources and strategies used for teaching the areas included in the checklist (Appendix 3). It also focused on identifying areas in emotional understanding that were difficult to teach. Items 2 and 3 were related to the second research question and involved identifying areas which teaching staff considered important to teach and which they perceived as difficult to teach. Question item 4 (related to the second research question) tried to elicit perspectives of teaching staff regarding priority areas in emotional understanding which should be targeted for teaching. The objective of question 5 was to identify whether emotional understanding was as a targeted area for improvement in IEPs for children with autism in each respective school.

A Resource File (Appendix 5) was also used in the interview (question item 6), to stimulate a discussion on resources available 'out there' to teach emotional understanding. The resource pack highlighted the emotion-related areas targeted for teaching and provided a sample of the exercises and/or strategies used. The resources included in the resource pack were derived from various sources: namely bespoke programmes, programmes developed by LEAs, Autism Specialists, and a comprehensive one. Question items 7 and 8 were developed to identify the resources used by school to teach emotional understanding and pave the way for the second level evidence: the documentary analysis of resources.

Documentary analysis

The analysis of resources provided further data to answering the first research question relating to "programmes and/or strategies used by teachers to teach emotional understanding to children with autism." Resources were provided by two schools, School 2 and School 3. School 2 provided a copy of the programme 'ASD Friendship Social Interaction group' – these included the lesson plans, activities, and scenarios of the programme. The researcher was allowed to examine the assessment tools and friendship and emotion cards implemented by the programme. School 3 provided access to the following programmes: Socially Speaking: Pragmatic social skills programme for pupils with mild to moderate learning disabilities (Schroeder, 1996); Time to Talk: A programme to develop oral and social interaction skills (Schroeder, 2001); and Talking about secondary school (Black Sheep Press, 2004). Access was provided to the lesson plans, hand-outs/worksheets, board games, scenarios and exercises (e.g., ice-breakers) implemented by the programmes. The resources were analysed with teaching staff in both schools. All the resources provided were included in the final analysis of the results. The analysis focused on an outline of the courses/programmes, emotion-related objectives of the programme and various exercises and strategies implemented by the programme. Data was also gathered regarding how the programmes were implemented, such as duration and frequency of programme and group format.

This form of documentary analysis is literally the written document (Robson, 1993) relating to a programme/ intervention. It is an indirect mode (Robson, 1993) of collecting evidence

regarding the resources used at school for teaching emotional understanding. The major strength of analysing documents is that it provides a tangible evidence of resources and strategies referred to by the interviewees during the interviews. Hence documentary analysis of the lesson plans served as a triangulation (Devine and Heath, 1999) of the data provided during the interviews. Documentary analysis is an unobtrusive measure of collecting data, in that in contrast to interviewing, the document is unaffected by the fact that it is being used (Robson, 1993). A limitation of documentary analysis is that searching for documents is a frustrating and a protracted process (Bryman, 2008). Furthermore, not all organizations make their documents available to the public domain (Bryman, 2008). Teaching resources fall in the latter category and gaining access to them is not an easy process. Issues relating to copyright or ownership of the programmes meant that the study only had limited access to the resources.

Practical issues, ethical issues and biases when doing research in real-world settings

Practical issues

"All research is a coming-together of the ideal and the feasible"
(Bryman, 2008, p27)

Gillham (2005) argues that 'real-world research' does not take place in a setting designed for research, and researchers have to adapt or compromise on methods because of

constraints encountered. The original protocol of the study, as indicated in the 'Information Sheet' (Appendix 6), included 'observations' of emotion-related lessons, however, one school refused whereas the other two schools were not having emotion-related lessons at the time of data collection. Documentary analysis of resources was therefore undertaken because it could be managed within the stipulated time-frame. As indicated in the above quote, 'real-world' research involves a compromise between the ideal and what can actually be done.

Gaining access to the mainstream primary schools was the most challenging part of the study. As argued by Cohen et al. (2011) investigators cannot expect access to a school as a matter of right. The time frame between gaining access in writing to a school and arranging an appointment which fits with the working schedule of teaching staff was a very lengthy process. In fact case study designs require a considerable amount of time (De Vaus, 2001). A further challenge of the study was identifying teaching staff (theoretical sample) who were both knowledgeable about pupils with autism and who taught emotional understanding to pupils with autism. As an 'external' researcher one is reliant on the goodwill of the 'stakeholder' in identifying interviewees. While establishing trust and rapport is a key ingredient when doing qualitative fieldwork, as an external researcher one is restrained regarding the type of data one has access to (Robson, 1993). For instance, during the study it was difficult to gain access to IEPs which required the double task of gaining approval from the head and the parents. Due to the short time-frame of the study access to this type of document could not be gained. Many ethical issues prevail when doing fieldwork.

Ethical issues

In line with standard processes when conducting research as a university-student (Macfarlane, 2010), approval from the University of Birmingham ethics research committee was applied for at the outset of the study. Ethical procedures related to informed consent, confidentiality, volunteerism and anonymity (Punch, 1994) were conformed to during the study. Confidentiality and anonymity was ascertained with each respondent in every school through the voluntary 'Consent Form' (Appendix 7) provided at the outset of the interview. In line with ethical procedures the consent form stipulated that personal information concerning research participants would be kept confidential and anonymity would be guaranteed (Parry and Mauthner, 2004). Volunteerism (Cohen et al., 2011) was ascertained in the informed 'Consent Form' by making it explicit that participants had "the right to refuse to answer any question and withdraw from the study at any stage" (Appendix 7). The principle of voluntary 'informed consent' also entails providing information about the purpose of the study, requirements of respondents, contact details and role of the researcher within the particular department (Gillham, 2005; Parry and Mauthner, 2004). The 'Information Sheet' (Appendix 6) provided respondents with the latter information. As assuring anonymity is particularly problematic in qualitative research when reporting the results (Parry and Mauthner, 2004), non-traceability is particularly important when reporting results (Cohen et al., 2011). Hence, key identifying characteristics such as, name of school or of respondents were removed when reporting data.

Ethical issues also prevail when in the field. The unpredictability of the research process means that moral challenges are faced when in the field, and hence the importance of being a virtuous researcher (Macfarlane, 2010). First it is important to show respect to participants and be resolute in pursuing the research questions (Macfarlane, 2010). Respect was demonstrated throughout the research to the dynamics of school-life and by respecting any refusals. Resoluteness was demonstrated despite challenges in collecting data at various stages of the fieldwork. The student researcher also has a responsibility towards the research community (university) by not jeopardizing its reputation or spoil opportunities for further research (Cohen et al., 2011) – integrity was maintained in the demeanour adopted when approaching the schools. Finally being a virtuous researcher also entails being sincere when presenting the results (Macfarlane, 2010) by presenting objective findings.

Biases and constraints

The deficiency of the case study is that it allows more room for the researcher's subjective judgement than other designs (Flyvbjerg, 2006). For instance, more weight may be given to comments provided by particular respondents over others (Bryman, 2001). To caution against the latter, an open stance was adopted by the researcher by drawing on the perspectives of all the interviewees across the schools, and making maximal use of the data provided by the documentary analysis, when analysing the data. Blaikie (2000) argues that when adopting an abductive research strategy social reality cannot be viewed independently from the 'knowledge' held by the social actors. Bias is introduced when researchers introduce concepts and ideas that are foreign to that social reality (Blaikie, 2000). The

researcher reduced this bias by adopting the language of interviewees' when reporting the results of the data.

Further biases are incumbent by the data collection methods implemented in this research – the interviews and documentary analysis. The data derived from interviews is based on what respondents say rather than their actual behaviour, with the identity of the researcher effecting responses (Denscombe, 2007). While data can be checked for accuracy and relevance throughout the interview process hence making data valid, yet the reliability of interviews has been questioned due to the impact of the interviewer and the context on the interviewee (Denscombe, 2007). Biases also accrue when analysing data. Macfarlane (2010) cautions against the temptation of 'trimming' results when results do not fit with the desired outcome. Gillham (2005) maintains that although an analysis is done with rigour and reflection, with attention to representative selection from the transcript, an element of subjectivity/bias is still introduced. Hence, as argued above, the importance of approaching the analysis of data with an 'open' mind (Denscombe, 2007).

Biases are also incurred through documentary analysis. Hence documents need to be evaluated according to various criteria (Bryman, 2008). The first pertains to 'authenticity' of the resources - whether they are actually the ones implemented for the teaching of emotional understanding. The second criterion relates to the 'meaningfulness' of the resources – whether they are clear and comprehensible to the researcher. The final criterion is the representativeness of the documents. A major question which always looms when doing documentary analysis is whether the researcher has had access to a comprehensive

set of documents (Bryman, 2008)? Therefore, as an external researcher, there would always be a question regarding the representativeness (Bryman, 2008) and hence reliability of the resources. Documents might not provide an accurate picture of what is realistically taught in schools, hence as argued by Bryman (2008) to gain a better understanding of aspects of an organization it is important to buttress documents with other sources of data – or, as indicated above, use triangulation of methods.

CHAPTER 4

RESULTS AND DISCUSSION

As no particular theory guided the research process, an inductive typology (De Vaus, 2001) has been adopted to analyse each case. Each case has been examined in the light of a set of questions which were related to themes determined 'a priori' (Cohen et al, 2011). Each interview has been transcribed verbatim, and the responses were analysed according to codes, categories, themes and subthemes. The codes derived responsively from the data and were applied consistently. Table 4 (Appendix 8) provides a list of the codes derived from the transcripts. Codes have been further drawn into two major categories namely: programmes/resources and strategies/techniques. The categories have been further classified into three sub-categories: literature based (programmes and strategies derived from evidence-based research), schools' own (programmes and strategies developed by teaching staff experienced in teaching pupils with autism) and others (commercially produced programmes and strategies which do not provide research-based evidence regarding their effectiveness). Appendices 9, 10 and 11 present the categories and sub-categories emerging from the codes.

Appendices 12 till 21 present the data according to the themes and subthemes derived from the transcripts of the interviews. Given the small number of interviewees recruited for the study, in line with recommendations by Cohen et al. (2011), data pertaining to each theme

or sub-theme (Appendices 12 to 21), while indicating the school of origin, is presented per individual with direct phrases quoted from the transcripts. The resources (Table 5, Appendix 22) have been analysed according to categories which include areas in emotional understanding targeted for teaching, techniques and strategies, and intensity and duration of the programme.

The results will draw on the findings per school, while simultaneously illustrating quotes, so as to be more illuminative and faithful to the words used by the interviewees (Cohen et al., 2011). The results will also be presented according to the instruments used in the study. However, presenting the findings according to the instrument is only a 'means to an end' (Cohen et al., 2011). In line with the rationale of using a case study design (De Vaus, 2001), each element (interviews plus resources) will contribute to an understanding of the 'whole picture' (Cohen et al., 2011) within each school. The case studies will also provide data regarding common and distinct issues across each respective school.

Results from the interviews

<u>Theme: Teaching emotional understanding</u>

An overview of the results in Appendices 9, 10 and 11 reveal that emotional understanding is addressed through whole-school approaches targeting social-emotional skills - through

PATHS in School 1 and the SEAL curriculum in Schools 2 and 3. Appendices 12, 13, 14 and 15 indicate that the PSHE curriculum provides the pathway through which emotional understanding is targeted.

Subtheme: Expression of own emotions

School 1 (Appendix 9) relies on PATHS to teach pupils with autism how to express their own emotions. PATHS offers various strategies, such as 'Comfortable and Uncomfortable feelings cards', stories and problem-solving tasks to help pupils express their emotions. Appendix 12 indicates that several adaptations are made to the PATHS strategies to teach pupils with autism about simple and complex emotions. These include pre- and post-tutoring, replacing facial expressions of complex emotions with those of "favourite" cartoon characters, adopting terminology from the pupils' own language, breaking down skills and providing constant repetitions and reminders. Other resources implemented include Social Stories, Comic Strip Conversations and ASD Social Interaction Friendship groups.

School 2 (Appendix 10) mainly avails of 'literature-based' resources and strategies, such as, the SEAL programme, emotion scales, or using the child's own photographs of facial expressions. Appendix 12 indicates that additional small group interventions (ASD Social Interaction Friendship groups) and one-to-one sessions are provided to pupils with autism

to facilitate their socio-emotional skills. Yet pupils with autism struggle to understand

intense and complex emotions:

"children who are on the autistic spectrum, and also have issues and complex needs, they can't always comprehend what an intense emotions feels…" (Appendix 12, S2, SENCO).

"I've noticed with all of the children I work with that they're either down at a one or at a five, there's never anything in between so that tells me that actually they cannot distinguish the other stage in-between...So we tease each number out and talk quite a lot about how that feels" (Appendix 12, S2, CAT).

Although strategies from SEAL, such as photo-cards, or role-plays are utilised to teach

pupils how to express complex emotions, yet teaching this skill is perceived as challenging:

"it is difficult because that's not something you find in a picture. It would probably be talking about something from their family" (Appendix 12, S2, TA).

School 3 (Appendix 11) implements whole-school approaches (SEAL curriculum), and

small group interventions categorised as 'others', such as, Time to Talk and Socially

Speaking to teach pupils with autism to express simple emotions. These programmes

provide scenarios which facilitate pupils' emotional understanding:

"for children with autism it is really hard to put themselves in somebody else's position and see things from the other person's perspective…therefore it is important to give them situations which they can understand. When the situation is far too sophisticated for them to understand, it would be a real block for them" (Appendix 12, S3, TA).

The challenge of teaching complex emotions is also expressed in School 3:

"emotions like pride and embarrassment are very hard to explain so although they would know what they feel like, they can't really identify it as being embarrassed" (Appendix 12, S3, INCO).

Subtheme: Management of own emotions

School 1 also implements PATHS (Appendices 9 and 13) at a whole school level to teach pupils how to manage their own emotions. Strategies such as, stories and scenarios, as well as adaptations including constant repetition and pre- and post-tutoring, facilitate this skill among pupils with autism. Comfortable and uncomfortable feeling cards support pupils in identifying appropriate and inappropriate behaviours associated with emotions. Yet not all strategies provided by PATHS are effective for pupils with autism. For instance, although pupils with autism would have learned the 'Turtle Technique', they may not apply this strategy when dysregulated. The SENCO argues about the importance of collaborating with the pupils with autism in identifying their own strategies:

"It is much more about talking with children and finding out their own individual needs and giving them support in their various areas" (Appendix 13, S1, INCO).

Importance is accorded in helping pupils identify a trusted adult to support the child when dysregulated.

A variety of internal and externals strategies are implemented in School 2 (Appendices 10 and 13) to support pupils with autism in managing their emotions such as, time-out cards, or wrist bands, or providing external support through the Trusted adult or peer. Small group interventions are significant in providing pupils with autism with an opportunity to develop peer support. The school argues about the importance of collaborating with the child and the parent to identify the trusted adult:

"because if you don't you're just guessing actually" (Appendix 13, S2, CAT).

School 2 has also developed its' own strategies ('school's own') for supporting pupils with autism which include Green and Red cards and STAR Analysis (Appendix 13). STAR Analysis is applied with the more able pupils with autism to help them identify the Setting and Triggers for the 'meltdown' and identify alternative responses. Comic Strip Conversations are also implemented to identify inappropriate behaviours and explore alternative ones.

School 3 supports pupils' management of own emotions via a whole school approach, such as during assembly or circle time using the SEAL curriculum (Appendices 11 and 13). Further one-to-one support is provided to pupils who struggle:

"we try to understand the trigger, why they think this has happened and what can they do differently next time" (Appendix13, S3, INCO).

Internal and external strategies which are both 'literature-based' and the 'schools' own' are implemented, such as, providing pupils with a 'time-table of staff' who could support them when dysregulated, and a 'List of to Do Things', as a preventive effort for managing anxiety. Furthermore, friendships developed via small group interventions are instrumental in supporting the pupils with autism when dysregulated.

Subtheme: Teaching pupils to understand others' emotions

School 1 implements comfortable and uncomfortable PATHS feeling cards to here-and-now situations to help pupils understand simple emotions in others. Complex emotions are

repeated and broken down into smaller steps using different scenarios. Further support is provided by the ASD Social Interaction Friendship groups to teach about complex emotions in others (Appendices 9 and 14).

School 2, relies on a variety of resources to teach about others' emotions, which include SEAL material, Black Sheep Press and the ASD Social Interaction Friendship groups (Appendix 10). The school draws on 'literature-based' strategies to teach about simple and complex emotions in others, such as, puppets, role plays, and modelling of own emotional expressions. The TA argues that complex emotions should be taught by drawing on the personal experiences of pupils:

"the pictures won't show you something like that" (Appendix 14, S2, TA).

School 3 (Appendices 11 and 14), teaches simple emotions at Key Stage 1, and complex ones at Key Stage 2 using programmes and strategies which are 'literature-based' or categorised as 'others', such as, photographs, mirror technique, or scenarios provided by the Socially Speaking programme.

Subtheme: Teaching pupils to respond to others' emotions

Limited programmes and strategies are implemented by School 1 (Appendices 9 and 15) to teach pupils with autism how to respond to others emotions. The SENCO argues that

PATHS does not cover this skill, hence the school relies on incidental teaching. This area is also perceived as a difficult one to teach in School 2 (Appendices 10 and 15), which relies on programmes or strategies, such as SEAL, ASD Friendship Social Interaction groups, Comic Strip Conversations and Social Stories. Teaching about the consequences is perceived as difficult:

"They don't always see the bigger picture. They can't see the whole thing. It's a tunnel vision with ASD" (Appendix 15, S2, SENCO).

School 3 also perceives this area as challenging (Appendices 11 and 15):

"it is one of the hardest to understand because some of them struggle to understand how what they've done has impacted on somebody else... that bit is probably the area that they struggle with the most. It's the mind blindness isn't" (Appendix 15, S3, INCO).

The school typically avails of here-and-now situations and incidental teaching, to teach pupils with autism about appropriate responses or behaviours in response to others' emotions.

Principles for teaching emotional understanding to pupils with autism

A number of principles related to the teaching of emotional understanding have been derived from the analysis of the transcripts (Appendix 16). These include the importance of starting off with the teaching of basic emotions, and generalizing taught skills to situations in the classroom. Complex emotions are introduced when the pupils have understood basic ones and are typically taught to older (in Key Stage 2) and more able pupils with autism

who have also developed their speech/language skills. Teaching pupils to express emotions in writing is also dependent on the ability of pupils, and is taught to pupils who have achieved level 3 of writing in literacy.

Other principles focus on the importance of: teaching a different emotion in every session, starting off with positive emotions before teaching the negative ones; using pictures/visuals and things which interest the pupils; using concrete or tangible examples such as, scenarios; and adapting resources to pupils' socio-emotional needs, interests and age. For instance, role-plays are implemented with older pupils, while social stories are used with younger pupils. According to teaching staff 'understanding of others' emotions' is ideally taught in combination with the 'expression of own emotions'.

Several principles are provided regarding teaching pupils to manage their own emotions. These include the importance of dealing with the cause of inappropriate behaviour rather than its' manifestation, that is, adopt the "ice-berg principle", (Appendix 16, S2, CAT). Interviewees in schools 2 and 3 concur that pupils with autism cannot be supported when totally dysregulated, hence the importance of using external support structures in these situations. Pupils' ability to use internal strategies is dependent on their cognitive functioning and age – they are more competently implemented by older and more able pupils with autism. Importance is also accorded to collaborating with pupils with autism, and their parents, to identify internal strategies, or a 'trusted' teaching staff (external support structures) within the school.

Areas in emotional understanding which are difficult to teach and would benefit from more resources

Appendix 17 provides the responses of the interviewees to the checklist (Appendix 3) used during the interviews. All items on the checklist were ticked as 'often' (value=3) or 'very often,' (value=4) with the exception of items 3, 10 and 12 which were listed as 'sometimes' (value=2) by some interviewees. Appendix 18 indicates that across all schools teaching complex emotions is perceived as difficult (Appendix 18), with one interviewee arguing that it is not important to teach complex emotions:

"I think sometimes we get really hung up on teaching the more complex emotions. When a child is saying to me instead of saying 'embarrassed' they say they're 'sad', then it's ok because actually that's how they feel and that's valid and it doesn't matter that they're also probably embarrassed…I think it works better for them… That's how they articulate it. So that's ok" (Appendix 18, S2, CAT).

Teaching pupils to understand others' emotions and respond to others' emotions are also perceived as difficult teaching areas. As argued in School 3:

"Putting themselves in somebody else's position, that's the main thing for them that's really hard to do. And that even with a child that has done the whole programme (Socially Speaking) and can look at pictures and say 'they are happy or sad'. But still in certain situations it's really hard for them to put themselves in somebody else's position" (Appendix 18, S3, TA).

An interesting result which emerges in Appendix 18 is that although several strategies were implemented to teach pupils how to manage their emotions, all schools identify it as an area

which would benefit from more resources. Despite continuous efforts to help pupils manage their emotions:

"…Things like sensory things will have an impact on their ability to learn or their social skills. If for example, it rains or there's hail, it will affect them massively, the noise, the smell...So when they get very upset it's really hard for them to apply this to them, to realise that they're feeling upset!" (Appendix 18, S3, TA).

<u>Priority areas in the teaching of emotional understanding to pupils with autism</u>

Appendix 19 indicates that across all schools the expression and management of own emotions are considered as priority areas:

"Talking about their own feelings has made them slightly more comfortable" (Appendix 19, S1, SENCO).

"We teach these skills from an early age. If not the children will have huge gaps when they get further up – you cannot teach complex emotions or the understanding of other peoples' emotions until you've got a grasp of the skills of what's happening to them" (Appendix 19, S2, SENCO).

"'Management of own emotions' is a priority because that is where it would have an impact on everybody else as well. In a school situation it impacts on whether the child can be in school or not" (Appendix 19, S3, INCO).

Interviewees argue that understanding others' emotions and responding to others' emotions should only be addressed after pupils with autism have developed a good understanding of their own emotions.

Individualised Educational Programmes (IEPs) and emotion-related targets

Access to pupils' IEPs was not granted due to consent issues from the head of school and parents. Hence this study relies exclusively on data provided verbatim by teaching staff (Appendix 20). The SENCO in School 2 maintains that the IEP does not target emotions because they are targeted at a whole school level. School 3 implements Provisional Plans rather than IEPs, whereby each identified target has a set of 'provisions' to help achieve it. If a child has difficulty with areas in social-communication then the target is set on relationships, managing feelings, expressing feelings, and so on.

Results of documentary analysis of resources

Appendix 21 indicates that two interviewees were aware of some of the resources indicated in the Resource File (Appendix 5), with one interviewee (the INCO in School 3) claiming to have implemented either of the resources. Interviewees mainly opted for social skills programmes categorised as the 'school's own' or 'others'. This research had access to the latter programmes which formed part of the documentary analysis.

An overview of Table 5 (Appendix 22) indicates that these social skills programmes have a number of common and distinct features. All programmes are implemented within a small group format and include a cross-section of pupils: that is, pupils with autism and other

SENs, and role-model peers. Schools 2 and 3 have a 'designated' member of staff, the Lead ASD Teaching Assistant (TA) practitioner, whose role is to support pupils with autism and facilitate the groups. ASD Friendship Social Interaction groups' and 'Talking about Secondary School' are implemented over a short period, while 'Socially Speaking' and 'Time to Talk' are implemented more intensively over the whole academic year. All programmes address one or more areas in emotional understanding: expressing own emotions, understanding others emotions and/or responding to others emotions. The social skills programmes employ a wide variety of teaching strategies, such as role-plays, picture scenarios, games, cards, worksheets and discussions, in order to motivate pupils with autism and make learning fun.

All the social skills groups, with the exception of 'Talking about Secondary School', target skills related to friendships/relationships and listening/communication skills, with basic emotions explored individually or in the context of friendships. For instance, the 'ASD Friendship Social Interaction group' targets more than one area in emotional understanding namely, expression of own emotions and understanding and responding to others' emotions. An important feature of this programme is that a pre- and post-assessment of pupils in areas relating to communication, social interaction and friendship issues are carried out to establish which areas/ skills need to be developed further. The programme revolves around friendship and communication issues, e.g., qualities of a friend, turn-taking, respecting others, as well as difficulties encountered with friends, such as, conflicts and bullying. Communication skills are also taught, such as making eye-contact or listening and joining or leaving games. A whole session is dedicated to emotional understanding which focuses on building empathy, understanding own and others' basic emotions (facial

expression cards), as well as understanding causes of basic emotions ('Guess how I Feel game'). Emotion-related warmers are also included throughout the programme, such as 'emotion charades' or 'mirror emotion expression'.

'Time to Talk' (implemented in Key Stage 1) and 'Socially Speaking' (implemented in Key Stage 2), which form part of the same series, address a different basic emotion in every session (happiness, sadness, excitement and anger). 'Socially Speaking' (Schroeder, 1996) addresses several areas in emotional understanding and skills related to friendship, while 'Time to Talk' (Schroeder, 2001) addresses communication and interaction skills, such as following instructions and play skills, which according to teaching staff are relevant for the age-related issues for pupils with autism.

Discussion

This study sought to answer two major research questions: first, which programmes and strategies are used by teaching staff to teach emotional understanding to pupils with autism, and secondly, which areas in emotional understanding are addressed for teaching and should be addressed first. Results from the interviews and analysis of resources indicated that emotional understanding is addressed through whole-school approaches, and through social skills programmes administered in small group format. These programmes have either been developed specifically for pupils with autism, or were developed for pupils with general communication difficulties. Schools also implement strategies, which have either

been developed by the school, or draw on ideas from autism-related resources, such as LEAs or autism teams. Across the schools all areas in emotional understanding are being addressed, through routes as proposed by the National Curriculum, such as PSHE and literacy (DfEE and QCA, 1999), as well as through additional support programmes when adapting the National Curriculum for pupils with autism (QCAA, 2000; QCA, 2009b). In line with recommendations by the QCAA (2000) a number of external support structures/strategies are provided by schools for managing extreme emotions. The results also indicate that 'expressing own emotions' and 'managing own emotions' are considered as priority areas for pupils with autism which need to be addressed before other areas in emotional understanding.

Although schools do not implement a specific approach or programme which is evidence-based, yet the small group interventions implemented adopt important elements which these programmes (e.g., Kasari et al., 2012) indicate as effective in improving the socio-emotional skills of participants. For instance, having school personnel (the Lead autism TA) facilitate the small group intervention programmes. Delivering interventions within the school environment is viewed by Kasari et al. (2012) as more ecologically valid for improving the social outcomes for pupils with autism. Furthermore, in line with recent research (Leaf et al., 2009, 2010), emotion-related skills are incorporated in programmes which include the teaching of other social skills, such as communication/interaction and relationship skills. In line with guidelines provided by researchers, e.g., Leaf et al. (2009, 2010, 2011), typically developing peers are included within the small group interventions, thus serving as role-models for pupils with autism. The added benefit of this practice is that besides leading to the development of friendships and serving as role models, typically

developing pupils support pupils with autism in managing their emotions. Leaf et al. (2011) indicate that the benefit of these role-models is that pupils with autism learn from 'observational learning'. Therefore, although schools may not be implementing programmes which are evidence-based, they draw on good practice guidelines as proposed by recent research.

Schools also draw on good practice guidelines proposed by LEAs, Autism teams or clinicians when implementing strategies, such as photo-cards, five-point scales, social stories, or puppets (e.g., Attwood, 1998; Baker, 2001; Erbes, 2010; Hannah, 2001; NCCCSS, 2004). The principles highlighted by schools parallel those provided in literature which include, addressing basic emotions before complex ones, teaching positive emotions before negative ones, using 'here-and-now' situations and capitalizing on visual strengths in autism (Attwood, 1998; Erbes, 2010; Hannah, 2001; LCC and LCC, 1999; NCCCSS, 2004). Other principles, for example working in collaboration with parents, using the same language/vocabulary, tackling the underlying cause for behavioural problems and waiting for pupils to 'calm' down before supporting them, adapting strategies, techniques and skills to the cognitive functioning and age of pupils with autism, and giving pupils 'ownership' for strategies to support emotional regulation, are all in line with principles proposed by the SCERTS Model (Prizant et al., 2003, 2004, 2006a, 2006b). Schools also highlight the importance that pupils with autism develop a 'solid' understanding of basic emotions, with complex emotions more suitably taught to older, more able pupils. The latter is in line with literature regarding the importance of teaching basic emotions before addressing complex ones (e.g., SEAL, DfES, 2005a).

This research has drawn on the 'knowledge base of practitioners' (Jones and Jordan, 2008; Webster et al., 2002) regarding priority areas. Results concur with claims made by Prizant et al. (2003) whereby management of own emotions is perceived as an essential skill which needs to be addressed first. Schools purport that understanding and responding to others' emotions should be tackled only when pupils have developed a solid understanding of their own emotions. The study also provided an indication of the areas for which teachers struggle to get resources - namely 'understanding others' emotions' and 'responding to others' emotions'. Given the scarcity of resources in literature to teach the latter skill area, it is not surprising that teaching staff maintained that they struggled to access resources to address this skill. The few strategies being implemented by schools, such as using social stories, daily scenarios or role-plays, however, have also been endorsed by Attwood (1998) and the NCCCSS (2004). However that 'understanding of others' emotions' was indicated by interviewees as an area which would benefit from resources was surprising given the large amount of 'bespoke' programmes developed over the years (e.g., Golan and Baron-Cohen, 2006; Lacava et al., 2010; Ryan and Charragain, 2010).

Research indicates that when deciding whether to adopt an intervention or programme, rather than relying on peer-reviewed journals, educators may rely on so-called 'practice wisdom', that is, information garnered from colleagues (Dingfelder and Mandell, 2011). Research also highlights the 'disconnect' between research in university settings and the school settings (Riley-Tillman et al., 2005). Although, the social skills programmes implemented draw on good practice guidelines provided by training studies, yet their

effectiveness in improving emotional understanding in pupils with autism is unknown. Furthermore, results indicated that while several strategies were implemented by schools for helping pupils 'manage their own emotions', nevertheless it was also cited by schools as an area which would benefit from more resources. This highlights the challenging task of teaching emotional regulation to children with autism. As highlighted by Prizant et al. (2003) children with autism, irrespective of their ability, will continually experience difficulties in emotion regulation due to continuous challenges in sensory stimuli and social demands.

Limitations of the study

It has been already established that the results of a multiple case study design have no external validity (De Vaus, 2001), and the data collection methods while having several strengths, such as allowing researchers to "close in" on real life views important for validity (Flyvbjerg, 2006), also have limits particularly those related to biased responses (Cohen et al., 2011). Further limits in this study are incurred by its' small-scaled pilot nature. First, although a 'theoretical sample' was adopted when recruiting interviewees, a very small number of interviews per school have been carried out due to limitations in time and resources. The latter limitations are incurred by doing research in real-life settings whereby gaining access has to be negotiated, and a balance has to achieved between the 'ideal' and the 'feasible'. Therefore the perspectives explored are not exhaustive and do not necessarily reflect the perspectives of all teaching staff within the school. Second, this study did not have access to all resources used within each school to improve emotional understanding to

pupils with autism. Therefore the study did not develop a comprehensive understanding of how emotional understanding is taught to pupils with autism. Finally, given that consent for the observation of lessons was not granted, triangulation could not be achieved which is important to increase rigour of case study designs. As highlighted in the study by Segall and Campbell (2012) without observational data interviewees' reports of awareness and use of strategies derived from the questionnaires, may not realistically reflect precise understanding and implementation of the strategies and interventions.

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS

Main conclusions of study

This study explored how emotional understanding is taught to pupils with autism, and identified priority areas for teaching. Findings indicated that whole-school approaches which target the socio-emotional skills of pupils such as, SEAL (DfES, 2005a) and PATHS (Greenberg et al., 1995) were mainly utilised by schools to address the emotional understanding of pupils with autism. Schools also integrated the teaching of emotional understanding with other social skills, such as communication and relationship skills, using a small group format. Although the small group intervention programmes adopted by schools have not been researched for their effectiveness, yet they draw on elements which according to recent research are indicative of good practice, such as including typically developing peers, or having the teaching staff facilitate the interventions. Schools also adopt a variety of principles and strategies derived from autism-related literature regarding effective ways of teaching emotional understanding to pupils with autism, such as using role-plays, photo-cards, here-and-now situations, or visual material. This research also provided information regarding priority areas for teaching. In line with literature (e.g., DfES, 2005a; Prizant et al., 2006a) there was a consensus among schools that pupils with

autism should be taught how to express and manage their own emotions before progressing to the teaching of other skill areas.

This research has also provided other invaluable information regarding the teaching of emotional understanding to pupils with autism. First, it delineated the skill areas which would benefit from the development of further resources. According to the interviewees schools would benefit from further teaching resources in the areas of complex emotions, understanding of others' emotions and responding to others' emotions. An interesting finding was that managing own emotions was also considered as an area needing further resources, which could be reflected by the fact that none of the social skills programmes utilized by schools targeted the latter skill area. Secondly, small groups which include typically developing pupils were considered as ideal for targeting the teaching of social-emotional skills, with one-to-one teaching implemented when necessary. Thirdly, schools draw on good practice guidelines provided by evidence-based programmes and/or autism-related literature when implementing their own social skills programmes, and/or strategies.

Implications for future practice and research

The above conclusions provide several implications regarding practice within schools. Teaching of emotional understanding to pupils with autism within schools is clearly an area where there is still room for improvement. This research highlighted what and how emotional understanding could be taught, for instance, any programme designed for

improving emotional understanding for pupils with autism should primarily address the teaching of expression and management of own emotions. Furthermore, emotion-related skills should ideally be targeted within a small group format which includes typically developing pupils, and taught in combination with other social-communication skills. While teaching staff are clearly aware of the extent of challenges in emotional understanding experienced by pupils with autism, they are not very much aware of resources available 'out there' to improve their emotional understanding. Although the relevance of evidence-based programmes within the school context has been questioned (Webster et al., 2002), and various factors within the schools, such as demands in time, efforts and resources, (Dingfelder and Mandell, 2011) will influence whether a programme is implemented or not, yet as argued in the introduction, there is a need to bridge the "chasm" between research knowledge and practice in schools. Researchers and educators need to work in close collaboration (Kennedy, 1997), for identifying and/or developing programmes and/or strategies for teaching emotional understanding to pupils with autism.

This study also provides an indication for further research within the area. These have been summarised as follows:

1.   Future research could analyse the effectiveness of the small group intervention programmes implemented by the schools in improving the socio-emotional skills of pupils with autism. Research could identify which characteristics are instrumental in improving the socio-emotional skills of participants.

2.   This pilot study could be extended into a main study. As this research is a pilot study it is recognized, as argued by Blaikie (2007), that only the initial stages of the

abductive research strategy could be applied, and further elaboration of the initial understanding should be sought with other teaching staff (including general education teachers) in the same context, or by moving to similar or comparable schools.

3.   Future extensions of the study could also include 'non-participant' observations of the small group intervention programmes, so as to improve the validation of accounts provided by interviewees and increase 'triangulation' of case studies, hence making them more rigorous.

4.   Segall and Campbell (2012) reported that knowledge of autism predicted awareness of strategies, while experience predicted the actual implementation of empirically validated treatments. It would be interesting if future research assessed this link by requesting further background information from the interviewees such as, autism-related training and experience of teaching pupils with autism.

This research has been faced with the 'stark' reality of doing real-life research within real-life contexts, as an external researcher, whereby gaining access to schools and documents (such as, IEPs and programmes/resources) had to be continuously juggled with throughout the fieldwork. Any future research must clearly be aware that access to schools and their documents is not, as argued by Cohen et al. (2011), a given right. On hindsight, there are several things which could have been done differently and which should also be taken into consideration by future research. The most central issue being allocating enough time not only to gain access to schools which form part of a multiple case study design, which in itself is very demanding in time and resources (De Vaus, 2001), but also for establishing trust and rapport with teaching staff. The latter are ultimately instrumental for gaining

access to resources, arranging observations and linking with other teaching staff, such as other TAs and classroom teachers - elements necessary for making the study more valid and rigorous. The original protocol did not stipulate how access could be granted to Individualized Educational Programmes (IEPs). Future research should therefore establish procedures for gaining access to IEPs by delineating the appropriate consent forms and associated channels necessary to do so. As argued by Blaikie (2000) exploratory research involves a double edged nature. On the one hand, rapport may be established with the participants being studied and pave the way for later stages of the project while, on the other hand, it may potentially raise suspicion and develop resistance (Blaikie, 2000). Therefore it is essential for future research to be more rigorous by delineating clear protocols for collecting data, while at the same time being cautious of issues related to access, resources and time, and creating rapport with teaching staff when in the field. This study has merely provided an introductory understanding of how emotional understanding is taught within schools to pupils with autism, and further research is necessary to better inform researchers and educators how to best manage the extensive challenges in emotional understanding experienced by pupils with autism.

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Appendix 1

Table 1: Strategies and/or guidelines and areas in emotional understanding targeted by autism specialists and Local Education Authorities

Author's	Title	Date	Country	Understanding 'own' emotions	Understanding emotions of 'others'	Examples of strategies and/or guidelines
Attwood, T.	Asperger's Syndrome – A guide for parents and professional	1998	UK	Expression of own emotions	Understanding others' emotions	*Guidelines*: songs, worksheets, pictures, colours, discussion, photographs or drawings of facial expressions of emotions or situation eliciting emotions; role-plays, computer software, games, here-and-now situations; emotion barometer; video-recordings of chid with autism; mirrors
Baker, J.	The social skills picture book – Teaching play, emotion and communication to children with autism	2001	UK	Management of own emotions	Responding to others' emotions	*Strategy*: cartoon strips with digital pictures of real children combined with text and cartoon bubbles to indicate what they are saying
Erbes, V.	Tools for teachers: practical resources for classroom success	2010	UK	Expression of own emotions Management of own emotions		*Strategies*: Emotion scales, schematic drawings, worksheets, discussions, feelings board

Hannah, L.	Teaching young children with Autistic Spectrum Disorders to learn	2001	UK	Expression own emotions	Understanding others' emotions	*Guidelines*: Stories, photos, drawings and real situations; toys and puppets; typing or writing papers
Leicester City Council and Leicestershire County Council	Asperger strategies for the classroom, a teacher's guide	1999	UK	Expression of own emotions	Understanding others' emotions	*Guidelines*: role-plays and games; script or list of things to do; discussions
Northumberland County Council Communication Support Service	Autistic Spectrum Disorders practical strategies for teachers and other professionals	2004	UK	Management of own emotions	Understanding others' emotions; Responding to others' emotions	*Guidelines*: here-and-now situations; photo-cards, games, mirrors, photographs of familiar people; writing and drawings; computer programmes; films; role-plays, social stories

Appendix 2

Table 2: Findings of evidence-based programmes

Author/s	Date	Country	Sample	Intervention	Findings
Bauminger	2002	Israel	15 children with high-functioning autism aged between 8 and 17 years Pre-test and post-test group design	7 month cognitive-behavioural intervention (3 hours per week) implemented at school by teacher using small group format. Curriculum: friendship skills; affective education (basic emotions, associated rules for their use; identification of emotions in oneself and others through facial expressions, gestures and vocalizations and in social situations); interpersonal problem-solving. Inclusion of typical peers, and support from parents at home.	Improvements in all 3 areas: social cognition/social problem solving; emotion understanding; and social interaction. Improvement in emotion knowledge – ability to provide specific examples of complex emotion and inclusion of audience when providing examples. No assessment of improvements in daily social functioning.
Bauminger	2007	Israel	19 children with high functioning autism aged between 7 and 11 years Pre-test and post-test group design	Curriculum adopted in Bauminger (2002) to enhance social problem solving, emotional knowledge and recognition, and social interaction abilities. Implementation of curriculum 3 hours per week over 7 months by school teacher. Practising of skills with assigned peer, and support from parents at home.	Improvements in problem-solving skills and emotional knowledge (comprehension of complex emotions). Improvement in overt social behaviour (eye contact and sharing) which generalized to other situations e.g. recess.

Author	Year	Country	Sample / Design	Intervention	Findings
Golan, O. and Baron-Cohen, S.	2006	UK	Adults with high functioning and Asperger syndrome. Random allocation to: autism intervention group or autism control group; plus a typical control group	Computer software: *Mind-Reading* (recognition of basic and complex emotions from facial expressions and prosody of speech). Use of software at home with or without tutor and additional social skills groups for 10-15 weeks.	Participants improved on taught material. No generalization to non-taught or new material.
Hadwin, J., Baron-Cohen, S., Howlin, P. and Hill, K.	1996	UK	Children with autism aged between 4 and 9 years. 3 groups: emotion intervention group; play intervention group; belief intervention group	3 teaching groups (10 children per group) involving one area of mental state understanding: emotions, belief or play. Duration: 8 consecutive days, half-hour sessions. Emotion group – facial expressions of emotions, situation-based emotions, desire-based emotions, and belief-based emotions using black and white facial cartoons depicting different social situations which elicit positive or negative emotions.	Participants improved on tasks taught (improvement from understanding of simple to complex tasks). No generalization to non-taught emotion-related material or other areas (belief or play).
Hadwin, J., Baron-Cohen, S., Howlin, P. and Hill, K.	1997	UK	Children with autism. 3 groups: emotion intervention group; play intervention group; belief intervention group	Children were given teaching in one of three areas: emotion, belief, or play; for 8 consecutive, daily half hour sessions, using curriculum material in Hadwin et al. (1996).	Children learned to pass tasks taught on emotion or belief understanding. There was no corresponding advance in social communication skills.
Kasari, C. Rotheram-Fuller,	2012	USA	A randomized control trial took place in a	A CHILD directed intervention is compared to a PEER mediated one. Duration: 20 minutes twice	Peer mediated treatments were superior to nonpeer-

Author	Year	Country	Intervention	Results
E., Locke, J. and Gulsrud, A.			school 2 factorial design (inclusion control group, child-assisted intervention, peer-mediated intervention and both child and peer mediated interventions)	weekly for 6 weeks CHILD intervention: Involved didactic instruction, role-playing and practice. Targeted skills were individualised using a developmental approach. PEER intervention: typically developing peers were selected depending on their social network salience (SNS) and teacher opinion of appropriateness. Peers were taught how to interact with children who had difficulty making friends. Target child was never identified.	mediated ones. Classroom wide-rated SNS improved for children with ASD they received both interventions. Participants receiving peer interventions received more friend nominations from their peers, even those who were not peer models, and were observed as less isolated in the playground. Yet reciprocal friendships remained low and stable.
Lacava, P.G., Golan, O., Baron-Cohen, S. and Smith Myles, B.	2007	UK	8 children with Asperger Syndrome aged between 8 and 11 years Single subject design	Computer software: *Mind-reading* used independently for 10 weeks either at home or at school.	Improvement in recognition of basic and complex emotions in faces and voices included in software and voices not originally included in software.
Lacava, P.G., Rankin, A., Mahlios, E., Cook, K. and Simpson, R.L.	2010	USA	4 children with high functioning autism aged between 7 and 11 Single subject design	Computer software: *Mind-reading* used independently with a tutor for 7-10 weeks at school.	Improvements in recognition of basic and complex emotions of others. No significant improvements in daily positive social interactions with others.
Leaf, J.B., Taubman, M., Bloomfield, S.,	2009	USA	3 children with autism aged between 5 and 7	Teaching Interaction was taught for 8 weeks (3 days a week for 6 hours a day) in a summer school programme. Skills targeted: play skills language	Improvements were made in the domains of play conversation, emotion, and

Author	Year	Country	Design / Participants	Description	Results
Palos-Rafuse, L., Leaf, R. McEachin, J. and Oppenheim, M.L.			Pre-post-test design	skills, emotional skills, choosing the same friend). Typically developing pupils were included in the groups. Programme involved rationale for skills, didactic teaching, modelling and role-plays. Reinforcement was provided for practicing skills.	choosing the same peers.
Leaf, J.B., Dotson, W.H., Oppenheim, M.L., Sheldon, J.B. and Sherman, J.A.	2010	USA	5 children with autism aged between 4 and 6 years	Teaching Interaction was implemented in an afterschool programme. Social skills taught: showing appreciation, giving a compliment, making an emphatic statement, changing game when someone is disinterested. Teaching probes, baseline/maintenance probes and generalization probes were implemented.	Results indicated that all five children acquired social skills when the Teaching Interaction procedure was implemented, which were maintained up to 8 weeks later.
Leaf, J.B., Oppenheim, M.L., Dotson, W.H., Johnson, V.A., Courtemanche, A.B., Sheldon, J.B. and Sherman, J.A.	2011	USA	5 children with autism aged between 3 and 6 years of age Multiple baseline design	Group instructional format including typically developing children and children with autism. Children were taught to correctly label facial expressions – excited, bored, confused and surprised. Two instructional periods were carried out: while one group received the intervention, the other group engaged in an alternative activity at the other end of the classroom.	All participants achieved mastery level, which were maintained up to 2 months after the intervention. Participants also improved their ability to correctly label facial expressions not taught directly to them via observational learning.
O'Neill, J., Bergstrand, L., Bowman, K., Elliott, K., Mavin, L. and Stephenson, S.	2010	UK	4 children with autism within an SEN primary school (2 at Social partner Stage and 2 at Language Partner	Intervention: SCERTS Model – principles: agreement on goals related to social communication, emotion regulation and transactional supports with families; involvement of multidisciplinary team for training, observation, assessment goal setting and intervention; on-going	All pupils progressed on joint attention, symbol use, and mutual and self-regulation domains. Pupils were calmer, more focused and ready to learn; increased

Author	Year	Country	Stage	Intervention	Outcomes
and Wayman, C.				INSET with whole-school staff.	awareness of own needs and use of regulatory supports; increased communication; increased ability to understand own and others' emotions and self-regulate. Improvements at whole-school level and changes in school practice.
Ryan, C. and Charragáin, C.	2010	Ireland	33 children with autism aged between 6 and 14 years from mainstream schools. Random allocation to Experimental group or Waiting list control group	Emotion recognition training one hour long sessions, within small groups for 4 weeks facilitated by two therapists. Curriculum: 6 core emotions; verbal label corresponding to each emotion component (feature); role-plays; tracing and drawing of facial expressions; games (matching tasks); HW (matching emotions in eye region with corresponding emotion in mouth region); involvement of parents (support with HW).	Improvements in emotion recognition tasks which generalized to non-taught material. No assessment of generalization of skills to real life.
Thomeer, M.L., Rodgers, J.D., Lopata, C., McDonald, C.A., Volker, M.A., Smith, R.A. and Gullo, G.	2011	USA	11 children aged between 7 and 12 years with high-functioning autism. Pre-test and post-test group design	12 sessions (90 minutes) *Mind-Reading* up to level 3 (98 emotions) with in-vivo rehearsal – teacher displayed emotions; students decoded or encoded emotions. Reinforcement provided by teachers and parents for exhibiting pro-social behaviours; refraining from negative social behaviour, and identifying or displaying emotions during in-vivo trials.	Significant improvements in emotion recognition (encoding) and displays of emotion. Generalization to other social behaviours (social awareness and communication and social motivation).

Appendix 3   EMOTIONAL UNDERSTANDING CHECKLIST

Name of school _____

Staff initials: _____

Number of years teaching pupils with autism _____

Your role at the school (e.g., teacher, Teaching Assistant) _____

Please indicate how frequently you work on the following skills with pupils with autism:

1 = Never, 2= Sometimes, 3= Often, 4= Very often, 5= I don't know

<u>Note</u> it does not matter whether you do this with all children, or never, or just one child with autism.

EXPRESSION OF OWN EMOTIONS	Never 1	Somet imes 2	Often 3	Very often 4	I don't know 5
1. I teach pupils to "talk" about simple emotions (e.g. happy/sad/ angry/frightened)					
2. I teach pupils to express intense emotions (e.g. happiness/anger)					
3. I teach pupils to "talk" about more complex emotions (e.g. pride, embarrassment)					
4. I teach pupils to express feelings in writing					
MANAGEMENT OF OWN EMOTIONS					
5. I teach pupils to understand the causes of their emotions					
6. I teach pupils about appropriate and inappropriate behaviours associated with emotions					
7. I teach pupils to use strategies to calm down when upset, angry, excited					
8. I teach pupils to seek help from adults/peers to regulate their emotional state					

	Never	Some times	Often	Very often	I don't know
	1	2	3	4	5
UNDERSTANDING OTHERS' EMOTIONS					
9. I teach pupils to understand simple emotions in others (e.g. sad, happy, angry)					
10. I teach pupils to understand more complex emotions in others (e.g. disappointed, proud, embarrassed)					
RESPONDING TO OTHERS' EMOTIONS					
11. I teach pupils to know what to do and/or say to help someone who is sad, angry, or hurt, to feel better					
12. I teach pupils the consequences of what they do and/or say on the feelings of others					

I would like to come and interview you about your answers to the checklist. It will take about 30 minutes and you will be able to give me more detail on this. Please contact me or e-mail me on ▮▮▮▮▮▮▮▮▮ if you would like any more information.

Appendix 4

INTERVIEW SCHEDULE FOR STAFF ON TEACHING EMOTIONAL UNDERSTANDING

Name of school _____

Staff initials: _____

Number of years teaching pupils with autism _____

Your role in school (e.g., teacher, Teaching Assistant, other) _____

1.   *Go through the checklist (Emotional Understanding Checklist)*

"I want to talk about things you do often……………"

"I want to talk about things you do not do……………"

Try and elicit from teaching staff why certain skills are taught and how they are taught.

What are you doing?

How are you doing it?

Try and elicit from staff why certain skills are not taught.

What has not worked? Why?

What areas would you like to be working on?

What areas would you want ideas for?

2.   What areas do you find particularly important to teach?

3. What areas do you find particularly difficult to teach?

4. Which areas do you think should be addressed first? Why?

5. Do you have a section on pupils' IEP referring to emotions? ***Note down quickly on the file to see what it says.*** Would it be possible to have an anonymized copy?

6. ***Show them a list of resources (manual) and ask them what they have used.*** *Which do they know or don't know about? Do they use it a lot or a little or never? Which of these do you find most useful, or like to use? Why?*

7. Have you developed your own resources? Would you be happy to share these with me?

8. Do you use any other resources to improve emotional understanding?

Appendix 5

Table 3: List of resources included in Resource File

Author/s	Name	Date
Attwood, T.	Asperger's Syndrome – A guide for parents and professionals	1998
Baron-Cohen, S., Golan, O., Chapman, E. and Granader	Transported to a World of Emotions	2007
Baker, J.	The Social Skills Picture Book – Teaching play, emotion and communication to children with autism	2001
Erbes, V.	Tools for Teachers: practical resources for classroom success	2010
Golan, O. and Baron-Cohen, S.	Mind Reading: The Interactive Guide to Emotions	2006
Howlin, P., Baron-Cohen, S. and Hadwin, J.	Teaching Children with Autism to Mind-Read	1999
Hannah, L	Teaching young children with Autistic Spectrum Disorders to learn	2001
Leicester City Council and Leicestershire County Council	Asperger Strategies for the Classroom, a teacher's guide	1999
The Autism Spectrum Team - Northamptonshire County Council	Anxiety and Aspergers: A resource CD Anxiety Study Programme - introduction and guidelines	2012
Northumberland County Council Communication Support Service	Autistic Spectrum Disorders Practical Strategies for Teachers and other Professionals	2004
Prizant, B.M, Wetherby, A.M., Rubin, E., Laurent, A.C. and Rydell, P.J.	The SCERTS Model A comprehensive educational approach for children with Autism Spectrum Disorders. Programme planning and intervention.	2006

Appendix 6

INFORMATION SHEET

My name is Jeanette Galea Soler and I am currently reading an MPhil programme at the University of Birmingham with the School of Education supervised by Dr Glenys Jones and Dr Kerstin Wittemeyer. I am originally a secondary school Personal and Social Development (PSD) teacher from Malta (employed as a regular teacher with the Department of Education, Malta), and am interested in examining how emotional understanding in children with autism could be improved within the school context.

Aim of the study

I am particularly interested in the views of teaching staff regarding the areas of emotional understanding which they teach.

Work planned

I will be distributing a checklist on emotional understanding which will take no more than 10 minutes to complete. This will be followed by a 30 minute interview, at school, where I would like to talk to the teaching staff, on a one-to-one basis, about their answers to the checklist. If possible I would also be interested in observing a lesson where students with autism are taught emotions.

If you have any queries please do not hesitate to contact me at

Please note that your participation in this study is voluntary, and if you choose to participate in the study your answers will be treated in confidence.

Appendix 7

Informed Consent Form

Adapted from Robson (2002, p. 380)

My name is Jeanette Galea Soler and I am reading an MPhil programme at the University of Birmingham, School of Education. I am interested in examining how emotional understanding is being taught to students with autism.

First of all I would like to thank you for agreeing to participate in this interview. I would like to substantiate that your participation is completely voluntary, you have the right to refuse to answer any question and withdraw from the study at any stage.

Secondly, the interview will be kept confidential and although, quotes from the interview may form part of the final report, under no circumstances will your name or other identifying features be included in the final report.

Thirdly, if you do not feel comfortable being audio-recorded at any stage of the interview, please do not hesitate to inform me.

Please sign this form to indicate that I have read the content of this form to you.

_____ (signed)

_____ (initials)

_____ (date)

Should you have any queries, please contact me at:

Appendix 8

Table 4 Codes and Subthemes

Subthemes	School 1 Codes	School 2 Codes	School 3 Codes
Expression of own emotions	PATHS curriculum	Emotion scale: Five-point scale – intensity of emotions	SEAL curriculum
	PATHS Comfortable and uncomfortable feelings cards	Photographs (basic and complex emotions)	Time to Talk
	Pre/post tutoring	ASD Friendship Social Interaction group	Socially Speaking programme
	PATHS stories		Socially Speaking: scenarios
	PATHS problem solving tasks	Picture cards	Socially Speaking: Picture Symbols (emotions);
	ASD Social Interaction groups	Role-plays	Black Sheep Press – Talking about secondary school– scenarios
	Social skills groups	Photographs	
	Social stories	Schematic emotion cards	Emotions Barometer
	Conversations	Photographs of child displaying emotions	One-to-one
	Written HW		Understand cause
	Comic Strip Conversations	ASD Friendship Social Interaction Scenarios; Picture cards; role-plays	Small group intervention

Management of own emotions			
PATHS written Scenarios	SEAL curriculum	Literacy lessons (level 3)	'Worry box' (one to one)
Pre/post Tutoring	Whole school approach	Pre/post tutoring	List of to Do things (in school bag and in school drawer)
PATHS Comfortable and uncomfortable feelings cards	School rules (picture cues and visual reminders)	SEAL curriculum	Socially Speaking Programme
Comic Strip Conversations	STAR Analysis	Whole-school approach	Whole school approach: Collective worship (assembly); classroom level (circle time)
PATHS Turtle Technique	Iceberg principle	SEAL material: 'Emotions Barometer', 'Feelings Detectives poster'	
		SEAL Photo cards	
		SEAL stories	
		One-to-one	
		PSD curriculum	
		Black Sheep Press – scenarios	

Internal Strategy: Identify own coping strategies with teacher/TA *External strategy*: Trusted adult *External strategy*: adult looks out for signs of dysregulation in child PATHS written Scenarios	*Internal Strategy*: Break out of class *Internal Strategy*: Time out cards *Internal Strategy*: Wrist bands *Internal Strategy*: Key cards *Internal Strategy*: Relaxation techniques *External Strategy*: Trusted adult *External Strategy*: Trusted friend (peer support) Comic Strip Conversation BECAUSE cards Black Sheep Press - scenarios 'Green and red cards' Gentle Hands	SEAL Curriculum Small group intervention One-to-one *External strategy*: Relaxation techniques *External Strategy*: Trusted friend (peer support) *External strategy*: Trusted adult *External strategy*: pupil profile to look out for signs of dysregulation in pupils *Internal strategy*: Little Box with precious items *Internal strategy*: Timetable of Staff on duty in breaks *Internal strategy*: recognise signs of dysregulation Social stories Counselling: Cognitive-behaviour therapy

Understanding others' emotions	PATHS curriculum Here and now PATHS written Scenarios PATHS Comfortable and uncomfortable feelings cards ASD Friendship Social Interaction groups Black Sheep Press: Scenarios	Black Sheep Press - scenarios SEAL curriculum SEAL Photo-cards Photographs Child's own expression Teacher's own expression Puppets Emotions bridge ASD Friendship Social Interaction group Literacy class Role plays One-to-one	Play therapy (group format) (Specialist Inclusion Support Services) Photographs of facial expressions Mind Reading the interactive guide to emotions Mirror - to express simple emotions One-to-one Small group intervention Time to Talk programme Socially Speaking programme Socially Speaking: hand-outs of scenarios depicting emotions Back Sheep Press - Talking about secondary school
Responding to others' emotions	PATHS written Scenarios Comic Strip Conversation	SEAL curriculum: Stories Whole school approach	Here-and-now situations (incidental learning)

	Here and now	Green and red cards	Socially Speaking programme
	ASD Friendship Social Interaction groups	Comic Strip conversation	
		Role-plays	
		Social Story – gentle hands	
		ASD Friendship Social interaction group: scenarios	
		Here and now	
		STAR Analysis	

Appendix 9

Categories and sub-categories for School 1

Subtheme: Expression of own emotions

	Literature based	Schools' own	Others
Programmes /resources	PATHS curriculum - Comfortable and uncomfortable feelings cards; stories; problem solving tasks Social Stories Comic Strip Conversations	ASD Social Interaction groups Social skills groups	
Strategies/ techniques		Conversations Written HW Pre/post tutoring	

Subtheme: Management of own emotions

	Literature based	School's own	Others
Programmes /resources	PATHS - written Scenarios; Comfortable and uncomfortable feelings cards; Turtle Technique		

	Comic Strip Conversations	
Strategies/ techniques	*External strategy:* Trusted adult; adult looks out for sign of dysregulation in child	Pre/post Tutoring *Internal Strategy:* Identify own coping strategies with teacher/TA

Subtheme: Understanding others' emotions

	Literature based	Schools' own	Others
Programmes /resources	PATHS curriculum - written Scenarios; Comfortable and uncomfortable feelings cards	ASD Friendship Social Interaction groups	Black Sheep Press: Scenarios
Strategies/ techniques	Here and now		

Subtheme: Responding to others' emotions

	Literature based	School's own	Others
Programmes /resources	PATHS written Scenarios Comic Strip Conversation	ASD Friendship Social Interaction	
Strategies/ techniques	Here and now		

Appendix 10

Categories and sub-categories for School 2

Subtheme: Expression of own emotions

	Literature based	School's own	Others
Programmes /resources	Whole-school approach - SEAL curriculum - SEAL material: 'Emotions Barometer'; 'Feelings Detectives poster'; Photo cards; SEAL stories	ASD Friendship Social Interaction groups - Scenarios; Picture cards; role-plays	Black Sheep Press – scenarios
Strategies /techniques	One-to-one Emotion scale: Five-point scale Photographs (basic and complex emotions) Role-plays Photo-cards Schematic emotion cards Photographs of child displaying emotions	Picture cards Literacy lessons (level 3) Pre/post tutoring	

Subtheme: Management of own emotions

	Literature based	School's own	Others
Programmes /resources	SEAL curriculum Whole school approach Comic Strip Conversation		Black Sheep Press - scenarios
Strategies/ techniques	*Internal Strategy:* Break out of class; Time out cards; Key cards; Wrist bands; Relaxation techniques *External Strategy:* Trusted adult; Trusted friend (peer support)	School rules (picture cues and visual reminders) STAR Analysis - Setting Trigger Affect Response Iceberg principle BECAUSE cards 'Green and red cards' Gentle Hands	

Subtheme: Understanding others' emotions

	Literature-based	Schools' own	Others
Programmes /resources	SEAL curriculum; SEAL Photo-cards	ASD Friendship Social Interaction group	Black Sheep Press - scenarios
Techniques/	One-to-one	Emotions Bridge	

strategies	Role plays Photographs Child's own expression Teacher's own expression Puppets	Literacy class

Subtheme: responding to others' emotions

	Literature-based	School's own	Others
Programmes/ techniques	SEAL curriculum: Stories Whole school approach Comic Strip conversation Social Story – gentle hands	ASD Friendship Social interaction group: scenarios	
Strategies/ techniques	Role-plays Here and now	Green and red cards STAR Analysis	

Appendix 11

Categories and sub-categories for School 3

Subtheme: Expression of own emotions

	Literature-based	School's own	Others
Programmes/ resources	SEAL curriculum		Time to Talk Socially Speaking programme – scenarios; Picture Symbols (emotions); Black Sheep Press –Talking about secondary school– scenarios
Strategies/ techniques	Emotions Barometer One-to-one Understand cause Small group intervention		

Subthemes: Management of own emotions

	Literature-based	School's own	Others
Programmes/ resources	SEAL Curriculum Social Stories		Socially Speaking programme
Strategies/tec hniques	Classroom level (circle time) Small group intervention One-to-one *External strategy:* Relaxation techniques; Trusted friend (peer support); Trusted adult *Internal strategy:* recognise signs of dysregulation in self	Whole school approach: Collective worship (assembly) 'Worry box' (one to one) List of To Do things (in school bag and in school drawer) Counselling: Cognitive-behaviour therapy Play therapy (group format) (Specialist Inclusion Support Services) *External strategy:* pupil profile to look out for signs of dysregulation in pupils *Internal strategy:* Little Box with precious items; Timetable of Staff on duty in breaks	

Subtheme: Understanding others' emotions

	Literature-based	School's own	Others
Resources/ programmes	Mind Reading the interactive guide to emotions DVD		Time to Talk Socially Speaking programme - hand-outs of scenarios depicting emotions Back Sheep Press - Talking about secondary school
Strategies/ techniques	Photographs of facial expressions Mirror - to express simple emotions One-to-one Small group intervention		

Subtheme: Responding to others' emotions

	Literature-based	School's own	Others
Programmes/ resources			Socially Speaking programme
Techniques/ strategies	Here and now situations (incidental learning)		

Appendix 12   **Sub Theme: Teaching pupils to express own emotions**

School (S)	Teaching Staff	Comments and quotes
S 1	SENCO	• Simple emotions are taught through the PATHS scheme and are the first emotions taught using 'comfortable and uncomfortable feelings cards'. Pre and post-tutoring (one-to-one) are done with pupils with autism so that *"they all understand what is happening in the classroom"*. Visuals are mainly used with pupils with autism, and pictures are adapted using characters which are attractive for the pupils. Emotions are also taught in ASD Social Interaction Friendship groups, social skills groups, Social Stories and Comic Strip Conversations. Skills are generalized during the school day - pupils show their feeling cards not only during the PATHS sessions but during other lessons. • Intense emotions are taught using PATHS feelings cards. • PATHS does not require pupils to express feelings in writing - emotions are expressed verbally, using games and role-plays. • Complex emotions are included in the PATHS programme – e.g., problem-solving tasks. Pupils with autism are comfortable with simple emotions, yet complex emotion terms have to be adapted for pupils with autism, e.g., using the child's own vocabulary (derived from pupils' own experiences). A lot of repetition is involved in teaching emotions to pupils with autism.
S 2	CAT	• The five-point scale is effective because it's got the colours and numbers. The CAT teacher would go through situations and pupils would indicate a point on scale: *"I've noticed with all of the children I work with that they're either down at a one or at a five, there's never anything in between so that tells me that actually they cannot distinguish the other stage in-between...So we tease each number out and talk quite a lot about how that feels"*. Teachers and parents are involved because *"some of the children I work with can get to a point where they will go home and walk through the door and they'll say to mum 'I'm four' and then mum knows to leave them to calm down... so as to bring their number to four."* • Simple emotions are taught within the ASD Social Interaction Friendship groups. Photographs are

used and pupils are asked to identify causes for emotions.

- Writing feelings depends on the ability of the child with autism. It is typically done within the ASD Social Interaction Friendship group which also involves written activities. Scenarios might be used with pupils who are high-functioning wherein pupils identify and write down what worked well and what didn't, and their consequences.

- Complex emotions are taught when the child with autism has developed language. Complex emotions are taught using photo-cards, photographs of facial expressions and role plays. Occasionally photographs of child with autism displaying emotions are taken.

SENCO	- Simple emotions are taught as part of the Early Years Foundation Stage, at a whole school level, through the PSHE curriculum (using the SEAL material) and during literacy lessons, from reception to year 6. Using picture cards and stories teachers focus on feelings and their causes. Additional lessons are provided for the pupils with autism - the Lead TA practitioner facilitates the ASD Friendship Social Interaction groups, which involves picture cards depicting various situations portraying particular emotions. Small group interventions are provided to pupils who are on the high functioning end of the spectrum. Pupils who are struggling are provided with one-to-one sessions. - Intense emotions are explored with the older pupils who are high-functioning as: *"children who are on the autistic spectrum, and also have issues and complex needs, they can't always comprehend what an intense emotions feels...So we focus on the simple thoughts with them"*. Material from Black Sheep Press is used to explore intense emotions with pupils with autism. - Complex emotions are taught to the older pupils in years 4, 5 and 6 using the SEAL material, e.g., photo-cards, e.g., pride, embarrassment. - Expressing feelings in writing is done as a whole school approach as part of the curriculum when pupils have achieved level 3 of writing (exploration of how character in story feels and causes for feelings). Pre and post teaching is also done with pupils with autism.

TA		• Scenarios or Picture Stories from the ASD Friendship Social Interaction are used to identify simple emotions. Pupils are asked to express the emotions depicted in the scenarios. Working in a group is easier than working one-to-one as *"you get more out of them as a group"*. • Role plays are used to express intense emotions. When teaching emotions to pupils with autism it is important that the pictures are specific. • Talking about complex emotions is perceived as: *"it is difficult because that's not something you find in a picture. It would probably be talking about something from their family"*. • Literacy lessons are used to express feelings in writing.
S 3	INCO	• The SEAL curriculum is primarily used at a whole school level to teach pupils to express simple emotions. Additional programmes (Time to Talk in Key Stage 1 and Socially Speaking in Key Stage 2) are provided to pupils who are struggling and typically developing pupils, who provide good role models to the former. • Teaching pupils to express complex emotions is only done occasionally: *"emotions like pride and embarrassment are very hard to explain so although they would know what they feel like, they can't really identify it as being embarrassed"*.
	TA	• A different emotion is taught in every session. • Small group interventions are provided to a cross-section of pupils, with typically developing pupils serving as role-models. Teachers elicit the pupils' understanding of causes for emotions. • Intense emotions are explored using scenarios/situations: *"rather than asking the pupils what makes them happy…they do not know how to answer that question because it might be too complex for them, so you give them a scenario, an idea which they can think about"*. The TA provides many prompts to the pupils to facilitate their understanding. • Complex emotions are explored in the Transition programme - Black Sheep Press - Talking about

secondary school (year 6): e.g., disappointment, embarrassment and pride. The programme provides different scenarios which elicit particular emotions, e.g., not knowing what books to pack (embarrassment), and helpful strategies are discussed. *"By helping child with autism organise himself, by writing things, down, time-tables, colour coded timetables, things that are going to help them organize themselves, is really helpful for a child with autism to help avoid embarrassment"*.

- Feelings elicited from scenarios through the programme Socially Speaking, are written down, e.g., My pet died – child wrote 'I feel down in the dumps, upset'. The TA argues that *"for children with autism it is really hard to put themselves in somebody else's position and see things from the other person's perspective...therefore it is important to give them situations which they can understand. When the situation is far too sophisticated for them to understand, it would be a real block for them. It is hard for them to see things from others' perspectives."* It is important to provide a situation which is tangible. It is helpful to use *"pictures, like a picture story where you could write the sequence of events underneath. Anything visual is brilliant, but to actually retrieve any thought is harder"*.

Appendix 13

Sub-Theme: Teaching pupils to manage own emotions

School (S)	Teaching Staff	Comments and quotes
S 1	SENCO	• Stories and written scenarios are used to teach the understanding of causes for emotions. These stories are used to elicit feelings regarding similar experiences. There is constant repetition when teaching emotion skills to pupils with autism as well as pre and post tutoring. • Comfortable and uncomfortable feelings cards are used to teach about appropriate and inappropriate behaviours associated with emotions: *"we look at how they would feel, how their friends would feel, what would my teacher feel."* Comic Strip Conversations are also used: *"if you draw it out, and having thought bubbles and get him to draw the emotions happy, sad faces, you can recognise his behaviour. So he draws his own conclusion usually. In the majority pupils say 'I would like to do this to make them happy' – it usually works"*. • *Internal Strategy:* The Turtle technique provided by PATHS is a calming technique involving deep breathing. *"With our autistic children they've learned it but it doesn't always work"*. It is essential that different strategies are identified and adapted to the needs of the pupils, e.g., some pupils shift their attention on work so as to calm down when upset or irritated. It is important to find a strategy which 'works' for the child: *"It is much more about talking with the children and finding out their own individual needs and giving them support in their various areas"*. • *External strategies:* PATHS stories provide tips on how to seek help. This involves the child identifying a trusted adult. It is important that there is always an adult, e.g., during break, who can recognise when the child is getting anxious.
S 2	CAT	• The five-point scale is used to identify causes for emotions. A STAR Analysis facilitates this skill, whereby a record is kept for a couple of weeks wherein teacher identifies the: Setting (when the child has the 'meltdown'); the Triggers; the Affect and the Response. The STAR Analysis is done one-to-one if the child is on the high functioning end of the spectrum.

	- Inappropriate behaviours are dealt with using the 'iceberg principle' which involves the cause for the child's behaviour and selecting the appropriate strategies: *"I want to start to recognise when a child is starting to bubble"*. External strategies are implemented, e.g., Break out of class (sensory break) to allow the child to calm down and explore their feelings and alternative behaviours. Comic Strip Conversations are also implemented which facilitate the exploration of reasons for behaviours, and alternative behaviour, which are then taught to the child. Comic Strip Conversations are done with children who are more able. - Internal strategies: Internal strategies are identified to help the pupil manage emotions. Usage of internal strategies is dependent on cognitive ability of child, with older and more able pupils (in year 6) more capable of suing their own startegies: *"Most of the children I work with don't want to have that inappropriate behaviour that they can't control it, which is anxiety"*. Collaboration is achieved with the children, depending on their cognitive ability, in selecting appropriate strategies, e.g., Time-out cards, Wrist Bands – the latter are frequently used with year 6 pupils: *"so the teacher is aware that if the child is indicating their red bands they need to be removed from that situation."* It is crucial that the pupils recognise that they are getting feeling a meltdown because when they're *"in the meltdown they might not recognise anything"*. - External strategies: Importance is accrued in identifying someone in the school whom child could trust. A teaching staff or another peer (with autism) is usually identified. It is important to give *"the child ownership – what works for the child"*. The CAT staff stresses the importance of working in partnership / collaboration with the child with autism *"because if you don't you're just guessing actually"*. The children with autism and their parents should be the ones to indicate the trusted person, and most of the children with autism are able to identify the trusted person.
SENCO	- Teaching causes for emotions is done at a whole-school level through the National Curriculum using SEAL material. Black Sheep Material is used (with pupils with autism) which includes situation cards to help identify causes for feelings. - Teaching about appropriate and inappropriate behaviours is done at a whole-school level. School regulations are set at the outset of the scholastic year. These rules are adapted for pupils with

		autism using picture cues and visual reminders.
		• Internal strategies: adapted according to the needs of the pupil.
		• External strategies: trusted adult. The pupil is provided with a Plan – child knows what to do and who to contact when dysregulated. The ASD Social Interaction Friendship groups provide opportunities to develop peer support: *"And if they're in the playground and they're feeling like this they've got someone who says 'Oh I remember you need to…'"*
	TA	• BECAUSE cards are used to identify causes for feelings.
		• *Internal strategies*: include Key cards with emotion faces on them; breathing exercises (relaxation techniques).
		• *External strategies*: Trusted peers from the ASD Social Interaction Friendship groups or a trusted adult (who is usually the TA): *"They like continuity in adults".*
S 3	INCO	• Not done specifically for pupils with autism. Done at a whole school level, e.g., using SEAL material, circle time, collective worship (assembly) and here-and-now situations. One-to-one situations are more often done for pupils with autism who struggle with emotions – *"we try to understand the trigger, why they think this has happened and what can they do differently next time."*
		• Teaching pupils to understand appropriate and inappropriate behaviours associated with emotions is crucial for the school because *"sometimes they still can't stop themselves from doing it because they're in such a state where when they're in it they're uncontrollable".* Extreme behaviour is dealt with one-to-one after the pupil has calmed down. When pupils with autism are not so upset, e.g., 'falling out with another pupil', are dealt within the group.
		• Pupils who "tend to have the meltdowns" are provided one-to-one support, e.g., counselling (cognitive-behaviour therapy) and group therapy (play therapy): "Play therapy has been very good because it is done in a group and the child has to consider the others, that they are part of

	the group and not just them alone."
	• One-to-one strategy: when pupils find it "hard to let go" of particular feelings. "Then we say 'Ok we're going to shelve it in the worry box and we're going to shred it. Once it's shredded it's gone'. This has proved to be quite helpful."
	Internal Strategies include relaxation strategies: *"by trying to get the child's mind off the anger, by trying to visualise himself in a different place where he'll feel safe, secure and calm".* Other strategies include: a 'Little Box with Things'; *"he keeps that in the classroom and when he feels himself getting upset he knows he can ask the teacher if he can go to the side of the classroom and just get something outside the box...and then he calms himself down and goes back to his place".* When selecting strategies parent's are involved. *"We've tried to give pupils as much strategies … to avoid them getting into a meltdown, and recognise beforehand and try at that point to seek help".* Pupils are provided with a Timetable of Staff on duty during break who could support the pupil. The Timetable is kept in the pupil's school drawer and at home.
	• *External strategies* include a Pupil Profile which provides an update on the vulnerable pupils, which includes identifying staff members who could deal with particular pupils.
TA	• The programme *'Socially Speaking'* explores an emotion and its' causes per session. Picture symbols are used – e.g., one thing that makes me happy; one thing that makes me sad, etc.
	• Internal Strategies are tailored to each individual child with autism. E.g., providing a child in year 5 a 'List of Things', (kept at school and at home), indicating the items needed to be taken home. This strategy helped child feel confident and served as a hindrance for dysregulation.
	• According to the TA *"It can take hours for a child with autism to restore their calmness because if something has really wound them up, if they have real problems controlling their temper and something has really upset them, for them to get back to normal takes time".* One-to-one strategies include relaxation techniques, and lots of reassurance: *"and then hopefully if they get to the same problem again they will treat it differently, or realise it's ok, and maybe they will not be*

upset...eventually they will learn to deal more effectively with their emotions" .

- Social Stories are used to address pupils' anxieties which are a cause for dysregulation.

- External Strategies: the TA argues about the importance for a child with autism to build up trust with an adult. The advantage of 'Socially Speaking' is that friendships are developed and the typically developing pupils in the classroom, who participate in the programme, can get to know the children with autism, their likes and dislikes (e.g., sensory things), which in turn help facilitate their management of emotions.

Appendix 14   **Sub-Theme: Teaching pupils to understand others' emotions**

School (S)	Teaching Staff	Comments and quotes
S 1	SENCO	• Understanding others' simple emotions is taught through PATHS stories and the application of PATHS perspective and comfortable and uncomfortable feeling cards to here-and-now situations. • Complex emotions are taught through the PATHS scheme. Pupils are given HW (to allow parental involvement). Complex emotion skills are repeated, and broken down into small steps using different scenarios. They are also taught in the ASD Social Interaction Friendship groups.
S 2	CAT	• Photographs of facial expressions are used to teach basic emotions (happy, sad and angry). Strategies include: photo-cards, the child's and teacher's own facial expressions. Puppets are used with younger children with autism. Initially focus is on facial expressions of emotions (younger children). An activity – the Emotions Bridge is done with pupils in years 5 and 6, which involves the pupils walking across a bridge on the floor and 'acting out' (role-playing) an emotion, which has to be identified by the rest of the group. A discussion ensues. • Complex emotions are taught to older and high-functioning children with autism. Strategies: photographs of facial expressions and photo-cards; discussions on situations leading to emotions.
	SENCO	• Teaching to understand simple emotions in others is done through SEAL material and Black Sheep Material using situation cards. Pupils are taught that emotions in self are also experienced in others. • Understanding complex emotions in others is taught 'where appropriate for their development'. "Because a child with autism cannot always understand the idea of complex emotions". Pupils need to develop their language before proceeding to the teaching of complex emotions. Situation cards from Black Sheep Press Material are used.

	TA	• Scenarios within the ASD Social Interaction Friendship group are used to teach understanding of simple emotions. Other strategies: role plays. Emotions are also taught in literacy classes. • Teaching complex emotions is done within the ASD Social Interaction Friendship group and one-to-one. Yet it is done through talking about personal experiences of pupils (e.g., pride on receiving a certificate) as *"the pictures won't show you something like that"*.
S 3	INCO	• Pictures and photographs of facial expressions are used. *"We tend to use photos rather than line drawings with children with autism because photos are more realistic.* This skill is taught one-to-one or in a group. Pupils are also helped to understand their own and others' facial expressions by using the mirror. Teaching to recognise others' emotions is taught in Key Stage 1. Understanding simple emotions is taught in Key Stage 1. • Teaching complex emotions is *'hard'*. Resources used include, Socially Speaking (Key Stage 2), Time to Talk (Key Stage 1) and Black Sheep Press (Transitions) in year 6. The latter deals with emotions, such as, disappointment, pride and embarrassment.
	TA	• Emotions written on hand-outs provided in the Socially Speaking programme are shared with the members of the group. The teaching of understanding of others' emotions is done in conjunction with the teaching of understanding of own emotions – it cannot be done separately. • The Transition programme - Black Sheep Press - Talking about secondary school (year 6) is used to teach complex emotions.

Appendix 15   **Sub-Theme: Teaching pupils how to respond to others' emotions**

School (S)	Teaching Staff	Comments and quotes
S1	SENCO	• PATHS scenarios and Comic Strip Conversations are used to teach pupils to respond to others' emotions. • PATHS does not teach about the consequences of one's behaviour on others. This is done through here-and-now situations or Comic Strip Conversations.
S2	CAT	• Both items - teaching pupils to know what to do/say in response to others' emotions, and understanding the consequences of their actions on others, were listed as often. Comic Strip Conversations, role-plays and Social Stories (e.g., Gentle Hands with the younger pupils) are implemented. Focus is initially on consequences, followed by a focus on appropriate behaviour ('putting it right').
	SENCO	• Teaching pupils appropriate behaviour in response to others' emotions is done through SEAL material. Yet this is perceived as a difficult emotion skill. Teacher focuses on the pupils' own emotions in helping them understand other pupils' emotions: *"If children don't understand how it feels they won't be able to relate to it."* • Consequences are taught at a whole-school level – visual cards – green cards ('it's ok') and red cards ('it's a warning") are used. Pupils with autism would need additional support using the acronym STAR (Setting, Trigger, Action, Resolution) to help them understand the consequences.
	TA	• Scenarios and friendship cards from the ASD Social Interaction Friendship group are used to teach pupils how to respond to others' emotions, and the consequences of their actions on others.

		"They don't always see the bigger picture. They can't see the whole thing. It's a tunnel vision with ASD. With all of them I try to show the bigger picture".
S3	INCO	• Here-and-now situations and incidental learning are implemented: *"So if someone is feeling angry and has a massive meltdown and obviously that's going to impact on the rest of the class because the rest of the class are going to be worried about what is happening there."* • Working on the consequences *"it is one of the hardest to understand because some of them struggle to understand how what they've done has impacted on somebody else… that bit is probably the area that they struggle with the most . It's the mind blindness isn't".*
	TA	• Here-and-now strategies are used, e.g., dealing with fallouts during break. The programme Socially Speaking uses scenarios which are important in building skills related to friendship, such as, eye-contact and listening skills which are important pre-requisites for empathy.

Appendix 16   **Theme: Principles for teaching emotional understanding to pupils with autism**

School (S)	Teaching staff	Comments
S1	SENCO	• PATHS starts off with the teaching of basic emotions and then *"as they get more comfortable we build up to more complex emotions"*.
		• Visuals are used with pupils with autism – using things/characters which they like: *"It is about putting things/faces/pictures which they like"*.
		• Skills taught in PATHS are generalized to daily situations in the classroom. For example, pupils are encouraged to use emotion cards in the classroom to express how they are feeling. PATHS Strategies, such as the Turtle technique are applied: *"to a problem during the day from coming from the playground"*.
		• It is ok to have both comfortable and uncomfortable feelings. What is not ok is to have inappropriate behaviour, hence importance of teaching consequences of own behaviour on self and others.
S2	CAT	• It is important to collaborate with parents and teaching staff. For instance, when doing the five-point scale similar language taught to the child is used *"so they understand where the child is coming from"*.
		• Expressing feelings in writing is dependent on the ability of the child with autism. Generally writing forms part of an activity, e.g., in a role-play what worked and what did not work is written down.
		• Inappropriate behaviour is a manifestation of a cause, hence importance of dealing with the cause – *"the iceberg principle"*. Pupil is helped to calm down by providing external support.

Alternative behaviours are explored once the pupil is calm.

- Internal strategies are identified to help the pupil manage feelings. Use of internal strategies is dependent on the cognitive ability of the child, with older pupils (in year 6) and able pupils more capable to use their own strategies: *"because most of the children I work with don't want to have that inappropriate behaviour that they can't control it"*.

- Importance is accrued to giving the pupils with autism ownership to identify who can best support them to manage their own emotions: *"So it is giving the child ownership really – what works for you…That child is the best person and their parents are the best persons to tell you what will work for them"*.

- When teaching understanding of others' emotions start off with basic emotions.

- Complex emotions are taught only when pupils have understood the basic ones. Complex emotions are generally taught to the older and more able pupils with autism. Photographs are used with pupils who have developed their language and speech skills.

- Identification of others' emotions is taught in conjunction with facial expressions of own emotions.

- Strategies and techniques are adapted to the age and ability of pupils with autism. For example, role-plays are used with older pupils, while social stories are used with younger pupils.

- It is important to start at the level of the pupil with autism and be adaptable when teaching about emotional understanding.

- It is important to be aware of the individuality of the child when preparing resources as some things work for some pupils with autism, while others do not: *"So you need to know your children first of all the child you're working with"*.

SENCO	- Intense emotions are explored with the older and more able pupils with autism.

		• Teaching pupils to express feelings in writing is taught when children are at level 3 in writing in literacy lessons. In literacy pupils explore how character in the story feels and reasons for the feelings.
		• Adaptations are made using pre- and post-tutoring whereby the TA looks at what is going to be taught in the next lesson: *"They will have their thinking time. Children with autism need that processing time"*. Resources are adapted according to the socio-emotional skills of pupils with autism. For example, school rules are adapted for pupils with autism using picture cues.
		• Teaching about the understanding of others' emotions is linked to the understanding of their own emotions: *"sometimes with children with very complex needs they aren't able to grasp those steps.... We work on how he feels, what he thinks they should be feeling. They've got to understand the different triggers...If children don't understand how it feels they won't be able to relate to it"*.
	TA	• Complex emotions are taught only when the pupil with autism has achieved a good language ability: *"until they've got that (non-literal) understanding you cannot look at complex words because they need to develop their language first"*.
		• It is easier to teach social skills in a group rather than one-to-one: *"as a group I find they are very easy to talk rather than one-to-one."*
		• When teaching younger pupils with autism pictures/visuals are effective as they grasp their attention. For older pupils it is important to find something which interests them, as all pupils with autism are different. Yet it is always important to find things related to pupils with autism.
S3	INCO	• When teaching pupils to manage their own emotions school explores cause of the problem: *"Part of what we've been trying to do over a number of years now is look at what is the reason for it rather than just treating the symptom just treat the cause"*.
		• One cannot support the pupil when totally dysregulated – rather it is important the staff waits for

the pupil to calm down.

- Internal and external strategies are implemented to help pupil with autism manage their own emotions. Internal strategies are implemented with older and more able pupils – pupils are helped to recognise signs of dysregulation and ask for help, e.g., talking to someone, or go to the bathroom.

- Collaboration with the parents and the pupil with autism have to be achieved to identify strategies which help the pupil calm down.

- Teaching pupils to identify simple emotions in others is combined with teaching pupils how to express their own emotions. Simple emotions are taught in reception and Key Stage 1 – older pupils would have grasped an understanding of simple emotions.

- When teaching any emotion *"it is easier to be able to understand it first before being able to express it"*. This principle is difficult to apply when teaching about complex emotions because *"emotions like 'pride' and 'embarrassment' are very hard to explain so although they would know what they feel like, they can't really identify it as being embarrassed"*.

| TA | - A different emotion is explored in every lesson otherwise it gets confusing for the pupils. Establish the situations and causes for emotions. Positive emotions are explored first, followed by an exploration of negative ones.

- It is important to provide pupils with autism prompts or concrete examples when exploring emotions: *"if you ask the child 'what makes you happy?', 'what makes you sad?' 'They do not know how to answer that question because it might be too complex for them. So if you actually give them this scenario, this idea, then they can think ok alright, I can think about that now"*.

- When teaching pupils how to manage their anxiety it is helpful to teach them how to organize themselves, for instance, by writing things down, using time-tables (colour coded)

- When providing examples use ones which are concrete or tangible, not abstract. Provide |

situations which they can understand – use pictures: *"anything visual is brilliant, but to actually retrieve any thought is harder"* .

- It is difficult to support the pupil with autism when totally dysregulated. It is important to wait until the pupil has calmed down: *"they can take hours for a child to restore their calmness because if something has really wound them up …for them to get back to normal takes time"*.

- Teaching the skill area of understanding others' emotions is done in together with the teaching of understanding of own emotions.

- When working with a pupil with autism it is important to understand them first: *"I would say maybe look at their emotions first and see where they're coming from first and really get a good idea of that…Because of you start bombarding them with everybody else's opinion that's just going to confuse them a lot. So you got to start with them first"* .

Appendix 17

Table 8

Data from checklist

1 = Never, 2= Sometimes, 3= Often, 4= Very often, 5= I don't know

School	Teaching staff	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12
S1	SENCO	4	3	3	3	3	3	4	3	4	3	3	2
S2	CAT	3	3	2	3	4	4	4	4	3	2	3	3
S2	SENCO	3	3	3	3	4	4	4	4	4	3	4	4
S2	TA	4	4	3	4	4	4	4	4	4	4	4	4
S3	INCO	4	4	2	4	4	4	4	4	4	3	3	3
S3	TA	4	4	4	4	4	4	4	4	4	4	4	4

Item 1 = I teach pupils to "talk" about simple emotions (e.g. happy/sad/ angry/frightened)

Item 2 = I teach pupils to express intense emotions (e.g. happiness/anger)

Item 3 = I teach pupils to "talk" about more complex emotions (e.g. pride, embarrassment)

Item 4 = I teach pupils to express feelings in writing

Item 5 = I teach pupils to understand the causes of their emotions

Item 6 = I teach pupils about appropriate and inappropriate behaviours associated with emotions

Item 7 = I teach pupils to use strategies to calm down when upset, angry, excited

Item 8 = I teach pupils to seek help from adults/peers to regulate their emotional state

Item 9 = I teach pupils to understand simple emotions in others (e.g. sad, happy, angry)

Item 10 = I teach pupils to understand more complex emotions in others (e.g. disappointed, proud, embarrassed)

Item 11 = I teach pupils to know what to do and/or say to help someone who is sad, angry, or hurt, to feel better

Item 12 = I teach pupils the consequences of what they do and/or say on the feelings of others

Appendix 18   Theme: Areas in emotional understanding which are difficult to teach and would benefit from more resources

School (S)	Teaching Staff	Comments
S1	SENCO	• Difficult areas to teach: 'responding to others' emotions'. While PATHS deals with the bigger picture, this skill is mainly taught through ASD Social Interaction Friendship groups and Social Skills programmes. Resources would be appreciated for this area. • PATHS covers all the emotions – it is more adapting certain skills to pupils with autism. Time is crucial: "It would be nice if we could do it maybe daily. It is done twenty minutes twice a week and it is very hard trying to cram it in the timetable". • More ideas would be appreciated for: management of emotions; expressing complex emotions *"They are not as confident in complex emotions";* and responding to others' emotions: *"although PATHS looks at the bigger picture it would be nice to have something extra to respond to others' emotions).*
S2	CAT	• It is difficult to teach complex emotions to children with autism because unlike basic emotions, complex emotions are more subtle: *"it's the subtleties that they may not get and still refer to it as maybe happy, sad or angry…the subtleties so they're probably the hardest and most difficult ones".* Yet teaching complex emotions is not seen a priority: *"I think sometimes we get really hung up on teaching the more complex emotions. When a child is saying to me instead of saying 'embarrassed' they say they're 'sad', then it's ok because actually that's how they feel and that's valid and it doesn't matter that they're also probably embarrassed…I think it works better for them… That's how they articulate it. So that's ok".* • Teaching the complex emotions is particularly hard because: *"if the child hasn't got a grasp of what it feels like to be embarrassed or doesn't have an understanding of pride it can be very hard to teach".* Resources would be appreciated for 'understanding other peoples' emotions' • 'Understanding others' emotions' is a difficult area to teach because of theory of mind

	difficulties: *"And some children really want to understand other people's emotions but they struggle to get it in the right place at the right time."* • More resources for 'management of anxiety' would be appreciated: *I think anxiety is the biggest disabler in autism and for people who are high functioning... And actually if there was more acceptance around their anxiety level then that would lower those anxiety levels".* Particularly working on the acceptance level of other people – i.e., find people who support the pupil with autism with anxiety.
SENCO	• Complex emotions are difficult to teach, as there aren't pictures that could show you that. Yet using visuals is more effective than the verbals. It is also important to find items that are related to them as all pupils with autism are different. • Area of need: understanding other peoples' emotions: *"if children don't understand how it feels like they won't be able to relate to it".*
TA	• Difficult are to teach: 'Responding to others emotions', particularly the consequences of one's behaviour on other people: *"As I've said they don't always see the bigger picture. They can't see the whole thing. It is a tunnel vision with ASD. They see only what's there and not the bigger picture."* • Difficult area to teach: complex emotions *"as there are 'no pictures that could show you that. You have to know their family, their extended families and draw examples from them or relate to experiences in the pupils' lives".* • More ideas would be appreciated for the teaching of complex emotions. TA is constantly looking out for scenarios from TV programmes or magazines.
INCO	• All areas take time and different strategies are used for different pupils, but *responding to others' emotions* is perceived as one of the hardest and resources would be appreciated for the latter.
S3	

	"because it is part of their disability" .
TA	• **Difficult area to teach**: empathy with others: *"Putting themselves in somebody else's position, that's the main thing for them that's really hard to do. And that even with a child that has done the whole programme (Socially Speaking) and can look at pictures and say 'they are happy or sad'. But still in certain situations it's really hard for them to put themselves in somebody else's position."* • **Difficult area to teach**: Managing own emotions, *"…Things like sensory things will have an impact on their ability to learn or their social skills. If for example, it rains or there's hail, it will affect them massively, the noise, the smell…So when they get very upset it's really hard for them to apply this to them, to realise that they're feeling upset!"* • **Area of need for more resources**: TA would be appreciative of any resources dealing with 'understanding others' complex emotions': *"if you have 20 children with autism they are all going to be different because they've all got their own personality. So how they're going to learn will be different too!"*

Appendix 19 **Theme: Priority areas**

School (S)	Teaching Staff	Comments
S1	SENCO	• Priority area: expression of own emotions - since the introduction of PATHS *"the autistic children are slowly getting their confidence in their own emotions, to express their own emotions...They are not as confident in complex emotions, but they are probably getting more confident in basic emotions... They will use the words 'happy', 'sad', 'angry'... since we've had PATHS they will say 'I feel this because...' PATHS has helped them to do that because they have all those scenarios. They've had really intensive work on it. Talking about their own feelings has made them slightly more comfortable"*. • Management of own emotions is also a priority area. • Looking at others' emotions is done later.
S2	CAT	• 'Understanding own emotions' and management of own emotions are two priority areas. Their behaviours can be so extreme because of their anxiety levels leading to difficulties with peers and parents: *"That's the basic building block. If they can work with managing their own emotions until we've done that we cannot really help them understand other people's emotions"*. 'Understanding others' emotions' and 'responding to others' emotions' are taught after pupils have mastered the former two skill areas.
	SENCO	• Key areas to teach are 'expression of own emotions' and 'management of own emotions': *"We teach these skills from an early age. If not the children will have huge gaps when they get further up – you cannot teach complex skills or the understanding of other peoples' emotions until you've got a grasp of the skills of what's happening to them"*.
	TA	• A priority is teaching the expression of own emotions, particularly simple emotions – *"if you haven't got those then everything else they would not get"*. Management of own emotions is also

S3	INCO	important: *"as long as they've got some self-control then other children would sort of allow them to be integrated"*. • Priority *"' 'Management of own emotions' is a priority because that is where it would have an impact on everybody else as well. In a school situation it impacts on whether the child can be in school or not."* • 'Expressing own emotions' and management of own emotions should be taught together: *"because you can't manage them if you can't talk about them. But talking about them without getting to the next bit is pointless."*
	TA	• Expression of own emotions and management of own emotions should be tackled first. It is important to *"put yourself in their world really and understand them first to be able to help them."*

Appendix 20   **Theme: Individualised Educational Programmes (IEPs) and emotion-related targets**

School	Teaching staff	Comments
S1	SENCO	• No access was granted
S2	CAT	• No access to IEPs of pupils
	SENCO	• *"For children with autism we wouldn't necessarily have an IEP section targeting emotions because it would be something they would be working on continuously."*
	TA	• No targets are provided for emotions, just behaviour management.
S3	INCO	• Rather than IEPs Provisional Plans are used. If a child has a difficulty with areas in social-communication, then the target need to be around relationships, around managing feelings, around expressing feelings and so on. Provisional work is provided to achieve the target. Target is placed at the top and exactly underneath we put in place the 'provision' (what is being put in place to achieve the target).
	TA	• Provision Plans typically target social skills in general and improve them through programmes, such as Socially Speaking. *"Dealing with emotions is always a problem anyway with children with autism"* .

Appendix 21   Theme: Resources implemented by schools

School (S)	Teaching staff	Comments
S1	SENCO	• Not familiar with any of the resources on the Resource File (Appendix 5). • Resources used: Black Sheep Press, games and role plays, ASD Social Interaction Friendship groups (Inclusion Services Communication/Autism Team, Birmingham) -typically developing peers are included in groups – they serve as role-models. School relies mainly on PATHS – which is adapted to pupils with autism by using extra pictures.
S2	CAT	• Familiar with the following, but does not implement them: Hannah, L. (2001) Teaching young children with Autistic Spectrum Disorders to learn; Atwood, T. (1998) Asperger's Syndrome – A guide for parents and professional; Golan, O. and Baron-Cohen, S (2006) Mind-Reading and Interactive guide to emotions. • *"I can't find things that apply for my children. Some have too much language involved. Some of it assumes that they're at a certain level when they're not.*
	SENCO	• Not familiar with any of the resources on the Resource File. • Resources used mainly include the SEAL material, Black Sheep Press and the ASD Social Interaction Friendship Programme (Inclusion Services Communication/Autism Team, Birmingham). School also has collection of pictures of children displaying various emotions.

	TA	• Not familiar with any of the resources on the Resource File. • Own resources used: Black Sheep Press
S3	INCO	• Resources familiar with and implemented include: Howlin, P., Baron-Cohen, S. and Hadwin, J. (1999) Teaching pupils to Mind-Read; Atwood, T. (1998) Asperger's Syndrome – A guide for parents and professionals; Leicester City Council and Leicestershire County Council (1999) Asperger Strategies for the Classroom, a teacher's guide; Golan, O. and Baron-Cohen, S (2006) Mind-Reading and Interactive guide to emotions; All of them have been useful. Some of these are more about giving you background for it. Whereas others provide strategies. • When building resources child's interests are taken into account. • Resources used: Schroeder, A. (2001) Time to Talk: A programme to develop oral and social interaction skills. Schroeder, A. (1996) Socially Speaking: Pragmatic social skills programme for pupils with mild to moderate learning disabilities. Black Sheep Press. (2004) Talking about secondary school
	TA	• TA was not familiar with any of the resources provided in the Resource File. • Resource used:

Black Sheep Press. (2004) Talking about secondary school.

Schroeder, A. (2001) Time to Talk: A programme to develop oral and social interaction skills.

Schroeder, A. (1996) Socially Speaking: Pragmatic social skills programme for pupils with mild to moderate learning disabilities.

Appendix 22

Table 5: Results from Documentary Analysis

Programme	Areas in emotional understanding	Other social skills areas	Strategies, techniques	Group format and age-group targeted	Intensity and duration
ASD Friendship Social Interaction group (Inclusion Services Communication/Autism Team, Birmingham)	Expressing and understanding own emotions	Communication, interaction and relationships skills	Role-plays used to express emotions (facial expression and body language)	Age-group: Key Stage 2	Duration: 7 weeks and a session is held weekly
	Understanding others' emotions	Develop awareness of self and others	Picture scenarios to teach pupils how to respond to others' emotions	Six pupils in each group: 3 pupils with autism (lacks social skills, is withdrawn, has behavioural issues) and 3 pupils with similar issues	
	Responding to others' emotions (empathy)	Other issues: bullying, self-esteem, transitions.	Facial expressions of basic emotions cards		
			Guess how I Feel game (causes of emotions)		
			Friendship cards – discuss scenarios and decide if character is a friend or not		

Schroeder, A. (1996) Socially Speaking: Pragmatic social skills programme for pupils with mild to moderate learning disabilities.	Expressing own (basic) emotions Understanding others' (basic) emotions Responding to others' emotions Friendship skills Listening skills (eye-contact, listening skills, body language) Joining in games	Situation cards - Feelings about behaviours of friends Turn taking opportunities, e.g., snakes and ladders Agony aunt (situation cards) – empathy Discussions Problem solving Tasks Pre-and post-assessment Pupil worksheets, e.g., *'This is me'* handout (what am I good at, what makes me happy, what makes me sad) *'Emotions'* handout (makes me happy)	Age-group: Key Stage 2 Small group – cross-sectional group (pupil with autism, other pupils with SEN, plus role-model) Duration: once a week for the whole year Session length: 20-30 minutes

| Conversation skills | Situation cards (someone called me a name; I am not allowed to go to the cinema; my pet died – how do I feel?)

What are they saying - Picture scenarios (thought bubbles)

Picture symbols (emotions) handout

Board game (question cards, playing pieces) for turn taking and listening skills, asking questions, making phone calls and expressing emotions

Assessment and evaluation forms (I am good at…, I have improved in…, I need help in…) | peers)

Role-model peers are changed regularly during the year |
|---|---|---|

			Worksheets	Age-group: Key Stage 1	Duration: once a week for the whole year Session length: 20-30 minutes
Schroeder, A. (2001) Time to Talk: A programme to develop oral and social interaction skills.	Awareness of feelings (expressing own basic emotions)	Communication skills (eye-contact, taking turns, listening skills, paying attention) Oral Language Following instructions Play skills and sharing	Board game (question cards, jigsaws ginger bread toy, dice) for communication and nonverbal communication Assessment and evaluation forms	Small group – cross-sectional group (pupil with autism, other pupils with SEN, plus role-model peers) Role-model peers are changed regularly during the year	
Black Sheep Press. (2004) Talking about secondary school Available: www.blacksheeppress.co.uk	Expression of own emotions Understanding complex emotions in self and others (embarrassment, pride, disappointment)	Issues related to going to secondary school To develop situational understanding and verbal reasoning skills	14 pictures scenarios which illustrate situations which may worry pupils. Each scenario has four pictures which provide appropriate and inappropriate solutions. Associated emotions are also discussed (e.g., forgotten HW – what should I do?)	Age-group: Year 6 Small group – cross-sectional group (pupil with autism, other pupils with SEN, plus role-model peers)	Duration: few weekly sessions; final school term.