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UNIVERSITY OF SOUTHAMPTON
FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES
SCHOOL OF PSYCHOLOGY

**EXPLORING THE EFFECTIVENESS OF INCLUSION: IS A SENSE OF
SCHOOL BELONGING THE KEY FACTOR IN UNDERSTANDING
OUTCOMES?**

Emily Jane Prince
Thesis for the degree of Doctorate in Educational Psychology
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List of Contents

List of Contents.....	2
List of Tables.....	3
List of Figures.....	4
Declaration of Authorship.....	5
Acknowledgements.....	6
Abbreviations.....	7
Chapter 1. Literature Review.....	8
1.1. <i>Abstract</i>	9
1.2. <i>Introduction</i>	10
1.3. <i>Theoretical perspectives of belongingness</i>	13
1.4. <i>Effects of school belonging on pupil outcomes</i>	20
1.5. <i>Educational inclusion</i>	30
1.6. <i>Future directions</i>	41
Chapter 2. Empirical Paper.....	44
2.1. <i>Abstract</i>	45
2.2. <i>Introduction</i>	46
2.3. <i>Research questions and hypotheses</i>	51
2.4. <i>Method</i>	52
2.5. <i>Results</i>	57
2.6. <i>Discussion</i>	66
Appendix A. Psychological Sense of School Membership Questionnaire.....	73
Appendix B. Letter to Head teachers.....	74
Appendix C. Head teacher Consent Form.....	75
Appendix D. Parent Letter and Opt-out Slip.....	76
Appendix E. Verbal script for research participants.....	78
Appendix F. Approval from the Ethics Committee.....	79
References.....	80

List of Tables

Table 1. Means and Standard Deviations of Pupils' Age, Cognitive Ability and Academic Performance.....	53
Table 2. Non-typical Group Data for BYI-II Subscales.....	59
Table 3. Means, Standard Deviations, Range and Results of Statistical Analysis on the PSSM and BYI-II Subscales.....	60
Table 4. Bivariate Correlations Between Variables within All Groups.....	62
Table 5. Bivariate Correlations Between Variables for pupils with BESD...	62
Table 6. Regression Analysis for Anger Scores (pupils with BESD only)...	65
Table 7. Regression Analysis for Disruptive Behaviour Scores (pupils with BESD only).....	65

List of Figures

Figure 1. Hypothesised mediating model of belonging for pupils with BESD.....	52
Figure 2. Model demonstrating the independent effects of SOSB and placement on outcomes for pupils with BESD.....	64

Declaration of Authorship

I, EMILY JANE PRINCE, declare that the thesis entitled “Exploring the effectiveness of inclusion: is a sense of school belonging the key factor in understanding outcomes?” and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research. I confirm that:

- this work was done wholly or mainly while in candidature for a research degree at this University;
- where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
- where I have consulted the published work of others, this is always clearly attributed;
- where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
- I have acknowledged all main sources of help;
- where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
- none of this work has been published before submission

Signed:

Date:.....

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Abbreviations

α = Chronbach's alpha

ANOVA = Analysis of variance

β = standardised regression weight

BESD = Behavioural, emotional and social difficulties

BS = pupils with BESD attending special provisions

BYI = Beck Youth Inventories

$\Delta\chi^2$ = chi squared difference test

F = F-ratio (test statistic used in ANOVA)

KS = Key stage

M = Mean

MHV = Mill Hill vocabulary scale

MS = pupils with BESD attending mainstream schools

n = Number of participants

p = Probability

PSSM = Psychological Sense of School Membership

r = Pearson product-moment correlation

R^2 = Multiple correlation squared

SATs = Standard achievement tests

SD = Standard deviation

SEN = Special educational needs

SOB = sense of belonging

SOSB = sense of school belonging

SPM = Raven's standard progressive matrices

t = Computed value of t-test

w = Effect size measure used in ANOVA

z = A standard score

Chapter 1. Literature Review

Exploring the effectiveness of inclusion: is a sense of school belonging the key factor in understanding outcomes?

This literature review has been written using the *International Journal of Inclusive Education* as a guide in determining the preparation of the paper.

UNIVERSITY OF SOUTHAMPTON

1.1 Abstract

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EXPLORING THE EFFECTIVENESS OF INCLUSION: IS A SENSE OF
SCHOOL BELONGING THE KEY FACTOR IN UNDERSTANDING
OUTCOMES?

by Emily Jane Prince

This review integrates theoretical perspectives of belonging together with empirical evidence highlighting the importance of a sense of school belonging (SOSB) to inform the inclusion efficacy research for pupils with SEN. First theoretical perspectives of belonging are presented which converge to suggest that this concept constitutes a basic psychological need which is considered important throughout life (Baumeister & Leary, 1995; Bowlby, 1969; Maslow, 1943). Empirical evidence specifically examining the role of a SOSB on pupil outcomes is then presented. This literature suggests that SOSB is related to more adaptive cognitive, affective, behavioural and social outcomes for pupils. The second section of the review considers the inclusion efficacy research, and in so doing highlights the inconsistent findings regarding the outcomes of mainstream and special education for pupils with SEN. In turn, the review synthesises the two areas of research on school belongingness and inclusion to suggest that a SOSB may mediate the relationship between school placement and developmental outcomes for pupils with SEN. The review concludes with the proposition that a SOSB may be the inherent factor to explore within the inclusion efficacy research due to its associations with the recommended OFSTED (2002) outcomes for pupils with SEN – improved academic achievement, self-esteem, and social relationships with peers.

1.2. Introduction

“Belonging is a powerful psychological concept, incorporating cognitive, social-emotional and behavioural experience within a single domain of connectedness to place, to culture, and to others” (Frederickson & Baxter, 2009, p.2). Sense of belonging (SOB) can be defined as the extent to which individuals feel personally accepted, respected, included, and supported by others in their social environment (Baumeister & Leary, 1995) and is considered important throughout life (Maslow, 1943). Empirical support for the importance of social relationships comes from research with infants suggesting that humans are driven by an awareness of and need to communicate with other persons from an early age (Trevvarthen & Aitken, 2001). Different researchers operationalise and study belongingness in various ways; however there is a general consensus among researchers that a perceived SOB is a basic psychological need, and that when this need is met, positive emotional and cognitive outcomes occur (Baumeister and Leary, 1995). For example, being accepted and included “leads to a variety of positive emotions, such as happiness, elation, contentment and calm”, in contrast to which being rejected or excluded “leads to potent negative feelings such as anxiety, depression, grief, jealousy and loneliness” (Frederickson & Baxter, 2009, p.2).

One context in which a SOB has been linked to a range of positive outcomes is the school environment. Recently a small literature on the sense of school belonging (SOSB) has emerged. The results of several studies converge to highlight that perceiving a SOB or connectedness with school is related to positive academic, psychological, behavioural and social outcomes (Bond et al., 2007; Goodenow, 1993; McGraw, Moore, Fuller, & Bates, 2008). For example, Bond et al. (2007) found that young people who reported low school connectedness (i.e. belonging) in early secondary school were more likely to have mental health problems, drop out of school and engage in substance misuse in later years. Conversely, pupils with good school connectedness were reported as being less likely to experience subsequent mental health issues and to be involved in health risk behaviours, and they were more likely to have good educational outcomes. This research indicates that a school environment that is perceived as

supportive, caring, and which emphasises individual effort and improvement is associated with a more adaptive pattern of cognition, affect, and behaviour (see also Roeser, Midgley & Urdan, 1996).

In the UK, Government policy has increasingly recognised the importance of belonging in the achievement of positive outcomes for children and young people, with key initiatives focusing on the central role played by schools (Frederickson, Dunsmuir, & Baxter, 2009). Related to this agenda, schools have a duty to promote inclusion (DfES, 2004). Inclusive education can be defined at its most basic level as educating children with special educational needs (SEN) in mainstream schools, alongside typically developing peers (Frederickson, 2008). This literature goes further to explain that inclusion is a 'set of never ending processes...It requires schools to engage in a critical examination of what can be done to increase the learning and participation of the diversity of students within the school' (Booth, Ainscow, Black-Hawkins, Vaughan, & Shaw, 2000, p.13). Seen from this perspective, inclusion is considered to be a continuing journey that encompasses the well-being of all pupils (Barton, 2005).

Inclusive education is a contentious topic (Barton, 2005). The socio-political arguments hold that inclusion is a matter of human rights based on the Salamanca Statement (United Nations Educational Scientific and Cultural Organisation [UNESCO], 1994). However, policy decisions should have regard for the effects of inclusive education on children through consideration of empirical evidence (Farrell, 2000). Recent reviews of the inclusion efficacy literature suggest marginally better outcomes for pupils with SEN educated within mainstream education (Lindsay, 2007; Ruijs & Peetsma, 2009) but conclusions drawn from the assimilation of findings from studies using heterogeneous groups must be made with caution. Nevertheless, the contentious nature of inclusive education continues to be reinforced by publications which outline concerns about pupils' social experience of inclusion (Warnock, 2005). However, this literature is criticised for containing "exaggeration and unqualified assertions" regarding inclusive education (Barton, 2005, p.6). Thus, fundamental differences in opinion are apparent and recent calls for further research within this area are warranted (Frederickson, Simmonds, Evans & Soulsby, 2007; Lindsay, 2007).

An important aspect of inclusion is to engender a sense of community and belonging due to its functional importance for successful learning and general well-being (Warnock, 2005). Belonging is a powerful psychological concept with significant implications for schools that may serve to mediate the relationship between educational placement and pupil outcomes. To date, research exploring the inclusion efficacy research has failed to recognise the need to systematically measure this important factor. A critical aspect in understanding the effectiveness of inclusion might be the extent to which SEN pupils feel they belong to their school.

1.2.1. Aims and objectives

Overall, the aim of this review is to draw together two areas of research to suggest that a SOSB may be fundamental to understanding the effectiveness of the educational inclusion for pupils with SEN. The purpose of the first section of the literature review is to examine the theoretical assumptions and empirical evidence base pertaining to the link between school belonging and pupil outcome. Theories recognising the importance of belonging will be overviewed (e.g. McMillan & Chavis, 1986; Ryan & Deci, 2000) followed by a more detailed focus on theoretical perspectives pertaining to the essential need humans have to belong (Baumeister & Leary, 1995; Bowlby, 1969; Maslow, 1943). The review continues with a discussion of school contexts where the concept of belonging has been found to be related to a range of pupil outcomes. Empirical evidence will be presented which indicates that a SOSB is strongly related to academic motivation and achievement (Goodenow, 1993), engagement in school (Furrer & Skinner, 2003), social competence (Murray & Greenberg, 2000), behavioural outcomes (Bond et al., 2007), and academic self-concept (Roeser et al., 1996). Longitudinal studies will also be presented which suggest the protective effect that a SOSB can have on negative behaviours such as delinquency, drug use and pregnancy (Resnick et al., 1997) and negative emotional outcomes such as anxiety and depression (McGraw et al., 2008).

The second section of the review aims to discuss the controversy regarding the issue of educational inclusion for pupils with SEN and to

present findings of the inclusion efficacy research. Empirical evidence relating to the academic (e.g. Myklebust, 2007), affective (e.g. Elbaum, 2002; Zeleke, 2004) and social (e.g. Frederickson et al., 2007; Wiener & Tardiff, 2004) outcomes for pupils with SEN will be considered together with recent literature reviews (Lindsay, 2007; Ruijs & Peetsma, 2009), and in so doing the inconsistent findings regarding the outcomes of mainstream education for pupils with SEN will be discussed. Finally, the review will attempt to synthesise the two areas of research on school belonging and inclusion to suggest that a SOSB may be the inherent factor to explore in the inclusion efficacy research and might actually mediate the relationship between school placement and developmental outcomes for pupils with SEN.

1.3. Theoretical perspectives of belongingness

Recognition of the importance of psychological membership and the concept of belonging has been implicit in recent educational and psychological literature (Frederickson & Baxter, 2009; Osterman, 2000). Support comes from a number of different theoretical perspectives to suggest that the need to belong is a fundamental human need (Baumeister & Leary, 1995; Bowlby, 1969; Maslow, 1943). Whilst some theories point to the function of belonging within more general theories of human motivation (e.g. Ryan & Deci, 2000) and child development (Bronfenbrenner, 1979), others have demonstrated the specific role that a SOSB can have on pupils' developmental outcomes such as delinquency (Hirschi, 1969) and school drop-out (Finn, 1989).

The current impetus within the field of educational psychology involves a focus on community psychology (McMillan & Chavis, 1986). One of the four elements proposed as definitive of a sense of community, is the recognition that members of a community must feel a SOB. Although this aspect of the theoretical framework has been applied to guide understanding of the role of belonging within school settings (Osterman, 2000), it was initially proposed for a broad range of applications from explaining gang affiliation, to informing housing policy and design (McMillan & Chavis, 1986). For example, being a member of a gang community involves feeling part of a group for individuals who might otherwise feel alienated from the general community. Membership for these young people has clear boundaries; there

are people who belong and people who do not and groups often use language, dress and ritual to create territorial and symbolic boundaries (e.g. gang graffiti).

Another theory in which belonging plays an important part is Self-Determination Theory (SDT; Ryan & Deci, 2000). SDT is a theory of human motivation and personality that highlights the need for a SOB, or relatedness. Within this theory, the need for relatedness, together with the need for competence and autonomy, are proposed to have energetic functions on engagement and motivation. Recognising the importance of belonging, the theory is one which emphasises the need to foster all three needs (competence, autonomy and relatedness) within environments (e.g. schools), rather than focusing on the importance of relatedness *per se*.

Although the concept of belonging is included within the aforementioned theories, they do not address the fundamental need humans have to belong. For example, in proposing their theory of human motivation, Ryan & Deci (2000) drew on earlier theories (e.g. Baumeister and Leary, 1995; Bowlby, 1979) to suggest that human “motivation is more likely to flourish in contexts characterized by a sense of security and relatedness’ (p.71). As such, the theories which are suggested to be most influential in this area include Attachment theory (Bowlby, 1969, 1973), Maslow’s hierarchy of needs (Maslow, 1943), and the ‘belongingness hypothesis’ (Baumeister & Leary, 1995).

Several similarities exist between these theories. First, they suggest that all individuals have a fundamental psychological need to belong. Next, they propose that when the need for belonging is satisfied, positive social, behavioural and psychological outcomes can be achieved. Specifically, the theories suggest that the absence of a SOB will result in poor emotional and mental health, described across theories as psychoneurosis (Bowlby, 1969), maladjustment (Maslow, 1943) and potent negative feelings (Baumeister & Leary, 1995). Finally, there is consensus that the need to belong is ongoing, and requires long-lasting reciprocal relationships to be maintained for optimal outcomes to be achieved. The major difference between these theoretical frameworks relates to Bowlby’s focus on the dyadic relationship between a child and its caregiver, in contrast to theories of motivation which emphasise

the fundamental human need to belong in non-specified caring relationships at any age. Further, Maslow describes a general theory of human development encompassing a number of basic human needs, whereas attachment theory and the belongingness hypothesis centre on relationships as the influencing factor for healthy development.

1.3.1. Maslow's hierarchy of needs

Maslow (1943) viewed belonging as a fundamental human need. However, belonging from this perspective is not viewed as an intimate relationship with any one figure, but as a 'hunger for affectionate relations with people in general, namely, for a place in his group' (p.381). Maslow (1943) put forward a theory of human motivation which posits that all human beings have five basic needs that can be arranged on a hierarchy according to their importance for human survival. From the lowest level of needs (the essential needs for human survival) to the highest level (the psychological desire to be ultimately happy), these include physiological needs (e.g. hunger, thirst, sex, and sleep), safety needs (a predictable and secure world), a need for belongingness and love (e.g. affectionate relationships), esteem needs (e.g. self-confidence, worth, self-respect and esteem from others), and self-actualisation (self-fulfilment or achieving one's potential). The need to belong from this theoretical perspective refers to a social desire to be connected with other human beings and to feel accepted by a group. A group can include family, neighbours, religious groups, work groups, and gangs (Maslow, 1987).

In terms of applying these theories to schools, Maslow's (1943) needs are arranged in a hierarchy of prepotency. The consequence of not satisfying the need for love and belonging, for example, means that the next 'higher' level needs of esteem and self-actualisation will not emerge. Thus, no true learning can take place until the need to belong is at least partially satisfied (Maslow, 1943). The implications of this framework for schools have been well documented in educational literature in relation to the pursuit of knowledge. Kunc (1992) claimed that, "Contained within Maslow's writings is a powerful argument that belonging is one of the central pillars that has been missing from our educational structure for some time." (p.29).

More recently Capps (2004) has stated that, “Until a school is able to establish in its students a sense of belonging, community, and a sense of place, maximisation of the learning potential of students will be a continuous struggle.” (p.3).

Despite being initially presented with an overall lack of empirical evidence, Maslow’s hierarchy of needs is a widely accepted and often cited theory of human motivation (Baumeister & Leary, 1995). In support of Maslow’s hierarchy, theorists have developed comparable hierarchies and modified the original theory. For example, Hagerty, Lynch-Sauer, Patusky, Bouwsema, and Collier (1992) advanced the concept of belonging and specifically defined it as ‘the experience of personal involvement in a system or environment so that a person feels themselves to be an integral part of that system or environment’ (p.173, cited in Hagerty, Williams, Coyne, & Early, 1996). Using literature reviews, clinical case studies, and focus groups, the researchers highlighted two critical attributes of belonging: i) valued involvement or the experience of being valued and needed, and ii) fit; fitting in or being congruent with other people, groups, or environments through shared characteristics. It is proposed that these two elements allow a person to feel they belong to a group. These adapted theories still pertain to the need to bond and experience relationships with significant others; satisfied by mutually sharing of thoughts and feelings, acceptance, confirmation and understanding.

A recent literature review of the significance of the SOB lends support for the claims of the importance of belonging on the development of higher-order functioning such as self-esteem and learning (see Osterman, 2000). Further support for the hierarchy comes from school intervention studies which are designed around this theoretical framework. Nurture groups (Bennathan & Boxall, 2000) are small supportive classes set up for pupils with emotional, social and/or behavioural difficulties, most commonly found in primary schools. They are specifically aimed at satisfying the lower level needs by providing safe and secure environments and warm empathetic relationships in schools. Nurture groups have been developed through the understanding that lower level needs are necessary for the development of pupils’ higher level needs. Evaluation studies of pupils with social, emotional

and behavioural problems show that these nurturing environments have improved cognitive engagement in learning tasks (Cooper, 2004) and self-esteem (Kearney, 2005).

1.3.2. Attachment theory

The most well known theory which emphasises the human need to form and maintain relationships is attachment theory. Bowlby (1969) hypothesised that all infants attach to their caregiver, even if the care is harsh or neglectful. The nature of these affectional ties manifest different patterns of attachment 'security' and contribute to the child's 'internal working model' that serves as a guide to other close relationships. Ainsworth and her colleagues (e.g. Ainsworth & Bell, 1970) used the 'strange situation' procedure to provide empirical evidence for Bowlby's claims. In this situation, infants are exposed to familiar and unfamiliar environments and their reaction to the departure and return of their caregiver is observed. The findings suggest that infants of caregivers who are available, responsive and sensitive to their emotional and physical needs tend to manifest patterns of secure attachment. However, if the care provided is chaotic, unpredictable, rejecting or neglectful, then an insecure or disorganised pattern of attachment evolves. Attachment theory seeks to explain individual differences in social behaviour and emotional development in terms of the security of early relationships. In this framework, internal schemas are suggested to influence behaviour and interpersonal relationships throughout and beyond childhood (Ainsworth, 1989; Bowlby, 1988).

In support of this proposition, children with a history of secure attachments to their caregivers have been shown to function well throughout childhood and adolescence in a variety of life domains, including social, emotional, behavioural and academic outcomes (see Kennedy & Kennedy, 2004). In a longitudinal study, Wood, Emmerson and Cowan (2004) asked mothers to rate their children's attachment security at age 3 years and peers were interviewed to give a socio-metric rating for each child one year later. There was a significant association between early attachment security and peer acceptance. The authors also asked teachers to rate the children on social adjustment (social isolation, social skills) and behaviour problems.

Insecure attachment was significantly associated with higher teacher ratings of both externalising (e.g. aggression, rule breaking) and internalising (e.g. withdrawn, depressed) behaviour. Simultaneous regression was employed to test a path model in which attachment security led to externalizing behaviour, which in turn led to peer rejection. This indirect path was found to be significant, a finding that the authors claim supports the theoretical view that securely attached children 'carry forward' their relational expectations and styles of interacting to develop successful relationships. Conversely, children with a history of insecure attachment display more externalising and internalising behaviour reflective of their internal working models (Wood et al., 2004).

Longitudinal research exploring the influence of the parent-child relationship within a sample of high-risk and maltreated children supports this claim (Sroufe, Egeland, Carlson, & Collins, 2005). Sroufe et al. found that children who were securely attached in early infancy were judged to be more competent with peers in preschool and primary school years, were better liked by classmates, less socially withdrawn, more active in the peer group, less aggressive, and had more cooperative friendships. Attachment security was also found to influence affective outcomes; children who were securely attached were more self-confident, had higher self-esteem, and were more 'ego-resilient' than those with insecure attachments. The ego-resiliency measure is a measure of regulation reflecting the capacity to flexibly adjust expression of feelings and impulses to suit situational requirements.

Although considered to be relatively stable over time, internal working models are proposed to change in response to changing life circumstances, such as engagement in unconditionally supportive relationships (Sroufe, Carlson, Levy, & Egeland, 1999). The attachment literature has suggested, for example, that regardless of a child's early life experiences, the opportunity to develop positive relationships can be fostered through staff and peers at school (Kennedy & Kennedy, 2004). The possibilities for schools in addressing the attachment needs of children and young people has come with a resurgence of the significance of attachment theory for positive child development (Bombèr, 2007; Geddes, 2006; Perry, 2009). Research has found that students who form secure attachments with their

teachers can develop a positive view of the self and others, are more likely to have fewer behavioural problems and demonstrate higher achievements in the classroom (Kennedy & Kennedy, 2004). However, this finding does not explain the important impact peers have been found to exert on the development of children and young people (McGraw et al., 2008). Although Bowlby (1969) briefly raises the role of groups other than the family as children enter adolescence (e.g. school), he asserts that attachment to a group is dependent on the attachment to a particular, usually prominent, person within that group (e.g. a teacher). The dominant view within attachment theory is very much on the dyadic-relationship (e.g. mother-child, teacher-child) and does little to inform our understanding of the influence of the wider social groups in which individuals function.

1.3.3. The belongingness hypothesis

The most significant theory to have been proposed with a sole focus on belonging is the 'belonging hypothesis' (Baumeister & Leary, 1995). The theory emerged through consideration of early psychological theories (e.g. Bowlby, 1969; Maslow, 1943), together with an analysis of the empirical evidence base. This theory states that humans possess a need to belong which constitutes a fundamental motivation, driving our thoughts, emotions, and interpersonal behaviour. The fundamental need to belong comprises "a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships" (Baumeister & Leary, 1995, p.497). While individual differences exist in the strength of belongingness needs and how they are met, satisfying these needs involves frequent, positive interactions with other people, including reciprocal concerns for one another's wellbeing. The belongingness hypothesis proposes that the need to belong can be directed toward any other human being, and the loss of the relationships with one person can to some extent be replaced by another (Baumeister & Leary, 1995).

The belongingness hypothesis suggests that people who experience persistent difficulties in establishing and maintaining satisfying relationships with others, and consequently have difficulties meeting their belongingness needs, are likely to experience a sense of deprivation, manifested in poor

affective outcomes (e.g. loneliness, depression, anxiety, and anger), as well as negative behaviours (e.g. offending behaviour). The main emotional implication is that “real, potential, or imagined changes in one’s belongingness status will produce emotional responses, with positive affect linked to increases in belongingness and negative affect linked to decreases in it” (Baumeister & Leary, 1995, p.505). To illustrate this point, Hagerty et al. (1996) have shown that a low SOB in college students is associated with depression, anxiety and loneliness in later adulthood.

It is also important to note that mere social contact is not sufficient in itself to satisfy belongingness needs. Rather, “the need is for regular social contact with those to whom one feels connected” (Baumeister & Leary, 1995, p.501). Supporting evidence comes from studies exploring the experience of loneliness which appears to have more to do with an individual’s psychological sense of social isolation than objective indexes of social networks, such as number of friends (Williams & Solano, 1983).

1.4. Effects of school belonging on pupil outcome

Theoretical perspectives converge to emphasise that human beings have a need to belong. Further research has explored the impact of the social and contextual factors of the learning environment and how these link to differing concepts such as a sense of relatedness (Furrer & Skinner, 2003), connectedness (Bond et al., 2007), or community (Osterman, 2000). For the purposes of the current review, the term sense of school belonging (SOSB) will be used throughout as it is at the core of the terms described (Osterman, 2000) and is congruent with the theoretical frameworks being applied (e.g. Baumeister & Leary, 1995; Maslow, 1943). SOSB as assessed in most studies involves a commitment to school and a belief that school is important, but it also includes a positive perception of the teacher-pupil relationship, relationships with peers, and opportunities to be involved in school life.

In recent years, a small literature on school belonging has emerged. The majority of research in this area is correlational and causality between variables is difficult to infer. Some authors have suggested that the relationship between school belonging and outcomes may be reciprocal

(Furrer & Skinner, 2003) while longitudinal research (e.g. Resnick et al., 1997) and intervention studies (e.g. Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004) suggest that a SOSB is a protective factor against possible negative outcomes for pupils. Research suggests that school environments that are perceived as supportive and caring are related to a more adaptive pattern of cognition, affect, and behaviour than schools that are perceived as less supportive (Roeser et al., 1996).

1.4.1. Cognitive and academic outcomes

Belongingness has been found to be critical to success in school. Students' engagement with learning, academic effort, and subsequent school achievement is not only influenced by individual differences in skills, abilities, and pre-dispositions, but also by many situational and contextual factors (Goodenow, 1993). In the literature, belongingness has been linked to student motivation, engagement, interest in school, academic achievement and school completion (e.g. Bond et al., 2007; Furrer & Skinner, 2003; Goodenow, 1993). Finn's (1989) 'participation-identification' model can be used to account for some of the processes leading to success in school. The model posits that pupils who identify with and have a sense of attachment to school develop a SOSB which promotes commitment to school goals and to their own engagement and participation in school life. Whatever the causes of low or absent SOSB, "the result of a failure to attain a full and legitimate sense of membership in the school as a social system may be lowered motivation, less active engagement, and ultimately diminished academic achievement or even school withdrawal" (Goodenow, 1993. p.81).

Goodenow (1993) carried out three studies to develop a measure of pupils' perceived school belongingness (pupils aged between 9 and 14 years). In addition, correlations between belongingness and measures of motivation and academic achievement were presented to explore any mediating effects. Overall, the correlations obtained from the three studies suggest that school belongingness is significantly, but only weakly, associated with measures of effort (teacher rated), although more strongly related to academic achievement (as measured by teacher assessment of

specific subjects and average end of year results). Belongingness was found to make a substantial contribution to self-reported motivation (assessing expectations regarding future success in schoolwork, intrinsic value, interest, and importance attributed to academic work). Thus, pupils' SOSB may mediate the relationship between school behaviour (e.g. effort and participation) and subsequent academic achievement indirectly through its influence on motivation (Goodenow, 1993).

This proposition is supported and extended by more recent research exploring the impact of belonging on academic motivation and performance as measured by emotional and behavioural engagement in school. Furrer and Skinner (2003) used a longitudinal study design to demonstrate that relationships within school account for changes in classroom engagement in pupils aged between 8 and 12 years. The findings revealed the importance of relationships to more than one social partner through the use of a cumulative risk framework: school engagement increased with each additional positive relationship to peers, teachers and parents. The study demonstrated that loss of quality relationships with peers did not have serious consequences for children's engagement. Although not specifically measured, this finding indicates that satisfying relationships with adults are enough to influence academic outcomes (average school grades) via pupils' increased engagement in learning activities. Regression analysis highlighted that emotional engagement was most significantly associated with relatedness to teachers (compared to parents and peers); "children who felt appreciated by teachers were more likely to report that involvement in academic activities was interesting and fun and that they felt happy and comfortable in the classroom" (Furrer & Skinner, 2003, p.159).

The authors argued that the possible mechanism through which a SOSB influences children's actual academic achievement is through its "energetic function, awakening enthusiasm, interest, and willingness to participate in academic activities" (Furrer & Skinner, 2003; p.158), thus supporting Goodenow's (1993) proposition that belongingness influences motivation and subsequent academic achievement. Furrer and Skinner (2003) propose a self-perpetuating motivational model, where the combination of engagement and high performance was shown to elicit more

support from teachers, parents, and peers, which served to confirm or promote children's feelings of belonging. In contrast, children who felt unimportant or rejected by others were more likely to become frustrated, bored, and alienated from learning activities, which in turn interfered with their academic progress; poor performance together with disaffection was found to impact negatively on social support, leading children to feel further disconnected from school.

Further research highlights the negative consequences of social exclusion (poor SOB) on cognitive performance. Baumeister, Twenge, & Nuss (2002) found that cognitive functions (general IQ and more specifically recall memory) of undergraduate students were impaired by the researchers' manipulation of social exclusion using an experimental design. Specifically, large declines in performance on an intelligence test, reading comprehension, and on a test of logic and reasoning were found when participants were told they would end up alone later in life or that other participants had rejected them. Although further discussion is not within the scope of the current literature review, it is interesting to note that cognitive functioning, as well as academic motivation can be negatively influenced by social contexts. That is, belonging appears to impact on both the process and product of learning.

From this perspective, a SOB is not just a by-product of doing well in school but it has been found to play an integral role in pupils' motivational development, supporting theoretical claims of the importance of achieving a SOB for subsequent learning to take place (Maslow, 1943).

1.4.2. Behavioural and social outcomes

SOSB has been linked to a variety of behavioural and social outcomes and is likely to act as a protective factor that inhibits negative and promotes positive life outcomes (Maddox & Prinz, 2003). Young people who are not engaged with learning, or have poor relationships in school, are more likely to use drugs and engage in socially disruptive behaviours (Bond et al., 2007), display externalising behaviours and be less socially competent (Murray & Greenberg, 2000). Findings have suggested that pupils who did not find rewarding experiences and positive relationships in school seek acceptance

elsewhere, potentially in risk taking behaviours and negative relationships that can have serious negative consequences such as youth offending and teenage pregnancy (see Maddox & Prinz, 2003). Early support for this assumption comes from Hirshi (1969) who proposed the Social Bonding Theory of delinquency. His research included an examination of associations between school bonding and delinquency in over 4,000 pupils. The findings suggest that pupils who liked school and cared about what teachers thought of them had lower rates of delinquency than pupils with lower scores on these variables.

More recent support comes from Resnick et al. (1997) who used longitudinal data on over 11,000 adolescents (aged 12 to 18 years) to examine the associations between school belonging and four domains of adolescent health and morbidity: emotional health (e.g. suicidal thoughts, depression, loneliness), violence (e.g. physical fights, threatening behaviour), substance use (cigarettes, alcohol, and marijuana), and sexuality (age when first sexually active and pregnancy history). Pupils with a high SOSB had significantly lower scores on all negative outcomes measured compared with pupils with low belongingness scores. An analysis of risk and protective factors identified SOSB as a protective factor against school absence, delinquency, drug use and pregnancy. Although cross-sectional analysis was used by Resnick et al. (1997), similar findings have been found and extended by intervention projects. Results from a series of longitudinal studies have been published which suggest that school belonging in adolescence and young adulthood (up to the age of 21) is significantly and negatively associated with substance use, delinquency, gang membership, violence, and sexual activity (e.g. Catalano et al., 2004).

Catalano et al. (2004) delivered an intervention aimed at increasing school bonding by changing the social experiences of primary school pupils (e.g. training for teachers in proactive classroom management, interactive teaching to motivate learners and cooperative learning). The intervention resulted in a higher SOSB and lower levels of problem behaviours (e.g. violence, alcohol abuse, risky sexual activity) for pupils aged 13 and 18 compared to a non-intervention control group. Similar findings have led researchers to argue that:

...students' experience of the school as a caring community increases their affective bonding to the school. By helping schools to meet students' need to belong, CDP [the intervention project] may reduce or eliminate the tendencies of some students to seek community through affiliation with countercultural groups, thereby reducing drug use and other problem behaviors...

Battistich, Schaps, Watson, Solomon, & Lewis (2000, p.94).

Social outcomes have also been the focus of research in relation to school belonging. Murray and Greenberg (2000) examined 10 to 12 year old pupils' experience in schools using measures of school bonding, negative perceptions of the school environment (e.g. feeling scared at school), and their relationship with the teacher (e.g. teachers seen as emotionally supportive and responsive). The correlation between these measures and social competence (e.g. peer relations, frustration tolerance, social skills) and behaviour (e.g. aggression, non-compliance, youth offending) were investigated using both pupil and teacher ratings. Overall, findings demonstrated that greater scores on the pupil-teacher relationship and school bonding items were positively correlated with social and behavioural outcomes.

Further exploration of the data using cluster analysis resulted in four groups of pupils: (1) Dysfunctional pupils (pupils with low scores in relation to their relationship with the teacher and school bonding, but above-average scores on ratings of dissatisfaction with the teacher and negative perception of the school environment); (2) Functional/Average pupils (pupils with moderate to average scores on the factors measured); (3) Positively Involved pupils (those who had high scores for their relationship with the teacher and school bonding, and below-average scores for dissatisfaction with the teacher and a negative perception of the school environment); and (4) School Anxious pupils (pupils with high ratings of negative perceptions of the school environment but near-average ratings of all other measures).

Dysfunctional, Functional/Average, and School Anxious groups were all found to have poorer general social competencies and higher scores for

externalising behaviours than children in the Positively Involved group. Thus, pupils who perceived teachers as emotionally supportive and responsive, and who also enjoyed and felt safe in school, had more positive adjustment than pupils who had negative perceptions of teachers and schools. Pupils categorised as Dysfunctional scored significantly poorer than the Positively Involved group on all the behavioural measures (delinquent behaviour, internalising and externalising behaviours), and all but one of the social measures (social skills). The correlational nature of this study means that causality cannot be inferred, but it does demonstrate that pupils who did not experience school as a supportive context fare worse in terms of social as well as behavioural outcomes compared with those who had good relationships with teachers and a high SOSB (Murray & Greenberg, 2000).

Empirical research has shown support for a relationship between school belonging and both behavioural and social outcomes. However, the direction of this relation is not always clear due to cross-sectional research design (e.g. Murray & Greenberg, 2000; Resnick et al., 1997) and studies that show poor behaviour to be a precursor to poor school belonging (Bryant, Schulenberg, Bachman, O'Malley, & Johnston, 2000). For example, Bryant et al. (2000) found that antisocial behaviour in 13 to 14 year olds was the most significant predictor leading to decreased school bonding in later years. This finding questions the temporal relationship between school belonging and poor behavioural outcomes. Similar to the model presented above by Furrer & Skinner (2003), the relation between school belonging and behavioural and social outcomes may be reciprocal. For example, poor school belonging could lead to anti-social behaviour, which in turn leads to decreased school belonging in later years (Maddox & Prinz, 2003). Intervention studies go further to demonstrate the important contribution schools can make through changing their practices to ensure a SOSB and subsequent positive outcomes are achieved (Battistich et al., 2000; Catalano et al., 2004).

1.4.3. Affective outcomes

In recent years, psychologists have started to become interested in the effects of schooling on mental health and psychological wellbeing (e.g. Bond

et al., 2007; Frederickson et al., 2009; McGraw et al., 2008). Supporting the role of schools within this area, positive psychology emphasises the importance of schools in fostering psychological adjustment in pupils (i.e., self-esteem, self-worth) as a buffer against negative mental health (Seligman and Csikszentmihalyi, 2000). Frederickson et al. (2009) discussed how UK government has recognised schools' responsibility in promoting mental health and well-being through a variety of developments such as the Social and Emotional Aspects of Learning (SEAL) programme (DfES, 2005), along with recent government funded projects such as Targeted Mental Health in Schools (TAMHS; DCSF, 2008). Such initiatives demonstrate the central duty schools have in nurturing pupils' positive emotional and mental health. These developments are supported by research which provides evidence that emotions can hinder or promote learning (see Weare & Gray, 2003). Further support comes from research findings which demonstrate that for children and young people, a SOSB serves as a protective factor against negative emotional and psychological experiences and that it can influence general adjustment and psychological well-being (Ryzin, Gravely, & Roseth, 2009).

Roeser et al. (1996) explored 13 and 14 year old pupils' perceptions of the school environment and the mediating role of belonging on psychological functioning in school. The findings suggested that both perceptions of the school's psychological environment (assessed by pupils' perceptions of an emphasis by the school on effort, understanding, and the belief that all students can learn and be successful) and the quality of the teacher-pupil interactions contributed to a SOSB. In turn, school belonging mediated positive psychological outcomes. Pupils who experienced a feeling of belonging scored higher on measures of academic self-efficacy and positive affect (emotional experience while in school) and lower on self-consciousness ratings (e.g. being afraid or nervous in school). The authors proposed that "feeling positively about how teachers and pupils interact in school may provide a secure emotional basis from which students can both come to enjoy school and develop their academic competence without feeling self-conscious or worried about failure" (Roeser et al., 1996, p.419). These findings, taken together with those of Furrer and Skinner (2003),

suggest that relatedness specifically to teachers may increase both engagement in learning activities and self perceptions about academic competence. In turn, these are likely to impact positively on academic outcomes in school.

The psychological outcomes measured in Roeser et al.'s (1996) study were school-related affective measures (e.g. academic self-efficacy) rather than measures of general psychological well-being. More recently, McGraw et al. (2008) explored 941 pupils' perceptions of school, parent and peer belonging, and their levels of negative affect. They were interested in the correlation between belonging and anxiety, depression, stress and self-harm ideation for adolescents aged between 16 and 19 years. Lower perceived belongingness to school, family and peers was associated with overall negative affect. This finding held when measures were repeated 1 year later (Time 2). Similar to the protective effects of belongingness on behavioural outcomes found by Resnick et al. (1997), this study suggests that belongingness acted as a protective factor against negative emotional outcomes. The findings further showed that low peer belongingness was the strongest predictor of depression and also a significant predictor of depression at Time 2. Thus high peer belongingness appears to be a long-term protective factor against depression for older adolescents, and those who feel lonely and disconnected from their peers are likely to carry these emotional risk factors through to later life.

Similar findings have been demonstrated using a school belonging measure in a younger adolescent sample (aged 12 to 14 years) with additional analyses indicating stronger links between school belonging and depressive, compared to anxiety symptoms (Shochet, Dadds, Ham, & Montague, 2006). The importance of these findings is particularly pertinent in light of the negative consequences associated with depression and more generalised negative affect. McGraw et al. (2008) discussed the increased risk of individuals with negative affect for other internalising and externalising disorders (e.g. aggression), the ability to function both socially (e.g. formation of peer relationships) and academically (e.g. decline in cognitive functioning), and of both thoughts and acts of self-harm and suicide. Thus, studies which demonstrate the links between school belongingness and depressive

symptoms give emphasis to the important role played by schools in protecting against the development of a range of psychological problems (Anderman, 2002; McGraw et al., 2008).

Recent emphasis on positive psychology (e.g. Seligman and Csikszentmihalyi, 2000) has led researchers to explore the link between school belonging and positive psychological adjustment, rather than assessing negative affective outcomes. Ryzin et al. (2009), for example, used hope as a measure of pupils' generalised expectancy for achieving their goals. The authors argued that hope is an important measure of positive psychological adjustment due to its positive correlation with self-efficacy, optimism, self-actualisation, academic achievement and general well-being, and its negative correlation with depression and anxiety. Findings indicated that teacher-related belongingness correlated significantly with positive adjustment (hope), although the relationship was stronger for peer-related belongingness. These findings emphasise the important role schools have in creating educational environments that promote healthy psychological development, specifically through improving peer relations (Ryzin et al., 2009).

1.4.4. Summary

In summary, the research on school belongingness shows a strong link between pupils who feel that they belong to their school and their levels of perceived competence, enjoyment of school and investment of themselves in the process of learning compared to those who do not have a strong SOB to school (Goodenow, 1992; Osterman, 2000). These inner resources in turn have been found to predict engagement in learning and subsequent academic performance (Osterman, 2000). On the other hand, a low SOSB is associated with behavioural problems, lower interest in school, lower achievement, and increased dropout (Bond et al., 2007; Finn, 1989). More salient are the findings that a poor SOSB is linked to negative affect including depression and anxiety (McGraw et al., 2008). There is likely to be a two-way or reciprocal relationship between a high SOSB and positive cognitive, behavioural and affective outcomes. Causality is difficult to establish from the correlational studies reviewed. However, longitudinal research indicates

that a SOSB may protect against negative behavioural and affective adjustment in childhood and adolescence, particularly depression (Catalano et al., 2004; McGraw et al., 2008).

The literature reviewed indicates significant implications for the developmental outcomes of pupils who experience a SOSB. Similar outcomes (e.g. cognitive, affective, social and behavioural) are also used to examine the efficacy of educational inclusion for pupils with SEN. Combining the literature from both these areas of research may suggest that a SOSB mediates the relationship between school placement (mainstream vs. special provision) and outcomes for pupils with SEN. Before exploring this assumption further, the review will discuss the literature in relation to the effectiveness of inclusion. Empirical evidence will be presented which examines the academic, affective and social outcomes for pupils with SEN when they are educated within mainstream schools compared to special provisions. Differences in outcome between pupils with SEN and typically developing pupils will also be considered.

1.5. Educational Inclusion

A major driver towards inclusion has been concern that “children’s rights are compromised by special education, segregated from typically developing peers and the mainstream curriculum and educational practices” (Lindsay, 2007, p.2). The worldwide shift towards inclusive educational policy came as a result of a combination of historical developments within the fields of politics, education and sociology¹. UK policy emerged from consideration of these developments which resulted in the 1981 Education Act. These reforms were based largely on the Warnock Report (DES, 1978), which instructed authorities to, whenever possible, secure that children with SEN be educated in mainstream schools. The trend towards inclusion is in line with the Salamanca Statement which called on governments ‘to adopt the principle of inclusive education, enrolling all children in regular schools unless there are compelling reasons for doing otherwise’ (UNESCO, 1994,

¹ See Thomas & Vaughan (2005) for an in-depth account of the key influences behind the move toward inclusive education. For example, research, civil rights arguments, legislation and published accounts of the voices of people who have been through special education are presented as playing their part in the changes that have occurred within inclusive education in the last few decades.

p.44). These developments have been influenced by arguments based on human rights considerations and anticipated social benefits. For example, Gresham (1982) proposed that inclusive education would result in: increased social interaction between SEN and non-SEN children; increased social acceptance of pupils with SEN by their peers; and modelling of the behaviour of non-SEN peers because of the exposure to them (cited in Stobart, 1986). Yet there is recognition that such benefits are unlikely to happen automatically and a number of factors are necessary for successful inclusion to be realised (see Frederickson & Cline, 2005).

'Inclusion' is embedded in a range of political, social, psychological and educational contexts. In relation to education, the most basic definition is that it involves educating children with special educational needs (SEN) in mainstream schools with typically achieving peers, rather than in separate special schools or classes (Frederickson, 2008). More sophisticated definitions recognise that inclusion involves the school in a process of accommodation where the responsibility is on the school to change, to adapt curricula, methods of teaching and assessment, and to ensure all children participate fully in regular classrooms with appropriate support (Mittler, 2000). Thus, much variability exists between classrooms, schools, and local authorities with regard to how inclusive education is implemented.

With this in mind it is not surprising that inconsistencies in relation to outcome are found within the literature exploring the effectiveness of inclusion (see reviews by Lindsay, 2007; Ruijs & Peetsma, 2009). Indeed research exists which not only demonstrates that inclusion can be effective, but goes further to inform us how it can be successfully realised (e.g. Sheehy et al., 2009). However, consideration of the evidence failing to find support for anticipated gains in social interaction, acceptance and positive behavioural outcomes for pupils with SEN, in addition to consideration of the rights and values issue, has led some authors to question whether it is possible to justify the inclusion of these children (Frederickson, 2008). Such views arise from a concern that the move to inclusion is driven by principles and politics – or 'ideology' – rather than evidence that inclusive education works (Thomas & Vaughan, 2005).

Fundamental differences in opinion are apparent. On the one hand, it can be argued that the efficacy of inclusive education in achieving improved outcomes is a justifiable area for scientific enquiry. However, if public policy regards inclusion as a matter of rights and morality, it is possible that evaluations of efficacy are largely irrelevant (Farrell, 2000). Nonetheless, it is important to separate the discussion of rights and values from that of effectiveness and to recognise the important contribution educational psychology can make to the conceptualisation of the nature, appropriateness and effectiveness of education for children with SEN to inform future policy decisions (Lindsay, 2007).

Reviews of efficacy research have been carried out over the last three decades, all reaching similar conclusions; that there is a marginally positive benefit of inclusion on both academic and social outcomes of children with SEN (reviews by Frederickson, 2008; Lindsay, 2007; Ruijs & Peetsma, 2009). In order to recognise and address these experiences, it is important that schools monitor the outcomes of inclusion in a systematic way.

OFSTED (2002) recommended that improvement should be measured in three areas:

1. Educational attainment
2. Gains in self-esteem
3. Improved social relationships between pupils with SEN and their peers

A small number of studies have been carried out and published that address the effectiveness of inclusion through comparative research designs of children with SEN. The literature discussed within this review covers a range of pupil ages, examines different methods of inclusion and uses different research methodology; all issues which have had an impact on the ability to clearly address efficacy questions (Lindsay 2007). For example, the use of matched control group designs, where pupils are allocated to different provisions (mainstream vs. special schools) for research purposes only, is not ethically feasible. Moreover, there is difficulty generalising across studies due to the range of problems evident in pupils described as having SEN and difficulty comparing educational settings due to the wide variety of provision which pupils can experience (Farrell, 2000). In addition, it is difficult to take a

broad view of findings from studies which conceptualise the term 'inclusive education' in differing ways (Ruijs & Peetsma, 2009). With these issues in mind, research will now be discussed in relation to the OFSTED (2002) improvement measures; academic, affective and social outcomes of inclusion.

1.5.1. Educational achievement

In order to draw conclusions about the success of inclusive education, it is important to know its effect on the academic achievement of children with SEN. Several reviews of inclusive education have been undertaken since the 1980s to investigate the efficacy of different placements on academic outcomes for pupils with SEN. Early meta-analytic reviews comparing academic functioning in special versus mainstream classroom placements, for example, have found positive, but generally small, effect sizes for the benefit of inclusive education on academic achievement (Wang & Baker, 1985-1986, cited in Lindsay, 2007).

More recent studies have produced mixed or equivocal results. Karsten, Peetsma, Roeleveld, and Vergeer (2001) used a large Dutch cohort-study comparing over 400 matched pairs of children (aged up to 13 years) with learning and behavioural difficulties in special and mainstream education. After 2 years there were few differences between children in mainstream and special schools on either academic or psychosocial functioning. There was a noticeably large measure of variability in both mainstream and special education; both types of educational provision had pupils who were doing well from an academic perspective and the same number of pupils whose functioning deteriorated. Further exploration by the authors focused on the relationship between methods for effectively meeting the needs of pupils and development of functioning. Little connection was found between characteristics of the education provision (e.g. differentiation of tasks for pupils) and the progress made by the pupils. Where connections were found, there was no systematic pattern. Factors that appeared to have a positive effect on the development of one pupil were found to hinder another. Thus, development seems to be determined by combinations of

factors that are unique to each pupil, such as the characteristics of the pupil, the home situation and the situation at school (Karsten et al., 2001).

Efficacy research has also explored different types of inclusive education within mainstream schools. Myklebust (2007) compared 777 pupils with SEN, 285 attending special classes with reduced numbers of pupils and 492 attending regular classes. The results demonstrated that pupils receiving education in regular classes were 76% more likely to obtain formal qualifications than pupils receiving education in special classes. The findings indicated that academic competence for pupils with SEN was considerably improved if their functional level was relatively high; they did not smoke, and their parents were not divorced. Again, the results indicated a complex picture of interacting factors from school, family and the individual in the process of attaining competence, thus creating individual vulnerability or resilience among pupils with SEN (Myklebust, 2007).

More recent literature has done little to add clarity to the issue of whether pupils benefit academically from inclusion (Karsten et al., 2001; Lindsay, 2007; Ruijs & Peetsma, 2009). The majority of studies appear to find positive or neutral results with very few showing an adverse effect of inclusive education on the achievement of children with SEN (Ruijs & Peetsma, 2009). The studies discussed highlight the importance of pupils' personal attributes in combination with the family and school context in affecting academic development (Karsten et al., 2001, Myklebust, 2007).

1.5.2. Self esteem

Self-esteem is a multi-dimensional construct with differentiated components such as academic, social, physical and emotional self-concepts in addition to a global self-concept component. Academic self-concept relates to individuals' knowledge and beliefs about themselves in relation to their scholastic competence and can be subdivided in particular subject areas (e.g. English, Mathematics, etc). Non-academic self-concepts include social self-concept (e.g. relations with peers), physical self-concept (e.g. physical appearance) and emotional self-concept (Marsh, 2005).

Self-esteem and self-concept have historically been variables of major interest because of the view held by proponents of inclusion that one of the

benefits for pupils in more inclusive settings is more positive outcomes in these areas (Elbaum, 2002). Academic self-concept is of particular interest with regard to pupils with SEN; there is empirical evidence indicating that these individuals have lower academic self-concept than pupils without SEN (e.g. Zeleke, 2004). Findings with regard to general self-concept have been mixed, with studies suggesting that pupils with SEN have similar general self-concepts to typically developing peers irrespective of educational placement (Elbaum, 2002).

Elbaum (2002) carried out a meta-analysis of 38 studies that compared the self-concept of students in different educational placements. The study found no overall association between general self-concept and educational placement for four out of five placement comparisons: mainstream classroom vs. resource room, mainstream classroom vs. self-contained class, resource room vs. self-contained class, and mainstream classroom vs. special school. Differences were found within a single study where pupils with SEN in special schools had higher self-concepts than pupils in self-contained classrooms in mainstream schools. The findings from the meta-analysis led the author to conclude that 'there is no systematic association between the self-concept of students with learning difficulties and their special education placement' (Elbaum, 2002). Thus, pupils appear to fare no better or worse in terms of self-concept in regular or separate classrooms, a finding which replicates earlier research (e.g. Allodi, 2000).

However, the absence of a reliable association between placement and self-perceptions for groups of pupils with SEN does not mean that educational placement has no bearing on individual pupils. There are large within group differences in self-esteem for children with SEN (Cosden, Brown & Elliot, 2002) and it is inevitable that there will be much variation between these students in terms of academic, physical and social development, all of which will influence the development of self-esteem. Such differences will impact on the findings from meta-analyses using a large variety of pupils (e.g. Elbaum, 2002). Supporting evidence for the importance of individual differences comes from research on pupils' preferences with regard to different placements. Pupils appear divided in their preferences for mainstream or special educational provisions. Although group findings may

lead to an assertion of 'no overall differences' in terms of preference, individual pupils report strong feelings favouring one placement over another (Vaughn & Klinger, 1998).

Further explanation for the limited difference in results from research exploring pupils' self-perceptions comes from studies which have looked at different aspects of self-concept. Results from a recent review of 41 studies examining self-concepts of pupils with SEN and their non-SEN peers, indicates poorer outcomes for pupils with SEN specifically in relation to academic self-concept (Zelege, 2004). Poorer outcomes are also evident when comparing SEN pupils who are educated within special educational provision to those in mainstream schools. Karsten et al. (2001) found poorer outcomes for academic self-concept for pupils attending special schools. It must be noted that self-concept was objectively measured by class teachers and the internal consistency of the scales used in the special schools was poor in comparison to those completed in mainstream settings. Nevertheless, very few studies have found results that do not support the view that pupils with SEN have lower scores on academic self-concept measures than non-SEN peers (see Zelege, 2004).

Overall, the review by Zelege (2004) found pupils with SEN had more negative academic self-concept than non-SEN peers in 89% of the studies reviewed. This finding contrasts with studies examining social self-concept and general self-concept where the majority of studies have found no significant difference between the two groups. For example, Gans, Kenny & Ghany (2003) compared self-concept scores of pupils with and without SEN. Although a significant difference between groups was found for the academic self-concept domain, there was no difference on global self-concept. These findings are supported by Allodi (2000) who also investigated the variations of self-concept in pupils with and without SEN. Global self-concept ratings were average for both groups of pupils. However, significant differences were found on the specific components of academic self-concept and social self-concept. The pupils with SEN gave more negative answers to questions about problems with schoolwork and needing help from adult staff. On the other hand, pupils with SEN gave more positive answers than the non-SEN pupils to questions about peer relations (i.e. social self-concept). Allodi

(2000) concluded that although pupils with SEN seem to be affected by their school difficulties, they compensate the threat against their self-esteem by giving more importance to peer relations, or having a more positive image of their peer relations in school.

Inconsistent research findings for self-concept scores described above may be explained by the heterogeneous SEN groups included in research. For example, significant differences in self-concept scores have been found among pupils with SEN when they are subdivided into more homogeneous groups. Durrant, Cunningham and Voelker (1990) evidenced that, although the social self-concept scores of children with SEN (aged 8 to 13 years) who also had comorbid behaviour difficulties were more negative than non-SEN peers, there was no significant difference between non-SEN peers and pupils with SEN without comorbid behaviour difficulties. This was not only true for social self-concept, but also for academic and general self-concept. These results exemplify how clearer results could be if researchers deal with more homogenous groups of children (Zelege, 2004).

Unlike academic self-concept, for which the majority of pupils with SEN report significantly lower ratings relative to their non-SEN peers, studies that focus on social or general self-concept reveal largely inconsistent findings. Thus, pupils in the SEN group do not appear to generalise their feelings of academic weakness to more global self-concept perceptions (Gans et al., 2003). Pupils with SEN may derive general satisfaction from competence in non-academic domains (e.g. sport, social interactions and physical appearance), which results in similar levels of general self-concept to non-SEN peers (Zelege, 2004). Indeed, some authors interpret the importance of peer relations for children with SEN as a compensatory strategy to preserve self-concept from possible threats to their self-esteem (Allodi, 2000).

1.5.3. Social relationships between children with SEN and their peers

Social relationships of children with SEN are an important aspect to study in relation to inclusion, as parents report it as being an influencing factor when deciding to send their child to a mainstream school (see Koster, Nakken, Pijl, & van Houten, 2007). Parents expect inclusion to lead to opportunities for

contact with children from the local community, experiences in learning to handle social situations and increased chances for their child to make friends (Monchy, Pijl & Zandberg, 2004). Research exploring the social benefits of inclusion has measured outcomes such as social acceptance, social rejection, friendships, loneliness, social skills, bullying and victimisation.

In examining a range of social outcomes, Wiener & Tardiff (2004) compared 117 children (aged between 9 and 14 years) with learning disabilities (LD) educated in one of four different service delivery models (In-class support or resource room support for those judged to need a lower intensity of support; inclusion class or self-contained special education class for those needing a higher intensity of support). Outcome was measured on factors addressing friendship, loneliness, self-perceptions and social skills. Results tended to favour the more inclusive approach for each pair of models examined. Children receiving the more inclusive support were more accepted by peers, had higher academic self-perceptions, more satisfying relationships with school friends, and were less lonely than children in the less inclusive settings (Wiener & Tardiff, 2004).

Research findings suggest that pupils with SEN fare slightly better in more inclusive educational placements, although poor social outcomes have been found when pupils are compared with typically developing peers. For example, Monchy and colleagues (2004) assessed the inclusion of pupils (aged 9 to 12 years) with behaviour problems by measuring their social position in the mainstream classroom and the degree to which they were bullied by classmates or they actively bullied other pupils. The authors also looked at the social position of the pupils in terms of being liked, performing a task together and the number of friends they had. The results highlighted that, compared to their typically developing peers, pupils with behaviour problems were less socially included. The percentage of these pupils who were rejected was approximately 30% higher than their non-SEN peers (Monchy et al., 2004). Similar findings have been found for children with learning difficulties (LD). Vaughn, Elbaum, & Schumm (1996) found that pupils with LD who were educated in inclusive classrooms were less accepted by their peers and more frequently rejected than typically developing pupils.

More recent research has replicated the above findings and gone further to explain possible contributing contextual factors. For example, Frederickson et al. (2007) explored the social outcomes for two groups of pupils with SEN educated in mainstream settings: pupils with SEN who were educated in mainstream provision, and former special school (FSS) pupils who had recently been moved into mainstream education following the closure of a special school. The research found that pupils with SEN were significantly less accepted and more rejected than FSS pupils and also their non-SEN peers. The positive acceptance of the FSS pupils in this study may be due to the advice and application of strategies delivered from a specialist inclusion team employed by the local authority. The inclusion team was created with the purpose of successfully educating the FSS pupils in a mainstream school with continuing outreach support from specialist staff. Support included preparation workshops for typically developing pupils to highlight special pupils' strengths and enlist empathetic support for areas of difficulty. This input is not typically provided for other pupils with SEN and demonstrates how different support programs can influence outcomes measured. It is also evident that physical integration, or 'just being there', is only a very basic condition of social inclusion: "it takes much more to become part of the group" (Monchy et al., 2004, p.318).

The picture overall is one of poorer social outcomes for pupils who have SEN compared to their non-SEN peers with research findings highlighting specific links between being bullied and having SEN (Frederickson et al, 2007). Research findings indicate that a high level of bullying is experienced by pupils with SEN irrespective of gender and age, although bullying appears more prevalent for pupils who attend special school provisions (Norwich & Kelly, 2004). Norwich and Kelly (2004) used semi-structured interviews to elicit the views of pupils aged between 10 and 14 years with moderate learning difficulties (MLD) attending mainstream and special education provisions. Almost all of the pupils reported experiencing some form of 'bullying' although male pupils attending special school provisions reported more in-school bullying compared to boys with MLD attending mainstream school (70% and 17% respectively). Special school pupils reported significantly more bullying overall from mainstream pupils and

from children outside school (i.e. within their local community). These findings show the pervasiveness of bullying for pupils with MLD and the contributory factor of special school placement on the rate of perceived bullying (Norwich & Kelly, 2004).

Taking the above findings together with research investigating more general social outcomes of inclusive education, it appears that pupils with SEN may benefit socially from being educated with typically developing peers. However, a recent review of the effects of inclusion on social outcomes found that research continues to reveal mixed findings (Ruijs & Peetsma, 2009). Several types of special education placements exist and it is likely that contextual factors, which differentiate various inclusive settings, may be contributing to the apparently contradictory results of such studies (e.g. Wiener & Tardif, 2004; Frederickson et al., 2007). An important point to consider is that pupils may prefer to associate with other pupils without SEN and that pupils with SEN have a desire to associate with others who are like themselves (see Cuckle & Wilson, 2002; Monchy et al., 2004). Teachers play a critical role in developing social inclusion through curriculum delivery, instructional strategies and activities that encourage social interactions (Pavri & Monda-Amaya, 2001). Evaluation studies of successful intervention approaches can offer support and evidence for how this can be achieved (e.g. Frederickson & Turner, 2003; Sheehy et al., 2009).

1.5.4. Summary of inclusion research

Proponents of inclusion argue that children will benefit academically, emotionally and socially from more inclusive education placements due to achieving more academically, feeling less stigmatised, making more friends, having more positive self-perceptions, and feeling less lonely and depressed than those attending special provisions (Wiener & Tardiff, 2004). The findings from efficacy research are mixed. While some research supports the policy of inclusion to show benefits for academic, social and affective outcomes through neutral or positive findings, other research is less positive about the benefits of inclusive education for pupils with SEN (see Lindsay, 2007; Ruijs & Peetsma, 2009).

Attempts to explain the difficulties in arriving at firm conclusions about the effectiveness of inclusion have been discussed above and include meta-analyses and reviews using findings from heterogeneous groups to explore generalised hypotheses regarding outcomes for pupils with SEN (e.g. Elbaum, 2002; Lindsay, 2007), and difficulty comparing educational settings due to the wide variety of provision which pupils can experience (e.g. Wiener & Tardiff; Elbaum, 2002). Despite these difficulties, authors of recent reviews (e.g. Frederickson et al., 2007; Ruijs & Peetsma, 2009) are calling for more research comparing children with SEN in mainstream and special education.

1.6. Future directions

Conflicting empirical findings and contrasting perspectives leave parents, teachers, and educational policymakers without clear guidance on the possible implications of different educational placements for pupils' academic, social and affective outcomes. In promoting a clearer understanding of the effectiveness research, it is "important to recognise that in any school, however committed to ensuring that the needs of all students are met, different levels of success are likely to be achieved by different groups of students across different social and affective outcomes being measured" (Frederickson et al., 2007, p.105). Lindsay's (2007) analysis of the recent efficacy literature led to the conclusion that future research should explore the mediators and moderators that support the optimal inclusion of pupils with SEN. Belonging is a powerful psychological concept with significant implications for schools that may serve to mediate the relationship between educational placement and pupil outcomes. It may help to explain the variability described between studies in the inclusion efficacy research. SOSB is an under-researched area within the inclusion literature in the UK (Frederickson et al., 2007), although its functional importance for academic achievement and positive well-being has been made apparent by Baroness Warnock (2005) who stated that, "...the concept of inclusion must embrace the feeling of belonging, since such a feeling appears to be necessary both for successful learning and for more general well-being." (p.15).

1.6.1. Belongingness and SEN

There is only limited published research within the area of belonging for pupils with SEN, and it has not been researched widely within efficacy research, particularly in the UK. The research which does exist is limited to discursive pieces (e.g. Kunc, 1992), case studies (e.g. Schnorr, 1997) and qualitative studies (e.g. Ellis, Hart, & Small-McGinley, 1998; Williams & Downing, 1998). For example, Kunc (1992) interpreted Maslow's hierarchy of needs within the context of inclusive education to argue against the placement of pupils with SEN in special educational provisions. He expressed his views that segregated placement of pupils with SEN diminishes feelings of belonging and subsequent ability to achieve the higher levels of need (e.g. self-esteem and academic achievement) by stating that, "...they can't belong until they learn, but they can't learn because they are prevented from belonging" (Kunc, 1992, p.35).

Qualitative studies suggest that belonging is important for pupils with SEN (Ellis et al., 1998) but few empirical studies have addressed these assertions (Frederickson et al., 2007; Hagborg, 1998). Frederickson et al. (2007) used a self-reported measure of school belonging to compare the social outcomes of two groups of SEN pupils educated within mainstream schools (SEN and former special school; FSS). Scores across the groups were broadly similar and no significant differences were found between groups.

1.6.2. Synthesis

Exploring the associations between pupils' SOSB and outcomes previously researched within the literature (e.g. self-concept), may provide important insights into the effectiveness of inclusion as suggested by Lindsay (2007). Moreover, measuring belongingness will allow for consideration of the most relevant and current conceptualisations of inclusion in the UK which focus on the importance of community and a feeling of belonging (Frederickson et al., 2007). The functional importance of belonging can draw support from psychological theories (e.g. Baumeister & Leary, 1995; Bowlby, 1978; Maslow, 1943) in addition to research demonstrating that belongingness is critical to success in school and psychological well-being (e.g. Bond et al.,

2007). Such results have been derived from the use of general school populations and the exploration of these associations within SEN pupils warrants further exploration. Thus, SOB could be the inherent factor to explore within the inclusion research due to its associations with the recommended OFSTED (2002) outcomes - academic achievement, self-esteem, and social relationships with peers. In addition, the concept of belongingness may relate directly to the concerns some parents might have about how accepted and welcomed their child is in school (Frederickson et al., 2007).

Chapter 2. Empirical Paper

Exploring the effectiveness of inclusion: is a sense of school belonging the key factor in understanding outcomes?

This empirical paper has been written using the *International Journal of Inclusive Education* as a guide in determining the preparation of the paper.

UNIVERSITY OF SOUTHAMPTON

2.1. Abstract

FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES

SCHOOL OF PSYCHOLOGY

Doctorate in Educational Psychology

EXPLORING THE EFFECTIVENESS OF INCLUSION: IS A SENSE OF
SCHOOL BELONGING THE KEY FACTOR IN UNDERSTANDING
OUTCOMES?

by Emily Jane Prince

This study explored the effectiveness of inclusion for pupils with behavioural, emotional and social difficulties (BESD) based on social, affective and behavioural outcomes. It investigated the association between these outcomes and aimed to test the role of belonging in mediating the relation between school placement and outcomes for pupils with BESD. Three groups of 19 pupils (aged 11 to 14 years) were compared; pupils with BESD educated within mainstream schools (MS); those attending a special provision (BS); and a matched control group of pupils educated within mainstream schools. Pupils completed measures to assess their levels of sense of school belonging, self-concept, anxiety, depression, anger and disruptive behaviour. There were no group differences for pupils' sense of belonging, self-concept, anxiety or depression. Significant group differences for anger and disruptive behaviour scores were found. Significant linear trends across groups were found for anxiety, depression, anger and disruptive behaviour. Significant associations were found between the social and affective measures for the total sample; however, within the BESD sample belonging was not found to be related to anger. Regressions indicated that placement and belonging had independent effects on behavioural, but not affective, outcomes for the BESD group. The findings add to the inclusion efficacy research for pupils with BESD. The current results have direct implications in terms of understanding the association between the social context of the learning environment and pupils' emotional and mental health outcomes.

2.2. Introduction

2.2.1. Background

The term SEN was introduced to cover the range of difficulties that children can experience and which impact on the ability to function, learn and succeed in school. The SEN Code of Practice (Department for Education and Skills; DfES, 2001) refers to four areas of need, including behaviour, emotional and social development (BESD), communication and interaction, cognition and learning, and sensory and/or physical difficulties. Children and young people categorised as BESD are described as having a learning difficulty demonstrated by a range of internalising (e.g. withdrawn) and externalising (e.g. disruptive behaviour) problems (DfES, 2001). Many also present with poor mental health (Pirie & Macleod, 2009) and clinical designations such as attention deficit hyperactivity disorder and conduct disorder (Farrell & Tsakalidou, 1999).

In addition to a change in SEN conceptualisation, the 1981 Education Act introduced an 'inclusive' approach to education. The most basic definition of inclusion refers to educational provision which places pupils with SEN within mainstream schools, rather than in special provisions (Frederickson, 2008). The trend towards inclusive education is consistent with the adoption of the Salamanca Statement which called on governments "to adopt the principle of inclusive education, enrolling all children in regular schools unless there are compelling reasons for doing otherwise" (United Nations Educational Scientific and Cultural Organisation [UNESCO], 1994, p.44). These developments within education have been strongly influenced by arguments based on human rights considerations. A separate issue concerns the relative effectiveness of inclusion as measured by empirical evidence (Farrell, 2000; Lindsay, 2007). In particular, concerns have been expressed about pupils' social experience of inclusion, as pupils with SEN are considered at risk of being 'bullied and teased' in mainstream schools (Warnock, 2005).

2.2.2. Research on inclusive education

Different outcomes of inclusion have been addressed in recent literature reviews (e.g. Lindsay, 2007; Ruijs & Peetsma, 2009). The weight of

evidence from these reviews indicates marginally better social and academic outcomes for pupils with SEN educated within mainstream education compared to those in special provisions. Poorer outcomes are, however, generally found when pupils with SEN are compared with their mainstream peers. It is difficult to draw firm conclusions from the inclusion research due to a number of methodological issues (see Farrell, 2000; Lindsay, 2007). For example, conclusions drawn from the assimilation of findings from studies using heterogenous groups must be made with caution as the range of problems evident in pupils described as having SEN could encompass all or only some of those categorised within the SEN Code of Practice (DfES, 2001). In promoting a clearer understanding of the effectiveness research, it is important to consider that “different levels of success are likely to be achieved by different groups of students across different social and affective outcomes” being measured (Frederickson, Simmonds, Evans, & Soulsby, 2007, p. 105).

UK research literature on inclusive education typically does not focus on pupils with BESD (Burton, Bartlett, & Anderson de Cuevas, 2009; Visser & Dubsky, 2009) and the effectiveness of inclusion within this group is unclear. Professionals working in education are undecided on how best to meet the needs of the BESD group within mainstream schools who often constitute a greater challenge for inclusion than other areas of SEN (Department for Education and Employment; DfEE, 1997; DfEE, 1998). Jull (2008) identified that BESD is the only category of SEN for which a child is at increased risk of punitive exclusion as a function of the very SEN identified as requiring support. School inclusion figures for pupils with SEN in the UK consistently show that this group of pupils are as likely to be placed in alternative provisions as they were 30 years ago, unlike other categories of SEN (Cooper, 2004). Further, very few (less than 5 percent per school) are re-integrated back into mainstream education (Farrell & Tsakalidou, 1999).

Perceived barriers to successful inclusion of pupils with BESD include pupils being too ‘disturbed’, a lack of adequately trained staff, pupils not being able to cope with academic demands, a perception that pupils prefer special schools, and an overall reluctance to accept these pupils (Burton et al., 2009; Farrell & Tsakalidou, 1999). Outward disruptiveness can dominate

school staffs' perceptions and together with a poor understanding of the need for differentiated responses, the successful inclusion of these pupils can be hindered (Cole, Visser, & Daniels 1999a).

Farrell and Tsakalidou (1999) discussed the debate concerning the different provisions offered to pupils with BESD. They highlight that OFSTED reports of special provisions for this group are often quite critical and that proponents of mainstream inclusion argue that pupils are devalued in these settings. They further note that pupils are typically offered a rich and stimulating education in special schools and that they are more devalued and isolated in a mainstream class (Farrell & Tsakalidou, 1999). The empirical evidence on which these assertions have been made is unclear and systematic evaluations of outcomes for pupils with BESD across different educational placements are required. For example, qualitative research with parents suggests that BESD schools promote social inclusion for pupils, but research needs to address the experiences of children themselves (Crawford & Simonoff, 2003). In particular, the views of pupils has the potential to inform policy and planning through identification of best practice for meeting the needs of these pupils (Farrell, 2000; Polat & Farrell, 2002).

Inclusion efficacy research in relation to pupils with BESD is limited. The literature in this area includes qualitative explorations of stakeholders' views (e.g. Jahnukainen, 2001; Polat & Farrell, 2002; Crawford & Simonoff, 2003; Harriss, Barlow & Moli, 2008; Parsons, Lewis, Davison, Ellins, & Robertson, 2009) along with identification of the barriers to successful inclusion (e.g. Farrell & Tsakalidou, 1999). Further research suggests how to effectively include pupils with BESD (e.g. Cole, Visser, & Upton, 1999b).

2.2.3. Inclusion and sense of school belonging

Systematic evaluations of the effectiveness of educational provision for pupils with BESD have recently been called for, and this research should include investigations of the processes and mechanisms of change (Harriss et al., 2008). One element that has been found to be important for successful school outcomes in general school populations is the extent to which pupils feel they belong to their school environment (see Osterman, 2000). For example, findings from longitudinal research suggest that a high

sense of school belonging (SOSB) can reduce young people's engagement with risk-taking and externalising behaviours (e.g. substance misuse and offending behaviour) and protect against the development of poor mental health (Anderman, 2002; McGraw, Moore, Fuller, & Bates, 2008; Resnick et al., 1997), outcomes that are particularly relevant to pupils with BESD.

Belonging has also been recognised as an important aspect to consider for the successful inclusion of pupils with SEN (Warnock, 2005). Kunc (1993), for example, discussed the arguments for inclusive education in relation to satisfying SEN pupils' need to belong using Maslow's hierarchy of needs (1943). Kunc proposed that mainstream education offered pupils with SEN the right to belong and, through this, the development of higher-order functioning (e.g. self-esteem and self-actualisation). Indeed, recent definitions of inclusion emphasise the need for pupils to feel they belong to their school and are seen as valued members of the school community (Farrell, 2000; Frederickson et al., 2007; Warnock, 2005). Therefore, one factor that might be critical in future evaluations of educational provisions for pupils with BESD is the extent to which any school environment fosters a SOSB.

In relation to this point, there is a wealth of literature which locates the social context of school and classroom environments at the centre of strategies to successfully respond to pupils with BESD. For example, Cole et al. (1999a) interviewed key personnel in schools (e.g. senior management and pastoral staff) and found that schools who successfully included pupils with BESD were those where pupils were seen as part of the community and were valued by staff. Yet, efficacy research for this group has failed to explicitly measure their experiences of school environments and explore how these subjective feelings impact on other outcomes being measured. The links found between high SOSB and reduced negative affect and externalising behaviour within general school populations (e.g. McGraw et al., 2008) suggest that this concept may be a key factor to investigate for pupils with BESD who are at increased risk of psychopathology and anti-social behaviours (Pirie & Macleod, 2009).

2.2.4. *Previous research*

Overall, there is only limited literature that has explored pupils' SOSB within SEN populations (e.g. Schnorr, 1997; Williams & Downing, 1998). For example, qualitative research was undertaken with pupils (aged 13 to 15 years) with a history of behavioural problems in Canada (Ellis, Hart, & Small-McGinley, 1998). The need to feel a sense of belongingness was found to be a major theme for this group of pupils. Ellis et al. (1998) concluded that pupils' feelings of belonging related directly to incidents of problematic behaviour and ultimately their opportunities for experiencing inclusion. However, the strength and direction of these associations is unclear due to the nature of the study.

Two key studies have compared the SOSB experienced by pupils with SEN with that reported by typically developing peers (Frederickson et al., 2007; Hagborg, 1998). Hagborg (1998) compared 37 pupils with SEN with matched control pupils from the same mainstream school. Contrary to the predictions made by the authors that pupils with SEN would report lower levels of school membership, the results suggested that they did not differ from non-SEN peers. These findings have been replicated and extended within more recent research in the UK. Frederickson et al. (2007) explored pupils' subjective feelings of belongingness within 14 mainstream schools and found no significant differences between pupils with SEN compared with typically developing peers. Further correlational analysis indicated SOSB was positively associated with positive social and behavioural outcomes for the total sample.

Although equivalent levels of belonging have been found between pupils with SEN and their non-SEN peers within mainstream education, this construct is yet to be examined within alternative educational provision provided to pupils with SEN.

There are some good reasons and ideologies for inclusion of pupils with SEN. Pupils with BESD seem especially difficult to include and inclusion efficacy research for this group of pupils requires further attention (Visser & Dubsky, 2009). Further research will help inform best practice for this group of pupils through specifically considering what factors might mediate the

effects of inclusion (i.e. educational placement) on different developmental outcomes. Measures of belonging are lacking within inclusion research in the UK (Frederickson et al., 2007), although its functional importance has been made apparent in relation to pupils with BESD (Ellis et al., 1998) and in education more broadly (Kunc, 1993; McGraw et al., 2008; Resnick et al., 1997; Warnock, 2005;). Previous research which has demonstrated links between high SOSB and positive affective and behavioural outcomes is of particular interest in relation to pupils with BESD who are at increased risk of presenting or developing poor mental health and anti-social behaviours (Pirrie & Macleod, 2009). Thus, the effect of pupils' social experiences of the school environment, regardless of the type of provision they attend, is important to consider in relation to outcomes being measured within inclusion efficacy research.

2.3. Research questions and hypotheses

The purpose of the present study was to explore feelings of belonging at school and to report how this subjective construct impacts on the affective and behavioural outcomes of pupils categorised as BESD. The study compared pupils with BESD attending special provision with those attending mainstream schools to explore the effectiveness of inclusion in terms of social, affective and behavioural outcomes. Social outcomes are generally poorer for pupils with SEN when compared to non-SEN peers (Lindsay, 2007); therefore pupils with BESD were also compared to pupils with no SEN designation.

The study tested the proposition that there would be a difference in these pupils' SOSB determined by educational placement (mainstream school and special provision) and when compared to their non-SEN peers.

It also explored the proposition that for all groups there would be a relationship between SOSB and both affective and behavioural outcomes; a positive relationship between a SOSB and positive affective outcomes (e.g. general self-concept) and a negative relationship with negative affective outcomes (e.g. depression, anxiety, and anger) and disruptive behaviour.

A further aim of the study was to investigate whether belonging mediated any effect of school placement on differences found in affective

and behavioural outcomes for pupils with BESD. Therefore, the study aimed to test the proposition that the effectiveness of inclusion (the relationship between school placement and affective/behavioural outcomes) would be mediated by pupils' SOSB (see Figure 1). There were four specific research questions:

1. Do BESD pupils' social, affective and behavioural outcomes differ across educational placement?
2. Do BESD pupils' social, affective and behavioural outcomes differ when compared to their non-SEN peers?
3. Does a SOSB correlate with both affective and behavioural outcome measures within the current sample (for the total and BESD samples)?
4. Does SOSB mediate the relationship between educational placement and both affective and behavioural outcomes for pupils with BESD?

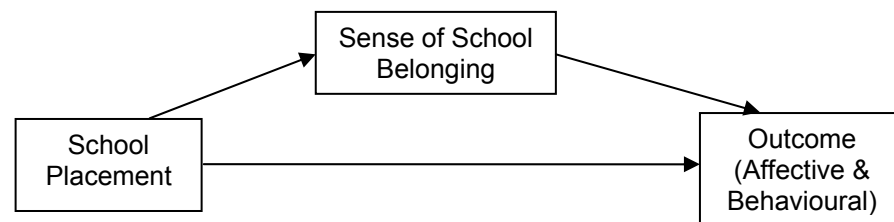


Figure 1. Hypothesised mediating model of belonging for pupils with BESD.

2.4. Method

2.4.1. Schools

Eleven mainstream schools and two BESD schools were approached to participate in the research across two differing local authorities (see Appendix B). Both BESD schools and eight mainstream schools agreed to meet with the researcher and written consent was obtained from each Head teacher (see Appendix C). Reasons given by the three mainstream schools who did not take part included the school not having a pupil with a statement for BESD in attendance at the time of the research being carried out ($n=1$), or school staff not having enough time to meet with the researcher ($n=2$).

2.4.2. Participants

Originally parents of male pupils from Years 7 to 9 were contacted by letter to inform them of the study. Male participants were chosen due to the higher

prevalence of BESD among boys (Green, McGinnity, Meltzer, Ford, & Goodman, 2005). An opt-out slip (see Appendix D) was enclosed for those parents who did not want their child to participate in the study. The study was later extended to include Year 10 pupils in order to increase the sample size. Parents were informed that pupils with a statement for BESD would be chosen and that some pupils without a SEN statement would also take part to form a control group. The schools' Special Educational Needs Coordinator (SENCo) were asked to choose control pupils based on the age and cognitive ability of the BESD pupil(s) within their school.

In total, 58 pupils (mean age = 156 months, $SD = 11$ months, range = 134 to 177 months) participated from the ten schools, resulting in three groups. The first group contained 20 pupils with SEN statements attending BESD schools (BS group). The second group was made up of 19 pupils with SEN statements for BESD attending mainstream schools (MS group). The final group was made up of 19 control subjects attending mainstream schools (Control group). All pupils were matched for age and cognitive ability (see Table 1). Between-group analysis confirmed that there were significant differences between the groups for English KS2 SATs results, $H(3) = 10.95, p < .01$. There were no differences between the groups for age, $H(3) = .143, p > .05$, verbal ability, $H(3) = 1.24, p > .05$, or non-verbal ability, $H(3) = 2.77, p > .05$.

Table 1.

Means and Standard Deviations of Pupils' Age, Cognitive Ability and Academic Performance

	Group					
	Control (n19)		MS (n19)		BS (n20)	
	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)
Age (mths)	156.53	(11.32)	155.63	(10.75)	155.50	(11.43)
SPM+	34.16	(7.97)	26.61	(6.13)	26.25	(6.15)
MHV	28.71	(4.95)	32.28	(4.75)	26.32	(3.01)
KS2 English SAT	3.72	(.83)	3.40	(.74)	2.46	(1.05)

Note. N = 58. *M* = mean; *SD* = standard deviation; SPM+ = Standard Progressive Matrices – Plus version; MHV = Mill Hill Vocabulary Scale, SAT = Standard Assessment Tests.

2.4.3. Design

A between-group comparison design was used to explore the relationships between school placement, sense of school belonging, affective and behavioural outcomes.

2.4.4. Measures

Cognitive Ability.

Raven's Progressive Matrices and Vocabulary Scales (Raven et al, 2008) measure general cognitive abilities in children and are standardised for the UK population. The Standard Progressive Matrices – Plus version (SPM+) provides an assessment of non-verbal ability and requires the identification of the missing segment required to complete a larger pattern (presented in a 3x3 or 2x2 matrix). The Mill Hill Vocabulary Scale (MHV) provides a measure of verbal intelligence using two subtests. One set requires written descriptions for the words and the other requires selection of a multiple-choice option for the word definitions. Both the SPM+ and MHV can be administered individually or to groups of children and adolescents aged 7 to 18 years. The present study used raw scores from the SPM+ and the multiple choice subtest of the MHV test to match pupils across groups.

Academic performance.

In the UK, the National Curriculum Standard Assessment Tests (SATs) are indicators of academic competence and are taken at the end of key stage 2, when pupils are approximately 11 years of age. The SATs use methods and materials devised by the Qualifications and Curriculum Authority (QCA; 2008) to assess English and Mathematics. The present study asked schools to provide KS2 English SATs level results where available in order to match pupils across groups.

Social outcome (sense of school belonging).

The Psychological Sense of School Membership (PSSM; Goodenow, 1993) is a self-report measure designed to assess a student's sense of belonging to their school community and includes 18 items (see Appendix A). The PSSM requires participants to indicate the extent to which they agree with

statements on a 5-point Likert scale. Summed ratings of the items are divided by the number of items to produce a score range from 1 to 5. Goodenow (1993) reported a potential tipping point or midpoint of 3.0 for this scale, below which pupils are regarded as more negative than positive in their responses for school belonging. Recent research shows that the PSSM has good internal consistency for adolescent samples with Cronbach's alpha of .90 reported by McGraw et al. (2008). Cronbach's alpha within the current study was .88.

Affective & behavioural outcomes.

The Beck Youth Inventories (Second Edition) for children and adolescents (BYI-II; Beck, Beck, Jolly & Steer, 2005) is a self-report measure designed to assess affective and behavioural symptoms of depression, anxiety, anger, disruptive behaviour and self-concept. It can be used with children and adolescents between the ages of 7 and 18 years. The scale consists of 5 self-report inventories which can be used separately or in combination. The self-concept, anxiety, depression and anger inventories were used to assess affective outcomes within the current study. The disruptive behaviour inventory was used to assess behavioural outcomes. Each inventory contains 20 statements and items are scaled from 0 (Never) to 3 (Always). A total raw score is calculated by adding item scores for all 20 items of each scale. Raw scores can be transformed to standardised *T* scores using computed means and standard deviations for normative groups. This score is dimensional in that it examines a child or young person's problem in a specific domain across a continuum of degrees of severity (e.g. 'average' to 'extremely elevated'). Beck et al. (2005) report cronbach's alpha coefficients ranging from .86 to .96, which indicate high internal consistency for all age groups on all sub-scales. The reliabilities of all the subscales were high in the current study (self-concept = .92, anxiety = .93, depression = .96, anger = .95, disruptive behaviour = .91).

2.4.5. Procedure

Ethical approval was obtained from the School of Psychology Ethics Committee at the University of Southampton (see Appendix F). All pupils

were given an explanation of the research and were informed of their right to choose not to take part, and their right to withdraw at any time during the research (see Appendix E).

Pupils were either seen individually or in groups (ranging from 2 to 6 pupils). The SENCo of each school decided on the formation and size of the groups to be tested and the need for the presence of a member of school staff. The SENCo also informed the researcher of any pupils who required a reader for the questionnaires, although this was offered to all pupils nevertheless. The two questionnaire measures were administered with a prompt that any clarification of meanings could be provided by the researcher. Explanation of questions and vocabulary was offered based on research linking language and BESD difficulties (see Cross, 2004).

Questionnaire completion was followed by administration of the cognitive ability tasks for group matching purposes. Due to fatigue considerations, pupils had 20 minutes to complete the SPM+ based on previous research suggesting this as a suitable predictor of untimed scores (Hamel & Schmittmann, 2006). This was followed by completion of the multiple choice subtest of the MHV.

In total the questionnaires and cognitive assessments took between 45 minutes and an hour to complete. All participants were thanked and provided with internal school rewards for their help (e.g. good behaviour stamp in their personal logs).

2.4.6. Data Analysis

Initial analysis of the data set was performed to provide descriptive statistics for the current sample. Examination of the distribution of scores and outliers lead to the removal of one case from the BS group and the conversion of all outcome scores to z-scores for further analysis, based on recommendations by Field (2009).

Analysis of variance (ANOVA) was used to explore differences in social, affective and behavioural outcomes for the three groups; control, MS, and BS. Planned contrasts were carried out to specifically identify where the differences between groups were. To explore differences in outcomes for pupils with and without BESD, the control group was compared to the total

BESD sample. To examine whether BESD pupils' outcomes differed across educational placement, the MS and BS groups were compared against each other.

To investigate the proposition that SOSB correlated with affective and behavioural outcome measures, bivariate correlations were used to examine the associations between variables (for the total and BESD samples). Pearson's correlation coefficients, r , produce an effect size which lies between -1 and +1 and indicate whether variables are positively or negatively related. An effect size of .10 is generally considered to be small, .30 moderate, and .50 large (Cohen, 1988, 1992). Correlations were performed for the total sample and then replicated using only the data for the pupils with BESD.

Multiple regression analysis was employed to test the independent effects of educational placement and belonging on the BESD pupils' affective and behavioural outcomes.

2.5. Results

2.5.1. Descriptive statistics

Table 3 shows the descriptive statistics for the PSSM and BYI-II measures.

Social outcomes (sense of school belonging)

Scaled scores from the PSSM can range from 1 to 5. The current sample obtained a mean above the midpoint ($M = 3.66$, $SD = .64$) indicating more positive than negative responses for SOSB. This data is similar to recent scores obtained from an adolescent sample in Australia ($M = 3.61$, $SD = .68$; McGraw et al., 2008) and is higher than scores obtained from a primary school population in the UK ($M = 2.39$, $SD = 0.39$; Frederickson et al., 2007). Pupils who score below the potential tipping point of 3 are regarded as having a low sense of school belonging (Goodenow, 1993). Within the current sample 6 pupils (10%) scored below the midpoint; 3 from the MS group and 3 from the BS group.

Affective and behavioural outcomes

Scores for each of the BYI-II subscales can range between 0 and 60. The *T* scores from each subscale can be compared with normative data (Beck et al., 2005) to show the numbers of participants that fell into non-typical groups. For the Anxiety, Depression, Anger and Disruptive Behaviour inventories, *T* scores above 55 categorise the young person as 'mildly elevated', above 60 as 'moderately elevated', and above 70 as extremely elevated. For the Self-concept inventory, *T* scores below 45 indicate 'lower than average' self-concept and scores below 40 are categorised as 'much lower than average'. Table 2 shows the percentage of the total sample who fell within the non-typical range for each subscale.

The prevalence of non-typical scores within the BESD sample was derived by combining the raw scores from the MS and BS groups. The data from these pupils indicates that 26% of the BESD sample fell into the non-typical range for Anxiety, 34% for Depression, 32% for Anger, 55% for Disruptive Behaviour and 53% for Self-concept (see Table 2).

Table 2.

Non-typical Group Data for BYI-II Subscales

Inventory	<i>n</i>	(%)	Control	MS	BS	Total BESD	(%)
Self-concept (<45)	26	(46%)	6	10	10	20	(53%)
Lower than average	7	(12%)	3	1	3	4	(11%)
Much lower than average	19	(33%)	3	9	7	16	(42%)
Anxiety (>55)	13	(22%)	2	4	6	10	(26%)
Mildly elevated	3	(5%)	1	1	1	2	(5%)
Moderately elevated	6	(10%)	1	2	3	5	(13%)
Extremely elevated	4	(7%)	0	1	2	3	(8%)
Depression (>55)	15	(26%)	1	6	7	13	(34%)
Mildly elevated	6	(10%)	1	3	2	5	(13%)
Moderately elevated	5	(9%)	0	2	3	5	(13%)
Extremely elevated	4	(7%)	0	1	2	3	(8%)
Anger (>55)	15	(26%)	2	3	9	12	(32%)
Mildly elevated	1	(2%)	0	0	1	1	(3%)
Moderately elevated	10	(17%)	2	3	5	8	(21%)
Extremely elevated	4	(7%)	0	0	3	3	(8%)
Disruptive Behaviour	25	(43%)	3	6	15	21	(55%)
Mildly elevated	10	(17%)	2	3	5	8	(21%)
Moderately elevated	12	(21%)	1	3	8	11	(29%)
Extremely elevated	3	(5%)	0	0	2	2	(5%)

Note. *n* = total number, % = percentage of total sample; MS = BESD pupils in mainstream school; BS = BESD pupils in special provision.

Table 3.

Means, Standard Deviation, Range and Results of Statistical Analysis on the PSSM and BYI-II Subscales

Measure	<i>M</i>	Total (n57)		MS (n19)	BS (n19)	Control (n19)	ANOVA		Post-hoc
		<i>SD</i>	Range	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	Group	<i>p</i> values	comparisons
PSSM	66.53	10.62	44 – 90	66.21 (11.15)	65.16 (12.58)	68.21 (7.95)	$F(2, 54) = .40$	$p = .68$	
Self-concept	36.54	10.11	9 – 54	34.95 (9.20)	34.74 (12.79)	39.95 (7.17)	$F(2, 54) = 1.65$	$p = .20$	
Anxiety	13.35	9.52	0 – 39	14.26 (8.86)	16.16 (11.78)	9.63 (6.38)	$F(2, 54) = 2.49$	$p = .09$	BESD>Control
Depression	10.44	9.47	0 – 39	12.05 (9.70)	13.11 (11.32)	6.16 (5.19)	$F(2, 54) = 3.21$	$p = .05$	BESD>Control
Anger	15.46	10.33	0 – 40	14.00 (9.14)	22.05 (10.24)	10.32 (8.21)	$F(2, 54) = 8.03$	$p = .00$	BS>MS>Control
Disruptive Behaviour	11.95	7.48	1 – 32	10.58 (6.17)	18.05 (6.86)	7.21 (4.92)	$F(2, 54) = 16.06$	$p = .00$	BS>MS>Control

Note. N = 57. *M* = mean; *SD* = standard deviation; MS = Mainstream BESD pupils; BS = Special provision BESD pupils; BESD = total sample of pupils with BESD (MS & BS data combined); PSSM = Psychological Sense of School Membership; BYI-II = Beck Youth Inventories – Second Edition for children and adolescents.

2.5.2. Associations between variables

The correlations between social, affective and behavioural outcomes were analysed using Pearson's correlation coefficients (r) with a one-tailed probability. The correlational results for the total sample of 57 pupils are presented in Table 4. Table 5 displays associations between variables for the 38 pupils within the BESD sample (MS & BS groups combined).

Total Sample Data

SOSB as measured by the PSSM was significantly correlated with all the BYI measures (Self-concept, Anxiety, Depression, Anger and Disruptive Behaviour). There was a significant positive correlation between the belonging (PSSM) and Self-concept variables ($r = .74, p < .001$). It is a strong correlation: 55% of the variation is explained. The PSSM was negatively correlated with Anxiety ($r = -.30, p < .05$), Depression ($r = -.37, p < .01$), Anger ($r = -.28, p < .05$), Disruptive Behaviour ($r = -.37, p < .01$). These can all be considered moderate correlations as belonging accounted for between 8 – 14% of the variation.

The BYI-II inventories were all significantly associated. Self-concept was negatively associated with the negative affect subscales; Anxiety, Depression, Anger and Disruptive Behaviour ($r = -.48$ to $-.23$). The negative affect inventories were all significantly and positively associated with each other ($r = .40$ to $.77$).

BESD Sample Data

In order to look at the associations between variables for the BESD sample, correlations were re-run using only the MS and BS group data. All associations between the social and affective variables were significant and similar to results obtained from the total sample with the exception of Anger with both belonging ($r = -.19, p > .05$) and Self-concept ($r = -.11, p > .05$). See Table 5 for bivariate analysis for the BESD sample.

Table 4.

Bivariate Correlations Between Variables within All Groups

Variable	1	2	3	4	5	6
1. Belonging (PSSM)	-	.74***	-.30*	-.37**	-.28*	-.37**
2. Self-concept	-	-	-.43***	-.43***	-.23*	-.48***
3. Anxiety	-	-	-	.77***	.59***	.40**
4. Depression	-	-	-	-	.66***	.44***
5. Anger	-	-	-	-	-	.68***
6. Disruptive Behaviour	-	-	-	-	-	-

Note. N = 57; PSSM = Psychological Sense of School Membership. * $p < .05$; ** $p < .01$, *** $p < .001$.

Table 5.

Bivariate Correlations Between Variables for Pupils with BESD

Variable	1	2	3	4	5	6	7
1. Placement (ss type)	-	-.05	-.01	.09	.05	.39**	.51**
2. Belonging (PSSM)	-	-	.76***	-.31*	-.38**	-.20	-.33*
3. Self-concept	-	-	-	-.46**	-.43**	-.12	-.42**
4. Anxiety	-	-	-	-	.77***	.55***	.35*
5. Depression	-	-	-	-	-	.60***	.35*
6. Anger	-	-	-	-	-	-	.60***
7. Disruptive Behaviour	-	-	-	-	-	-	-

Note. N = 38. PSSM = Psychological Sense of School Membership. * $p < .05$; ** $p < .01$, *** $p < .001$.

2.5.3. Between-group differences

Table 3 shows the differences in social, affective and behavioural outcomes between the three groups (control, MS and BS) which were explored using analysis of variance (ANOVA). No significant group differences were found in relation to pupils' SOSB. For the PSSM, scaled scores across the three groups were broadly similar; control group ($M = 3.78$, $SD = .44$), MS group ($M = 3.69$, $SD = .62$); and BS group ($M = 3.61$, $SD = .70$).

The analysis of scores on the BYI-II did not identify any significant effects of group on the Self-concept, Anxiety, and Depression inventories ($p > 0.5$). The results indicated that there was a significant difference between groups for both Anger and Disruptive Behaviour ($p < .01$).

Post-hoc comparisons

Planned comparison tests were used, firstly, to explore the affective and behavioural outcome differences for BESD pupils across placement, and secondly, to explore outcome differences between BESD pupils and their non-SEN peers. A Bonferroni correction was applied to ensure the same criterion was set in all cases for accepting that a difference was significant. No significant differences were found either within the BESD sample or when compared to the control group for self-concept ($p > .05$). Within the BESD sample, pupils attending a special provision had significantly higher scores when compared to mainstream pupils for Anger, $t(54) = 2.69$, $p < .01$ (1-tailed), $r = .34$, and Disruptive Behaviour, $t(54) = 3.82$, $p < .01$ (1-tailed), $r = .46$, but not for Anxiety, $t(54) = .63$, $p > .05$ (1-tailed), $r = .09$, or Depression, $t(54) = .37$, $p > .05$ (1-tailed), $r = .05$. The total BESD sample had significantly higher mean scores than the control group for Anxiety, $t(54) = 2.14$, $p < .05$ (1-tailed), $r = .28$; Depression, $t(54) = 2.51$, $p < .05$ (1-tailed), $r = .32$; Anger, $t(54) = 2.97$, $p < .01$ (1-tailed), $r = .37$; and Disruptive Behaviour, $t(54) = 4.19$, $p < .01$ (1-tailed), $r = .50$. There was a significant linear trend for Anxiety, $F(1,54) = 4.70$, $p < .05$, $w = .26$; Depression, $F(1,54) = 5.52$, $p < .05$, $w = .30$; Anger, $F(1,54) = 15.34$, $p < .001$, $w = .44$; and Disruptive Behaviour, $F(1,54) = 30.66$, $p < .001$, $w = .59$, indicating that scores increased proportionately across the three groups (from control, to MS, to BS).

2.5.4. Testing the model

It was not possible to explore the mediating effect of belonging on the relationship between school placement and both affective and behavioural outcomes for pupils with BESD. The current data failed to meet the assumptions for testing a mediational model (Baron & Kenny, 1986); the independent variable (group) was not found to be significantly related to the mediating variable (belonging). Therefore, for the affective and behavioural outcomes which were found to be related to educational placement within the BESD sample, regression analysis was employed. Regression analysis allowed for examination of the independent effects of belonging and placement on outcomes for pupils with BESD (see Figure 2).

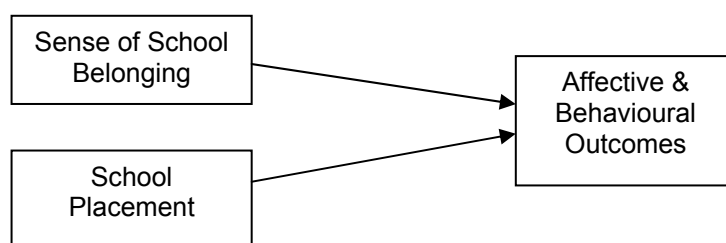


Figure 2. Model demonstrating the independent effects of SOSB and placement on outcomes for pupils with BESD.

Using the enter method, educational placement (group) accounted for 15% of the variance in Anger scores. This increased to 19% when belonging was entered into the model, but this difference is non-significant (see Table 6). Educational placement (group) accounted for 26% of the variance in Disruptive Behaviour scores and this significantly increased to 35% when belonging was entered into the model as a second predictor (see Table 7). This indicates that educational placement and SOSB have independent effects on behavioural outcomes for BESD pupils.

Table 6.

Regression Analysis for Anger Scores (pupils with BESD only)

	<i>B</i>	<i>SE B</i>	β
<u>Step 1</u>			
Constant	-.14	.22	-
Group	.78	.31	.39*
<u>Step 2</u>			
Constant	.87	.89	-
Group	.76	.30	.38*
Belonging	-.02	.01	-.18

Note. $R^2 = .15$ for step 1, $\Delta R^2 = .19$ for step 2 ($p > .05$). * $p < .05$.

Table 7.

Regression Analysis for Disruptive Behaviour Scores (pupils with BESD only)

	<i>B</i>	<i>SE B</i>	β
<u>Step 1</u>			
Constant	-.18	.20	-
Group	.99	.28	.51**
<u>Step 2</u>			
Constant	1.55	.79	-
Group	.97	.27	.49**
Belonging	-.03	.01	-.31*

Note. $R^2 = .26$ for step 1, $\Delta R^2 = .35$ for step 2 ($p < .05$). * $p < .05$; ** $p < .01$

2.6. Discussion

In summary, the current findings have shown that pupils with BESD do not differ in their social outcomes (SOSB) as a result of educational placement or when compared to their non-SEN peers. Pupils with BESD scored significantly higher than non-SEN pupils on the negative affect measures (anxiety, depression, anger, and disruptive behaviour). Within the BESD group, differences in affective and behavioural outcomes were mixed. Although no significant differences across placement were found for self-concept, anxiety and depression, BESD pupils attending a special provision had significantly higher scores for anger and disruptive behaviour than those educated in mainstream schools. For the total sample, SOSB was significantly correlated with all affective and behavioural outcomes. These correlations held within the BESD sample, with the exception of anger. It was not possible to explore the hypothesised mediating model; however, independent effects of belonging and placement were found for behavioural outcomes.

Findings suggest that social outcomes, as measured by SOSB, for pupils with BESD do not differ across educational placement or when compared to typically developing pupils. The social measure used within the current study (i.e. PSSM) directly relates to modern conceptualisations of inclusion (Farrell, 2000; Frederickson et al., 2007; Warnock, 2005). Pupils with BESD felt that they belonged in both different types of educational settings and there were no differences between the extent to which they felt accepted, included and respected when compared to their non-SEN peers. The findings indicate that the negative social outcomes anticipated for pupils with SEN educated in mainstream schools (Warnock, 2005) do not apply to the current sample. This finding is consistent with previous research conducted in schools within the UK (Frederickson et al., 2007) and goes further to extend the finding to pupils with BESD educated in special provisions.

Affective and behavioural outcomes were mixed within the current study. Overall, the BESD sample yielded higher scores for anxiety, depression, anger and disruptive behaviour than their non-SEN peers. The pupils with BESD educated in the special provision displayed significantly

higher self-reported levels of anger and disruptive behaviour compared to the two other groups. Further, the pupils with BESD educated in mainstream schools scored significantly higher on these outcomes than their non-SEN peers. A linear trend was found across groups; as the groups' special educational needs become potentially more problematic for educators (as indicated by their SEN statement designation and educational placement), their self-reported affective and behavioural difficulties increase.

Group differences raise the possibility that scores on the affective measures (particularly externalising symptoms) relate directly to the different behavioural profiles and educational placement of the two groups of pupils with BESD. Disruptive behaviour can hinder the inclusion of pupils in mainstream settings (Jull, 2009; Cole et al., 1999a). Therefore it is possible that, within the current sample, pupils with BESD were attending a special school due to mainstream schools' difficulty or reluctance to meet their challenging emotional and behavioural needs (Farrell & Tsakalidou, 1999; DFES, 2001). Consequently, anger and disruptive behaviour could be seen as a cause to their placement, rather than increased scores indicating negative outcomes of attending a special school. However, due to the nature of the current study, cause and effect of educational placement can not be inferred. Longitudinal research which systematically assesses the development of these difficulties together with changes in educational placement is needed to explore this hypothesis further.

Previous research has identified the construct of school belonging as being an important psychological variable for a range of positive outcomes to occur (Osterman, 2000). The current study tested some of the assumptions put forward by previous research (e.g. Anderman, 2002; McGraw et al., 2008) that a low SOSB has a negative impact on affective outcomes such as self-concept, anxiety and depression, and behavioural outcomes including anti-social behaviour. For both the total and BESD samples, the results showed strong positive associations between SOSB and self-concept; pupils' who felt they belonged had positive views of themselves. This finding is similar to previous research undertaken with non-SEN pupils (Anderman, 2002; Roeser, Midgley & Urdan, 1996). Taken together, such findings lend support

to theoretical claims about the importance of belonging on the development of higher-order functioning (Maslow, 1943). This link is particularly pertinent due to the claim that self-concept causally influences a variety of desirable outcomes, including academic achievement (Marsh, 2005; Marsh & Craven, 2006). Future research could examine these causal associations by including a greater number of outcome variables (e.g. motivation, academic achievement). Such research would seem particularly relevant due to calls within the efficacy literature for investigations of combined effects of relevant mediator and moderator influences on pupil outcome (Lindsay, 2007).

Similar to previous research (Anderman, 2002; Bond et al., 2007), the results showed a negative relationship between SOSB and anxiety, depression, anger and disruptive behaviour measures within the total sample (r -.28 to -.37). This finding is broadly consistent with theoretical assumptions regarding the manifestation of poor psychological well-being as a result of difficulty meeting belongingness needs (Baumeister & Leary, 1995). The current results also support findings that show depression to be correlated with other internalising and externalising disorders (McGraw et al., 2008). Indeed, the current study found strong associations between depression and anxiety, anger, and low self-concept.

The finding that there was no significant association between SOSB and anger for pupils with BESD is interesting. The current data suggests that, for these pupils, SOSB has no clear relationship to self-reported feelings of anger. However, SOSB was significantly correlated with behavioural outcomes within both the total (r -.37) and BESD sample (r -.33). Further, regression analysis found an effect of SOSB on behavioural outcomes independent of educational placement. These findings are consistent with assumptions that young people who have poor relationships in school are more likely to display externalising, disruptive and anti-social behaviours (Hirshi, 1969; Murray & Greenberg, 2000; Bond et al., 2007). However, it is interesting to note that there was a stronger correlation between disruptive behaviour and anger (r .60) than for SOSB. The strong correlation between anger and behavioural difficulties, together with the lack of relationship between anger and SOSB, has important implications for intervention. Although pupils with BESD may benefit from whole-school

environments which promote SOSB, they are likely to require targeted support aimed at helping them to reduce and manage their feelings of anger.

Indeed, recent conceptualisations within SEN, particularly for pupils with BESD, recognise an interactionist or ecosystemic approach (Bronfenbrenner, 1979; Morton & Frith, 1995) whereby behaviour displayed by children reflects a complex interplay of environmental, individual and situational factors (Frederickson & Cline, 2005). Thus, there are likely to be a number of different pathways which impact on feelings of anger and negative behavioural outcomes of pupils with BESD. For example, factors such as feelings of depression, family structures, maternal education, ethnicity and life events can all lead to externalising difficulties (Bowers, 2005; Rydell, 2010).

2.6.1. Limitations

As an initial exploratory study with a specific group of pupils with BESD, a number of interesting findings have emerged, as discussed. There are, however, some limitations with the current study. Firstly, the sample size used was relatively small which has implications for the ability to generalise the current findings. Further to this point, although attempts were made to explore the effectiveness of inclusion within a homogenous SEN group, the designation of a BESD statement is an umbrella term for a range of difficulties (Kershaw & Sonuga-Barke, 1998).

The present study focused solely on school belongingness and failed to include measures of pupils' sense of belonging to other contexts (e.g. parents, family, communities, gangs etc.). Previous research has demonstrated that connectedness to parents and family serves as a protective factor against risky behaviours and negative affect (e.g. Furrer & Skinner, 2003; McGraw et al., 2008; Resnick et al., 1997). SOSB was chosen within the current research due to consideration of these research findings, along with the researcher's time restrictions and professional interest in the impact of educational settings on pupil outcomes. Previous research findings suggest that peer and teacher belongingness are more strongly related to negative affect (McGraw et al., 2008) and emotional engagement in the classroom (Furrer & Skinner, 2003), and school

belongingness is a stronger predictor of emotional distress, suicidal ideation, violence and substance use than family connectedness (Resnick et al., 1997). Moreover, peer connectedness has been found to be a long-term protective factor against depression (McGraw et al., 2008). However, a number of factors affect child development (as discussed above), and measures of belonging to wider social contexts may allow for consideration of other variables which could account for the proportion of unexplained variance within the current results.

Recent calls for research-based evidence of inclusion suggest the use of both quantitative and qualitative design methods (Lindsay, 2007) and only the former was collected in the current study. Current government policy reflects the rights of children and young people to express an opinion and to have that opinion taken into account in any matters affecting them, as stated by the United Nations Convention of the Rights of the Child (1990). Therefore, a significant limitation is that the voice of the young people was not sought in the present study. It would certainly be interesting to extend the findings to include qualitative exploration of pupils' views (e.g. focus groups, semi-structured interviews). This complementary approach would allow for further analysis of the processes within each school that contribute to pupils' SOSB and successful inclusion.

The cross-sectional nature of the study prevents conclusions about the direction of causal relationships to be drawn from the data. For example, whether a positive SOSB leads to higher levels of self-concept, or vice versa - that pupils with positive self-concepts become more motivated to engage with school activities and develop a stronger SOSB. Previous longitudinal research indicates a causal role for the impact of SOSB on negative affective and behavioural outcomes (e.g. Resnick et al., 1997; Bond et al., 2007; McGraw et al., 2008). McGraw et al. (2008) suggested that there is likely to be a two-way relationship between poor SOSB and negative affect, with young people who feel high levels of negative mood less able to make and sustain friendships, as well as a lack of friendships leading to distress. Indeed, for some pupils poor SOSB may produce poor affective and behavioural outcomes (e.g. anger and disruptive behaviour) while, for others, their negative affectivity may break down or prevent formation of

relationships with peers and staff in school which results in a low SOSB. The current findings can not substantiate these claims and further research is needed to explore the long-term development and associations between these factors.

There are some ethical issues which must also be addressed in relation to the current study. Firstly, consent for participation was gained via an 'opt-out' procedure where parents actively withdraw a young person from the study by signing a declaration that they do not wish their child to participate. This method can be used when the research is unlikely to raise any ethical problems (e.g. cause the young person distress) and the Head teacher of the school agrees to act in loco parentis. However, using an 'opt-in' method is generally favoured in research as it increases the likelihood that participants understand what participation will involve and what their rights are in relation to participation and issues of confidentiality and anonymity (see Coomber, 2002 for a more detailed discussion).

Secondly, the participants were required to complete two cognitive ability subtests for group matching purposes. Such tests can be problematic, especially for pupils with BESD whose learning styles are characterised by short attention spans, low self-esteem, fear of new material and failure, and reluctance and/or difficulties in putting pen to paper (Cole, Visser & Upton, 1999). Although participants were informed about the purpose and nature of these tests, and effort rather than successful performance was encouraged, they were time consuming to complete and the items became progressively more challenging for pupils. It is possible that the nature of these assessments affected the validity of the data gathered and had the potential to impact negatively on pupils' affective states. In addition, the data gathered from the tests had minimal relevance to the main hypotheses being tested. Therefore, future research in this area will need to reconsider the use of cognitive ability tests and explore alternative ways of matching pupils across groups.

2.6.2. Implications for Educational Psychologists

The current findings have specific implications for educational psychology practice. Educational psychologists (EPs) are involved in

ongoing debates and discussions around the notion of inclusion (e.g. 'EPs for Inclusion' group, online EP network discussions). There has been a resurgence of interest in this area due to the recent changes in government and publication of the Conservatives' manifesto (2010) stating that they wish to abolish the notion of mainstream inclusion and introduce a variety of provision for pupils' with SEN. The current findings add to the literature base within the area of inclusion efficacy (e.g. Lindsay, 2007; Frederickson et al., 2007; Ruijs & Peetsma, 2009).

Further, this study has emphasised the need to consider the concept of belonging within SEN populations and it is hoped that SOSB will be recognised and included, not only within future efficacy research, but also in government inspections of school settings. At a wider level, EPs are in a position to work together with school leaders to plan, design and evaluate government initiatives aimed at increasing SOSB through changes to current school systems (e.g. SEAL curriculum).

There is currently an emphasis on emotional well-being in schools and classrooms in the UK (McLaughlin, 2008) and in worldwide initiatives to raise the emotional and mental health of children and young people (NICE, 2009; WHO, 2005; OFSTED, 2005; DCSF, 2008). The most recent initiative to be rolled out into UK schools is the Targeted Mental Health in Schools programme (TAMHS), which aims to identify and develop innovative models of support for individuals experiencing mental health difficulties (DCSF, 2008). Overall, the results have direct implications for EPs in terms of understanding the association between the social factors of the learning environment and pupils' emotional and mental health. EPs have a role to play through enabling, encouraging, and building capacity in schools to focus on relationships – between pupils and between teachers and pupils. Preventive interventions developed to foster school belonging could complement interventions that target particularly vulnerable groups. For example, a large number of BESD pupils within the current sample demonstrated negative affective outcomes which reached clinical significance, highlighting the need for any provision, mainstream or special, to identify, support and monitor not only the behavioural presentation of these pupils, but also the emotional factors (Bowers, 2005). EPs are best

placed to be involved in this area of practice, for example through being involved in assessment of needs, providing training to staff or individual therapeutic support to pupils (MacKay & Greig, 2007).

2.6.3. *Summary*

This study explored differences in outcomes for pupils with BESD across two different types of educational provision. The findings revealed that pupils with BESD report roughly equivalent levels of belonging regardless of educational placement. Certainly, if the most recent definitions of inclusion are used, the current findings would suggest that pupils with BESD feel appropriately 'included' regardless of where they are educated. In relation to affective and behavioural outcomes, it would seem that pupils with BESD who attend special educational provisions display more symptoms of externalising behaviours (i.e. anger and disruptive behaviour), whilst the BESD pupils overall experience more negative affect than their non-SEN peers.

The challenge for future research is to identify effective evidence-based strategies to increase SOSB and related outcomes in order to inform educational policy within the UK. For example, in Australia a comprehensive conceptual framework has been proposed drawing together the evidence in relation to school connectedness and mental health promotion to inform policy makers (Rowe, Stewart & Patterson, 2007). A body of literature is emerging that discusses practical strategies for promoting school belonging (see Shochet, Dadds, Ham, & Montague, 2006) and common themes include involving pupils in classroom decisions, avoiding any form of discrimination, rewarding effort rather than achievement, and building strong relationships with all pupils. Such practices overlap with many strategies also identified as promoting successful inclusion (Frederickson & Cline, 2005; Nind et al., 2004).

Overall, the current study has started to tie together the overlapping issues of education, inclusion and emotional well-being through investigation of the key concept – belonging – which is at the core of recent discussions within all these areas. The findings relate directly to current perspectives on the

role of schools in the holistic development of children and young people (McLaughlin, 2008).

Appendix A. Psychological Sense of School Membership questionnaire

INSTRUCTIONS:

Read each statement carefully and try to decide **how much you agree or disagree** with each statement. Remember, there are no right or wrong answers.

PLEASE TICK

Strongly disagree

Strongly agree

		1	2	3	4	5
1	I feel like a real part of my school					
2	People here notice when I'm good at something					
3	It is hard for people like me to be accepted here					
4	Other children in this school take my opinions seriously					
5	Most teachers at my school are interested in me					
6	Sometimes I feel as if I don't belong here					
7	There is at least 1 teacher or other adult in this school I can talk to if I have a problem					
8	People at this school are friendly to me					
9	Teachers here are not interested in people like me					
10	I am included in lots of activities in my school					
11	I am treated with as much respect as other pupils					
12	I feel very different from most other pupils					
13	I can really be myself at this school					
14	The teachers here respect me					
15	People here know I can do good work					
16	I wish I were in a different school					
17	I feel proud of belonging to my school					
18	Other pupils here like me the way I am					

Thank you for completing this questionnaire!

Appendix B. Letter to Head teachers

The effectiveness of inclusion:**Exploring pupil's sense of belongingness and affective outcomes**

Dear...,

My name is Emily Prince and I am a Trainee Educational Psychologist from the University of Southampton (currently working within ... Psychology Service). I am interested in exploring if pupils attending different educational settings (mainstream schools and special school provision) differ in their sense of school belongingness and if these feelings impact on emotional outcomes. I am specifically looking to carry out my research with pupils who have a statement for special educational needs in the category of Behavioural Emotional and Social Difficulties (BESD).

The data gathering would involve the pupils completing 2 questionnaires and carrying out a brief verbal and non-verbal task. It is estimated that this will take about 40 minutes and pupils can be group tested. Pupils without a statement for BESD will also be asked to participate to form a comparison control group. All efforts will be made to cause as little disruption to the day as possible.

I will follow up this letter with a phone call within the next week to discuss the possibility of conducting my research within the school.

In the meantime, if you have any questions relating to this study please do not hesitate to contact me directly via email (see below) or Dr Julie Hadwin (Thesis Supervisor) within the Psychology Department at the University of Southampton (email jah7@soton.ac.uk; telephone 02380 592590).

Yours sincerely,

Emily Prince
Trainee Educational Psychologist
University of Southampton
(ejp2w07@soton.ac.uk)

Appendix C. Head teacher Consent Form

CONSENT for Head teachers

The effectiveness of inclusion:
Exploring pupil's sense of belongingness and affective outcomes

Name of school.....

Name of Head teacher.....

☐ I confirm that I have read and understood the information regarding the current research on the effectiveness of inclusion and have had the opportunity to ask any questions.

☐ I agree to let the pupils within my school take part in the study, providing parents have not returned information stating that they do not want their child to take part.

Signature

Date

Appendix D. Parent Letter and Opt-out Slip

Dear Parent/Guardian

My name is Emily Prince and I am a Trainee Educational Psychologist from the University of Southampton and I am undertaking research within your child's school. I am interested in exploring the effectiveness of inclusion for male pupils with Behavioural, Emotional and Social Difficulties (BESD). The aim is to find out if pupils who attend a mainstream secondary school differ in the way they feel about school to those attending a special school and if these feelings impact on emotional outcomes. I am therefore writing to parents of male pupils who are in Year 7, 8, 9 and 10 in order to provide you with details of this project.

Why might my child been chosen to take part?

I am including pupils who have a statement of Special Educational Need (SEN) for Behavioural Emotional and/or Social Difficulties attending either a mainstream secondary school or special provision. The Special Educational Needs Co-ordinator (SENCo) at your child's school will identify those pupils with a statement for BESD in years 7, 8, 9 or 10 who are available to take part in the study.

Your child may also be chosen if they do not have a statement of Special Educational Needs. The purpose of including these pupils is to provide a comparison control group.

What will my child be asked to do?

Your child will fill out 2 questionnaires and carry out a brief verbal and non-verbal task. It is estimated that this will take about 30 to 40 minutes and it will take place at your child's school during the school day. All efforts will be made to cause as little disruption to the day as possible.

Will my child's participation be confidential?

All data will be dealt with in accordance with the Data Protection Act and University of Southampton policy. Information will remain anonymous and will only be used for the purpose of this research project.

What do I have to do if I am happy for my child to take part?

If you are happy for your child to take part in the study, then you do not need to take any action.

What happens if I change my mind?

The participation of your child is voluntary and you or they may withdraw consent at any time.

What if I am not happy for my child to take part?

If you do not want your child to take part, then please fill out the form and return it to your child's tutor.

What do I do if I have any questions?

We hope that the experience will be enjoyable for the children and informative to you. If you have any questions please contact our supervisor: Dr J.A.Hadwin (email jah7@soton.ac.uk; telephone 02380 592590).

Yours faithfully



Emily Prince

ID code: 845
Ethics code: EP1

BESD Inclusion Study (Emily Prince, Trainee Educational Psychologist)

My child cannot take part in the project on exploring KS3 BESD inclusion.

Child's name: _____ Date of Birth _____

Parent/ Guardian name: _____ Today's Date _____

[Note for tutors – please pass onto SENCo]

Appendix E. Verbal script for research participants

Verbal Script for Research Participants

I am Emily Prince a Trainee Educational Psychologist. I want to find out how you feel about your school and how this affects you. This will involve you filling in a brief questionnaire and doing some tasks, it will take about 30-40 minutes in total. Personal information will not be released to or viewed by anyone other than researchers involved in this project. Results of this study will not include your name or any other identifying characteristics.

Your continued participation in this research will be taken as evidence of your giving informed consent to participate in this study and for your data to be used for the purposes of research, and that you understand that published results of this research project will maintain your confidentiality. Your participation is voluntary and you may withdraw your participation at any time. If you have any questions please ask them now.

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: (023) 8059 5578.

Appendix F. Approval from the Ethics Committee

Your Ethics Form approval
Psychology.Ethics.Forms@ps2.psy.soton.ac.uk
[Psychology.Ethics.Forms@ps2.psy.soton.ac.uk]

Sent: 20 May 2009 13:57
To: [Prince E.J.](#)

This email is to confirm that your ethics form submission for "Effectiveness of Inclusion: Feelings of belongingness and affective outcomes for Male Pupils with BESD" has been approved by the ethics committee

Project Title: Effectiveness of Inclusion: Feelings of belongingness and affective outcomes for Male Pupils with BESD

Study ID : 845

Approved Date : 2009-05-20 13:57:27

References

- Ainsworth, M., & Bell, S. (1970). Attachment, exploration, and separation illustrated by the behavior of one year-olds in a strange situation. *Child Development, 41*, 49-67.
- Ainsworth, M. (1989). Attachments beyond infancy. *American Psychologist, 44*, 709-716.
- Allodi, M. (2000). Self-concept in children receiving special support at school. *European Journal of Special Needs Education, 15*, 69–78.
- Anderman, E. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology, 94* (4), 795-809.
- Baron, R., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51* (6), 1173-1182.
- Barton, L. 2005: Special educational needs: an alternative look, Available at: <http://www.leeds.ac.uk/disabilitystudies/archiveuk/barton/Warnock.pdf> (accessed on 18th January 2010)
- Battistich, V., Schaps, E., & Wilson, M., Solomon, D., & Lewis, C. (2000). Effects of the Child Development Project on students' drug use and other problem behaviors. *Journal of Primary Prevention, 21*, 75–99.
- Baumeister, R., & Leary, M. (1995). The Need to Belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 11* (3), 497-529.

- Baumeister, R., Twenge, J., & Nuss, C. (2002). Effects of social exclusion on cognitive processes: anticipated aloneness reduces intelligent thought. *Journal of Personality and Social Psychology*, 83 (4), 817-827.
- Beck, J., Beck, A., Jolly, J., & Steer, R. (2005). *Beck Youth Inventories-Second Edition for Children and Adolescents manual*. Texas: PsychCorp.
- Bennathan, M. & Boxall, M. (2000). *Nurture Groups: Effective Intervention in Primary Schools*. London: David Fulton.
- Bombèr, L. (2007). *Inside I'm hurting: practical strategies for supporting children with attachment difficulties in schools*. London: Worth Publishing.
- Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., & Patton, G. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health and academic outcomes. *Journal of Adolescent Health*, 40. 357: e9-e18.
- Booth, T., Ainscow, M., Black-Hawkins, K., Vaughan, M. and Shaw, L. (2000). *The Index for Inclusion: Developing Learning and Participation in Schools*. Bristol: CSIE.
- Bowers, T. (2005). The Forgotten 'E' in EBD. In P. Clough, P. Garner, J. Pardeck, & F. Yuen (Eds.), *Handbook of Emotional & Behavioural Difficulties*. London: SAGE.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss, Vol. 2: Separation*. New York: Basic Books.

- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. New York: Basic Books.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bryant, A., Schulenberg, J., Bachman, J., O'Malley, P., & Johnston, L. (2000). Understanding the links among school misbehaviour, academic achievement, and cigarette use: A national panel study of adolescents. *Prevention Science*, 1 (2), 71-87.
- Burton, D., Bartlett, S., & Anderson de Cuevas, R. (2009). Are the contradictions and tensions that have characterized educational provision for young people with behavioural, emotional and social difficulties a persistent feature of current policy? *Emotional and Behavioural Difficulties*, 14 (2), 141-155.
- Capps, M. (2004). Teacher perceptions of middle school students' sense of belonging in Southeast Texas. *Journal of Educational Research & Policy Studies*, 4 (2), 1-20.
- Catalano, R., Haggerty, K., Oesterle, S., Fleming, C., & Hawkins, D. (2004). The importance of bonding to school for healthy development: findings from the social development research group. *Journal of School Health*, 74 (7), 252-261.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. New York: Academic Press.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112 (1), 155-159.

- Cole, T., Visser, J., & Daniels, H. (1999a). A model explaining effective EBD practice in mainstream schools. *Emotional and Behavioural Difficulties*, 4 (1), 12-18.
- Cole, T., Visser, J., & Upton, G. (1999b). *Effective schooling for pupils with emotional and behavioural difficulties*. London: David Fulton Publishers Ltd.
- Cooper, P. (2004). Learning from nurture groups. *Education 3-13*, 32 (3), 59-72.
- Cosden, M. Brown, C. & Elliot. (2002). *The development of self-esteem and self-understanding in children and adults with learning disabilities*. Elbaum: London.
- Crawford, T., & Simonoff, E. (2003). Parental views about services for children attending schools for the emotionally and behaviourally disturbed (EBD): a qualitative analysis. *Child: Care, Health & Development*, 29 (6), 481-491.
- Cross, M. (2004). *Children with emotional and behavioural difficulties and communication problems*. London: Jessica Kingsley Publishers.
- Cuckle, P., & Wilson, J. (2002). Social relationships and friendships among young people with Down's syndrome in secondary schools. *British Journal of Special Education*, 29 (2), 66-71.
- DCSF (2008). *Targeted Mental Health in Schools Project*. Nottingham: DCSF.
- DES (1978). *Special Educational Needs, Report of the Enquiry into the Education of Handicapped Children and Young People* (Warnock Report). London: HMSO.

- DfEE (1997). *Excellence for All Children: Meeting Special Educational Needs*. (Green Paper). London: DfEE.
- DfEE (1998). *Programme for Action*. London: DfEE.
- DfES (2001). *Special Educational Needs Code of Practice*. London: DfES.
- DfES (2005). *Excellence and Enjoyment: Social and emotional aspects of learning*. Nottingham: DfES.
- Donnellan, B., Trzesniewski, K., Robins, R., Moffitt, T., & Caspi, A. (2005). Low self-esteem is related to aggression, antisocial behavior, and delinquency. *Psychological Science*, 16 (4), 328-335.
- Durrant, J., Cunningham, C., & Voelker, S. (1990). Academic, social, and general self-concepts of behavioral subgroups of learning disabled children. *Journal of Educational Psychology*, 82 (4), 657–663.
- Education Act 1981. London: HMSO, 1981.
- Elbaum, B. (2002). The self-concept of students with learning disabilities: A meta-analysis of comparisons across different placements. *Learning Disabilities Research and Practice*, 17, 216–226.
- Ellis, J., Hart, S., & Small-McGinley, J. (1998). The perspectives of “difficult” students on belonging and inclusion in the classroom. *Reclaiming Children and Youth*, 7, 142-146.
- Farrell, P. (2000). The impact of research on developments in inclusive education. *International Journal of Inclusive Education*, 4 (2), 153-162.

- Farrell, P., & Tsakalidou, K. (1999). Recent trends in the re-integration of pupils with emotional and behavioural difficulties in the United Kingdom. *School Psychology International*, 20 (4), 323-337.
- Field, A. (2009). *Discovering statistics using SPSS (Third Edition)*. London: SAGE.
- Finn, J. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117-142.
- Frederickson, N. (2008). Is inclusion for children with special needs psychologically defensible? In N. Frederickson, A. Miller, & T. Cline (2008). *Educational Psychology: Topics in applied psychology*. London: Hodder Education.
- Frederickson, N., & Baxter, J. (2009). Belonging. In N. Frederickson & S. Dunsmuir (Eds.), *Measures of Children's Mental Health & Psychological Wellbeing*. London: GL Assessment.
- Frederickson, N., & Cline, T. (2005). *Special Educational Needs, Inclusion and Diversity: A textbook*. Maidenhead: Open University Press.
- Frederickson, N., Dunsmuir, S., & Baxter, J. (2009). Introduction. In N. Frederickson, & S. Dunsmuir (Eds.), *Measures of Children's Mental Health & Psychological Wellbeing*. London: GL Assessment.
- Frederickson, N., Simmonds, E., Evans, L., & Soulsby, C. (2007). Assessing the social and affective outcomes of inclusion. *British Journal of Special Education*, 34 (2), 105-115.
- Frederickson, N., & Turner, J., (2003). Utilizing the classroom peer group to address children's social needs: An evaluation of the Circle of Friends intervention approach. *The Journal of Special Education*, 36 (4), 234-245.

- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95* (1), 148-162.
- Gans, A., Kenny, M., & Ghany, D. (2003). Comparing the self-concept of students with and without learning disabilities. *Journal of Learning Disabilities, 36* (3), 287-295.
- Geddes, H. (2006), *Attachment in the Classroom: The links between children's early experience, emotional well-being and performance in school*. London: Worth Publishing.
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools, 30*, 79-90.
- Green, H., McGinnity, A., Meltzer, H., Ford, T., & Goodman, R. (2005). *Mental health of children and young people in Great Britain, 2004*. Basingstoke: Palgrave Macmillan.
- Hagborg, W. (1998). School membership among students with learning disabilities and nondisabled students in a semirural high school. *Psychology in the Schools, 35* (2), 183-188.
- Hagerty, B., Lynch-Sauer, J., Patusky, K., Bouwsema, M., & Collier, P. (1992). Sense of belonging: a vital mental health concept. *Archives of Psychiatric Nursing, 6*, 172-177.
- Hagerty, B., Williams, R., Coyne, J., & Early, M. (1996). Sense of belonging and indicators of social and psychological functioning. *Archives of Psychiatric Nursing, 10* (4), 235-24.

Hamel, R., & Schmittmann, V. (2006). The 20-minute version as a predictor of the Raven Advanced Progressive Matrices test. *Educational and Psychological Measurement*, 66 (6), 1039-1046.

Harriss, L., Barlow, J., & Moli, P. (2008). Specialist residential education for children with severe emotional and behavioural difficulties: pupil, parent, and staff perceptions. *Emotional and Behavioural Difficulties*, 1 (1), 31-47.

Hirschi, T. (1969). *Causes of delinquency*. Berkeley and Los Angeles: University of California Press.

Jahnukainen, M. (2001). Experiencing special education. *Emotional and Behavioural Difficulties*, 6 (3), 150-166.

Jull, S. (2008). Emotional and behavioural difficulties (EBD): the special educational need justifying exclusion. *Journal of Research in Special Educational Needs*, 8 (1), 13-18.

Karsten, S., Peetsma, T., Roeleveld, J., & Vergeer, M. (2001). The Dutch policy of integration put to the test: Differences in academic and psychosocial development of pupils in special and mainstream schools. *European Journal of Special Needs Education*, 16, 193–205.

Kearney, M. (2005). Nurturing confidence: The impact of nurture groups on self-esteem. *Educational Psychology in Scotland*, 7 (1), 2-5.

Kennedy, J., & Kennedy, C. (2004). Attachment theory: implications for school psychology. *Psychology in the Schools*, 41 (2), 247-259.

Kershaw, P., & Sonuga-Barke, E. (1998). Emotional and behavioural difficulties: is this a useful category? *Educational & Child Psychology*, 15, 45-56.

- Koster, M., Nakken, H., Pijl, S., van Houten, E., (2007). Being part of the peer group: a literature study focusing on the social dimension of inclusion in education. *International Journal of Inclusive Education*, 1, 1-24.
- Kunc, N. (1992). The need to belong: Rediscovering Maslow's hierarchy of needs. In R. Villa, J. Thousand, W. Stainback, & S. Stainback (Eds.). *Restructuring for caring and effective education*. Baltimore: Brookes.
- Lindsay, G. (2007). Educational psychology and the effectiveness of inclusive education/mainstreaming. *British Journal of Educational Psychology*, 77, 1-24.
- Maddox, S., & Prinz, R. (2003). School bonding in children and adolescents: conceptualisation, assessment and associated variables. *Clinical Child and Family Psychology Review*, 6 (1), 31-49.
- MacKay, T., & Greig, A. (2007). Editorial. *Educational & Child Psychology*, 24 (1), 4-6.
- Marsh, H. W. (2007). *Self-concept theory, measurement and research into practice: The role of self-concept in educational psychology*. Lecture presented at the annual meeting of the Education Section of The British Psychological Society, Durham.
- Marsh, H., & Craven, R. (2006). Reciprocal effects of self-concept and performance from a multidimensional perspective: Beyond seductive pleasure and unidimensional perspectives. *Perspectives on Psychological Science*, 1 (2), 133-163.
- Maslow, A. (1943). A theory of human motivation. *Psychological Review*, 50, 370-396.

- Maslow, A. (1987). *Motivation and Personality* (3rd edition) New York: Harper and Row.
- McGraw, K., Moore, S., Fuller, A., & Bates, G. (2008). Family, peer and school connectedness in final year secondary school students. *Australian Psychologist*, 43 (1), 27-37.
- McLaughlin, C. (2008). Emotional well-being and its relationship to schools and classrooms: a critical reflection. *British Journal of Guidance & Counselling*, 36 (4), 353-366.
- McMillan, D., & Chavis, D. (1986). Sense of community: A definition and theory. *American Journal of Community Psychology*, 14(1), 6-23.
- Mittler, P. (2000). *Working Towards Inclusive Education: Social Contexts*. London: David Fulton.
- Monchy, M., Pijl, S., & Zandberg, T. (2004). Discrepancies in judging social inclusion and bullying of pupils with behaviour problems. *European Journal of Special Needs Education*, 19 (3), 317-330.
- Morton, J., & Frith, U. (1995). Causal modelling: Structural approaches to developmental psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental Psychopathology*. (p. 357-390). New York: Wiley.
- Murray, C., & Greenberg, M. (2000). Children's relationship with teachers and bonds with school: An investigation of patterns and correlates in middle childhood. *Journal of School Psychology*, 38 (5), 423-445.
- Myklebust, J. (2002). Inclusion or exclusion? Transitions among special needs students in upper secondary education in Norway. *European Journal of Special Needs Education*, 17, 251-263.

- NICE (2009). *Promoting young people's social and emotional wellbeing in secondary education*. London: NICE.
- Nind, M., Wearmouth, J., Collins, J., Hall, K., Rix, J., Sheehy,, K. (2004). *A systematic review of pedagogical approaches that can effectively include children with special educational needs in mainstream classrooms with a particular focus on peers group interactive approaches*. Research Evidence in Education Library, London: EPPI-Centre.
- Norwich,B., & Kelly, N. (2004). Pupils' views on inclusion: moderate learning difficulties and bullying in mainstream and special schools. *British Educational Research Journal*, 30 (1), 43-65.
- OFSTED (2002). *LEA Strategy for the Inclusion of Pupils with Special Educational Needs*. London: OFSTED.
- OFSTED (2005). *Healthy minds: Promoting emotional health and well-being in schools*. London: OFSTED.
- Osterman, K. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70 (3), 323-367.
- Parsons, S., Lewis, A., Davison, I., Ellins, J., & Robertson, C. (2009). Satisfaction with educational provision for children with SEN or disabilities: a national postal survey of the views of parents in Great Britain. *Educational Review*, 61 (1), 19-47.
- Pavri, S., & Monda-Amaya, L. (2001). Social support in inclusive schools: Student and teacher perspectives. *Exceptional Children*, 67 (3), 391-411.
- Perry, A. (Ed.) (2009). *Teenagers and Attachment: Helping adolescents engage with life and learning*. London: Worth Publishing.

Pirrie, A., & Macleod, G. (2009). Locked out: researching destinations and outcomes for pupils excluded from special schools and Pupil Referral Units. *Emotional and Behavioural Difficulties*, 14 (3), 185-194.

Polat, F., & Farrell, P. (2002). What was it like for you? Former pupils' reflections on their placement at a residential school for pupils with emotional and behavioural difficulties. *Emotional and Behavioural Difficulties*, 7 (2), 97-108.

Raven, J. (2008). *Standard Progressive Matrices – Plus version and Mill Hill vocabulary scale*. London: Pearson.

Reicher, H. (2009). Building inclusive education on social and emotional learning: challenges and perspectives – a review. *International Journal of Inclusive Education, iFirst Article*, 1-34.

Resnick, M., Bearman, P., Blum, R., Bauman, K., Harris, K., Jones, J. et al. (1997). Protecting adolescents from harm: Findings from the national longitudinal study on adolescent health. *Journal of the American Medical Association*, 278, 823 – 832.

Roeser, R., Midgley, C., & Urdan, T. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology*, 88 (3), 408-422.

Rowe, F., Stewart, D., & Patterson, C. (2007). Promoting school connectedness through whole school approaches. *Health Education*, 107 (6), 524-542.

Ruijs, N., & Peetsma, T. (2009). Effects of inclusion on students with and without special educational needs reviewed. *Educational Research Review*, 4, 67-79.

- Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Rydell, A. (2010). Family factors and children's disruptive behaviour: an investigation of links between demographic characteristics, negative life events and symptoms of ODD and ADHD. *Social Psychiatry and Psychiatric Epidemiology*, 45, 233-244
- Ryzin, M., Gravely, A., & Roseth, C. (2009). Autonomy, belongingness, and engagement in school as contributors to adolescent psychological well-being. *Journal of Youth Adolescence*, 38, 1-12.
- Schnorr, R. (1997). From enrollment to membership: "Belonging" in middle and high school classes. *Journal of the Association for Persons with Severe Handicaps*, 22 (1), 1-15.
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive Psychology: An introduction. *American Psychologist*, 55 (1), 5-14.
- Sheehy, K., Rix, J., Collins, J., Hall, K., Nind, M., Wearmouth, J. (2009). *A systematic review of whole class, subject-based pedagogies with reported outcomes for the academic and social inclusion of pupils with special educational needs*. Research Evidence in Education Library, London: EPPI-Centre.
- Shochet, I., Dadds, M., Ham, D., & Montague, R. (2006). School Connectedness is an underemphasised parameter in adolescent mental health: results of a community prediction study. *Journal of Clinical Child & Adolescent Psychology*, 35 (2), 170-179.

- Sroufe, L., Carlson, E., Levy, A., & Egeland, B. (1999). Implications of attachment theory for developmental psychopathology. *Development and Psychopathology*, 11, 1–13.
- Sroufe, L. A., Egeland, B., Carlson, E., & Collins, W. A. (2005) *The Development of the Person: The Minnesota Study of Risk and Adaptation from Birth to Adulthood*. New York: Guilford Publications.
- Stobart, G. (1986). Is integrating the handicapped psychologically defensible? *Bulletin of The British Psychological Society*, 39, 1-3.
- Perry, A. (Ed.). (2009). *Teenagers and Attachment: Helping adolescents engage with life and learning*. London: Worth Publishing
- Thomas, G., & Vaughan, M. (2005). *Inclusive Education: Readings and reflections*. Maidenhead: Open University Press.
- Trevarthen, C., & Aitken K. (2001). Infant intersubjectivity: Research, theory and clinical applications. Annual Research Review. *Journal of Child Psychology and Psychiatry*, 42 (1), 3–48.
- United Nations (1990). *The Rights of the Child*. London: UN Publications.
- Vaughn, S., Elbaum, B., & Schumm, J. (1996). The effects of inclusion on the social functioning of students with learning disabilities. *Journal of Learning Disabilities*, 29, 598-608.
- Vaughn, S., & Klinger, J. (1998). Students' perceptions of inclusion and resource room settings. *Journal of Special Education*, 32, 79-88.
- Warnock, M. (2005). *Special Educational needs: a new look*. London: Philosophy of Education Society of Great Britain.

- Weare, K., & Gray, G. (2003). *What works in developing children's emotional and social competence and wellbeing?* Research report RR456. Nottingham: DfES.
- WHO (2005). *Child and adolescent mental health policies and plans: Mental Health Policy and Service Guidance Package*. Geneva: WHO.
- Wiener, J., & Tardiff, C. (2004). Social and emotional functioning of children with learning disabilities: Does special education placement make a difference? *Learning Disabilities Research and Practice*, 19, 20–32.
- Williams, L., & Downing, J. (1998). Membership and belonging in inclusive classrooms: What do middle school students have to say? *Journal of the Association for Persons with Severe Handicaps*, 23 (2), 98-110.
- Williams, J., & Solano, C. (1983). The social reality of feeling lonely: Friendship and reciprocation. *Personality and Social Psychology Bulletin*, 9, 237-242.
- Wood, J., Emmerson, N., & Cowan, P. (2004). Is early attachment security carried forward into relationships with preschool peers? *British Journal of Developmental Psychology*, 22, 245-253.
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Paris: UNESCO.
- Vaughn, S., Elbaum, B., & Schumm, J. (1996). The effects of inclusion on the social functioning of students with learning disabilities. *Journal of Learning Disabilities*, 29 (6), 598–608.
- Vaughn, S., & Klinger, J. (1998). Students' perceptions of inclusion and resource room settings. *Journal of Special Education*, 32, 79–88.

- Visser, J., & Dubsky, R. (2009). Peer attitudes to SEBD in a secondary mainstream school. *Emotional and Behavioural Difficulties*, 14 (4), 315-324.
- Zelege, S. (2004). Self-concepts of students with learning difficulties and their normally achieving peers: a review. *European Journal of Special Needs Education*, 19 (2), 145-170.