A study investigating the impact of peer mentoring on pupils transitioning into secondary school who may be at risk of behavioural, emotional and social difficulties

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ABSTRACT

Transition to secondary school is almost always a significant period of worry and anxiety. Research has linked it to a number of negative outcomes for young people including lower self-esteem and self-concept and lower academic achievement. Previous literature suggests that peer mentoring can combat negative effects associated with transition.

The study explored the use of peer mentoring to support pupils who may be at risk of developing social, emotional and behavioural difficulties following transition to secondary school. A pre-test post-test two-group randomised controlled trial investigated the impact on the Year 7 pupils. To examine the impact on Year 9 peer mentors, a pre-test post-test single group design was applied. The quantitative data from Strengths and Difficulties Questionnaires (SDQ), Resiliency Scales and school attendance was analysed using ANOVAs and t-tests. A questionnaire was used to explore pupil views of the scheme and analysed using thematic analysis.

No significant impact was found from the quantitative measures for either mentees or peer mentors. Whilst pupils largely enjoyed the experience, this did not translate into a significant measurable impact. Both the control and intervention group significantly improved on a number of SDQ subscales suggesting pupils may naturally improve following transition. The main themes regarding the things most liked about peer mentoring included having someone to talk to and supporting others. Areas proposed which could

improve future schemes included a better environment and more frequent sessions.

The study had some methodological limitations including a relatively small sample size, limiting the generalisability of the results; however, results coincide with previous research and the researcher questions future use of peer mentoring without more thorough investigation. This thesis highlights the lack of and need for well-conducted research into interventions before they are widely implemented.

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1.0. CHAPTER 1: INTRODUCTION

1.1. Introduction to the Research

The Children Act 2004 gave the legal foundation for Every Child Matters (ECM) (DfES, 2003) which led to *'radical change for all services working with children in the UK'* (Baxter and Frederickson, 2005, p.87). ECM identified five key objectives for children's services:

- Be healthy;

- Stay safe;

- Enjoy and achieve;

- Make a positive contribution; and

- Achieve economic well-being.

ECM highlights the need for early intervention as a means of preventing future difficulties and promoting the five positive outcomes outlined above. Durlak (1995) categorised preventative work into three groups:

- Primary Prevention – available to whole populations and aimed at providing extensive protection from harm, e.g. vaccinations;

- Secondary Prevention – interventions targeted at individuals in the early stages of developing difficulties; and

- Tertiary Prevention – interventions aimed to minimise the impact of disorders that are already present.

When considering where interventions for children can take place, Coughlan, Doyle and Carr (2002) suggest that schools are a suitable setting for primary and secondary preventative interventions. Over recent years, there has been a

general acknowledgement that education professionals should play a larger role in supporting schools to promote early identification, assessment and intervention (Aggett, Boyd & Fletcher, 2006; DoH, 2004; Gale & Vostanis, 2003; Pettitt, 2003; Squires & Dunsmuir, 2011).

The importance of psychological well-being in the healthy development of children and young people has been stressed by a number of documents including the UK's *National Framework for Children and Young People*, published by the Department of Health in 2004 (DoH, 2004). It is stressed in the National Framework that early intervention may make a significant difference to children who are at greater risk of developing mental health problems. Aggett, Boyd and Fletcher (2006) noted that successive government reports have emphasised the need for early, local and targeted interventions for children and young people from infancy to adulthood. They suggest that this early identification and intervention may prevent future more severe problems from developing and therefore reduce future demand on health and social care services.

The Child and Adolescent Mental Health Services (CAMHS) Review (2008) reported some concerning statistics regarding child and adolescent mental health. In 2004, 10% of children and young people aged between five and fifteen had a clinically diagnosable mental disorder associated with considerable distress and substantial interference with personal functions (National CAMHS Review, 2008). When considering the severity and implications of this statistic one must recognise that the figure represents the

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number of children for whom mental health difficulties are sufficiently severe to meet the threshold in the clinical diagnostic criteria and does not include individuals with mental health difficulties of a lower-level or more intermittent nature. In fact, the CAMHS Review authors comment on the presence of such children but do not report the figures due to their inconsistency. We must therefore reach the disturbing conclusion that the prevalence of children and young people with mental health difficulties is likely to be in excess of 10%, of which 10% are clinically significant. Baxter and Frederickson (2005) draw attention to the issue that it is not always possible to identify children who are at risk. They feel that we must therefore work towards developing 'non-stigmatising interventions' (p.97) for children and young people that can be provided through universal services. Mental health difficulties will have profound implications for the ECM agenda (DfES, 2003): directly through the 'Be Healthy' strand and indirectly across all strands. This far-reaching effect puts mental health clearly within the remit of schools and children's services.

As a Trainee Educational Psychologist (TEP), the researcher became interested in the area of secondary prevention in particular because she recognised that tertiary prevention can often be very time consuming and she felt that, with appropriate resources, more could often have been done before difficulties escalated to this level. This view is also shared by others within the field of Educational Psychology who acknowledge that a large proportion of Educational Psychologist (EP) work is targeted at children who have established, rather than early developing difficulties (Baxter & Frederickson,

2005). Working as a TEP, the researcher believes that it may be more time and cost effective and lead to better outcomes for children and young people if more resources and research were targeted at both primary and secondary prevention.

This belief was closely linked with the ethos of the Doctorate in Applied Educational Psychology at the University of Nottingham. The course is part of the National Development and Research (D&R) Collaborative Programme in Educational Psychology, which aims to aggregate the results of theses written by TEPs. Principal Educational Psychologists (PEPs) identified four research priority areas, currently lacking a strong research base, which all focused on improving secondary and tertiary preventative interventions. The present research addressed the D&R criteria by exploring an intervention targeted to prevent exclusion by promoting social inclusion and developing psychological well-being.

Transition to secondary school is an area of professional interest for the researcher. It has also been investigated by a large number of other researchers who have found that transition from primary school to secondary school is a time of high anxiety and risk for pupils; difficulty with transition is associated with a number of negative outcomes including a negative impact on post-transition academic achievement (Roderick, 1993; Simmons and Blyth, 1987; Watt, 2000). Before working as a TEP, the researcher worked in a Middle School for pupils aged 10-14 years-old. While there, the researcher

noted that a-considerable number of the 10-year-olds struggled to settle into school and she was concerned about how a number of the more vulnerable 14-year-olds would cope when they moved onto High School. Working as a TEP, the researcher experienced similar concerns from Year 6 teachers who worried about how their pupils would be supported in secondary school. She had been referred pupils in Year 7 who had behaved well at primary school but, following transition to secondary school, displayed social, emotional and behavioural difficulties. There is a vast amount of research that will be discussed in the literature review which explored the difficulties faced by many young people during their transition from primary to secondary school.

When considering interventions to focus on within the research, the researcher was drawn to peer mentoring for three main reasons. Firstly, she had taken on the role of a mentor for young people during her undergraduate degree and found this to be valuable both for herself and for the young people she mentored. Secondly, working as a TEP she had found that some Primary Schools she worked with had established mentoring schemes, however the Secondary Schools did not appear to have this resource in place. Thirdly, there had been a recent in-depth literature review regarding mentoring carried out by Philip and Spratt (2007) for the Mentoring and Befriending Foundation. This review highlighted that peer mentoring may be '*a means of counteracting negative peer pressure and a more positive approach to young people*' (p.55). The researcher was interested to explore peer mentoring as an intervention for several reasons: her own positive experience of mentoring, literature indicating its possible benefits, her training as a TEP which stressed

evidence-based practice and because she believed that peers may be a valuable and accessible resource to draw on when planning secondary prevention strategies.

The current research explored the use of peer mentoring to support pupils at risk of developing social, emotional and behavioural difficulties following transition to secondary school. The Strengths and Difficulties Questionnaire (SDQ) was used to identify Year 7 pupils who may be at risk of developing social, emotional and behavioural difficulties. Volunteers from Year 9 were trained to be peer mentors and the Year 7s received weekly peer mentoring sessions for one academic term. A pre-test post-test two-group randomised controlled trial investigated the impact on the Year 7 pupils. To examine the impact on Year 9 peer mentors, a pre-test post-test single group design was applied. The quantitative data from the SDQ, Resiliency Scales and school attendance was analysed using ANOVAs and t-tests. A questionnaire was used to explore pupil views of the scheme and analysed using thematic analysis.

As transition to secondary school can be a challenging time for young people, it appeared to be an ideal period to introduce a secondary intervention as young people tend to establish new social groups and settle into new patterns of behaviour. Having worked within education, the researcher was aware that there are already many primary prevention strategies used to support transition such as induction days, talks about what to expect when moving

schools and ice-breaker activities to build relationships. Of particular interest was whether groups of young people who may be at risk of developing social, emotional and behavioural difficulties could be identified and targeted using peer mentoring, a secondary preventative intervention.

It was hoped that by exploring the use of peer mentoring to support those at higher risk during transition, one would be able to assist young people to establish themselves in school, fulfilling key objectives from ECM, during this particularly vulnerable time. It may be the case that during transition points in a young person's life they may be both more vulnerable to negative experience and more amenable to positive intervention; the sensitivity of this period may both enhance the impact of any intervention as well as enhance its ability to mitigate the impact of any negative experiences during a vulnerable period. Working within Educational Psychology, it was also anticipated that the research would contribute to the work of TEPs and EPs striving to use their knowledge and resources working with local authorities to develop more effective evidence-based interventions and strategies to support children and young people.

1.2. Overview of Chapters

1.2.1. Chapter 2: Literature Review

The literature review chapter begins by giving a broad overview of the main themes to be addressed during the research. There are discussions regarding transition to secondary school, risk, resilience and well-being and peer

mentoring which come together to outline the key objectives for the present research.

The main focus of the chapter is a systematic literature review, appraising the research and literature into peer mentoring. Key implications for the current study are drawn out and discussed.

1.2.2. Chapter 3: Methodology

The third chapter discusses social science research methodology, focusing specifically on ontology and epistemology. Key epistemological paradigms including positivist, post-positivist, social constructionist, emancipatory stances and pragmatist are outlined. The researcher aligns herself largely with the post-positivist paradigm and also gives regard to the pragmatic paradigm. The implications of this for the current research are discussed.

The second half of the chapter outlines the research design, giving the research rationale and breaking down the core research questions. Hypotheses are made regarding each research question and are given at the end of the chapter.

1.2.3. Chapter 4: Method

The method chapter gives a thorough description of the methods employed, including information regarding the participants, instruments, procedure, analysis of data and ethical considerations. Difficulties in setting up the project are discussed as are the reliability and validity of methods employed.

1.2.4. Chapter 5: Results

The fifth chapter provides information regarding the data gathered in relation

to each research question. The results for each research question are presented

alongside the hypothesis made following the literature review. ANOVAs and

paired-samples t-tests were used to analyse the quantitative data and a

thematic analysis was used for the qualitative data.

1.2.5. Chapter 6: Discussion

The discussion chapter considers the results of the research in terms of how

they relate to previous research and the implications they have on future

practice and research. Each research question is discussed individually and

they are then considered collectively. There is also a discussion of the

methodological issues.

1.2.6. Chapter 7: Conclusion

The final chapter of this thesis draws together the outcomes of current

research, discusses the future of peer mentoring, outlines areas for future

research and explores the implications of the research for EPs.

2.0. CHAPTER 2: LITERATURE REVIEW

2.1. Literature Review Overview

This chapter begins by giving an overview of the reasons why pupils who may
be at risk of behavioural, emotional and social difficulties (BESD) during
transition to secondary school were chosen to be targeted using a peer
mentoring intervention. The rationale is then summarised and the primary
research question and aims are given. The focal point of this chapter is a
systematic literature review in which a systematic search was carried out to
glean all relevant UK-based research in the area. The studies identified are
discussed in terms of their methodology, main findings and implications for
the current and future research.

2.2. Transition into Secondary School

In the UK the majority of pupils move from primary to secondary school at
the age of 10 or 11 years old. There is a large body of literature and research
regarding this period of transition as it is typically accompanied by a wide
range of experiences and consequences for young people. Zeedyk *et al.* (2003)
have noted that whilst the outcomes can be positive in terms of increased self-
confidence, improved social skills and enhanced motivation; it is almost
always a significant period of worry and anxiety. In their comprehensive
literature review, McGee, Ward, Gibbons and Harlow (2003) identified the
following five key areas of concern for pupils during transition:

- organisational issues such as the size and complexity of secondary
  school;

- different rules, discipline procedures and behaviour management strategies;

- new work demands;

- the possibility of experiencing bullying; and

- the chance of losing one's friends.

Research focusing on the negative effects of transition from primary to secondary school is extensive and long-standing (Anderson, Jacobs, Schramm and Splittgerber, 2000; Qualter, Whiteley, Hutchinson and Pope, 2007). Researchers have found a negative effect on pupils' self-concept and self-esteem during transition (Simmons and Blyth, 1987; Watt, 2000) and there have been studies which show a negative impact on post-transition academic achievement (Roderick, 1993; Parades, 1990). The Pupil Attitudes to Self and School (PASS) rating scale is an electronic rating scale which provides a profile of a range of factors including a pupil's self-regard, perceived capabilities, perseverance, motivation, general work-ethic, attitudes to teachers, preparedness for learning and response to the curriculum. Research using the PASS has shown that the transfer from primary to secondary school (Year 6 to Year 7) and transition from Key Stage three to four (Year 9 to Year 10) is a particularly vulnerable time for pupils' self-concept (Godman, 2007; Williams, Whittome and Watts, 2005).

Transition from primary to secondary school has also been found to correlate with peaks in non-attendance (Elliot, 1999; Fremont, 2003; King & Bernstein, 2001). Research regarding poor school attendance in general has linked it to

poor academic outcomes, poor adult mental health and poor employment prospects upon leaving full-time education (Berg, 1992; Malcolm, Wilson, Davidson and Kirk, 2003; Van Ameringen, Mancini and Farvolden, 2003). Low attendance around transition points may reduce the number and quality of peer relationships formed as the quantity of time spent in school is lower, relative to the pupil's peers. When pupils move from primary to secondary school, they may be in a different form group or in a different set to friends from their primary school and they may even move to a school to which none of their friends are moving. For these reasons, transition to secondary school is often a time in which young people are expected to make new friends and they may experience a change in peer group. Increased anxiety and disengagement could result if the pupil feels left out or believes they are falling behind. This may cause a vicious cycle in which the pupil is more likely to truant due to feeling alienated, socially and academically (Kyriacou, 2003).

Young People move to secondary school during early adolescence, which has been described as a period of socio-cognitive development that is based upon a growing sense of autonomy, independence, self-determination and social interaction (Carnegie Council on Adolescent Development, 1989; Eccles & Midgley, 1989; Simmons & Blyth, 1987; McGee et al., 2003). Secondary school can be thought of as an environment typified by rules, conformity and structure. This disparity between early adolescent development and the environment in which early adolescents spend a large amount of their time, where young people may be seeking independence whilst being expected to

conform, may cause difficulties for a number of young people during transition (McGee *et al.*, 2003).

Ward (2001) agrees that transition is likely to be a period of stress for young people; however she observes that there is disagreement regarding the duration and severity of this stress. In the Australian literature, Mertin, Haebich and Lokan (1989) assert that most children adjust to the new school environment within six months and that they regain losses in performance by their second year. In a more recent UK-based study, Evangelou *et al.* (2008) found that after one term at secondary school, 73% of pupils reported feeling happy and another 16% reported feeling excited. This suggests after a relatively short period of time, the majority of pupils feel settled into their new school. Despite this, other researchers have found that the majority of pupils can still be experiencing some degree of concern well into their first year at secondary school (Stradling & MacNeil, 2000). Ward (2001) suggests that the focus of pupils' concerns may shift during their first year in secondary school as they may begin with general anxieties regarding coping at their new school and move on to having more long-term concerns about school in general. Graham and Hill (2003) reviewed transition programmes in Scotland, where transition occurs at age 12, and concluded that existing transition programmes should be maintained because they were seen by pupils as helpful; furthermore they suggest that more attention is needed with regards to the second term following transition as pupils adjust to secondary school.

Exploring research that has found more positive outcomes following transition allows one to reflect upon what a successful transition may look like and to then consider what may help young people to achieve this. As part of the Effective Pre-school, Primary and Secondary Education 3-14 (EPPSE 3-14) project, Evangelou *et al.* (2008) used a mixed methods approach to examine the transitions of more than 500 children in the UK. From their study they found five aspects of a successful transition. These were:

1. Developing new friendships and improving their self-esteem and confidence;

2. Settling in sufficiently well to school life that they caused no concerns to their parents;

3. Showing an increasing interest in school and school work;

4. Getting used to their new routines and school organisation with great ease; and

5. Experiencing curriculum continuity.

One could argue that the first aspect, 'developing new friendships and improving their self-esteem and confidence', should be split into two aspects. Developing new friendships may not necessarily lead to improved self-esteem and confidence or vice versa. There seems to be a lot of overlap between the five factors: one could presume that if a child experienced some continuity in the curriculum, they may therefore be more interested; or, if a child got used to their new routines with ease, this may lead to them settling into school life well. Evangelou *et al.* (2008) explored the correlation between the factors and found that all of the five factors were significantly positively correlated with

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one another. For example *"the more friendships, self-esteem and confidence children developed after transferring to secondary school; the more settled they were in their school life; the more interest they showed in school and work; the easier they found it getting used to new routines and the more curriculum continuity they experienced."* (Evangelou *et al.*, p.16). From this finding one may infer that to support transition, one may not need to focus on promoting each of the five factors individually, as they appear to be mutually reinforcing. It is accepted that whilst the findings suggest a correlation between these factors, a causal link is not necessarily present. Having said this, it may be that an intervention focused upon supporting pupils to develop new friendships or improve their self-esteem and confidence may help to increase the likelihood of them experiencing the other aspects of a successful transition.

Anderson *et al.* (2000) recommend three research-based targets which secondary schools should aim towards in order to facilitate successful transition into secondary school (see Figure 2.1).

1. "The need for comprehensive efforts", i.e. thorough transition

   planning and multi-faceted, long-term approaches.

2. "The need for parent involvement".

3. "The need to create a sense of community and belonging".

Figure 2.1: Three targets to facilitate successful transition (Anderson *et al.*, 2000, p.334).

As peer mentoring is the intervention chosen to target pupils during transition, the literature review focuses on the first and third of these recommendations

(see Figure 2.1): the need for comprehensive efforts and the need to create a sense of community and belonging. It explores the identification of those who may be at risk of social, emotional and behavioural difficulties during transition (i.e. transition planning) and looks at how peer mentoring can be used as an intervention to support transition through developing a sense of community and belonging. "The need for parent involvement" is not a focus of the review because, whilst parents are informed about peer mentoring as their consent is necessary, they are not usually involved in the intervention itself.

2.3. Risk, Resilience and Well-being

Resiliency Theory evolved due to differences in how individuals emerge from similar circumstances.   For example, of two children growing up in similar environments of poverty and domestic abuse, one may make a successful transition into adulthood and the other may suffer from anxiety and depression throughout their adult life. Resiliency has been defined as, "The process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (Masten, Best and Garmezy,1990, p.426).

In 2001 the Department for Education and Employment published guidance on promoting children's mental health within early years and school settings (DfEE, 2001). There was a strong focus on building children's resiliency and being aware of risk and protective factors. Factors that were identified as putting children at higher risk of developing mental health difficulties included loss or separation (e.g. death of someone close, parental separation,

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divorce, loss of friendships especially in adolescence, family breakdown), life changes (e.g. birth of a sibling, moving house, changing schools) and traumatic events (e.g. abuse, violence, accidents, injuries, war or natural disaster). As a result, all children moving to secondary school will be experiencing at least one 'life change' risk factor. Many children will also be experiencing a 'loss or separation' risk factor as they may not be moving to the same school as their friends. In addition, there may be many other risk factors within a child's life of which a school may be unaware.

When discussing risk and risk factors, it is important to also discuss protective factors within the context of building resiliency. Rutter (1994, 1999) explored the nature of 'protective factors' that allowed some young people to overcome adversity and found that while positive experiences alone do not give a large protective effect, they can serve to neutralise some risk factors. A number of protective factors that have been identified include secure early relationships, higher intelligence, good communication skills, humour, good housing, wider support networks and access to sport and leisure activities (DfEE, 2001). It has also been suggested that engineering supportive relationships may increase the resiliency of some at-risk pupils and that mentoring may be a useful tool with which to do this (Philip and Spratt, 2007).

Benefits of resiliency in adolescence include an increased chance of overcoming social and economic disadvantage, reduced risk of psychological problems in adulthood, increased resources to successfully get through life

transitions and delayed timing of some life transitions such as the onset of parenthood to a more 'age-appropriate time' (Sacker and Schoon 2007). One factor which is thought to promote resilience is children's social support (Friedli, 2009); yet research suggests that children have fewer friends now than they did 20 years ago (Linehan, 2007). Research has also found that children often choose to confide in their friends before their parents or teachers on issues such as bullying (Linehan, 2007). This would suggest that, for some children, peer mentoring could open up discussion of difficult issues that they may be reluctant to approach with parents. Evidence shows that significant others play an important role in defining the self (Humphrey, 2003). Whilst a child's immediate family is often assumed to be their most significant others as they enter education, research suggests that peers may be the most significant others in a child's life, often outweighing parents and having a great impact upon self-esteem (Burnett and McCrindle, 1999; Humphrey, 2001, cited in Humphrey, 2003; Kirchner and Vondraek, 1975). Whilst peer mentoring does not address all of the protective factors outlined by the DfEE (2001), organising additional peer support would be a positive move for schools and may help to promote resilience within children and young people.

Fostering resiliency in an individual is likely to be easier if the individual is situated within a resilient community. Factors that characterise resilient communities, and have been said to provide some protection from the effects of deprivation, include optimism, self-esteem, self-efficacy, interest in others, trust, tolerance, support, participation and reciprocity (Friedli, 2009). When

designing interventions aiming to increase young people's levels of resilience, it is important to bear these factors in mind. These factors also tie in with Anderson *et al's* third target to facilitate successful transition: 'the need to create a sense of community and belonging' (p.336). Resiliency Theory is not always mentioned explicitly by researchers; however the fundamental principles of reducing risk factors and promoting factors associated with successful transition are discussed regularly and clearly fit within a Resiliency Theory framework.

Resiliency is considered to be one aspect of positive mental health which is generally seen as including positive emotions, cognitions, social functioning and coherence (having a sense of meaning to one's life) (Friedli, 2009). Positive mental health and well-being influence a number of outcomes for individuals, including educational attainment, greater positivity, employment and earnings, better relationships, greater social cohesion and engagement and improved quality of life (Barry and Jenkins, 2007; Friedli, 2009; WHO, 2004). Increased resiliency is therefore likely to impact on these objectives through its positive effects on mental health. Moreover, promoting mental health is a desirable end in itself. Improving and recognising the importance of mental health is not simply a regional or national priority; it has been recognised by the World Health Organisation (WHO) in the Mental Health Declaration for Europe (WHO, 2005).

"Mental health and mental well-being are fundamental to the quality of life and productivity of individuals, families, communities and nations, enabling

people to experience life as meaningful and to be creative and active citizens.

We believe that the primary aim of mental health activity is to enhance

people's well-being and functioning by focusing on their strengths and

resources, reinforcing resilience and enhancing protective external factors."

(WHO, 2005, pp.1)

This declaration also relates directly to the five outcomes of the Every Child

Matters (ECM) agenda (DfES, 2003), as promoting mental health is known to

help young people to be healthy, enjoy and achieve, achieve economic well-

being and make a positive contribution.

2.4. Peer Mentoring

Peer mentoring has been referred to on a number of occasions as an

intervention that may be beneficial during discussion of transition into

secondary school, resiliency and emotional well-being; however the approach

has not yet been fully explored.

Mentoring has been defined by the Mentoring and Befriending Foundation as:

"a one-to-one non-judgemental relationship in which an individual, the

mentor, voluntarily gives time to support and encourage another. The

relationship is typically developed at a time of transition in the mentee's life,

and lasts for a significant and sustained period of time."

(MBF, 2006:16)

Peer mentoring can therefore be described with the same characteristics but with the added caveat that the mentor must be a peer of the mentee. The peer mentoring which is the focus of the current study is that which is carried out in schools where slightly older pupils mentor younger pupils.

Using peers as mentors has been shown to have a number of positive elements. The majority of these elements focus on the assumption that peers will have more shared experience and therefore be well placed to support mentees (Pawson, 2004). Peers may also be more influential to mentees as they may be seen as more 'streetwise' and as having more credible, practical knowledge about what it is like to face difficulties at school (Philip and Spratt, 2007). Peer mentoring has been described as *'a means of counteracting negative peer pressure and a more positive approach to young people'* (Philip and Spratt, 2007, p.55).

As mentioned previously, one factor thought to promote resiliency is children's social support (Friedli, 2009). Gibson-Cline (1996) discussed the results of a large study involving over 5000 young people from thirteen different countries which explored the types of problems faced by adolescents and their coping strategies. It was found that, regardless of socio-economic group or nationality, young people choose to turn to a friend for support with a problem. Whilst peer mentors are not necessarily friends, research suggests that children have fewer friends than they did 20 years ago (Linehan, 2007).

For this reason, approaching a peer, albeit one who is not a close friend, for support may be preferable for young people than approaching an adult.

Having briefly discussed the rationale behind peer mentoring and some of the possible benefit for mentees, some of the possible benefits for peer mentors should also be outlined. One of the Every Child Matters outcomes is that all children should 'make a positive contribution' (DfES, 2003) and peer mentoring has been seen as a useful tool to enable pupils to make a positive contribution to others and to their school communities. Mentors have been found to regularly comment that they feel happy to have helped someone through similar experiences with which they may have struggled (Philip, Shucksmith and King, 2004). Lyubomirsky, King and Diener (2005) have linked pro-social behaviour, such as volunteering, to increased well-being and so it may be that acting as a mentor in a voluntary capacity also increases well-being. Conversely, it may be that those who are more likely to put themselves forward for voluntary activities or to be a mentor initially have a higher sense of well-being than those who would be less likely to put themselves forward.

Despite positive views regarding peer mentoring (Pawson, 2004; Philip and Spratt, 2007), there have been mixed findings in the literature. A few of these will be discussed now, with further information in the systematic literature review. Research focusing on youth mentoring as a means of reintegrating young offenders into mainstream (Shiner, Young, Newburn and Groben 2004;

St James-Roberts, Greenlaw, Simon and Hurry, 2005) suggests that younger pupils may be more responsive to these schemes (Philip and Spratt, 2007). Colley (2003) has also found that extremely disaffected young people were less likely to engage with a mentoring programme and those who did were less likely to have significantly positive outcomes than those who were less disaffected. These studies support the need for early intervention, which is one focus of the present research.

The mixed findings in the literature suggest that the intervention needs more documentation and clarification. Evidence indicates that peer mentoring is likely to be a positive intervention and it appears to be an appropriate intervention for the present purpose of supporting pupils following transition to secondary school. The majority of research until this point has used a qualitative methodology, seeking the views of those involved in peer mentoring schemes. However, there appears to be a lack of quantitative research focusing on evaluating the impact of the intervention.

In 2005 the Government announced that it intended to establish peer mentoring schemes in 180 secondary schools and for 600 looked-after children (HM Treasury, 2005). Leyden and Miller (1996) highlight the need for Educational Psychologists (EPs) to become involved in peer interventions so that they 'can play a major part in furthering the practice of inclusive education by bringing peers from the periphery to a position of prominence' (Leyden and Miller, 1996, p.3). The commitment of the Government to

support the creation of a large number of peer mentoring schemes is a window of opportunity for EPs to become more involved in this type of intervention. It would be beneficial to establish methodologically rigorous, organised interventions with a strong research base and EPs are in an ideal position and have the skills necessary to set them up, research their effectiveness and advise on best practice.

2.5. Summary

Before discussing the systematic literature review, it is appropriate to give a concise summary behind the focus of the present literature search and research.

There is a long-standing evidence base showing that transition from Year 6 in primary school to Year 7 in secondary school can cause many negative effects for pupils (Anderson, Jacobs, Schramm and Splittgerber, 2000; Qualter, Whiteley, Hutchinson and Pope, 2007). Most pupils experience some stress during transition and, whilst the majority of pupils do make a successful transition, it is known that this is not the case for all pupils (Evangelou *et al.*, 2008; Mertin, Haebich and Lokan, 1989; Stradling & MacNeil, 2000).

ECM highlights the need for early intervention as a means of preventing future difficulties and promoting the five ECM positive outcomes. In order to intervene early it is important to be able to either predict future difficulties or to act as soon as difficulties emerge. Research indicates that difficulties

present early in life are predictive of social, emotional and behavioural difficulties at later stages of childhood, adolescence and adulthood (Campbell 1994; Moffit *et al*, 1996; Shaw *et al.*, 1996). For this reason, using a tool to assess current social, emotional and behavioural difficulties may be a beneficial method to predict future difficulties. The Strengths and Difficulties Questionnaire (SDQ) (Goodman, Meltzer and Bailey, 1998) is a brief screening tool that gives reliable information regarding children and young people's emotional symptoms, conduct problems, hyperactivity, peer relationship problems and pro-social behaviour. It has been widely used in research and has been found to have good psychometric properties (Goodman *et al.*, 2000).

Through identifying those who may be at higher risk during transition and offering a higher level of support, we may be able to prevent or mitigate a number of the negative effects correlated with transition. The current study, therefore, aimed to identify pupils at risk of social, emotional and behavioural difficulties and target them after transition into secondary school using peer mentoring. Peer mentoring has been chosen as the intervention to support pupils found to be at risk for a number of reasons. Firstly, the observation that peer mentoring can increase the resilience and emotional well-being of young people (Friedli, 2009; Philip and Spratt, 2007). This will help young people to adjust socially and develop friendships, a factor which has been found to aid successful transition (Evangelou *et al.*, 2008). Secondly, young people are also more likely to respond positively to a peer as the peer will have been through transition recently and can provide support regarding a number of the

stresses young people may face at this time (Philip and Spratt, 2007). Finally, organising a peer mentoring scheme within a school may help to create a sense of community and belonging, which is a core target identified to facilitate successful transition (Anderson *et al.*, 2000). Thus, the combination of aiming an intervention at a known period of risk, selecting an intervention suitable for addressing the identified negative factors of this period and, finally, identifying and targeting particularly vulnerable pupils to receive the intervention, the potential positive impact of the intervention will be maximised.

The purpose of the systematic literature search was to ascertain information such as what was already known about the use of peer mentoring in supporting pupils at risk of social, emotional and behavioural difficulties, where the gaps within the literature were, which facets of the mentoring relationship appeared to be most important, which strategies were most effective when setting up a peer mentoring scheme, which difficulties had been faced by others setting up schemes and, finally, how these difficulties had been overcome.

2.6. Systematic Literature Review

2.6.1. Systematic Literature Searches

Many authors agree that generalised conclusions cannot be drawn from one piece of research alone, but must be drawn from assessing all the research within a field (Mulrow, 1994; Petticrew and Roberts, 2006). This position is summarised by Davies (2000) who states that *"Single studies 'are limited in the generalisability of the knowledge they produce about concepts, populations, settings and times' and 'frequently illuminate only one part of a larger explanatory puzzle' (Cook et al., 1992, p. 3)"* (p.366). Petticrew and Roberts (2006) make the important point that we must be aware of the difference between assumed knowledge and real knowledge. Relating this to the present study's focus, when reading the peer mentoring literature, one may assume that peer mentoring has a positive impact on children and young people; however, without systematically reviewing previous research in the literature, this is only 'assumed knowledge'. Literature reviews, if carried out in an objective manner, can lead to real knowledge.

A critical issue to be aware of is that literature reviews are not infallible and if they are not carried out in a scientific manner, biased conclusions may be drawn (Petticrew and Roberts, 2006). For this reason, the present literature review was systematic and a detailed description of the search process is provided. Systematic literature reviews aim to reduce bias by adhering to a set of scientific principles and have been described as a research method in their own right (Petticrew and Roberts, 2006; Torgerson, 2003).

2.6.2. Research Question

The first step in the systematic review process involved clearly defining the question. The method by which this was done was drawn from the PICO method, in which the Population, Intervention, Comparison and Outcomes are defined so that there is a clear understanding of the area being reviewed (Petticrew and Roberts, 2006). While a firm research question is not usually presented until the end of the literature review, for the purpose of the systematic literature search, the following preliminary research question was proposed:

What impact does peer mentoring have on year 7 pupils making the transition into secondary school who may be at risk of behavioural, emotional and social difficulties?

Figure 2.2 gives a breakdown of the research question definition.

**Population:** Year 7 pupils (11-12 years old) will be targeted in the present study. So as not to narrow the literature search, studies involving pupils from Year 4 to Year 10 will be included (3 years either side of Year 7).

**Intervention:** The intervention will be peer mentoring. For the purposes of the literature search, peer mentoring should take place within educational settings and older pupils should mentor young pupils in a one-to-one environment.

**Comparison:** The present study will use a waiting list control group. A preliminary search of the literature in the area by Jakeman (2008) indicated that very few studies had made use of a control group. Only 2 of 25 studies that met the initial search criteria used a control group. For this reason use of a control group will not be a search criterion; however, whether or not a control group was used will be made explicit and reflected within the study critiques.

**Outcomes:** In order to assess whether an intervention has had an effect, a measure must be taken before and after it is put in place. The present study will focus upon measures of pupil well-being. Literature reviewed must include pre- and post- measures of pupil well-being. The researcher is aware that by including this stipulation, research using qualitative methodology may be excluded; however, the present research draws largely on post-positivist principles in the aim of exploring the measurable impact of peer mentoring and therefore wishes to examine research that had previously undertaken this task.

Figure 2.2: Defining the Research Question using the PICO method.

2.6.3. Literature Inclusion and Exclusion Criteria

Five inclusion and exclusion criteria were developed for identifying relevant papers in the literature search (see Figure 2.3). The first three criteria came directly from the definition of the research question. The final two criteria were added as it was considered that they would make studies more applicable to the UK education system and would enhance the generalisability of the results of this review.

1. **Studies must involve pupils from Year 4 to Year 10.**

    ⇒ *This will increase the relevance of results to the target pupils of the current research (Year 7 pupils).*

2. **Studies must provide pre- and post- measures of pupil well-being.**

    ⇒ *This allows the researcher to assess the effectiveness of the intervention.*

3. **Studies must use peer mentoring as their main intervention.**

    ⇒ *The current research focuses on the use of peer mentoring.*

4. **Studies must be carried out in the UK.**

    ⇒ *This will increase the generalisability of the results to pupils in the UK.*

5. **Studies must be conducted after the year 1998.**

    ⇒ *This will allow relevant research from the past 10 years to be included.*

Figure 2.3: Inclusion and Exclusion Criteria for the Studies.

2.6.4. Literature Search Terms

In order to carry out the systematic search, search terms to be entered into the search engines had to be determined. With peer mentoring as the main focus of the current research, it was considered appropriate to include this term in every search. The terms accompanying "peer mentoring" in the searches were chosen by drawing on outcomes related to social, emotional, behavioural difficulties and peer mentoring. This was done by drawing on the researchers own professional knowledge and literature discussed so far regarding transition, risk, resilience, well-being and peer mentoring.

The search terms used during the literature search are as follows:

- "peer mentoring"

- "peer mentoring" AND "behaviour"

- "peer mentoring" AND "social skills"

- "peer mentoring" AND "resilience"

- "peer mentoring" AND "mental health"

- "peer mentoring" AND "well-being"

- "peer mentoring" AND "self-esteem"

- "peer mentoring" AND "bullying"

- "peer mentoring" AND "transition"

- "peer mentoring" AND "attendance

- "peer mentoring" AND "exclusion"

2.6.5. Search Process

As Google Scholar holds a very large amount of information and ranks articles in terms of relevance, the publication in which they appear and the numbers of citations in other scholarly literature, it was the preferred starting search engine. The majority of searches within Google Scholar returned a large number of results and so the first 50 results from each search underwent a preliminary scan in which it was determined as to whether or not they met three of the search criteria; namely, the study must use peer mentoring as its main intervention, the study must be carried out in the UK and the study must be conducted after the year 1998. These were felt to be criteria which were easily identifiable from reading the title and abstract of the paper.

To increase the extent of the literature search, the terms were then entered into four other databases; ERIC (Educational Research Information Center), the British Education Index, PsycINFO and the Web of Science. These four databases were chosen due to their accessibility through the University of Nottingham Meta-Search facility and the wide range of up-to-date literature available. The same preliminary scan was carried out on the first 50 results from each of these databases. Information regarding the search engines and databases used can be found in Appendix 1.

2.6.6. Identified Literature

During the literature search only one piece of literature met all five inclusion criteria: Denham, Hatfield, Smethurst, Tan and Tribe (2006). A number of

pieces of literature met four of the criteria however did not include pre- and post- measures of pupil well-being. This in itself highlights the dearth of well-conducted research in the area. It was felt appropriate to remove this inclusion criterion so as to be able to include more studies. After removing this stipulation, a further sixteen papers could be included in the review. Whilst some of the papers included did not have peer mentoring as their focus, as it was referenced it was thought to be appropriate to include them. Table 2.1 shows the identified papers and gives a brief description of the type of paper (e.g. literature review or experimental research) and its main focus. In order to review the research studies identified in the search, a checklist for measuring study-quality developed by Downs and Black (1998) was used. This checklist contains 27 questions for the assessment of randomised and non-randomised studies (see Appendix 2). It addresses questions regarding the quality of the study's reporting, external validity, internal validity and predictive power and gives a total score out of 31. A review of tools used to assess the validity of non-randomised studies concluded that the checklist developed by Downs and Black (1998) is a reasonably comprehensive tool with high validity and reliability that is suitable for use in systematic reviews (Deeks *et al.*, 2003). Table 2.1 also includes the quality scores for the experimental research identified.

Table 2.1: Papers identified in the literature review which met the inclusion criteria (apart from the pre- and post- measure criterion). The type of research/review and its main focus along with the research quality score (if appropriate) is also given.

Paper	Type of research or review and its main focus	Quality Score max of 31 (Downs and Black) *(only given for experimental research)*
Batty, Ruddock and Wilson (1999)	*Randomised controlled design with qualitative questionnaire measures:* compared the use of peers and teachers as mentors.	12
Beresford (2004)	*Literature Review:* interventions to support young disabled people through periods of transition.	-
Carlisle *et al.* (2006)	*Activity Theory Questionnaire Study:* reviewed multiagency working in terms of meeting the needs of young people at risk of being excluded from school.	7
Cartwright (2005)	*Case Study Reports:* case studies regarding a number of projects which used the 'co-counselling model' of peer support.	-
Cowie *et al.* (2008)	*Questionnaire Study:* compared pupil perceptions of safety in schools with and without peer support schemes in place.	27
Dearden (1998)	*Questionnaire Study:* gained pupil views of a peer mentoring intervention in which Year 10 pupils mentored Year 6 pupils.	11

Denham *et al.* (2006)	***Pre-test, post-test, two-group experimental design:*** compared the use of social skills training and peer mentoring in promoting the development of social skills in Key Stage 2 children.	**22**
Hall (2003)	***Literature Review:*** focused on the effects of mentoring on young people.	-
Lines (2005)	***Experiential Research Paper:*** discusses a peer counselling service set up in a secondary school to combat bullying.	**11**
Maras and Bradshaw (2007)	***Questionnaire Design:*** evaluates the Kent Safe Schools project.	**16**
Nelson (2003)	***Questionnaire Design:*** evaluates a peer mentoring project in which Year 10 pupils mentored Year 6 pupils.	**17**
Parsons *et al.* (2008)	***Pre- and Post- Questionnaire Design:*** large-scale evaluation of peer mentoring programmes.	**21**
Philip and Spratt (2007)	***Literature Review:*** synthesis of published research on mentoring and befriending.	-
Pyatt (2002)	***Experiential Research Paper:*** discusses a cross-school peer mentoring scheme in which Year 12 girls mentored Year 7 girls.	**13**
Reid (2002)	***Research Article:*** discusses a variety of interventions to support disaffected pupils.	-
Sharp (2001)	***Research Article:*** discusses the reasons for and importance of peer-led approaches.	-

Of the sixteen papers identified in the systematic literature search, three were literature reviews, five used questionnaires to ascertain participants views following an intervention, one used a pre-test post-test two-group experimental design, one used a randomised controlled design, three were research articles, one reported on case-studies and two were experiential research papers.

2.6.7. Review of Previous studies of Peer Mentoring in the UK

The systematic literature search revealed only eleven pieces of research conducted in the UK that aimed to explore the effectiveness of peer mentoring. Of these, only three scored more than twenty out of thirty-one on the Downs and Black Quality measure (see Table 2.1) which highlights the lack of and need for quality research in the area. The vast majority were studies in which a scheme was evaluated using questionnaires post-intervention to gain the views of participants and only two used pre- and post-measures of effectiveness. These pieces of research will be discussed in turn and the key issues emerging from them will be evaluated in relation to the current proposed research.

Batty, Ruddock and Wilson (1999) conducted a study aimed to compare the effectiveness of teachers and peers as mentors. The study set up a mentoring scheme within a school and results were collected using questionnaires and group interviews to ascertain pupil views on aspects of effective and

ineffective mentoring. Students who were in Year 12 were told about the mentoring project and asked to apply if they wished to take part. Fifty Year 12 students applied, were trained and subsequently became mentors. Twenty-eight teachers also volunteered to take part. Fifty-eight students from Year 8 were mentored individually by Year 12 students, fifty-two Year 8 students were mentored individually by teachers and forty-eight Year 8 students were used as controls without a mentor. The Year 8 students were randomly allocated into these groups. While the study reports having a control group, there appears to be no purpose to this as no measures are taken from them. With regards to the most effective mentoring relationship, the study found slightly more positive responses from Year 8 pupils who were mentored by a teacher, than those mentored by a Year 12 pupil.

Batty *et al.* (1999) found that pupils viewed the qualities of a good mentor to be someone who is reliable, approachable, a good listener who is interested in what the mentee says, trustworthy, has the skills to encourage the mentee without being intrusive or pushy and is knowledgeable and experienced. The Year 8 students also commented that mentoring should be available for Year 7s when they first join a new school. This was a qualitative study and so the conclusions are drawn from comments made during interviews and in questionnaires; however there is no explanation regarding the method of analysis used. Due to the lack of thorough qualitative or quantitative measures and analysis, no conclusions regarding the effectiveness of Year 12 students and teachers as mentors could be drawn. While it would have been beneficial to have this level of analysis and detail, the study still provides a

rich insight into pupils' views of mentoring and offers useful information for those wishing to set up a mentoring scheme.

Netta Cartwright is an Educational Consultant who, in 1985, was the first teacher in the UK to introduce peer counselling. She has since set up peer support systems in 35 schools throughout the Midlands and London and, in 2005, published a paper outlining some of the processes involved in setting up and sustaining these, drawing on her 20 years of experience (Cartwright, 2005). The peer support schemes set up by Cartwright made use of the 'co-counselling model' of peer support which was used as part of anti-bullying and stress management strategies. Mentors were given between three and five days of training which covered topics such as listening skills, confidentiality, conflict resolution, handling emotions, leading and using a support group and understanding sexism, racism, ageism, and disability harassment. Cartwright describes six case-studies which outline various peer support projects: a peer support project for inclusion, a 20-year-long peer support project, a befriending service, email peer support, peer support to combat racism and more formal one-to-one peer counselling.

Cartwright (2005) concludes that from her experience, some key factors that promote the sustainability of a peer support project are:

- *Adequate funding and time resource;*

- *Quality training;*

- *Fully trained and supported staff co-ordinators;*

- *Support, commitment and direct involvement from senior management;*

- *Careful selection of students;*

- *Maintaining the momentum with joint projects;*

- *Networking and sharing experiences;*

- *Regular monitoring and evaluation; and*

- *Trust and taking risks by sharing or delegating power with young people.*

Cartwright (2005, p.50)

Cartwright (2005) does not support her conclusions with evidence; however, she does have a vast amount of experience in the area in UK schools and, due to this, it is felt that to dismiss them would be unreasonable. Professionals such as Netta Cartwright would be ideal candidates to conduct or support research in peer mentoring. When setting up a peer mentoring scheme, students should have to apply and have a teacher's reference to get onto the scheme. The training conducted should be well planned and thorough, with follow-up sessions where necessary and regular supervision of the mentors to ensure careful monitoring of the scheme.

Carlisle *et al.* (2006) aimed to review multiagency working in Northern Ireland which was focused towards meeting the needs of young people at risk of being excluded from school. This was done using a questionnaire study,

and, while the focus of the study was not on peer mentoring, one respondent highlighted the use of peer mentoring in promoting multiagency working as it allows those involved to work towards a common agenda. Agencies outside of school can use initiating a peer mentoring scheme as a tool to develop relationships with school. It is often the case that outside agencies, especially EPs, only work with schools when they have challenging pupils or pupils with difficulties referred to the service; working with schools in a more preventative and proactive way allows a different kind of relationship to develop and may promote a new, wider reaching, way of working rather than being solely casework oriented.

Cowie *et al.* (2008) conducted a study which aimed to compare pupil perceptions of safety in schools with and without peer support schemes. Unfortunately, they do not outline the type of peer support scheme in place in the peer support schools; this makes replication of the study impossible without contacting the researchers directly. It also makes it difficult to assess which aspects of the peer support may have led to success or alternatively the lack of success. Other than a lack of description regarding the peer support schemes, the research was a very well-conducted questionnaire study. Questionnaires were given to pupils from two schools that had already established peer support schemes (PS) and two schools with no peer support scheme (NPS). The schools were selected using local knowledge of the schools by the peer support trainers and by examining the OFSTED inspection reports. For analysis of the questionnaires, pupils from PS schools were matched with pupils from NPS schools based on their age and gender. The

results of the analysis found no evidence to suggest that the presence of a peer

support scheme in itself increased pupil perceptions that the school was a

safer place to be. It found that older NPS pupils felt safer in the toilets and in

lessons than PS pupils and that significantly more of the NPS pupils felt that

most people in the school trusted one another. One reason for this may be that

all schools involved had an active anti-bullying policy and it could be that the

schools without peer support in place had another effective intervention which

increased pupil perceptions of safety.

The pupils in the PS schools who were aware that there was a peer support

system in place were significantly less likely to worry a lot about being

bullied than those who were not aware that there was a peer support system in

place. This, and the finding that in the PS schools between 25% and 33% of

pupils were not aware of the PS scheme, highlights the need for promoting

them when they are in place. Although the characteristics of pupils may differ

between both groups and causation, while implied, may be spurious. Over

63% of the younger pupils in all schools reported that they worried about

being bullied. This proportion should be a cause for concern and indicates that

there is a great deal more to be done to address this problem.

A paper by Jackie Dearden, published in 1998, is highly relevant to the

present research. The study focused on older pupils supporting younger pupils

and was led by Jackie Dearden who is herself an EP. Dearden (1998) reports

on a mentoring scheme in which twenty Year 10 students from a

comprehensive school mentored twenty Year 6 students from the feeder primary schools. The aims of the scheme were to:

- encourage the development of friendships between older and younger pupils with the hope of possibly easing transition into secondary school;

- give the Year 6 pupils more learning opportunities;

- enhance the self-confidence and interpersonal skills of the Year 10 pupils; and

- give the Year 10 pupils responsibility and increase their awareness of how they can help others.

This was a questionnaire study and the views of the mentors and mentees were collected after one year of the mentoring relationship. Nineteen questionnaires were returned from the twenty Year 10 mentors. Analysis of the questionnaires found that approximately two thirds of the mentors agreed with statements which indicated that mentoring had increased their personal development and interpersonal skills. Almost all mentors felt that they had helped the Year 6s to learn and feel less worried about secondary school, all but one mentor wanted to continue with the mentoring and the majority wanted to meet more frequently with their mentee.

Ten questionnaires were returned from the twenty Year 6 mentees. Analysis of the questionnaires found that 90% of mentees felt more confident about secondary school, more positive about themselves and felt they had a better

understanding of older pupils. At least 80% of mentees felt more able to accept help from others and to trust older pupils, and all of the pupils felt that they had been helped to learn. Views from the Year 6 teachers were largely positive about the project. As Dearden (1998) did not collect pre- and post-measures in the present study, this means that reported changes in the pupils could have been due to maturation or other factors, rather than the peer mentoring intervention. She acknowledges the importance of this for future research.

Denham *et al.* (2006) carried out an experimental study which aimed to explore the effectiveness of social skills training and peer mentoring in promoting the development of social skills in Key Stage 2 primary school pupils. Pupils were selected by teachers to take part in one of these interventions based upon which intervention was felt most appropriate for them. Sixty-eight pupils were involved (forty-five boys and twenty-three girls), with thirty-five receiving the peer mentoring intervention and thirty-three receiving the social skills training intervention. The peer mentoring intervention was a group intervention facilitated by an adult. It promoted peer facilitated learning, with pupils playing an active part in contributing to and co-leading the group discussions. Activities were focused on responding appropriately in social situations, such as resisting peer pressure, and empathising with others. Pre- and post-measures were taken in the form of the Spence social skills questionnaire (Spence, 1995), which was completed by the pupils, teachers and parents. There is good evidence for the reliability and validity of this measure (Denham *et al.*, 2006). The pupil- and teacher-

completed Spence Questionnaires showed a significant increase in pupil social skills ratings post intervention. There was no significant difference in the Spence Questionnaires completed by the parents. No significant differences were found between social skills training and peer mentoring interventions.

Structured interviews were also carried out with the teachers and pupils involved regarding the intervention effectiveness; the responses to the questions were broadly themed and categorised by three of the authors with a high level of agreement. Unfortunately, the responses have been grouped together so that there is no distinction between those who experienced the social skills training and those who experienced the peer mentoring. Teachers felt that the main strengths of the programmes were the small group sizes, regular sessions and the personality of the project worker. With regards to the weaknesses of the programmes, they felt that the interventions were not long enough and that they did not feel fully informed about the programme. The main expectations of the programme were that the children's behaviour, concentration, learning, social skills and self-confidence would improve. When asked if their expectations of the programmes had been realised, 63% of the teachers' responses related to a positive outcome and, when questioned, 82% of teachers felt that the programme had made a longer-term difference. The pupils interviewed felt that the sessions had helped them to better work out problems, improved friendships, improved their confidence, helped them to deal with peer pressure, helped them to control their anger and improved how effectively they worked with others. The number of pupils who would recommend the groups to others is not given.

While the study of Denham *et al.* (2006) appears to be well conducted, with a number of pre- and post- measures, there are a number of flaws which call the results into question. Firstly, pupils were not randomly allocated into the two intervention groups and there was no control group. The authors acknowledge that the pupils chosen for the two interventions *'were slightly different in their social, emotional and behavioural needs'* (p.46), however they do not expand on this to then describe how they were different, which makes generalising the results to other settings problematic. They believe that the study shows that the interventions *'matched the different needs of the two groups of children very effectively'* (p.46), however it could be that both interventions would have met the differing needs of the children. Random allocation allows researchers to work with the assumption that the groups are equivalent and increases the internal validity of a study (Robson, 2002). Secondly, no control group was used due to the potential ethical issues of denying pupils a potentially beneficial intervention. A control group would have greatly benefited this study as it would have allowed the researchers to conclude that the measured improvements in pupil social skills were likely to have been due to the interventions, rather than external factors or maturation. Using a waiting list control, in which pupils in the control group would be offered the intervention if it was found to be successful, could have alleviated any ethical concerns. The authors acknowledge the difficulties of having no control group, yet propose that pupils would be unlikely to have shown a significant amount of improvement in the short 12-week period of the intervention had it not been for the intervention itself. They give no evidence to substantiate this

assertion even though one could alternatively posit that pupils' social skills develop rapidly during this time in their life due to the rapidly changing social environment. Denham *et al.* also suggest that the positive interview responses about the intervention indicate that it was the intervention that made the difference rather than the passing of time. The parent questionnaires did not show a significant improvement and the authors suggest that this may be due to the intervention taking place at school and so the pupils may not have generalised the skills to the home environment. However, another explanation may be due to confirmation bias where the improvements found from the pupil and teacher questionnaires were placebo effects, as they were more heavily involved in the intervention and so may have expected to see an improvement. It is worth reiterating the importance of random allocation and the use of control groups in experimental research as these would have greatly improved the reliability and validity of Denham *et al.*'s findings.

Lines (2005) discussed the creation of a peer counselling service in a secondary school which aimed to combat bullying. He reports that it was successful and was increasingly being used by pupils self-referring and staff referring pupils. While this conclusion is drawn from only anecdotal evidence, his experiences of the difficulties of setting up the scheme are interesting. He states that institutional factors, such as time, place and resources, posed the greatest resistance to the peer counselling. This experience is useful for future researchers as it highlights the importance of having support from the school's senior management team when establishing a peer mentoring programme.

Maras and Bradshaw (2007) evaluated the Kent Safe Schools project (KSS) which aimed to enable young people to make a positive contribution to their community, create listening environments and promote young people's personal and social development. It does this through strategies such as peer mentoring and anti-bullying activities. The study used a questionnaire design to assess KSS. Questionnaires were sent to 164 head teachers of schools involved with KSS and 58 (33%) were returned. Approximately 77% of the respondents agreed or strongly agreed that *'peer mentoring is effective for helping to support younger pupils'* (p.11). In response to the question, *'In your opinion, what are the most significant benefits of the KSS initiative at your school?'* (p.12), the most frequently mentioned were peer mentoring services and self-esteem building, followed by help with transitions. Maras and Bradshaw's study highlights the difficulty in carrying out questionnaire studies as only 33% of the questionnaires were returned. It raises questions about why others did not respond; with such a low return rate it may have been useful to contact those who did not reply to ascertain the reasons. Once again, the research did not collect any quantitative impact-measurements of peer mentoring; its success was based solely on subjective evidence such as staff opinions.

A study with a high degree of relevance conducted by Nelson (2003) used older students as mentors for Year 6 pupils who were then supported through transition to Year 7. Thirty Year 9 pupils were trained as mentors and were matched with thirty Year 6 mentees who would be going to their secondary school. Mentors and mentees were matched on three criteria.

1. They both attended the same feeder primary school;

2. They were the same gender; and

3. They shared some hobbies.

The scheme aimed to strengthen links with feeder primary schools; ease transition; develop the self-confidence of younger pupils; and develop the self-confidence, self-esteem, interpersonal skills and self-motivation of the older pupils. Despite qualitative data being collected from all participants, in the form of questionnaires and interviews, the paper reports on only three of the mentor-mentee pairs involved. The six pupils all felt that the scheme was successful and felt more able to work as part of a team, to resolve problems and to be responsible for their own learning. The results also suggest that the mentees felt less anxious about transition and that all six pupils had improved self-esteem, self-confidence and communication skills. In keeping with a recurring theme of this literature review, the results given were self-reported evidence and no quantifiable measures of self-esteem or anxiety were taken.

Pyatt (2002) set up a cross-school peer mentoring scheme in which four Year 12 girls from one school mentored five Year 7 girls from a different school. Mentees were pupils who were believed to be in need of some 'personal time' and were identified by Form Teachers and the Head of Year based on issues such as lack of confidence, displaying disorganised or attention-seeking behaviour and more-specific needs such as dyspraxia. The Year 12 girls were trained for a total of twelve hours by the local authority Behaviour Support Team. The training covered topics such as confidentiality, listening skills,

problem resolution and understanding emotions. Pyatt reports that, after the mentoring, the Year 7 pupils' behaviour improved in some cases and overall did not deteriorate. How this conclusion is drawn is not stated and it appears to be anecdotal. The author suggests that, while it was agreed that the sessions had been helpful and beneficial, even if this could not be proved, there were no adverse effects and, additionally, it offered the younger pupils older role models and was believed to have helped them to establish positive perceptions of their new school environment. It is also suggested that there were benefits for both the mentors and mentees as the mentors gained additional skills while the mentees gained confidence. Once again, how these conclusions were drawn is not discussed in the paper, although it is accepted by Pyatt that the gains made by mentors and mentees should be quantified in future research.

One of the most recent and best conducted evaluations of peer mentoring was carried out by Parsons *et al.* (2008). The evaluation was funded by the Department for Education and Skills in the hope of establishing a high quality, formal and sustainable peer mentoring scheme in 180 schools in England. The evaluation was broken down into three main strands, in which the researchers analysed the mentoring models in the participating schools; assessed the management, implementation and process of the mentoring; and assessed the impact of the peer mentoring on the pupils and the schools. The mentoring models were assessed using application forms for the project from 180 schools, a very large sample size. It was found that 56% of the schools stated that their main long-term outcome for the scheme was for improved academic performance, 30% wished for a reduction in bullying, 8% aimed for improved

attendance and 6% wanted fewer exclusions. Almost all schools also hoped to increase the ability of pupils to cope with school life and to improve their confidence.

In terms of the management, implementation and process of the peer mentoring schemes, Parsons *et al.* (2008) found a number of factors that may influence positive outcomes from the intervention (see Figure 2.4). The training pack from the Mentoring and Befriending Foundation was found to be very useful for schools. Use of this training pack in future research will increase the replicability and standardisation of the peer mentoring schemes and improve the comparison of different projects.

- Pre-arranged mentor-mentee meetings with a set time and set place each week;

- Formal meetings between mentors and mentees;

- Designated mentoring area within the school;

- Scheme coordinator available 'around' for sessions;

- Mentor-mentee pairs well matched - similar hobbies / interests;

- Same gender mentor-mentee pairs; and

- Scheme coordinators are approachable people with an 'open door policy'.

Figure 2.4: Factors that influence more positive outcomes in peer mentoring (Parsons *et al.*, 2008, p.69)

The impact of the peer mentoring on the pupils and schools was measured using a questionnaire which was completed early in the intervention and repeated after the programme had been running for approximately two school terms. The study used the 'About Me' questionnaire (Maras, 2002) which measures peer identity, family identity, school identity, academic effort, academic competence, academic importance and general self worth. The questionnaire did not find many statistically significant changes pre- and post-mentoring, although there was positive qualitative-evidence provided from mentor- and mentee-evaluation questionnaires regarding the experience. During this review a recurring issue has been the challenge of drawing conclusions regarding the effectiveness of peer mentoring from anecdotal evidence or research with low quality scores, as measured by the Downs and Black (1998) checklist. The literature on peer mentoring had been largely positive before Parsons *et al.* (2008) and their mixed findings questioned the effectiveness of the intervention and evidenced the need for further investigation. Another issue supporting additional research is that these peer mentoring schemes did not all include the factors that were found to influence more positive outcomes (see Figure 2.4) and so it may be that a scheme, which draws upon research such as this in its set-up, may result in more positive results. No significant effect on pupil attendance was found, although the programmes reviewed did focus on pupils who had poor attendance prior to the mentoring. Once again, the study had no control group which limits reliable interpretation of the results.

Despite the fact that Parsons *et al.* (2008) found very little quantitative evidence for peer mentoring, they recommend increasing the use of the intervention and developing training and programmes. It is important when conducting research not to overlook statistically insignificant findings as these can highlight the need for either further development of an intervention, discontinuation of an intervention if it is not beneficial or the need to find a new intervention which will create the significant changes required. The current research will look to further develop a more focused peer mentoring intervention with clear aims and reliable outcome measures.

2.6.8. Review of Previous Literature Reviews and Research Papers

Five relevant literature reviews and research papers were identified during the systematic literature search. Following the same format as the discussion of the experimental studies, key issues emerging from them will be discussed in relation to the current proposed research.

Beresford (2004) carried out a review of the literature to, firstly, ascertain factors that support or promote a positive transition for young people with a disability and their families, secondly, to describe the evidence about the experience and outcomes of transition from child to adult services and, finally, to describe their experiences of the transition from childhood to adulthood. The review concludes that there is some evidence showing the value of peer mentors in supporting the process of transition from childhood to adulthood,

however, the methodology of the studies reviewed was largely not discussed. It is positive for the current study that there is research promoting the use of peer mentors to support transition; although, once again, the evidence is lacking.

Hall's (2003) literature review focused on the effects that mentoring had on young people. One hindrance when analysing this review is that, when discussing the literature, Hall often does not elaborate on the specific causal links between facets of mentoring and their precise effects on the outcomes described. He discusses, in depth, the definition of mentoring and highlights how 'messy' the term can be. Although the term can be used for many relationships, it is important to clearly describe the type of mentoring relationship and its aim when reporting on the literature. Another limitation, in terms of relating the results to the present research, is that the majority of literature reviewed appears to focus on adults mentoring young people aged 16-19, yet the present research focuses on the peer mentoring of pupils aged 8-15 years. Like many other reviewers, Hall notes that there is a 'very poor evidence base' (p.15) for mentoring within the UK and that, while claims are made for the effects of mentoring, there is little evidence to substantiate them. Identifying problems with the UK studies, Hall highlights that many studies reviewed lack control groups and make conclusions based on assumptions and perceptions rather than quantitative results. This concern does not appear to have been addressed over the past 6 years since Hall's findings, as the present review is drawing the same conclusions about UK-based peer mentoring research.

After reviewing the available literature, Hall (2003) suggests that mentoring is at risk of being unsuccessful if there is a large social distance and mismatch between the values of the mentor and the mentee, the mentors are insufficiently trained or there is a conflict of roles for the mentor (e.g. they are unsure whether to act on behalf of the mentee or of the 'authority'). Using peers as mentors may alleviate at least two of these risk factors; peers attend the same school, have recently been through similar experiences and can be matched by gender and interests; there is also less chance of peer mentors feeling that they have to act in the interest of the teachers (e.g. try to change a pupil's behaviour) as they are not employed by the school and one would expect there to be less of a power imbalance. The lack of training for mentors is a factor which must be addressed in all mentoring schemes, regardless of the age or position of the mentor. A positive outcome of Hall's review is that studies generally show that individuals perceive their experience as a mentor in very positive terms, suggesting possible benefits for both the mentor and the mentee.

A paper by Reid (2002) discussed a variety of mentoring strategies to support disaffected pupils such as adult mentors, higher-education-student mentors, peer mentors and parent mentors. Very little is said in the paper about peer mentors. Despite this, Reid concludes by suggesting that mentoring has the potential to reduce bullying, disruptive behaviour, exclusion rates, underachievement, disaffection, truancy and other forms of non-attendance. Such unsubstantiated claims about peer mentoring have led to an increase in

its use. However, Reid does call for urgent evaluation of the outcomes of mentoring schemes. There should be proper investigation to determine which benefits, if any, they bring; what aspects of the mentoring relationship might influence them; and how mentoring compares to other interventions which proffer similar benefits.

Sharp (2001) has written a brief paper discussing peer-led approaches to care. She discusses some of the cautions that must be taken in peer-led support. She notes that school staff must retain responsibility for the pastoral care of the pupils and as a result, peer-led systems should be complementary, not supplementary, to staff-led systems. A peer mentoring intervention should not be the only pastoral support that a pupil would receive and, when training peer mentors, boundaries of the mentoring relationship should be discussed in great depth. Sharp also highlights that mentoring schemes require a high level of staff support for their development and maintenance. This may be especially important if the initial training and setting up of the programme is carried out by an outside agency as staff may not feel fully responsible for the scheme. Outside agencies must be very aware of this so that staff are fully engaged in its development, are skilled to take over management of the scheme and are confident to fully support the mentors at all stages. The final caution noted by Sharp is that peer mentors require a high level of supervision to ensure that they are not taking on too much or having to deal with difficulties alone. Once again, the boundaries of the mentoring relationship and situations in which the mentors should break confidentiality and pass information on to a member of school staff (e.g. if a mentee discloses that they are being abused) should be

fully addressed during the initial training and reinforced during supervision sessions. While it is essential to bear in mind these three cautions, appropriate support and commitment from those involved should help to address them. Finally, Sharp (2001) highlights the possible benefits of cooperative working and support in schools which she asserts can enhance resilience, promote respect and give young people the tools to resolve their own problems and support others.

The most recent in-depth literature review regarding mentoring was carried out by Philip and Spratt (2007) for the Mentoring and Befriending Foundation. Caution is needed when reviewing research carried out for organisations promoting one particular intervention, as they may be more likely to be biased towards that intervention and to disregard insignificant or negative findings. Whilst stating this, it appears that Philip and Spratt take a balanced view and do report the negative findings and current lack of research in the area. They highlight the difficulty which has been found in the current review, that mentoring interventions vary significantly making it difficult to compare findings from studies. This is partially the reason why the present review has taken each study in turn and described each intervention in detail.

Philip and Spratt (2007) do identify a number of positive findings from the literature, although these are not all related to peer mentoring. They report that mentees regularly report increased social confidence, increased feelings of social support, get support with addressing problematic relationships with

family and friends and benefit from increased involvement in the community. The negative findings relevant to this review included the difficulty recruiting male mentors, young people rejecting the opportunity to be mentored and the difficulties faced by some in developing relationships between mentees and mentors. When developing peer mentoring schemes, one should aim to make applying to be a mentor more appealing to boys, to match mentors and mentees by interest and gender and to give a high level of support throughout with the aim of reducing the number of mentors who find it difficult to form a relationship with their mentee. With regards to young people rejecting the opportunity to have a mentor, it is worth noting that these studies were not conducted in the school environment and, instead, were largely conducted with young offenders who tend to have a higher rate of intervention drop-out (e.g. St James-Roberts *et al.*, 2005).

Recommendations for future research made by Philip and Spratt (2007) include that it should be more theoretically based, should examine the beneficial aspects of the mentoring relationship, should analyse the reasons for 'failed' relationships and that it should investigate further the impact of mentoring on families, peers and communities.

2.7. Discussion and Implications of the Literature

The literature review has aimed to give a rationale for the current research and to systematically identify the relevant research which has been conducted in the area. It was evident from the systematic literature search that there is a shortage of well-conducted research in the area. Seventeen papers were identified, of which only nine were studies aiming to explore the effectiveness of peer mentoring. Of these nine, only three scored more than twenty out of thirty-one on the Downs and Black Quality measure (see Table 2.1) which highlights the lack of, and need for, quality research. The vast majority were studies in which a scheme was evaluated using questionnaires post-intervention to gain the views of participants; only two used pre- and post-measures of effectiveness.

Implications of the literature have been discussed throughout the literature review. The purpose of reviewing the literature is so that this research can build upon it and use it to inform future research. The main implications for the peer mentoring programme organised for the current research have been summarised below.

- *Practical issues to consider when setting up the scheme:*

  - Gaining the support and commitment of the school senior management team is essential to ensure that an effective, valued scheme is developed. Planning times, venues, resources, staff, communication routes and feedback mechanisms will all contribute to a jointly owned, efficient scheme (Cartwright,

2005; Denham *et al.*, 2006; Lines, 2005; Parsons *et al.*, 2008; Sharp, 2001).

- *Considerations when selecting the Mentors and Mentees:*

  - To ensure careful selection of the mentors students will have to apply and have a teacher's reference to become a mentor (Cartwright, 2005).

  - To ensure careful selection of the mentees, measures of well-being and attendance data will be taken (Cartwright, 2005).

  - Mentors and mentees should be matched by gender and by interests where possible (Hall, 2003; Nelson, 2003; Parsons *et al.*, 2008; Philip & Spratt, 2007).

- *Recommendations to ensure appropriate training for the Peer Mentors:*

  - The Mentoring and Befriending Foundation training pack will be used to increase the replicability and standardisation of the peer mentoring schemes in the different schools involved (Parsons *et al.*, 2008).

  - The training conducted will be well-planned and thorough, with a follow-up session if necessary (Cartwright, 2005; Hall, 2003).

- The qualities of a good mentor from a mentee's perspective that were identified by Batty, Ruddock and Wilson (1999) will be incorporated into the training for the mentors.

- Topics to be covered should include confidentiality, listening skills, problem resolution and understanding emotions (Cartwright, 2005).

- Boundaries of the mentoring relationship should be discussed in great depth (Sharp, 2001).

- It is of paramount importance that mentors are aware of when they should break confidentiality, e.g. in cases where a mentee discloses abuse (Sharp, 2001).

- *Recommendations for successful Mentor and Mentee meetings:*

  - There should be a designated area in the school for mentors and mentees to meet formally at agreed times each week (Parsons *et al.*, 2008).

- *Strategies to appropriately support Peer Mentors:*

  - Mentors will be supervised fortnightly to ensure that there is careful monitoring of the scheme (Cartwright, 2005; Philip & Spratt, 2007).

  - A designated member of staff will be available at all times for the mentors or mentees to see them if they have any concerns (Cartwright, 2005; Parsons *et al.*, 2007).

- *Potential benefits for Mentees:*

  - Increased confidence about secondary schools and an easier transition into secondary school (Beresford, 2004; Dearden, 1998; Nelson, 2003).

  - Improved self-esteem and more positive feelings about themselves (Dearden, 1998; Nelson, 2003; Philip & Spratt, 2007; Pyatt, 2002).

  - Gaining a better understanding of older pupils (Dearden, 1998).

  - Increased social skills, social confidence and communication skills (Denham *et al.*, 2006; Nelson, 2003).

  - Enhanced resilience (Philip and Spratt, 2007; Sharp, 2001).

  - Lower levels of anxiety about transitions (Nelson, 2003).

  - Increased ability to work as part of a team and to resolve problems (Denham *et al.*, 2006; Nelson, 2003; Sharp, 2001).

  - Higher ability to control anger and to deal with peer pressure (Denham *et al.*, 2006).

  - Academic improvements, increased feelings of responsibility for their own learning and improved concentration (Dearden, 1998; Denham *et al.*, 2006; Nelson, 2003).

- Improved behaviour, improved school attendance, reduced bullying and lower exclusion rates (Denham *et al.*, 2006; Lines, 2005; Pyatt, 2002; Reid, 2002).

- Increased feelings of social support, support with addressing problematic relationships with family and friends and increased involvement in the community (Cowie *et al.*, 2008; Philip & Spratt, 2007).

- *Possible benefits for Mentors:*

  - Personal development in terms of increased interpersonal skills (Dearden, 1998; Pyatt, 2002).

  - Increased resilience (Sharp, 2001).

  - Enhanced competence to resolve problems and support others (Dearden, 1998; Nelson, 2003).

  - Improved ability to work as part of a team (Nelson, 2003; Sharp, 2001).

  - Increased feelings of responsibility for their own learning (Nelson, 2003).

- *Some research design issues which seem to have been overlooked by a significant number of the previous studies and will be addressed by the current research include:*

  - Random allocation of participants to groups.

- Use of a control group. There will be a waiting list control group to address ethical issues regarding denying pupils a potentially beneficial intervention.

- Information regarding the participants such as age, gender, ethnicity and additional needs should be collected.

- Unreturned questionnaires will be followed up to try to determine the reason and minimise any possible cause of bias.

- Collection of quantitative pre- and post- measures from both the intervention group, control group and mentors to determine the effect of the intervention.

- The peer mentoring intervention will be described in detail and questionnaires will be used to determine what the mentees and mentors found most useful in the mentoring relationship.

- *Possible benefits for Educational Psychologists:*

    - Working in a preventative and proactive with schools may help to promote a different way of working rather than solely individual casework which often takes up the majority of an EPs time (Carlisle *et al.*, 2006).

It is interesting to note that while there are a very large number of possible benefits for the mentees and many papers have commented on the possible benefits for mentors, few papers actually explored the specifics of those benefits. There is also minimal evidence to substantiate the many possible

benefits which have been claimed by a large proportion of the papers. The present study aims to reliably measure and report on any benefits found for the mentors and mentees following the intervention and any insignificant or negative results.

None of the papers reviewed discussed the implications of previous research prior to setting up a peer mentoring intervention. This is a somewhat worrying finding as it poses the question as to why research is carried out in the first place if we do not draw on the findings for future interventions and research. The present review has aimed to collate the main experimental and qualitative findings within the literature to use them to inform the setting up, running and evaluation of the peer mentoring intervention.

The vast majority of qualitative evidence suggests very positive outcomes of peer mentoring; however there is a lack of quantitative evidence to corroborate this. There have been no pre- post- randomised controlled trials to evaluate peer mentoring and the present research aims to rectify this by performing such a study and demonstrating how this research can be carried out by EPs and professionals within education. It is also evident that mentees have, in previous research, been hand-picked by teaching staff. This causes difficulties when describing participants and generalising the data and, furthermore, means that individuals who, for example, display no outward signs of difficulty and withdraw due to anxiety are not identified. It may be

more effective to screen a whole year group using, for example, a measure of anxiety to identity those most at risk and to reduce experimenter bias.

The review of the literature informed the current research which aimed to identify pupils at risk of social and emotional difficulties and target them after transition into secondary school using peer mentoring. It is anticipated that the research will enhance the literature within the important areas of transition, peer mentoring and resilience. It is hoped that the results gained from this research will help to inform future interventions to support pupils who may be at risk of social, emotional and behavioural difficulties during transition. It will also help to promote well-conducted research into peer mentoring and, consequently, lead to the implementation of effective interventions.

2.8. Objectives and Research Question

The literature review identified clear gaps in the research surrounding peer mentoring and its use to support pupils during their transition from primary to secondary school. The current research aimed to address the following primary research question and the three main objectives within this research question.

Primary Research Question:

What impact does Peer Mentoring have on Year 7 pupils who may be at risk of social, emotional and behavioural difficulties during transition to secondary school?

Three main objectives of the current research:

- Ascertain whether or not peer mentoring has a positive impact on pupils who may be at risk of social, emotional and behavioural difficulties as a result of transition to secondary school.

- Ascertain whether or not peer mentoring has a positive impact on those who take on the role of a peer mentor.

- Gain pupil views regarding peer mentoring and the aspects of the mentoring relationship that were most helpful so as to inform future programmes.

3.0.   CHAPTER 3: METHODOLOGY

3.1.   Overview of Chapter

This chapter discusses social research methodology, focusing specifically on ontology and epistemology. Key epistemological paradigms including positivist, post-positivist, social constructionist, emancipatory and pragmatist stances are outlined. The researcher's own epistemological stance and its implications for the current research are discussed. The chapter moves on to outline the research design, giving the research rationale and breaking down the core research questions. Finally, hypotheses are made regarding each research question.

3.2.   Social Research Methodology

Social research is influenced by a number of factors including theory, epistemology, values, ontology and practical considerations (Bryman, 2004). The theory has been discussed within the literature review and has determined the research questions to be addressed. It is important to distinguish between methodology, ontology and epistemology as a clear distinction is required for clarity within the following discussion. Ontology refers to our assumptions about how the world is made up and the nature of things. Epistemology is concerned with our beliefs about how one might discover knowledge about the world and relates to the tools and techniques of research (Fien, 2002). One's ontological and epistemological stance impact greatly upon the research methods used.
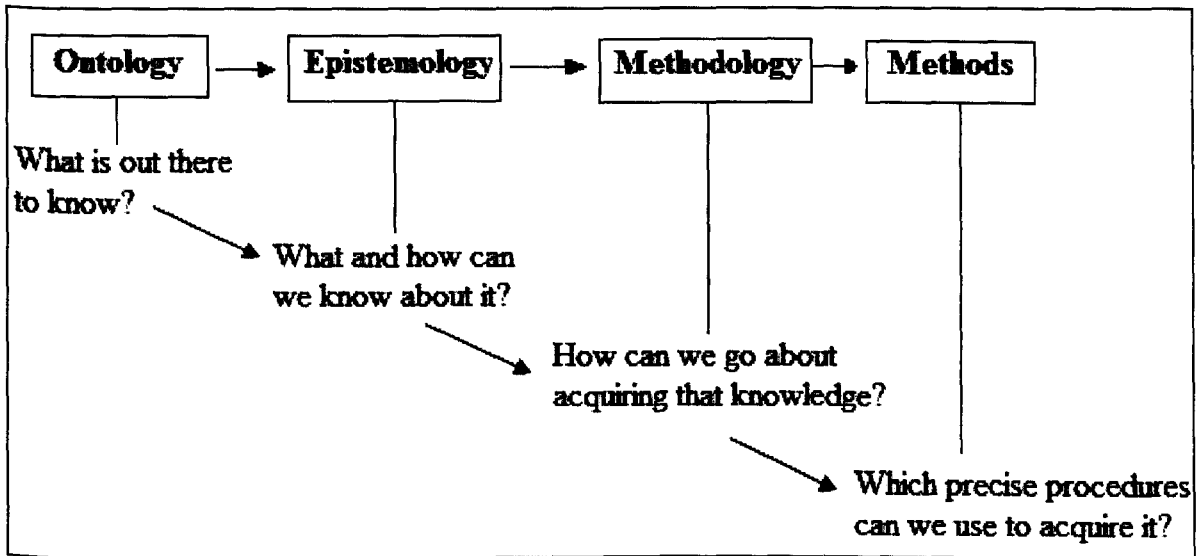
Figure 3.1: Diagram showing the Interrelationship between Ontology, Epistemology, Methodology and Methods. Taken from Grix (2002).

Figure 3.1 gives an overview of the relationship between ontology, epistemology, methodology and methods. One's ontological stance is the building block upon which one's epistemological stance develops. Within ontology there are two main stances, realist and constructionist. Realists believe that there is an objective reality that exists independently from one's beliefs and experience. This is in contrast to constructionists who believe that the social world is a creation of the human mind and that there is not one single measurable reality, but multiple realities influenced by one's own experience, actions and beliefs.

One's epistemological stance will clearly stem from one's ontological stance and this in turn will impact on the methodology and methods used within

research. For the purposes of social research, determining one's ontological and epistemological stance can be viewed as essential as it has a direct impact upon the methodology employed and the interpretation of the data. While there are a large number of epistemological stances, three broad strands have been highlighted as currently dominating social research: post-positivist, social constructionist and emancipatory stances (Robson, 2002). Post-positivism is largely associated with quantitative research methods, while social constructionism and emancipatory stances align themselves primarily with qualitative research methods. The following sections outline the three stances in detail.

3.2.2. Positivism and Post-Positivism

Positivism stems from a realist ontological stance and holds the epistemological belief that objective knowledge can be gained through experimental research and that the world works through simple, measurable cause-and-effect processes. Positivists believe that there is one reality and that the job of the researcher is to describe it accurately and generalise their findings. This approach has been vehemently criticised as it is widely recognised that there are a number of factors impacting upon our ability to objectively explain the world (Robson 2002). Post-positivism recognises these criticisms and while objectivity is aimed for as an ideal, the post-positivist epistemological stance recognises that theories, hypotheses, background knowledge and the values of the researcher can influence what is observed (Reichardt & Rallis, 1994). Post-positivists hold a critical realist ontological

stance in which they believe that a reality exists independent of us, but they do not feel that it can ever be accurately known due to the potential multiple interpretations of the researcher. Post-positivist encourages social researchers to be more cautious about their claims and to put forward theories as cautious suggestions rather than perfect and complete explanations of the world.

3.2.3. Social Constructionism

Social constructionism stems from the constructionist ontological stance and is an epistemological stance opposed to positivism (Burr, 2003). Positivists claim that, as the world works through measurable cause and effect processes, one can gain objective knowledge from experimental methods; social constructionists highlight that human experience is dependent on many factors such as culture, linguistics and society and therefore do not believe that one can, or should, seek to outline a single, objective reality which is independent of the heterogeneous human experience which defines individual experiences of reality through inconsistent constructions of meaning and knowledge. Qualitative research methods such as observation, interviews, grounded theory and discourse analysis are often used by social contructionists. Their aim is to understand the multiple constructions of meaning and knowledge and explore their implications for human experience and social practice (Willig, 2008).

3.2.4. Emancipatory Stances

The emancipatory paradigm also stems from the constructionist ontological stance, however it criticises both post-positivist and social constructionist researchers due to the power imbalance created within their research. Barnes (1996) argues that it is not possible to research oppression in an objective way because one cannot be independent: one is either on the side of the oppressors or the oppressed. The emancipatory paradigm focuses on confronting social oppression, exploring the lives and experiences of these groups and analysing why inequalities exist. Emancipatory theory, focused on the existence and causes of inequality and power-asymmetry, is utilised in an approach in which the oppressed person or group should control, rather than merely participate in, the research process (Walmsley, 2001).

3.2.5. Pragmatism

Babbie (2009) believes that social researchers do not have to align themselves entirely with one epistemological paradigm and that one can bring a 'rich variety of theoretical paradigms' (p.44) to the study of social life and, using these, can construct useful theories. A further epistemological stance that has been brought into the debate is pragmatism, which believes that truth is 'what works' (Howe, 1988). Pragmatism advocates using the philosophical or methodological approach that works best for a particular research problem and allows one to adopt a variety of methods, using quantitative methods for some research questions and qualitative methods for others (Robson, 2002).

3.2.6. Current Research Epistemology

Having explored a number of the dominant epistemological stances within social research, the current stance and research will now be discussed. A researcher's epistemological stance can depend on factors such as their experience, the main stakeholders involved in the research and previous research conducted within the field. The researcher's undergraduate degree and dissertation drew largely upon quantitative methods and on the belief that controlled experiments were reliable sources of information on which to base conclusions. The researcher then undertook a Doctorate in Applied Educational Psychology at the University of Nottingham. The University was part of the National Development and Research (D&R) Collaborative Programme in Educational Psychology, which aimed to aggregate the results of theses written by TEPs. The University and the D&R are key stakeholders within the research and their aim was to collect quantitative pre- and post-data so that information from TEPs could be collated and lead to more conclusions regarding interventions that could be more reliably generalised. As a result, the researcher aligns herself largely with the post-positivist epistemological stance.

The majority of the previous research exploring peer mentoring appears to have adhered to a social constructionist stance. Many of the researchers (e.g. Dearden, 1998; Maras & Bradshaw, 2007; Nelson, 2003) aimed to gain information regarding the human experience of peer mentoring through the use of qualitative methods. This is valuable information and the majority of

results have presented a very positive view of peer mentoring (Philip and Spratt, 2007) suggesting that it may have a positive impact for young people. Having said this, given her training in quantitative methods and the wish to provide quantifiable evidence regarding the effectiveness of peer mentoring, the researcher felt it necessary to design the study drawing upon her post-positivist stance.

The present research adheres largely to post-positivist principles. One notable exception is the research objective to explore aspects of the peer mentoring relationship that were most helpful or that could be improved, for which a qualitative approach is preferred. Whilst the post-positivist paradigm has been highlighted as central to the present research the author also gives value to the pragmatic paradigm which encourages one to use the philosophical or methodological approach that works best for a particular research problem. The current research has a number of purposes and while the post-positivist approach can address some of them thoroughly, a pragmatic approach enables the flexibility to address others more comprehensively. The main results and conclusions will be strongly based upon the quantitative data gathered through post-positivist methods. However, during the discussion, provisional interpretations of the results will be made through incorporating qualitative research in a more pragmatic approach. The researcher also felt that it was important to replicate the questionnaire design of previous studies to allow for comparison with previous research.

3.3. Research Design

3.3.1. Research Question and Objectives

Returning from a broad discussion regarding social research methodology, this paper must now refocus upon the central research question; namely, "What impact does Peer Mentoring have on Year 7 pupils who may be at risk of BESD during transition to secondary school?" There were three main objectives of the current research, which are listed below, along with a brief description of the designs employed to meet them:

<u>**Objective 1:**</u>

Ascertain whether or not peer mentoring has a positive impact on pupils who may be at risk of social, emotional and behavioural difficulties during transition to secondary school.

- Met using a pre-test, post-test, two-group, randomised, controlled- trial design.

<u>**Objective 2:**</u>

Ascertain whether or not peer mentoring has a positive impact on those who take on the role of a peer mentor.

- Approached using a pre-test, post-test, single-group design.

<u>**Objective 3:**</u>

Gain pupil views regarding peer mentoring and the aspects of the mentoring relationship that were most helpful so as to inform future programmes.

- Met using a qualitative questionnaire design.

3.3.2. Rationale

Reviewing the literature regarding peer mentoring highlighted the dearth of good-quality research examining the effectiveness of the intervention. Randomised controlled trials (RCTs) have been viewed as the 'gold standard' in many fields of applied research, as many propose that they can provide the best evidence for the effectiveness of an intervention (Robson, 2002). A fixed design is one in which the researcher knows exactly what will be done before the research begins. Robson (2002) defines experimentation as a research strategy involving, firstly, the assignment of participants to different conditions; secondly, the manipulation of one or more variables by the experimenter; thirdly, the measurement of the effects of the manipulation on one or more variables; and, finally, the control of all other variables. The first three of these stipulations for experimental research appear to be achievable in 'real world' experiments, however the final stipulation, that all other variables must be controlled, is not practical due to the unpredictability of real life. To combat this, participants should be randomly allocated into the experimental conditions. Random allocation allows one to proceed on the assumption that the groups are equivalent and aims to combat threats to internal validity, such as participant history and participant maturation (Kazdin, 2002), which are discussed in more detail later. The pre-test, post-test design consists of a minimum of two groups: one that receives the intervention and one that does not. Measures are taken prior to the intervention and following the intervention, which allows for comparison of the two groups to determine whether there has been a change and, if so, the magnitude of this change.

Having highlighted a number of strengths of RCTs, one may consider that this is clearly a high-quality design with which to take the research question forward and, if one was approaching research from a purely positivist stance, this would undoubtedly be the case; however, coming from a post-positivist stance, it is not as clear-cut. In reality, RCTs in social research have failed *'to come up with consistent positive findings'* (Robson, 2002, p. 118). This has led to a number of hypotheses regarding this, including that either the interventions being researched are ineffective, the design or implementation is at fault or the methodology of the RCT is inappropriate for social research (Robson, 2002). Pawson and Tilley (1997) focus on the hypothesis that an RCT is inappropriate for social research and argue this passionately. The main thrust of their argument was that *'programs tend to work for some groups more than others, but the methodology then directs attention away from an investigation of these characteristics and towards...the battle to maintain the equivalence of the two subsets of this self-selected group'* (p.40). Robson (2002) highlights that a possible way forward for the post-positivist is to aim to establish *'what works, for whom, and in which contexts'* (p.120). The present study reviewed the literature and found a number of claims for the effectiveness of peer mentoring in supporting vulnerable pupils during transition to secondary school. However, the results included very little well-conducted research. Due to a number of strengths of the design discussed, a pre-test, post-test, randomised, controlled experiment was employed to explore these claims. As a post-positivist, it was imperative that results of the study were not over-generalised.

To ascertain whether or not peer mentoring has a positive impact on pupils who may be at risk of social, emotional and behavioural difficulties during transition, to secondary school (Objective 1), a RCT design was employed. This study intended to utilise the same design to ascertain whether or not peer mentoring has a positive impact on those who take on the role of a peer mentor (Objective 2). Unfortunately, too few students applied to become peer mentors to allow for a control group of peer mentors. For this reason, the design was changed to a pre-test, post-test, single-group design.

To gain pupil views regarding peer mentoring and the aspects that were most helpful (Objective 3), a qualitative questionnaire design was used.

3.3.3. Research Design

Objective 1:

To explore the impact of peer mentoring on Year 7 mentees, a pre-test post-test two-group randomised controlled trial design was used. A group of Year 7 pupils identified by the Strengths and Difficulties Questionnaire (SDQ), as being at risk of social, emotional and behavioural difficulties were randomly allocated into two groups. The purpose of random allocation was to take individual variables, which could bias the study, and spread them evenly between the two groups. To randomly allocate, each pupil was given a number and a random number generator was used to allocate pupils into two groups. One group was given a peer mentor following their transition into secondary school and one was put on a waiting list and offered peer mentoring following the completion of the research. Pre- and post-measures were taken

using the Resiliency Scales, the SDQ and Pupil Attendance Data. This quantitative data was analysed using repeated-measures Analysis of Variance (ANOVA) and independent group t-tests.

Objective 2:

To explore the impact of peer mentoring on the peer mentors, a pre-test, post-test, single-group design was employed. The research originally intended to have a peer mentor control group to explore the impact of peer mentoring on the peer mentors. However, as discussed, when recruiting peer mentors, insufficient Year 8 pupils applied and therefore the design had to be adjusted as there were too few to allow for a randomly allocated control group in either school. Because a pre-test, post-test, single-group design was used, a number of threats to internal validity were created, including history (events occurring between measures) and maturation (Robson, 2002). For this reason, results gained from the peer mentors could not be attributed to the peer mentoring intervention and significant results would only be indicative that future research into the effect of mentoring on the mentors would be valuable.

Year 9 pupils who applied to become peer mentors were trained and matched with a Year 7 student whom they would mentor for 30 minutes each week. Pre- and post-measures were taken using the Resiliency Scales and the Strengths and Difficulties Questionnaire. This quantitative data was analysed using paired-samples t-tests.

Objective 3:

To gain pupil views regarding peer mentoring and the aspects of the mentoring relationship that were most helpful so as to inform future programmes, a qualitative questionnaire design was used. All peer mentors and mentees completed a questionnaire regarding their experiences of peer mentoring following the intervention. Results of the Likert-scale data collected, regarding pupil views, was presented using descriptive statistics. Data from open-ended questions was analysed using thematic analysis: a tool for drawing key themes from qualitative data.

3.3.4. Independent and Dependent Variables

There was one independent variable (IV) in the study: whether or not participants received the Peer Mentoring. There were three dependent variables (DV): the Strengths and Difficulties Questionnaire scores, Resiliency Scale scores and pupils' school-attendance data.

3.3.5. Research Questions and Hypotheses

When carrying out research it is vital to be clear about the research aims, questions and hypotheses. The main aim of the current research was to explore the use of Peer Mentoring as an intervention to support transition into Year 7 and prevent social, emotional and behavioural difficulties. There was one primary research question and three secondary research questions. The review of the literature, regarding possible benefits for mentees and mentors,

generated eight hypotheses for the primary research question and a further seven hypotheses for the first secondary research question. The review of previous literature, regarding pupils' enjoyment of peer mentoring, generated two hypotheses for the second secondary research question. The third secondary research question served an open-ended exploratory function and therefore no hypotheses were constructed. Each hypothesis has an alternative null hypothesis: that there will be no relationship between the two variables. The four research questions and seventeen hypotheses are given below.

Primary Research Question: What impact does Peer Mentoring have on Year 7 pupils who may be at risk of social, emotional and behavioural difficulties during transition to secondary school?

Hypothesis 1: Peer mentoring will have a significantly positive effect on the mentees' Total SDQ Score.

Hypothesis 2: Peer mentoring will have a significantly positive effect on the mentees' peer relationship problems SDQ Score.

Hypothesis 3: Peer mentoring will have a significantly positive effect on the mentees' emotional symptoms SDQ Score.

Hypothesis 4: Peer mentoring will have a significantly positive effect on the mentees' behaviour problems SDQ Score.

Hypothesis 5: Peer mentoring will have a significantly positive effect on the mentees' hyperactivity SDQ Score.

Hypothesis 6: Peer mentoring will have a significantly positive effect on the mentees' pro-social behaviour SDQ Score.

Hypothesis 7: Peer mentoring will have a significantly positive impact upon the mentees' school attendance, as measured using their pre- and post-intervention attendance.

Hypothesis 8: Peer mentoring will have a significantly positive impact upon the resiliency of the mentees, as measured by the Resiliency Scales.

Secondary Research Question 1: What impact does Peer Mentoring have on those who take the role of a Peer Mentor?

Hypothesis 9: The Peer Mentors will show significantly lower Total SDQ scores following the peer mentoring intervention.

Hypothesis 10: The Peer Mentors will show significantly lower peer relationship problems SDQ scores following the peer mentoring intervention.

Hypothesis 11: The Peer Mentors will show significantly lower behaviour problems SDQ scores following the peer mentoring intervention.

Hypothesis 12: The Peer Mentors will show significantly lower hyperactivity SDQ scores following the peer mentoring intervention.

Hypothesis 13: The Peer Mentors will show significantly lower emotional symptoms SDQ scores following the peer mentoring intervention.

Hypothesis 14: The Peer Mentors will show significantly higher pro-social behaviour SDQ scores following the peer mentoring intervention.

Hypothesis 15: The Peer Mentors will show significantly improved resilience, as measured by the Resiliency Scales, following the peer mentoring intervention.

Secondary Research Question 2: Do pupils involved in Peer Mentoring value the intervention?

Hypothesis 16: The questionnaires regarding the intervention will show that Peer Mentors enjoyed the experience.

Hypothesis 17: The questionnaires regarding the intervention will show that those who received peer mentoring enjoyed the experience.

Secondary Research Question 3: What aspects of the Peer Mentoring intervention are most helpful and how could it be improved?

4.0. CHAPTER 4: METHOD

4.1. Overview of Chapter

This chapter gives a thorough description of the methods employed, including information regarding the participants, instruments, procedure, analysis of data and ethical considerations. Difficulties in setting up the project are discussed as well as the reliability and validity of the methods employed.

4.2. Overview of Method

Peer mentoring schemes were set up in two secondary schools. Pupils who may be at risk of behavioural, social and emotional difficulties were identified using the Strengths and Difficulties Questionnaire (SDQ) when they started in Year 7. These pupils were allocated into intervention and waiting list control groups, and the intervention pupils were matched with a peer mentor from Year 9. They received peer mentoring for 30 minutes each week for one term. Pre- and post-measures were collected using the SDQ, the Resiliency Scales for Children and Adolescents, and pupils' school attendance data. Information was also gathered after the intervention using evaluation questionnaires.

4.3. Participants

4.3.1. Schools

The research was carried out in a densely-populated West Midlands Local Authority. Using the English Indices of Deprivation, in 2007 the authority was ranked to be the 28th most deprived of the 354 local authorities in England. Two schools were approached and asked to take part in the research. School A

was chosen as the researcher worked with the school as a TEP and had noticed a high level of referrals for Year 7 pupils who were not coping following their transition into the school. School B was chosen because the researcher approached the Principal Educational Psychologist (PEP) and asked whether he felt any schools in the authority would be suitable for the project. The PEP felt that School B was suitable as the school was located in a deprived area of the West Midlands, in which he had seen that children and young people were particularly vulnerable. This means that the schools were selected using 'purposive sampling' in which a sample is put together which enables the researcher to meet the needs of the project (Robson, 2002). The researcher and the PEP agreed that they felt there was a need within both schools for additional support for vulnerable pupils during transition.

School A was a comprehensive high school with approximately 700 pupils on roll. Almost 40% of the pupils were from minority ethnic backgrounds, and around half of these were of Indian descent. Around 15% of the pupils at School A had English as an additional language. In 2009 26% of their Year 11 students achieved five or more Grade C or above (including English and Maths) GCSE results; this was lower than the National Average which was 49.8% and Local Authority average which was 43.4%. Their most recent OFSTED Inspection judged them to be a 'Satisfactory' school.

School B was a Catholic college with approximately 800 students on roll. Around 60% of students were from a White British background. In 2009 30%

of their Year 11 students achieved five or more Grade C or above (including English and Maths) GCSE results; this was lower than the National Average which was 49.8% and Local Authority average which was 43.4%. School B's most recent OFSTED Inspection judged them to be a 'Good' school.

Both schools had a Year 7 transition programme in place for all pupils. School A held an induction day for pupils when they were in Year 6 before they moved to secondary school. When the pupils began at School A they were taught in their form groups for the first half term before moving into ability sets for English, Maths and Science. The Head Teacher of School A told the researcher that the purpose of this was to allow pupils to have some stability within lessons while they adjusted to the new environment and new school systems. School B also held an induction day for pupils during the summer term before they made the transition to secondary school. When the pupils started at School B staff tried to ensure that they had at least one person in their form who they knew from primary school, the pupils were taught in form groups for all subjects until after the October half term when they moved into ability sets for core subjects and staff tried to provide a high level of pastoral support to pupils as they adjusted to their new school.

4.3.2. Mentors

Fourteen Year 9 students became peer mentors as part of the research. Of these, three were male and eleven were female and the mean age was 13.21 years (*s.d.* = 0.43, range = 13-14). Four students were from School A and ten

students were from School B. Table 4.1 shows a full breakdown of the mentor demographics including their age, gender, ethnicity, primary language, SEN Level and whether or not they receive free school meals. Information regarding the sampling method used to recruit peer mentors is given later, in section 4.5.3, 'Peer Mentor Recruitment and Training'.

4.3.3. Mentees and Control Group

Thirty-two Year 7 students took part in the research. These students were randomly allocated into intervention and control group, seventeen students became mentees and fifteen students were part of the waiting list control group. Of the seventeen mentees, six were male and eleven were female and the mean age was 11.06 years ($s.d.$ = 0.24 range = 11-12). Of the fifteen students in the control group, nine were male and six were female and the mean age was 11.27 years ($s.d.$ = 0.46 range = 11-12). Table 4.1 shows a full breakdown of the mentee and control group participant demographics including their age, gender, ethnicity, primary language, SEN Level and if they receive free school meals. Information regarding the sampling method used to identify those who may benefit from peer mentoring is given later, in section 4.5.2, 'Mentee Identification and Control Group'.

Table 4.1: Participant Demographics; Age, Gender, Ethnicity, Primary Language, SEN Stage and Free School Meals

	Year 7 Intervention Group (n=17)	Year 7 Control Group (n=15)	Year 9 Peer Mentors (n=14)
Age (M, SD)	M = 11.06 (s.d. = 0.24)	M = 11.27 (s.d. = 0.46)	M = 13.21 (s.d. = 0.43)
Gender (%)			
Male	6 (35.3)	9 (60.0)	3 (21.4)
Female	11 (64.7)	6 (40.0)	11 (78.6)
Ethnicity (%)			
White British	7 (41.2)	10 (66.7)	7 (50.0)
White Irish	1 (5.9)	0 (0)	0 (0)
Mixed: White and Black Caribbean	0 (0)	1 (6.7)	0 (0)
Black African	1 (5.9)	1 (6.7)	0 (0)
Black Caribbean	0 (0)	1 (6.7)	3 (21.4)
Indian	3 (17.6)	2 (13.3)	2 (14.3)
Other White background	2 (11.8)	0 (0)	2 (14.3)
Other Black background	1 (5.9)	0 (0)	0 (0)
Other Mixed background	2 (11.8)	0 (0)	0 (0)
Primary Language (%)			
English	12 (70.6)	14 (93.3)	10 (71.4)
Punjabi	1 (5.9)	1 (6.7)	1 (7.1)
Unknown	4 (23.5)	0 (0)	3 (21.4)
SEN Level			
None	12 (70.6)	8 (53.3)	9 (64.3)
School Action	1 (5.9)	2 (13.3)	4 (28.6)
School Action Plus	4 (23.5)	3 (20.0)	0 (0)
Statement of SEN	1 (5.9)	2 (13.3)	1 (7.1)
Free School Meals			
Yes	10 (58.8)	7 (46.7)	3 (21.4)
No	7 (41.2)	8 (53.3)	11 (78.6)

4.4. Instruments

4.4.1. Peer Mentor Training Pack

A 'Peer Mentoring Resource Pack for Pre-16 Practitioners' was developed by the Mentoring and Befriending Foundation (MBF) (2002) and is a well-structured training and implementation manual for organising a peer mentoring intervention. This training pack was followed closely during the Year 9 peer mentors training and is easily replicable. The TEP who carried out the training attended a one-day training event entitled 'Setting up and managing a successful pre-16 peer mentoring programme'. This training event, run by the MBF, introduced the materials and gave opportunities for discussion regarding establishing and running a peer mentoring project.

4.4.2. Strengths and Difficulties Questionnaire (SDQ)

The SDQ (Goodman, Meltzer and Bailey, 1998) is a brief screening tool of pupils' emotional symptoms, behaviour problems, hyperactivity, peer relationship problems and pro-social behaviour. It consists of twenty-five questions, with five questions for each section (e.g. peer relationship problems). Each item is scored using a three-point, Likert-type scale ('not true', 'somewhat true' or 'certainly true'). Scores of between 0 and 2 are given for each item depending on the answer. Items are presented both positively and negatively and a scale is used to reverse negatively worded items. Subscale scores range from 0 to 10, with higher scores suggesting higher levels of risk for the first four factors (i.e. emotional symptoms,

conduct problems, hyperactivity and peer relationship problems). Higher scores on the fifth factor, pro-social behaviour, indicate higher levels of pro-social behaviour. The scores from the first four factors can be combined to give a 'total difficulties' score which ranges from 0 to 40. Scores between 16 and 19 are termed 'borderline' those between 20 and 40 are termed 'abnormal', indicating a high risk of future mental health difficulties. Norms drawn from a sample of 4228 British young people indicate that approximately 12.5% of individuals aged between 11-15 years old score above 16 on the self-report SDQ (Meltzer, Gatward, Goodman & Ford, 2000).

Several researchers have reviewed the SDQ questionnaire and have found it to have good psychometric properties (Goodman *et al.*, 2000; Hawes and Dadds, 2004; Muris, Meester, Eijkelenboom and Vincken, 2004). It has been found to have good predictive validity (Goodman *et al.*, 2000), good internal consistency and to have good convergent validity with other externalising-scale self-report measures (Muris *et al.*, 2004). The SDQ was deemed to be an ideal measure of the outcomes of the peer mentoring programme as it aligned with the majority of the hypothesised impacts identified within the literature review (see Table 4.2).

There are self-report, teacher-report and parent-report versions of the SDQ. For the purposes of the present study, the self-report pupil SDQ was used as a screening tool, a pre-measure and a post-measure. This version of the SDQ was designed to be used with children aged 11-16 years old. Some of the pupils in Year 7 in the present study were 10-years old. Muris *et al.* (2004) investigated the use of the SDQ with children younger than 11-years old and

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found that although the reliability was slightly less satisfactory, most other psychometric properties were acceptable and comparable to those obtained in older youths. They advise that with children under 11-years old, researchers should ensure that they comprehend the items on the SDQ and the rating scale. The Year 7 pupils who completed the SDQ in the present study were supported by teachers and teaching assistants during the pre-measures and by the researcher during the post-measures.

4.4.3. *Resiliency Scales*

The Resiliency Scales for Children and Adolescents (RSCA) were developed by Prince-Embury (2007) to measure core characteristics of personal resiliency in children and adolescents aged 9-18 years old. An extensive review of the research and literature surrounding the concept of resilience led to three core dimensions of resiliency being drawn out: namely, a sense of mastery (e.g. optimism, self-efficacy, adaptability), a sense of relatedness (e.g. trust, support, comfort, tolerance) and emotional reactivity (e.g. sensitivity, recovery, impairment). High scores in mastery and relatedness indicate greater resiliency; whereas, high scores in emotional reactivity indicate vulnerability. The RSCA is a relatively new measure, which means that there is a lack of evidence demonstrating its use for the purpose of measuring the effect of interventions. However, the instrument reports excellent internal consistency (a = 0.93–0.95), and good test-retest reliability (r = 0.79–0.88) for all ages, on all scales (Prince-Embury, 2007). The scale also has strong and consistent validity. It was devised using the theory and research behind resilience, which

is thought to be a key factor in predicting future mental health and emotional well-being. For this reason, the RSCA was felt to be the most suitable tool with which to measure pupil resilience before and after the intervention. It was also felt to encompass many of the predicted outcomes of peer mentoring as discussed within the literature review (see Table 4.2)

The RSCA was developed in the USA using a sample of the USA population, which means that standardised scores cannot be reliably generalised to a population of children in the UK. Due to this, raw scores were used to compare pre-test and post-test measures and scores were not standardised.

The RSCA was piloted by the researcher with a group of three Year 9 pupils and three Year 7 pupils who were not involved in the peer mentoring project. The pupils completed the scales and were asked to feedback if they had any difficulties understanding what was being asked of them. The feedback from all of the pupils indicated that the scales were accessible to the pupils and so the measure was deemed to be appropriate to use as part of the project.

4.4.4. Rationale for Measures

After reviewing the literature regarding peer mentoring and discussing its use as an intervention that may support children through transition it is important to choose measures for the research that relate directly to the hypothesised effects of peer mentoring and possible negative effects of transition. As discussed the measures chosen are the SDQ, the RSCA and pupil attendance.

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Table 4.2 links the negative effects of transition, the possible positive outcomes of peer mentoring identified by the literature review and the measures taken within this study. All measures taken relate directly to at least one of the negative effects of transition and one of the possible peer mentoring outcomes.

Table 4.2: Links Between the Possible Negative Effects of Transition Taken From the Literature Review, the Possible Peer Mentoring Outcomes Taken From the Literature Review and the Pre- and Post-Measures Taken.

Negative effects of Transition (from the literature review)	Possible Peer Mentoring Outcomes (from the literature review)	Measures Relating to Peer Mentoring Outcomes
• A negative effect on pupils' self-concept and self-esteem during transition (Simmons and Blyth, 1987; Watt, 2000). • A vulnerable time for pupils' self-concept (Godman, 2007; Williams, Whittome and Watts, 2005).	Improved self-esteem and more positive feelings about themselves (Dearden, 1998; Nelson, 2003; Philip & Spratt, 2007; Pyatt, 2002).	• RSCA – Sense of Mastery • SDQ - Emotional Symptoms
• Young people are expected to make new friends and they may experience a change in peer group (Kyriacou, 2003).	Increased social skills, social confidence and communication skills (Denham et al., 2006; Nelson, 2003).	• SDQ – Peer Relationship Problems
• All children moving to secondary	Enhanced resilience (Philip & Spratt, 2007; Sharp, 2001).	• RSCA - all subscales

school will be experiencing at least one 'life change' risk factor.		
• Transition is almost always a significant period of worry and anxiety (Zeedyk *et al.*, 2003).	Lower levels of anxiety about transitions (Nelson, 2003).	• SDQ - Emotional Symptoms • RSCA – Emotional Reactivity
• Young people are expected to make new friends and they may experience a change in peer group (Kyriacou, 2003).	Increased ability to work as part of a team and to resolve problems (Denham *et al.*, 2006; Nelson, 2003; Sharp, 2001).	• SDQ - Pro-social Behaviour • SDQ – Peer Relationship Problems
• Young people are expected to make new friends and they may experience a change in peer group (Kyriacou, 2003).	Higher ability to control anger and to deal with peer pressure (Denham *et al.*, 2006).	• SDQ – Behaviour Problems • RSCA – Emotional Reactivity • SDQ – Peer Relationship Problems
• A negative impact on post-transition academic achievement (Roderick, 1993; Parades, 1990).	Academic improvements, increased feelings of responsibility for their own learning and improved concentration (Dearden, 1998; Denham *et al.*, 2006; Nelson, 2003).	• RSCA – Sense of Mastery • SDQ - Hyperactivity
• Peaks in non-attendance (Elliot, 1999; Fremont, 2003; King & Bernstein, 2001).	Improved behaviour, improved school attendance, reduced bullying and lower exclusion rates (Denham *et al.*, 2006; Lines, 2005; Pyatt, 2002; Reid, 2002).	• SDQ – Behaviour Problems • Attendance data

• Successful transition programmes need to create a sense of community and belonging (Anderson *et al.*, 2000).	Increased feelings of social support, support with addressing problematic relationships with family and friends and increased involvement in the community (Cowie *et al.*, 2008; Philip & Spratt, 2007).	• RSCA – Sense of Relatedness

4.4.5.   Peer Mentoring Matching Form

Research discussed in the literature review has found that peer mentoring may be more effective with same-gender mentee-mentor pairings and with mentee-mentor matching on factors such as hobbies and interests (Hall, 2003; Parsons *et al.*, 2008). For this reason, the Peer Mentoring Matching Form included in the Peer Mentoring Resource Pack for Schools (MBF, 2002; see Appendix 6) was used. The form had questions regarding the hobbies and interests of students.

4.4.6.   Peer Mentoring Evaluation Questionnaires

Questionnaires were developed for the mentee and the peer mentor to gain qualitative data regarding how helpful and enjoyable they had found the peer mentoring, what aspects of the peer mentoring they had found most helpful and what aspects of the peer mentoring could have been improved (see Appendix 7 and Appendix 8). Information from Robson (2002) was used to support the development of the questionnaire and the wording of questions.

The questionnaire was kept short and its purpose was to gather information which could be useful when organising future peer mentoring projects.

While the questionnaire could not be piloted as no peer mentoring project had been running prior to the current project, the questionnaire was discussed with a group of three Year 9 pupils and three Year 7 pupils who were not involved in the peer mentoring project. The pupils felt that the questions were easy to understand and as a result no changes were made to the questionnaire.

4.5. Procedure

4.5.1 Setting up of the Project

Contact was made with the two secondary schools targeted in January 2009 to determine whether they would be prepared to take part in the project. Meetings were organised between the TEP running the project and the members of staff in each school that would be able to give consent to the project taking place. In School A this meeting was held with the Head Teacher and in School B it was held with the Deputy Head Teacher and the Pastoral Manager. Schools were given information about the project and all questions were answered. Both schools agreed to participate in the research and a link member of staff in each school was identified who would support the completion of all pre- and post-measures, be present at the peer mentor training and be the key person to whom the peer mentors and mentees could turn to if they had any concerns. In School A this link member of staff was the

Head of Year 9 and in School B the link member of staff was the Pastoral Manager.

4.5.2 Mentee Identification and Control Group

To identify those who may be at risk of social, emotional and behavioural difficulties in secondary school, all Year 7 pupils were asked to complete the SDQ when they began in September 2009. The questionnaires were given to the Heads of Years and they were asked to distribute them to Year 7 Form Tutors to allow them to be completed during tutorial time. In School A there was a 52.6% SDQ return rate (40 of a possible 76 questionnaires) and in School B there was a 92.1% SDQ return rate (105 of a possible 114 questionnaires). The low return rate in School A was due to an error within the school which led to two form groups not completing the SDQs. The researcher discussed this with the school and asked for them to be given to the pupils who had been missed, however the school felt that they could not make time for this before the pupils were to be selected for the peer mentoring. The total SDQ scores were used to identify those who may be at risk of future social, emotional and behavioural difficulties. Pupils who scored above 16 on the total SDQ score (i.e. either borderline or abnormal scores) were chosen to be part of either the experimental or control group.

As highlighted earlier, norms drawn from a sample of 4228 British young people indicate that approximately 12.5% of individuals aged between 11-15 years old score above 16 on the self-report SDQ (Meltzer, Gatward, Goodman

& Ford, 2000). In School A, 17.5% of pupils who completed the SDQ scored above 16 and in School B 23.8% of pupils scored above 16. This indicates that both schools have a higher than average number of pupils at risk of developing future social, emotional and behavioural difficulties. This supports the researcher's justification for choosing the schools as both the researcher and the Local Authority PEP agreed that they felt there was a need within both schools for additional support for vulnerable pupils during transition.

Each pupil who scored above 16 on the Total SDQ score was assigned a number and they were randomly allocated using a random number generator into two groups, intervention and waiting list control.

Consent letters were sent out in September 2009 to the parents/carers of the Year 7 pupils in the intervention group and control group (see Appendix 3 and Appendix 4 for copies of the letters sent).

4.5.3.   Peer Mentor Recruitment and Training

Previous research reviewed has made use of students from a range of school years including Year 9 (Nelson, 2003), Year 10 (Dearden, 1998) and Year 12 (Batty et al., 1999; Pyatt, 2002). These year groups were reportedly chosen for reasons including the closeness in age and experience to the mentees (Nelson, 2003), the work pressures upon other year groups (Pyatt, 2002) and the preference of Head Teachers (Dearden 1998). It was decided, in discussion with the target schools, that the peer mentors would be recruited

from Year 9. This decision was made as it was felt that Year 10 and 11 students had a high workload studying for their GCSE coursework and examinations, and that Year 8 students were too close in age to the Year 7 students. Peer mentors were recruited when they were in Year 8 to allow the training to take place before the summer holidays. To recruit mentors, 10 minutes of a Year 8 assembly was presented by the TEP running the project. During these 10 minutes, the project was introduced and students were invited to apply to become peer mentors to support the Year 7 students who would be beginning in September 2009. Application forms were given to the Form Tutors, and pupils were given an application deadline to meet (see Appendix 5). It was anticipated that a large number of students from each school would apply and, had this been the case, applicants would have been randomly assigned into a control group and an intervention group, to allow for a peer mentor control-group. Unfortunately, insufficient students applied and, as a result, all those who applied became peer mentors. This ultimately meant that there was no peer mentor control group. As the focus of the research was on the impact of peer mentoring on the Year 7 mentees, this was not considered to compromise the research and it was felt that dividing the Year 9 volunteers into an intervention and control group would have had a greater negative impact upon the research.

Four students from School A and ten students from School B applied to become peer mentors. This number determined the number of students in Year 7 who would be able to receive peer mentoring. In School B, three students asked if they could each mentor two Year 7s, which allowed a total

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of seventeen Year 7 students to receive peer mentoring. This relatively small sample size raises issues regarding the reliability and generalisability of results. Some researchers argue that there should be a minimum of thirty participants per group (Cohen, Manion and Morrison, 2007). Other researchers suggest a minimum of fifteen participants per group for fixed designs (Borg and Gall, 1989) and suggest that it is difficult to place a figure on the minimum necessary for flexible designs (Morse, 2000). The difficulties recruiting peer mentors limited the present sample and this has been taken into account when discussing results and drawing conclusions.

Those who volunteered to become peer mentors were trained at the end of the Summer Term in 2009 whilst they were still in Year 8. One day of training was carried out in each school using the 'Peer Mentoring Resource Pack for Pre-16 Practitioners' (MBF, 2002). The training day was split into six units outlined in the MBF training pack. The unit titles were: 'What is Mentoring?', 'Communication Skills', 'Differences, Values and Attitudes', 'How do Peer Mentors Help?', 'Ground Rules', and 'Starting the Relationship' (see Appendix 9).

4.5.4. *Matching of Mentors and Mentees*

Mentor and mentees were matched according to selected criteria, this is because research has shown that peer mentoring may be more effective with same-gender mentee-mentor pairings and with mentee-mentor matching on factors such as hobbies and interests (Parsons *et al.*, 2008). All mentors and

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mentees were asked to complete the Peer Mentoring Matching Form (see Appendix 6) before the mentoring began and the results were used to determine the mentor-mentee pairings. Information gained from the questionnaires, including pupil gender, favourite school subject, worst school subject, sports of interest and hobbies was inputted into a spreadsheet and pupils were matched on as many factors as possible. Efforts were made to have same-gender pairings but, as there were too few male peer mentors for the male mentee, three of the seventeen mentor-mentee pairs were mixed gender. It was not possible for all pairings to be perfectly matched, however all pairs shared at least two interests, with fifteen sharing four or more.

4.5.5. Peer Mentoring Intervention

The peer mentoring intervention began in both schools in October 2009, after the first half term holiday in the academic year. This time was chosen because it allowed the first half term to identify mentees, seek parental consent and match them to peer mentors. An additional reason was because the majority of secondary schools, including the two selected, have an induction support period for Year 7 pupils during the first half term and so the peer mentoring support was considered to be an extension to this for a further two half terms.

Peer mentors met their mentees weekly for 30 minutes. In School A this took place during tutorial time prior to lunch and in School B it took place during lunchtime. School A used the school internet cafe as this was a fairly quiet area during tutorial time, though there were occasional disturbances with

members of staff walking through, which was not ideal. The TEP highlighted this point with School A but they were unable to identify an alternative space. School B had a designated student support room resulting in no disturbances during the peer mentoring time.

It was originally decided that the peer mentors would receive fortnightly 30-minute group supervision sessions, with the TEP running the project and a key member of staff to review the mentoring process, share experiences and gain support for any difficulties. Ultimately, this supervision took place less frequently than anticipated: once every four weeks, due to difficulties with timetabling in both schools. Ideally, the supervision sessions would have taken place as originally planned; nevertheless, this was not considered problematic as the peer mentors and mentees were able to approach the key member of staff at any time during the school day if they wished to discuss any matters.

After the February 2010 half-term break, the post-measures were collected. All participants in the research were asked to complete the SDQ and RSCA and the peer mentors and mentees were asked to complete evaluation questionnaires regarding their experience.

4.6. Analysis of Data

4.6.1. Analysis of Quantitative Data

The quantitative data collected in the research before and after the intervention consisted of the total SDQ score and subscale scores, the RSCA subscale scores and school attendance data.

A series of two-way, repeated-measures Analysis of Variance (ANOVA) statistical tests were carried out to analyse the data for the Year 7s. ANOVA looks for differences between the means of groups. A two-way, repeated-measures ANOVA was carried out for the total SDQ score, each of the SDQ subscales, each of the RSCA subscale scores and school attendance data. Where a significant result was found, a paired-samples t-test was conducted to explore the pattern of these significant main effects or interactions.

To analyse the Year 9 data, a series of paired-samples t-tests were conducted to explore whether there was a significant change in the mean results following the intervention.

Quantitative data was collected from the peer mentoring evaluation questionnaires in the form of Likert-scale responses to questions regarding their experiences of peer mentoring. The results of this section of the questionnaire are presented as descriptive statistics, giving the total number of responses to each item. Pupil views on peer mentoring are not the main focus of this thesis. However, a lot of earlier research has used pupil views as the

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key outcome measure and, by collecting them, this allowed for comparison between pupil views and quantifiable outcomes.

4.6.2. *Analysis of Qualitative Data*

The qualitative data collected was in the form of the peer mentoring evaluation forms. A thematic analysis was used to analyse the data collected from open-ended questions relating to what the pupils felt was most helpful about the peer mentoring and what aspects they felt could be improved. Thematic analysis is a qualitative method for analysing textual materials and drawing out the main themes within them. Despite appearing in psychological journals since 1943, thematic analysis has received a high level of criticism due to many researchers providing very few details about the methods used during the analysis and the lack of standardisation within the approach (Howitt and Cramer, 2008). Braun and Clarke (2006) have provided one of the most sophisticated approaches to thematic analysis, with the aim of standardising the procedure and imposing high standards on researchers using the approach. Braun and Clarke (2006) outlined six stages within thematic analysis which are given and expanded upon in Table 4.3.

Table 4.3: The six stages of thematic analysis outlined by Braun and Clarke (2006, p. 87).

Stage of Analysis	Process
1. Familiarisation with the data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Initial coding generation	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes based on the initial coding	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Review of the themes	Checking if the themes work in relation to the coded extracts (level 1) and the entire data set (level 2), generating a thematic 'map' of the analysis.
5. Theme definition and labelling	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Report writing	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Following the Braun and Clarke approach, thematic analyses were carried out to analyse the data gathered from the open questions in the peer mentoring evaluation forms. Three thematic analyses were carried out in line with the open ended questions which asked:

- What were the best things about being a peer mentor? *(peer mentor only);*

- What were the best things about having a peer mentor? *(mentee only);* and

- Is there anything about the peer mentoring that could have been improved? *(both peer mentor and mentee).*

4.7. Ethical Considerations

Ethics can be thought of as rules of conduct and should be considered at all stages of research from proposal to the final report (Robson, 2002). As the current research was conducted by a Trainee Educational Psychologist, the British Psychological Society's (BPS) Code of Ethics and Conduct (BPS, 2009a) and Ethical Principles for Conducting Research with Human Participants (BPS, 2009b) were followed. The Ethical Principles cover areas such as consent, deception, debriefing, withdrawal from the research, confidentiality and protection of the participants. Each of these will be addressed in turn, to outline how the ethical principles were met.

4.7.1. Informed Consent

Informed consent refers to gaining the consent of participants once they have been fully informed about what the research entails and the research objectives. There were four main groups for whom informed consent was necessary; the Year 7 pupils identified using the SDQ, the Year 9 pupils who volunteered to be peer mentors, the parents of the Year 7 pupils and the parents of the Year 9 pupils.

To gain informed consent from the Year 7 pupils the researcher and Head of Year met with the pupils. They were informed that the school felt that they might enjoy and benefit from having a peer mentor, however there was no pressure to take part. The researcher explained what peer mentoring would involve and invited any questions. They were told that some of them would be offered a peer mentor after half term and some of them would be offered one after the February half term. All pupils agreed to take part.

Written parental consent was sought for Year 7 pupils by sending letters to all intervention and control pupils (see Appendix 3 and Appendix 4). The letters outlined the project and invited parents/carers to contact the researcher to discuss any concerns. Only one parent contacted the researcher as she was concerned that her daughter had been chosen because she was considered to be 'naughty'. The researcher was able to alleviate these concerns and the parent agreed that her daughter could take part in the project.

The researcher met with all Year 9 pupils who wished to take part and explained the process of being a peer mentor to them. To gain consent from their parents, a parental signature was required on the application form (see Appendix 5).

4.7.2. Deception

Year 7 participants were not told that the reason for the peer mentoring was because they were deemed to be at risk of social, emotional and behavioural difficulties. After careful consideration about whether this deception would cause unease or objection, it was decided that the deception was acceptable since it might cause more harm to inform pupils that they have been thought of as 'at risk'. While all participants were told that the peer mentoring aimed to support the Year 7s as they settled into their new secondary school, specific information regarding the focus on social, emotional and behavioural aspects, resilience and attendance was not given. Once again, this deception was not deemed to be harmful for participants and the Ethical Principles for Conducting Research with Human Participants (BPS, 2009b, p.1) highlights that '*there is a distinction between withholding some of the details of the hypothesis under test and deliberately falsely informing the participants of the purpose of the research*'. No participants were falsely informed at any point of the research.

4.7.6.   *Protection of the Participants*

Researchers have a primary responsibility to protect participants from physical and mental harm during the research. One issue in the current research was to protect the peer mentors from suffering emotional harm if any upsetting disclosures were made to them by their mentees. To address this, the peer mentors had access to group supervision with the TEP once every four weeks and regular contact with the key member of school staff. During the peer mentor training a significant amount of time was spent discussing what to do if a disclosure which caused concern was made and discussing boundaries of the mentoring relationship. Year 7 mentees were also able to contact the key member of school staff if they had any concerns to discuss their relationship with their peer mentor.

Following the peer mentoring project, the pupils in the waiting list control group were given information regarding the outcomes of the study and were offered peer mentoring. Some of the pupils chose to have a peer mentor and the TEP worked with the schools to train more peer mentors for this purpose.

5.0. CHAPTER 5: RESULTS

5.1. Overview of Chapter

The results section addresses the four research questions in turn and, within these, addresses the related hypotheses. The primary research questions are restated below:

Primary Research Question: What impact does Peer Mentoring have on Year 7 pupils who may be at risk of social, emotional and behavioural difficulties during transition to secondary school?

Secondary Research Question 1: What impact does Peer Mentoring have on those who take the role of a Peer Mentor?

Secondary Research Question 2: Do pupils involved in Peer Mentoring value the intervention?

Secondary Research Question 3: What aspects of the Peer Mentoring intervention are most helpful and how could it be improved?

5.2. Primary Research Question: What impact does Peer Mentoring have on Year 7 pupils who may be at risk of social, emotional and behavioural difficulties during transition to secondary school?

5.2.1. The effect of Peer Mentoring on the SDQ scores of Mentees.

To assess the effect of the peer mentoring intervention on the Year 7 pupils' SDQ scores, the researcher performed a total of six two-way repeated measures analyses of variance (ANOVA) with group (i.e. intervention or control) as a between-subject factor and time (i.e. pre-intervention and post-intervention) as a within-subject factor. Dependent variables were the SDQ total score and subscale scores. Table 5.1 shows the means and standard deviations for the pre-intervention (t1) and post-intervention (t2) SDQ total scores and sub-scale scores for the intervention group and control group.

Table 5.1: A Table Showing Means and Standard Deviations for the Pre- and Post-Intervention SDQ Total Score and SDQ Subscale Scores for the Year 7 Intervention Group and Control Group.

	Group			
	Intervention Group (n=17)		Control Group (n=15)	
	M	SD	M	SD
SDQ Total Score[a]				
t1	19.82	4.02	18.47	2.37
t2	14.00	4.26	13.07	4.38
Emotional Symptoms[b]				
t1	6.12	1.87	6.40	1.72
t2	3.76	2.14	3.07	1.71
Behavioural Problems[b]				
t1	4.29	1.83	3.07	1.83
t2	2.53	1.55	1.87	1.36
Hyperactivity[b]				
t1	5.24	1.95	5.67	2.13
t2	4.35	1.67	4.27	1.58
Peer Relationship Problems[b]				
t1	4.18	1.81	3.33	1.54
t2	3.35	1.84	3.87	1.41
Pro-social Behaviour[b]				
t1	7.12	1.80	7.41	1.58
t2	7.40	1.35	7.33	1.99

Note: [a]maximum score = 40; [b]maximum score = 10.

5.2.1.1. *Hypothesis 1: Peer mentoring will have a significantly positive effect on the mentees' Total SDQ Score.*

A two-way repeated measures ANOVA, with total SDQ scores as the dependent measure, revealed a statistically significant main effect for time, $F(1, 32) = 39.73$, $p < 0.001$ with a large effect size (eta squared = 0.57), suggesting that total SDQ scores improved for those in both the intervention and the control group. Post-hoc comparisons, using a paired-samples t-test, indicated that there was a statistically significant decrease in the total SDQ scores for both groups from before the intervention (M=19.19, SD=3.37) to after the intervention (M=13.56, SD=4.27), t(31) = 6.43, p < 0.001. There was no statistically significant interaction effect between group and time, $F(1, 32) = 0.06$, $p > 0.05$. These findings suggest that the improvement in total SDQ score across both groups was not due to the peer mentoring intervention.

5.2.1.2. *Hypothesis 2: Peer mentoring will have a significantly positive effect on the mentees' peer relationship problems SDQ Score.*

A two-way repeated measures ANOVA, with SDQ peer relationship problems scores as the dependent measure, showed no statistically significant main effect for time, $F(1, 32) = 0.15$, $p > 0.05$. There was no statistically significant interaction effect between group and time , $F(1, 32) = 3.23$, $p > 0.05$.

5.2.1.3. *Hypothesis 3: Peer mentoring will have a significantly positive effect on the mentees' Emotional Symptoms SDQ Score.*

A two-way repeated measures ANOVA, with SDQ Emotional Symptoms scores as the dependent measure, revealed a statistically significant main effect for time, $F(1, 32) = 42.19$, $p < 0.001$ with a large effect size (eta squared = 0.58), suggesting that SDQ Emotional Symptoms scores improved for those in both the intervention and the control group. Post-hoc comparisons using a paired-samples t-test indicated that there was a statistically significant decrease in the SDQ Emotional Symptoms scores for both groups from before the intervention (M=6.25, SD=1.78) to after the intervention (M=3.44, SD=1.95), t(31 = 6.41, p < 0.001. There was no statistically significant interaction effect between group and time, $F(1, 32) = 1.25$, $p > 0.05$. These findings suggest that the improvement in SDQ Emotional Symptoms score across both groups was not due to the peer mentoring intervention.

5.2.1.4. *Hypothesis 4: Peer mentoring will have a significantly positive effect on the mentees' behaviour problems SDQ Score.*

A two-way repeated measures ANOVA, with SDQ Behavioural Problems scores as the dependent measure, revealed a statistically significant main effect for time, $F(1, 32) = 12.26$, $p = 0.001$ with a large effect size (eta squared = 0.29), suggesting that SDQ Behavioural Problems scores improved for those in both the intervention and the control group. Post-hoc comparisons using a paired-samples t-test indicated that there was a statistically significant decrease in the SDQ Behavioural Problems scores for both groups from

before the intervention (M=3.72, SD=1.91) to after the intervention (M=2.22, SD=1.48), t(31) = 3.58, p = 0.001. There was no statistically significant interaction effect between group and time, $F(1, 32) = 0.46$, $p > 0.05$. These findings suggest that the improvement in SDQ Behavioural Problems score across both groups was not due to the peer mentoring intervention.

5.2.1.5. *Hypothesis 5: Peer mentoring will have a significantly positive effect on the mentees' hyperactivity SDQ Score.*

A two-way repeated measures ANOVA, with SDQ Hyperactivity scores as the dependent measure, revealed a statistically significant main effect for time, $F(1, 32) = 6.94$, $p = 0.01$ with a moderate effect size (eta squared = 0.13), suggesting that SDQ Hyperactivity scores improved for those in both the intervention and the control group. Post-hoc comparisons using a paired-samples t-test indicated that there was a statistically significant decrease in the SDQ Hyperactivity scores for both groups from before the intervention (M=5.44, SD=2.02) to after the intervention (M=4.31, SD=1.60), t(31) = 2.63, p = 0.01. There was no statistically significant interaction effect between group and time, $F(1, 32) = 0.36$, $p > 0.05$. These findings suggest that the improvement in SDQ Hyperactivity score across both groups was not due to the peer mentoring intervention.

5.2.1.6. *Hypothesis 6: Peer mentoring will have a significantly positive effect on the mentees' pro-social behaviour SDQ Score.*

A two-way repeated measures ANOVA, with SDQ Pro-social Behaviour scores as the dependent measure, revealed no statistically significant main effect for time, $F(1, 32) = 0.09$, $p > 0.05$ and no statistically significant interaction effect between group and time, $F(1, 32) = 0.22$, $p > 0.05$.

5.2.2. The effect of Peer Mentoring on the School Attendance of Mentees.

To assess the effect of the peer mentoring intervention on the Year 7 pupils SDQ scores, a two-way repeated measures analyses of variance (ANOVA) with group (i.e. intervention or control) as a between-subject factor and time (i.e. pre-intervention and post-intervention) as a within-subject factor were performed. The dependent variable was school attendance. Table 5.2 shows the means and standard deviations for the pre- and post-intervention school attendance for the Year 7 intervention group and control group.

Table 5.2: A Table Showing Means and Standard Deviations for the Pre- and Post-Intervention School Attendance for the Year 7 Intervention Group and Control Group.

	Group			
	Intervention Group (n=17)		Control Group (n=15)	
	M	SD	M	SD
School Attendance				
t1	93.88	8.08	91.55	7.29
t2	95.09	5.80	93.31	7.07

5.2.2.1. *Hypothesis 7: Peer mentoring will have a significantly positive impact upon the mentees' school attendance.*

A two-way repeated measures ANOVA with School Attendance as the dependent measure revealed no statistically significant main effect for time, $F(1, 32) = 1.08$, $p > 0.05$ and no statistically significant interaction effect between group and time, $F(1, 32) = 0.04$, $p > 0.05$.

5.2.3. The effect of Peer Mentoring on the Resilience of Mentees.

To assess the effect of the peer mentoring intervention on the Year 7 pupils' SDQ scores, the researcher performed a total of three two-way repeated measures analyses of variance (ANOVA) with group (i.e. intervention or control) as a between-subject factor and time (i.e. pre-intervention and post-intervention) as a within-subject factor. Dependent variables were the RSCA subscale scores. The raw scores, rather than the T scores, were used for the RSCA as the assessment was standardised on a sample of the U.S. population, which means that standardised scores cannot be reliably generalised to a population of children in the UK. The raw scores were able to reliably show differences between participants and pre- and post-intervention changes. Table 5.3 shows the means and standard deviations for the pre- and post-intervention RSCA subscales for the Year 7 intervention group and control group.

Table 5.3: A Table Showing Means and Standard Deviations for the Pre- and Post-Intervention RSCA subscales for the Year 7 Intervention Group and Control Group.

	Group			
	Intervention Group (n=17)		Control Group (n=15)	
	M	SD	M	SD
Sense of Mastery[a]				
t1	42.35	8.26	57.40	8.66
t2	44.29	8.66	57.47	9.88
Sense of Relatedness[b]				
t1	53.24	9.05	68.47	11.47
t2	55.41	12.33	68.73	13.98
Emotional Reactivity[a]				
t1	30.59	8.27	20.00	10.92
t2	29.76	13.83	18.13	11.15

Note: [a]maximum score = 80; [b]maximum score = 96.

5.2.3.1.   *Hypothesis 8: Peer mentoring will have a significantly positive impact upon the resiliency of the mentees, as measured by the Resiliency Scales.*

A two-way repeated measures ANOVA, with Sense of Mastery scores as the dependent measure, revealed no significant main effect for time, $F(1, 32) = 0.61$, $p > 0.05$ and no significant interaction effect between group and time, $F(1, 32) = 0.53$, $p > 0.05$.

A two-way repeated measures ANOVA, with Sense of Relatedness scores as the dependent measure, revealed no statistically significant main effect for time, $F(1, 32) = 0.77$, $p > 0.05$ and no statistically significant interaction effect between group and time, $F(1, 32) = 0.47$, $p > 0.05$.

A two-way repeated measures ANOVA, with Emotional Reactivity scores as the dependent measure, revealed no statistically significant main effect for time, $F(1, 32) = 0.57$, $p > 0.05$ and no statistically significant interaction effect between group and time, $F(1, 32) = 0.09$, $p > 0.05$.

5.3. Secondary Research Question 1: What impact does Peer Mentoring have on those who take the role of a Peer Mentor?

5.3.1. The effect of Peer Mentoring on the SDQ Scores of Peer Mentors.

To explore the impact of peer mentoring on those who took the role of peer mentor, a series of paired-samples t-tests were conducted to compare the mean total SDQ score and the SDQ subscale scores for the Year 9 Peer Mentors before and after the peer mentoring intervention. The means and standard deviations for the pre- and post-intervention SDQ total score and subscale scores are shown in Table 5.4.

Table 5.4: A Table Showing Means and Standard Deviations for the Pre- and Post-Intervention Year 9 Peer Mentors SDQ Scores.

	Time of Measure			
	Before Peer Mentoring (n=14)		After Peer Mentoring (n=14)	
Variable	M	SD	M	SD
SDQ Total Score	8.07	2.95	8.00	4.04
SDQ Peer Relationship Problems	1.43	1.22	1.29	1.44
SDQ Behavioural Problems	1.93	1.27	2.29	1.68
SDQ Emotional Symptoms	1.36	1.01	1.79	2.36
SDQ Hyperactivity	3.36	1.78	2.64	1.39
SDQ Pro-social Behaviour	8.79	1.37	9.00	1.36

5.3.1.1.   *Hypothesis 9: The Peer Mentors will show significantly lower Total SDQ scores following the peer mentoring intervention.*

A paired-samples t-test was conducted to compare the mean total SDQ score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.4). There was no statistically significant change in the total SDQ scores from before the intervention (M=8.07, SD=2.95) to after the intervention (M=8.00, SD=4.04), t(13) = 0.31, p=0.76.

5.3.1.2. Hypothesis 10: The Peer Mentors will show significantly lower peer relationship problems SDQ scores following the peer mentoring intervention.

A paired-samples t-test was conducted to compare the mean SDQ Peer relationship problems score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.4). There was no statistically significant change in the total SDQ scores from before the intervention (M=1.43, SD=1.22) to after the intervention (M=1.29, SD=1.44), t(13) = 0.56, p=0.58.

5.3.1.3. Hypothesis 11: The Peer Mentors will show significantly lower behaviour problems SDQ scores following the peer mentoring intervention.

A paired-samples t-test was conducted to compare the mean SDQ Behavioural Problems score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.4). There was no statistically significant change in the total SDQ scores from before the intervention (M=1.93, SD=1.27) to after the intervention (M=2.29, SD=1.68), t(13) = -0.92, p=0.37.

5.3.1.4. Hypothesis 12: The Peer Mentors will show significantly lower hyperactivity SDQ scores following the peer mentoring intervention.

A paired-samples t-test was conducted to compare the mean SDQ Hyperactivity score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.4). There was no statistically significant

change, in the total SDQ scores from before the intervention (M=3.36, SD=1.78) to after the intervention (M=2.64, SD=1.39), t(13) = 1.35, p=0.20.

5.3.1.5. Hypothesis 13: The Peer Mentors will show significantly lower emotional symptoms SDQ scores following the peer mentoring intervention.

A paired-samples t-test was conducted to compare the mean SDQ Emotional Symptoms score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.4). There was no statistically significant change in the total SDQ scores from before the intervention (M=1.36, SD=1.01) to after the intervention (M=1.79, SD=2.36), t(13) = -0.68, p=0.51.

5.3.1.6. Hypothesis 14: The Peer Mentors will show significantly higher pro-social behaviour SDQ scores following the peer mentoring intervention.

A paired-samples t-test was conducted to compare the mean SDQ Pro-social Behaviour score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.4). There was no statistically significant change in the total SDQ scores from before the intervention (M=8.79, SD=1.37) to after the intervention (M=9.00, SD=1.36), t(13) = -0.64, p=0.53.

5.3.2. The effect of Peer Mentoring on the Resiliency of Peer Mentors.

To explore the impact of peer mentoring on those who took the role of peer mentor, a series of paired-samples t-tests were conducted to compare the mean RSCA subscale scores for the Year 9 Peer Mentors before and after the peer mentoring intervention. The raw scores, rather than the T scores were used for the RSCA as the assessment was standardised on a sample of the U.S. population; this means that standardised scores cannot be reliably generalised to a population of children in the UK. The raw scores were able to reliably show differences between participants and pre- and post-intervention changes. The means and standard deviations for the pre- and post-intervention RSCA subscale scores are shown in Table 5.5.

Table 5.5: A Table Showing Means and Standard Deviations for the Pre- and Post-Intervention Year 9 Peer Mentors RSCA scores before and after the intervention.

	Time of Measure			
	Before Peer Mentoring (n=16)		After Peer Mentoring (n=16)	
RSCA Variable	**M**	**SD**	**M**	**SD**
Sense of Mastery	55.36	7.83	52.21	10.00
Sense of Relatedness	63.93	12.79	69.50	12.52
Emotional Reactivity	26.29	4.71	36.57	16.44

5.3.2. The effect of Peer Mentoring on the Resiliency of Peer Mentors.

To explore the impact of peer mentoring on those who took the role of peer mentor, a series of paired-samples t-tests were conducted to compare the mean RSCA subscale scores for the Year 9 Peer Mentors before and after the peer mentoring intervention. The raw scores, rather than the T scores were used for the RSCA as the assessment was standardised on a sample of the U.S. population; this means that standardised scores cannot be reliably generalised to a population of children in the UK. The raw scores were able to reliably show differences between participants and pre- and post-intervention changes. The means and standard deviations for the pre- and post-intervention RSCA subscale scores are shown in Table 5.5.

Table 5.5: A Table Showing Means and Standard Deviations for the Pre- and Post-Intervention Year 9 Peer Mentors RSCA scores before and after the intervention.

	Time of Measure			
	Before Peer Mentoring (n=16)		After Peer Mentoring (n=16)	
RSCA Variable	M	SD	M	SD
Sense of Mastery	55.36	7.83	52.21	10.00
Sense of Relatedness	63.93	12.79	69.50	12.52
Emotional Reactivity	26.29	4.71	36.57	16.44

5.3.2.1. **Hypothesis 15:** *The Peer Mentors will show significantly improved resilience, as measured by the Resiliency Scales, following the peer mentoring intervention.*

Sense of Mastery

A paired-samples t-test was conducted to compare the mean Sense of Mastery score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.5). There was no statistically significant change in the Sense of Mastery scores from before the intervention (M=55.36, SD=7.83) to after the intervention (M=52.21, SD=10.00), t(13) = 1.10, p=0.29.

Sense of Relatedness

A paired-samples t-test was conducted to compare the mean Sense of Relatedness score for the Year 9 Peer Mentors before and after the peer mentoring intervention (see Table 5.5). There was no statistically significant change in the Sense of Relatedness scores from before the intervention (M=63.93, SD=12.79) to after the intervention (M=69.50, SD=12.52), t(13) = -1.52, p=0.15.

Emotional Reactivity

A paired-samples t-test was conducted to compare the mean Emotional Reactivity score for the Year 9 Peer Mentors before and after the peer

mentoring intervention (see Table 5.5). There was no statistically significant change in the Emotional Reactivity scores from before the intervention (M=26.29, SD=4.71) to after the intervention (M=36.57, SD=16.44), t(13) = -2.11, p=0.06.

5.4. Secondary Research Question 2: Do pupils involved in Peer Mentoring value the intervention?

5.4.1. Hypothesis 16: *The questionnaires regarding the intervention will show that those who were Peer Mentors enjoyed the experience.*

The peer mentoring evaluation form given to the peer mentors contained five questions that were answered using a Likert-scale with five options (strongly agree, agree, don't know, disagree or strongly disagree). The answers indicates that the majority felt supported in their role as a peer mentor, thought that being a peer mentor had helped them to develop new skills, considered that the peer mentor training had help them in their role, would recommend becoming a peer mentor to their friends and enjoyed being a peer mentor. Figure 5.1 shows the number of responses given to each item on the questionnaire.
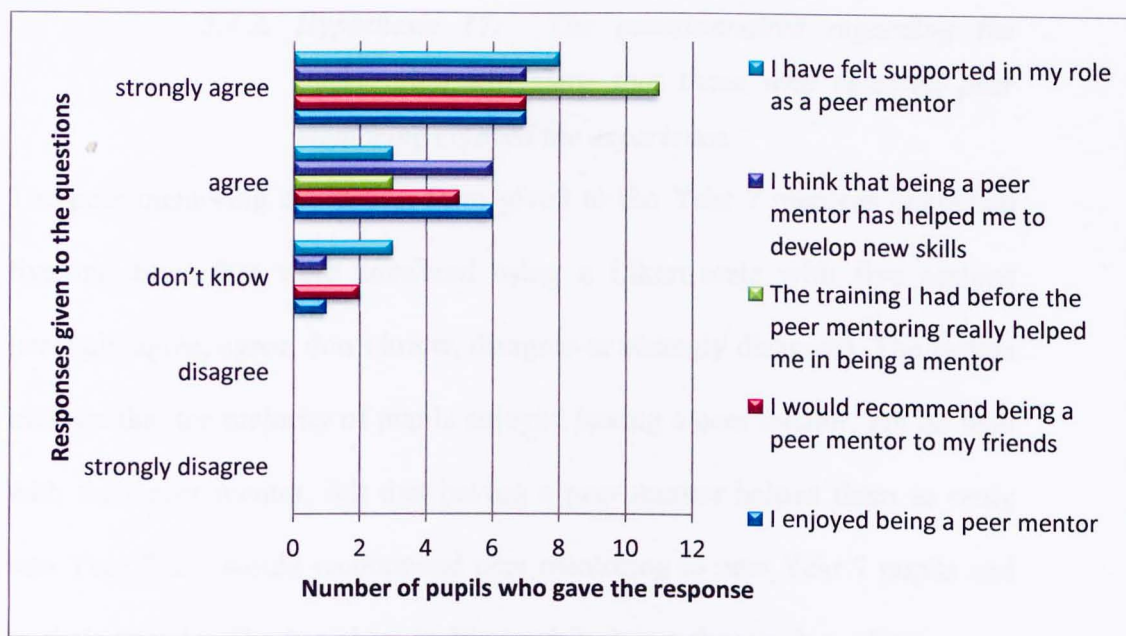
Figure 5.1: A Bar Chart showing the results of the Peer Mentoring Evaluation Forms completed by the Year 9 Peer Mentors.

All questions asked were answered positively by the majority of the peer mentors,

- 78.6% of peer mentors agreed or strongly agreed that they had felt supported in their role as a peer mentor;

- 92.9% of peer mentors agreed or strongly agreed that being a peer mentor had helped them to develop new skills;

- 100% of peer mentors agreed or strongly agreed that the training before the peer mentoring really helped them in their role;

- 85.7% of peer mentors agreed or strongly agreed that they would recommend being a peer mentor to their friends; and

- 92.8% of peer mentors agreed or strongly agreed that they had enjoyed being a peer mentor.

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5.4.2. Hypothesis 17: *The questionnaires regarding the intervention will show that those who received peer mentoring enjoyed the experience.*

The peer mentoring evaluation form given to the Year 7 mentees contained five questions that were answered using a Likert-scale with five options (strongly agree, agree, don't know, disagree or strongly disagree). The results indicate that the majority of pupils enjoyed having a peer mentor, got on well with their peer mentor, felt that having a peer mentor helped them to settle into Year 7 and would recommend peer mentoring to new Year 7 pupils and to their friends. The bar chart in Figure 5.2 shows the number of responses given to each item on the questionnaire.
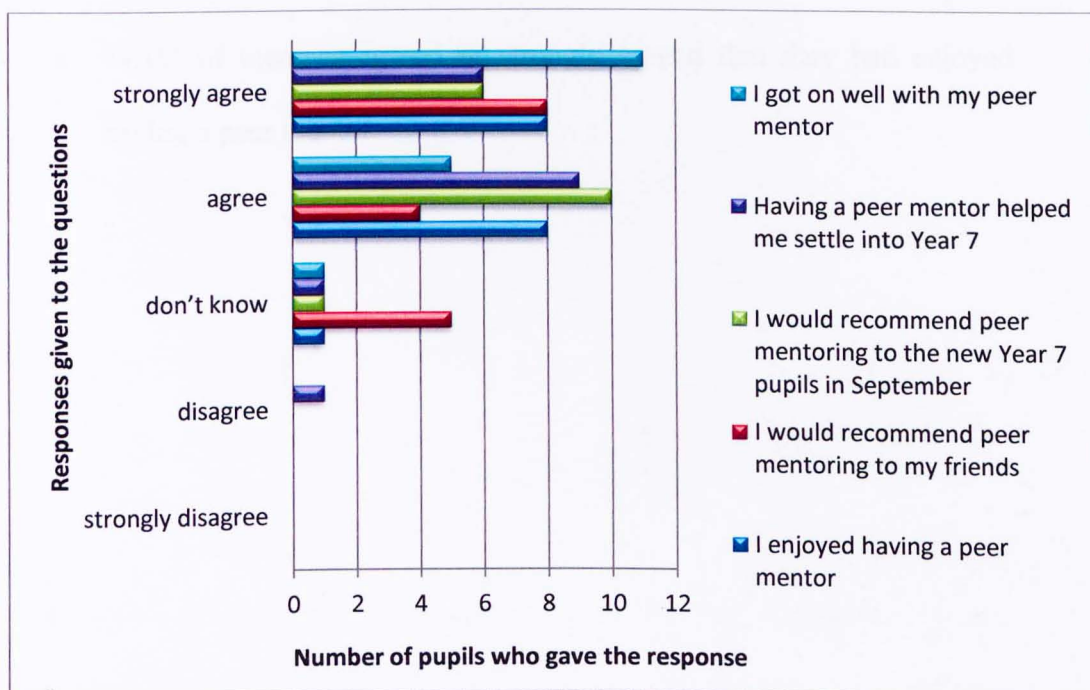
Figure 5.2: A Bar Chart showing the results of the Peer Mentoring Evaluation Forms completed by the Year 7 Mentees.

All questions asked were answered positively by the majority of the Year 7 mentees,

- 94.1% of mentees agreed or strongly agreed that they got on well with their peer mentor;

- 88.2% of mentees agreed or strongly agreed that having a peer mentor helped them to settle into Year 7;

- 94.1% of mentees agreed or strongly agreed that they would recommend peer mentoring to the new Year 7 pupils;

- 70.6% of mentees agreed or strongly agreed that they would recommend peer mentoring to a friend; and

- 94.1% of mentees agreed or strongly agreed that they had enjoyed having a peer mentor.

5.5. Secondary Research Question 3: What aspects of the Peer Mentoring intervention are most helpful and how could it be improved?

5.5.1. Thematic Analysis

To address the third secondary research question, a thematic analysis of the peer mentoring evaluation questionnaires was carried out. The Braun and Clarke (2006) method of thematic analysis was used, which involved the following stages:

- Familiarisation with the data

- Initial coding generation

- Searching for themes based on the initial coding

- Review of the themes

- Theme definition and labelling

- Report writing

The questionnaire responses were first collated into one document. The data was fairly straightforward to code since comments were made in short sentences rather than lengthy prose. Following the coding, similar statements were grouped together which led to themes being drawn out. For each question, between three and five main themes were drawn out. A second researcher then coded the phrases (unaware of how they were originally coded) using these themes, and Cohen's Kappa was used to determine the

inter-rater reliability (Cohen, 1960; Robson, 2002). For each question the
Kappa was above 0.75 (see Appendix 10), which shows excellent agreement
between coders (Fliess, 1981).

5.5.2.   *What were the best things about being a Peer Mentor?*

The main themes drawn out from responses to the question regarding the best
things about being a peer mentor are shown in Table 5.6. The themes with the
most supporting statements were 'getting to know people and making new
friends' and 'getting to support other people'.

Table 5.6: Main themes drawn out during thematic analysis of responses to the question 'What were the best things about being a peer mentor?'

Main Themes (number of comments judged to be within the theme)	Example Quotes
Getting to know people and making new friends (5)	*"Being a friend"* *"Getting to know a new person"* *"Getting to make friends with people"*
Getting to support other people (4)	*"The best thing about being a peer mentor is helping people out and making them confident"* *"Being someone to talk to"* *"Best things about being a peer mentor is that you get to help younger children that really need it and get the chance to support them"*
Helping others to solve their problems (2)	*"Helping other students resolve their problems"* *"That you get to help solve people's problems"*
The responsibility (2)	*"The best thing about being a peer mentor is the responsibility"* *"The best thing about peer mentor was responsibility, that's really helped me"*
The peer mentor training (1)	*"I was happy with the training"*

5.5.3. What were the most helpful things about the Peer Mentoring?

The main themes drawn out from responses to the question regarding the best things about having a peer mentor and example statements within these are shown in Table 5.7. The themes with the most supporting statements were 'having someone to talk to' and 'talking to someone about any problems'.

Table 5.7: Main themes drawn out during thematic analysis of responses to the question 'What were the most helpful things about the peer mentoring?'

Main Themes (number of comments judged to be within the theme)	Example Quotes
Having someone to talk to (8)	*"Talking to my peer mentor"* *"It is good to have someone to talk to"* *"I knew I could discuss anything with my mentor without it leaving the room and I could ask her for support"*
Talking to someone about any problems (3)	*"Having someone to talk to about my problems and worries"* *"Talking about problems"* *"They talk to you if there's any problems"*
Learning to trust others better (1)	*"It helped me learn to trust others better"*

5.5.4. *Is there anything about the Peer Mentoring that could have been improved?*

The main themes drawn out from responses to the question regarding things that could have been improved about the peer mentoring and example statements within these are shown in Table 5.8. The themes with the most supporting statements were 'nothing', 'having better organisation and support', 'having better places to go for the peer mentoring sessions' and 'having more mentoring sessions'.

Table 5.8: Main themes drawn out during thematic analysis of responses to the question 'Is there anything about the peer mentoring that could have been improved?'

Main Themes: (number of comments judged to be within the theme)	Example Quotes
Nothing (13)	*"No"* *"Not really"* *"Nothing can be improved"*
Having better organisation and support (2)	*"Peer mentoring could have ran a bit better but apart from that I am happy"* *"The amount of support and starting when we were meant to"*
Having better places to go for the peer mentoring sessions (2)	*"Just the places we go to have mentoring sessions"* *"Just the places where we go."*
Having more peer mentoring sessions (2)	*"More sessions a week"* *"More mentoring sessions"*
Having more activities to do (1)	*"More activities to do with your mentee"*

6.0.   CHAPTER 6: DISCUSSION

6.1. Overview of Chapter

This chapter will consider the results of the research in terms of how they relate to previous research and the implications they have on future practice and research. Each research question will be discussed individually and then collectively, which will be followed by a discussion concerning the methods.

6.2.   Primary Research Question: What impact does Peer Mentoring have on Year 7 pupils who may be at risk of social, emotional and behavioural difficulties during transition to secondary school?

6.2.1. Primary Research Question: Summary of Main Results

The primary research question was addressed using a pre-test, post-test, two-group, randomised, controlled trial design. Measures collected before and after the peer mentoring were the SDQ, the RSCA and pupils' school attendance data. The research found that the total SDQ scores, emotional symptoms scores, behavioural problems score and hyperactivity scores had significantly decreased in both the intervention and control group following the intervention. There was no significant difference between the intervention and control groups, suggesting that the positive changes were not due to the peer mentoring intervention, but to other extraneous variables. The average

total SDQ score before the intervention was within the 'borderline' category for both the intervention and control group, indicating an above average risk of future mental health difficulties. The average total SDQ score following the intervention was below the level deemed to indicate a higher risk of future mental health difficulties

There was no significant change in the pro-social behaviour or the peer relationship problems SDQ scores of either the intervention or control group, indicating that the peer mentoring intervention had no impact on pro-social behaviour or peer relationship problems, as assessed by the measures used.

With regards to school attendance, the results showed no significant change in attendance for the intervention or control group and indicate that peer mentoring did not improve school attendance.

The results showed that peer mentoring had no significant impact on pupils' resilience as measured by the three subscales of the RSCA as there was no significant change in the scores of either the intervention or control group.

6.2.2. Primary Research Question: Discussion of Results

As outlined in the literature review, there is extensive literature regarding the positive outcomes peer mentoring can have on school age children. However,

the quantitative results of the present study do not provide support for these claims.

Significant decreases in emotional symptoms, behavioural problems and hyperactivity were found for both the intervention group and the control group. These findings are similar to those of Parsons *et al.* (2008) who found no significant impact of peer mentoring. Having said this, Parsons *et al.* found no improvement on any of the measures taken whereas the present study found improvements for both the intervention group and the control group. The reason for this may be that the present study focused on pupils during transition, whereas Parsons *et al.* explored the impact of a wide-range of peer mentoring interventions, none of which focused on transition points. As discussed, transition has been highlighted as a period of difficulty for children and the present study may have observed these difficulties through higher SDQ scores upon arrival at secondary school. The significant improvements for both groups may have been a natural improvement back to their pre-transition levels of well-being once they settled into their new school.

A large number of researchers have identified that transition from primary school to secondary school is a particularly vulnerable time for children, especially in terms of their self-concept, self-esteem and academic achievement (Anderson *et al.*, 2000; Godman, 2007; Parades, 1990; Qualter *et al.*, 2007; Roderick, 1993; Simmons and Blyth, 1987; Watt, 2000; Williams *et al.*, 2005). The results of the present study suggest that, while secondary

transition appears to be a vulnerable time for some children, the negative effects may only be temporary. There are a number of interpretations of these results, each suggesting different implications for the efficacy of the peer mentoring programme. The first interpretation is that the schools' existing programmes and any informal-support (i.e. friendship groups) were effective and the peer mentoring programme was effective but redundant, in that it unnecessarily duplicated support already available. This interpretation implies that an individual who is somehow disconnected from informal peer-support may still benefit from participating in peer mentoring as a substitute. A second interpretation is that the schools' existing programmes and any informal-support (i.e. friendship groups) were effective and the peer mentoring programme was simply ineffective. This interpretation would call for the discontinuation of peer mentoring programmes due to ineffectiveness with regards to the outcomes measured. A third hypothesis could be that, due to transition, many pupils experience a drop in well-being (measured as an increase in SDQ score) and that for the majority of pupils, their well-being improves following transition once they have settled into their new school without the need of any intervention. As the majority of pupils do improve, the important factors to consider during this time may be, firstly, the length of time it takes for their well-being to increase, secondly, whether their well-being returns to pre-transition levels and, finally, the severity of the drop in well-being during the transition period. Clearly this is only speculative; however, if we were to conceptualise the SDQ score as a homeostatic variable (i.e. one that returns to a 'natural' level after some positive or negative shock without the need for intervention), peer mentoring could conceivably have had

an impact on the speed at which pupils returned to this natural level rather than impacting on the natural level as measured post-intervention. If this hypothesis were to be true, it may be that measurements in the current study may have overlooked the effect as they were designed to measure any impact as oppose to the *rate* of any impact. In other words, it is possible that the intervention group SDQ scores improved more rapidly than the control group; yet this may not have been noticed because the measures were only taken at two points, pre- and post-intervention. Figure 6.1 illustrates how, using the current methods, an effect of peer mentoring could have gone undetected.
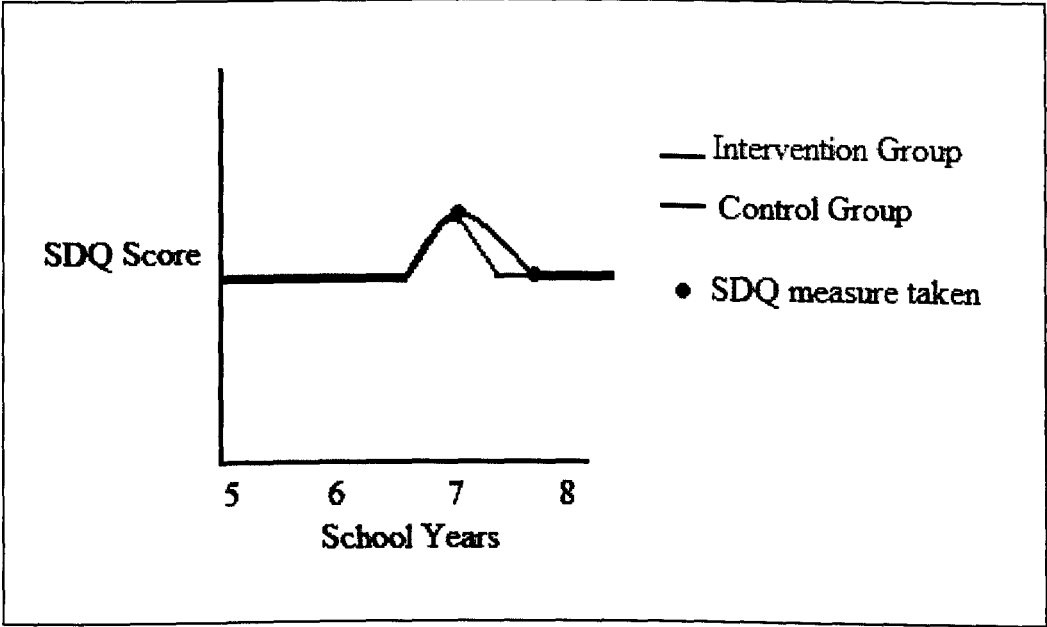
Figure 6.1: A graph illustrating a speculative formulation in which an impact of the intervention was missed due to the timings of measurement.

If this were the case, taking measures at points during the intervention as well as pre- and post- intervention would enable any such differences to be detected. It would also be of interest to gain SDQ scores prior to transition to determine when, and if, they increase. This would enable the researcher

observe whether they return to their pre-transition levels after the pupil has been through transition to secondary school, or whether the effects of transition are more prolonged. This raises interesting questions as to the nature of the actual changes observed in SDQ scores and the extent to which they reflect both underlying pupil characteristics (e.g. resilience, temperament and home circumstances) and the negative, but ephemeral, effects of transition. Moreover, it prompts us to question whether the value of the intervention lies solely in any prolonged effects or whether it can be justified merely as a process of mitigating the negative effects of the numerous short-lived problems encountered during transition. As the pupils overwhelmingly reported to have valued the intervention and it provided welcome support during their transition, is this to be dismissed should it be found that the programme had few sustained effects?

As outlined, significant improvements for both groups of Year 7s indicate either that the support systems in place in the participating schools were working for the majority of the pupils involved or that the majority of pupils' emotional well-being and behaviour naturally improves once they have settled into their new school. There may be a significant drop in well-being prior to the move into secondary school due to the uncertainty and vast changes around transition, however, when pupils settle into their new school, it seems that this may naturally improve. While this was not the hypothesised outcome, it is a very encouraging result regarding the overall well-being of pupils following transition as the majority of literature in this area highlights the negative outcomes of transition. These results support those of Evangelou *et*

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al. (2008) who found that the majority of pupils in their study felt settled into their new school after just one term at secondary school. Having said this, there is a disparity within the research as other studies suggest that the majority of pupils can still be experiencing some degree of concern well into their first year at secondary school (Stradling & MacNeil, 2000). It would be advantageous to conduct a longitudinal study and follow a wide sample of pupils through transition points in their education to explore whether the same result would be replicated. As discussed in the method chapter, the results of the present study cannot be widely generalised due to the relatively small sample size within only two secondary schools; further research using a larger sample drawn from a wider population would be valuable.

It is felt that these findings emphasise the need for using a control group when exploring the effectiveness of an intervention. During their research, Denham *et al.* (2006) found a significant improvement in social skills following their peer mentoring intervention. Their study did not use a control group and so their increase in social skills may have been due to extraneous variables such as maturation. Denham *et al.* acknowledge this; however they argue that the pupils would have been unlikely to make significant improvements during the 12-week period of the intervention had it not been for the intervention itself. In contrast, the present research has shown that pupils may make significant improvements in certain areas over fairly short periods of time. This is less extraordinary when one considers the rate of change in the children's school and social environment. There were approximately 24 weeks between the collection of the pre- and post-measures, which is still a relatively short

interval for the significant gains seen in both the intervention and control group. Had the current research not made use of a control group, one may have concluded that the change was likely to be due to the peer mentoring. This highlights the considerable importance in using a control group in order to prevent Type 1 errors, in which the researcher accepts their hypothesis, despite it being false.

While previous authors have suggested that peer mentoring may have a positive impact on the resilience of children and young people (Philip and Spratt, 2007), the current research found no quantitative evidence to support this suggestion. It was thought that peer mentoring would provide an increased level of social support for younger pupils, which is known to be a protective factor and to promote resilience (Friedli, 2009). As research has found that children have fewer friends than they had 20 years ago, and that they are more likely to confide in their friends regarding issues such as bullying (Linehan, 2007), the current research hypothesised that peer mentors may provide this network of support and therefore help to promote resiliency. It is possible that, since peer mentors are told who they will be working with, relationships may be artificial and could be seen as being a poor substitute for friends from their peer group. It could be that interventions that support children to establish their own friendships may be more successful in promoting resilience, rather than more formalised systems of social support, such as peer mentoring. It might be worth exploring the differences between friendship and mentoring relationships as this would help to inform future interventions. The current intervention paired older pupils with younger pupils

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and it may be that as school friendships tend to be with children of the same age, a buddy system within the same year group could be more effective. Furthermore, the researcher matched peer mentors with mentees using categories suggested by previous research; from a social constructionist and emancipatory stance, the researcher has imposed these categories on the pupils when they might not be factors that children would have chosen themselves. Another point that would be worth considering is that friendships often take place in group situations and so group interventions may warrant exploration. A final thought to contemplate is that friendships can be viewed as reciprocal relationships; whereas peer mentoring is generally viewed as a one-way support mechanism. Making the relationship more cooperative, in which pupils support each other, may be beneficial.

A result regarding the SDQ scores that is noteworthy is that the average total SDQ score following the intervention was below the level deemed to indicate a higher risk of future mental health difficulties. This has implications about how we define and measure risk. The Year 7 pupils were going through a period of uncertainty which, as discussed, is likely to have negatively affected their emotional well-being. To identity risk categories, it would be useful to distinguish between the underlying ability of the individual to cope with adverse events (i.e. resiliency) and their current level of emotional well-being. The RSCA appeared to be a more stable measure as no significant changes were noted in either group. On the other hand, the SDQ scores were considerably affected by the current circumstances of the individual therefore may have reflected the severity of difficulty currently experienced. It might be

the case that prior to the transition the RSCA would be a more reliable measure to identity children who may benefit from future support; whereas mid-transition, as the SDQ scores are more reflective of current circumstances and the nature of transition will vary from pupil to pupil, this might be a more useful tool to identify those experiencing a particularly difficult transition. In terms of defining an 'at risk' category, as the SDQ score appears to be fluid and dependent upon one's current life-circumstances, it is important that measures such as this are not used to label children and are only used to identify support that might benefit them; the SDQ is a comparative measure in that it is norm-referenced and a measure of need relative to others, rather than an absolute category requiring a particular intervention.

Peer mentoring was not found to have a significant effect on pupil attendance. This result has also been found by Parsons *et al.* (2008), whose peer mentoring scheme yielded no significant impact on pupil attendance. It is noteworthy that there was no change in attendance in either the control or intervention group given that previous researchers have found that peaks in non-attendance correlate with transition from primary to secondary school (Elliot, 1999; Fremont, 2003; King & Bernstein, 2001). It may be that this is a general trend that requires a larger sample size to become apparent.

One aspect of the peer mentoring that is pertinent to discuss is how the mentees were selected. The Year 7 pupils were screened using the SDQ and those with SDQ scores above the threshold level were randomly allocated into

the intervention group or the control group. The pupils were asked whether they were happy to take part in the study and informed consent was gained from them and their parents. This process does not however gauge a pupil's enthusiasm for peer mentoring or their likelihood to fully engage in the peer mentoring process. They may, for example, have wanted to take part because they might get out of lessons. Others on the other hand may have felt that they did not need a peer mentor but might have wanted to please their new teachers by agreeing to take part. There are a number of factors that may have affected pupil engagement and this is likely to have affected what the pupils gained from the process. It was decided to screen the entire year group on entry because the aim of the study was to carry out a RCT and it was felt that by doing this, potentially vulnerable pupils would not be overlooked. Alternatively, as peer mentoring is a social intervention, it may be more successful if pupils were to self-select to take part as they may have a preference for this style of support. If pupils self-selected they might be more likely to engage with the intervention and possibly to benefit from the process. This is something that researchers may wish to consider in the future. However, significant thought must be given to the ethical considerations surrounding this, especially if the peer mentoring intervention is aimed at supporting the most vulnerable pupils, as some of the most vulnerable pupils may also be some of the least likely to seek support.

6.3. Secondary Research Question 1: What impact does Peer Mentoring have on those who take the role of a   Peer Mentor?

6.3.1. Secondary Research Question 1: Summary of Results

To explore the impact of peer mentoring on those who take the role of a peer mentor, a pre-test, post-test, single-group design was employed. The measures collected for this purpose were the SDQ and the RSCA.

No significant changes in SDQ total score, emotional symptoms, behavioural difficulties, hyperactivity, peer relationship problems, pro-social behaviour or RSCA scores were found following the peer mentoring intervention.

6.3.2. Secondary Research Question 1: Discussion of Results

The results do not support claims made previously regarding the impact of peer mentoring on peer mentors. It had been proposed that it could have benefits for their resilience, respect, ability to solve problems and support others, interpersonal skills, ability to work in a team and learning (Dearden, 1998; Nelson, 2003; Sharp, 2001). From these claims, it was hypothesised that there would be an improvement in the mentors' SDQ and RSCA scores, however no significant gains were realised. It was felt that the measures taken, especially the RSCA and the pro-social behaviour SDQ were closely linked to the suggested benefits of being a mentor. However, some of the proposed

benefits are factors that are difficult to measure through self-report questionnaires; measuring one's ability to work in a team, interpersonal skills or ability to support others are subjective concepts and perhaps a self-report questionnaire was unsuitable for this task. It may have been more appropriate to carry out observations of pupils working in a group situation and to give questionnaires to the pupil's teachers and parents. The intervention may have had benefits for the mentors that were not observed due to the limitations of the measures used. For example, mentors may have developed greater empathy and understanding; variables such as these are difficult to measure.

Pro-social behaviour such as volunteering has been linked to increased well-being (Lyubomirsky et al., 2005); however, it may be that rather than pro-social behaviour increasing well-being, people with high well-being may be more likely to carry out pro-social behaviours. Those who volunteered to become peer mentors may have had a higher level of well-being prior to volunteering for the role. This, however, is only speculation; the ability to discern the direction of causation, if, any, could have been improved by having a control group as there was in the mentee group. No control group was used because too few pupils volunteered to become peer mentors. It was decided that it would not be valid to use another group of Year 9 pupils, who had not volunteered as controls as they may not be equivalent and could not be randomly allocated into groups. In hindsight, taking a random sample of Year 9 pupils as a control group would have allowed exploration of whether pre-measures were comparable and whether some pupils are more likely to apply for the role than others.

6.4. Secondary Research Question 2: Do pupils involved in Peer Mentoring value the intervention?

6.4.1. Secondary Research Question 2: Summary of Results

A Likert-scale questionnaire was used to address the research question regarding whether pupils involved in peer mentoring valued the intervention. The results were very positive about the pupils' experiences of the peer mentoring. The majority of the peer mentors agreed that they

- had enjoyed being a peer mentor;

- would recommend being a peer mentor to their friends;

- felt that the training had helped them in their role;

- felt that being a peer mentor helped them to develop new skills; and

- had been supported in their role.

The majority of the mentees agreed that they

- enjoyed having a peer mentor;

- would recommend peer mentoring to a friend;

- would recommend peer mentoring to the new Year 7 pupils;

- felt having a peer mentor had helped them to settle into Year 7; and

- got on well with their peer mentor.

6.4.2. Secondary Research Question 2: Discussion of Results

The findings that the majority of pupils enjoyed the experience, felt it had helped them to develop new skills and would recommend peer mentoring to others are not surprising as this result has been found in a number of previous studies reviewed (Dearden, 1998; Denham et al., 2006; Maras and Bradshaw, 2007; Nelson, 2003; Parsons et al., 2008; Philip et al., 2004). Dearden (1998) employed a questionnaire design and found that the majority of mentors agreed that the mentoring had increased their personal development and interpersonal skills and that they had helped their mentees to learn and feel less worried about secondary school. Denham et al. (2006) questioned both teachers and pupils regarding the intervention; it was widely deemed to have been a positive experience with regards to pupils' problem-solving skills, confidence, ability to deal with peer pressure, behaviour and self-esteem. One issue with the use of questionnaires is that of response bias, in which participants answer questions in the way they think the researcher wants them to reply, rather than according to their true beliefs. This may have affected the results of the present study as the pupils may have been more inclined to give favourable responses regarding the peer mentoring due to the feeling that this was what was expected from the schemes.

However, it is important not to undervalue the views of those involved in research and both the peer mentors and the mentees reported positive experiences of the peer mentoring. When discussing the previous research

question regarding the impact of the intervention on peer mentors, the researcher suggested that the intervention may have had impacts on variables that are difficult to measure through self-report questionnaires such as empathy or interpersonal skills. The majority of peer mentors agreed that they had developed new skills during their time as a peer mentor and so it may be that the measures taken overlooked factors that may have improved due to the peer mentoring. In future research it would be beneficial to hold focus groups with the peer mentors after the intervention to discuss the skills that they feel they developed; research could then be done in which pre- and post- measures are taken to evaluate the impact of the intervention on these skills. Measures such as observations and teacher and parent questionnaires may be suitable for this task.

The results do indicate that both mentors and mentees valued the intervention, which is a very positive outcome. It is encouraging that this result has been replicated and is in line with previous research. If this had not been the case, it would imply that the peer mentoring scheme set up in the current study may not have been comparable with the previous literature discussed.

6.5. Secondary Research Question 3: What aspects of the Peer Mentoring intervention are most helpful and how could it be improved?

6.5.1. Secondary Research Question 3: Summary of Results

A questionnaire was used to gain pupil views regarding the aspects of peer mentoring that were most helpful and those that could have been improved. A thematic analysis identified key themes from the three key questions: the best things about being a peer mentor, the best things about having a peer mentor and things about the peer mentoring that could have been improved.

The best things about being a peer mentor were

- getting to know people and making new friends;

- getting to support other people;

- helping other to solve their problems;

- the responsibility; and

- the peer mentor training.

The best things about having a peer mentor were

- having someone to talk to;

- talking to someone about my problems; and

- learning to trust others better.

Things that could have been improved about the peer mentoring were

- nothing;

- having better organisation and support;

- , having better places to go for the peer mentoring sessions;

- having more peer mentoring sessions; and

- having more activities to do.

6.5.2. Secondary Research Question 3: Discussion of Results

The results indicate that both mentors and mentees valued the core elements within the peer mentoring: the peer mentors valued being able to support their mentee and the mentees valued having someone to talk to. The majority of the aspects seen as the 'best things' about peer mentoring were social factors regarding talking to, learning from and supporting others. This was probably to have been expected as social support is one of the main purposes for peer mentoring. Some of the benefits of having a peer mentor reported in the current study have been reported by mentees in previous studies. Issues such as learning to trust other people more and wanting to meet more regularly were also found by Dearden (1998).

It was encouraging that many students felt that nothing within the peer mentoring could have been improved. When issues for improvement were given, they were largely organisational factors, which is congruent with reflections shared by Lines (2005). Lines felt that institutional factors such as time, place and resources, posed the greatest resistance to his peer counselling

scheme. The themes drawn out in the current study, such as having a better place to meet, meeting more regularly and having better organisation and support, fit within the institutional factors identified by Lines. For an outside researcher, these factors are the most difficult to control. In future peer mentoring schemes, it may be beneficial to have regular review meetings with all pupils and members of school staff involved to discuss practical issues and look at how difficulties can be addressed. In the present study there were also difficulties faced when a key member of staff in School B was absent due to illness. This is likely to have affected the support that the mentors received. Researchers should be mindful to involve two or more key members of staff who are all fully involved in the project. This would allow for consistent support for pupils and reduce pressure on individual members of staff.

6.6. Discussion of all results

The results of the current research seem to indicate that, while mentees and mentors enjoyed the experience and reported that it had helped them, the quantifiable measures suggest that peer mentoring had no impact on their behavioural problems, peer relationship problems, emotional symptoms, hyperactivity, pro-social behaviour, resilience or school attendance. These are similar results to research conducted by Parsons *et al.* (2008) who found that while there were no significant changes after the intervention, as measured using the 'About Me' questionnaire. The evidence gained through evaluation questionnaires suggested that they pupils enjoyed the experience and felt they had benefitted from it.

It was a very positive finding that the majority of pupils enjoyed the intervention and felt that they had benefited from the experience. If the researcher had been working from a social contructionist epistemological stance, she may have explored this finding in more depth and put emphasis on the personal views of those who took part in the peer mentoring. Coming from a post-positivist stance, the researcher aimed to measure the impact of the intervention on those involved and no significant impact has been found. Having said this, the fact that those involved reported that having a mentor had helped them to settle into school and that being a mentor had helped them to develop new skills, suggests that there may have been a positive impact for which the researcher did not employ the appropriate measure.

The rationale behind using peer mentoring to support pupils during transition to secondary school is relatively sound in that many of the possible negative outcomes following transition are addressed by a number of the positive outcomes that peer mentoring has been suggested to produce. The theory behind peer mentoring is that the peer provides a source of social support from someone who will have shared experiences (Pawson, 2004) and is able to offer guidance and a positive role-model (Philip & Spratt, 2007) to the mentee. Social support within this relationship is seen as the key as it has been suggested to promote resiliency (Friedli, 2009) which enables people to cope successfully despite challenging circumstances. It was hoped that by providing vulnerable Year 7 pupils a peer mentor following transition to secondary school, they would have the social support necessary to

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successfully navigate transition to reduce their future levels of risk. This hypothesised result was not supported by the results of the current study. As peer mentoring is an artificial method of providing social support as the relationships do not develop naturally, it may be that it does not provide the social support necessary to promote resiliency and positive outcomes. When discussing social support with regards to resiliency, one's family and friends are often identified as protective factors (DfEE, 2001) rather than organised and more formal relationships such as mentors. When designing interventions to support children through transition, it may be more beneficial to work to support them to build friendships within their close peer group rather than pairing them up with an older pupil whom they meet with once each week.

The results raise questions regarding how widely peer mentoring should be used until further well-conducted research is carried out to explore its impact and the way peer mentoring schemes should be set-up and run in order to effect change. Many authors have recommended the use of peer mentoring without conclusive evidence. Often, undue weight is given to anecdotal evidence when there is a lack of good quantitative or qualitative evidence. An example of this is Parsons *et al.* (2008) who, despite reporting on results similar to the present study, which would appear to question the true impact of peer mentoring, recommended increasing its use and setting up new peer mentoring schemes. Researchers must be cautious and ensure that they draw valid conclusions from their results. In 2005 the Government announced its intention to set up peer mentoring schemes in 180 secondary schools and for 600 looked-after children (HM Treasury, 2005). This is one example of where

caution should be taken before placing a high level of weight and expectation on one type of intervention. However, this will at least provide a good opportunity for a larger-scale evaluation of peer mentoring as a method to support vulnerable children and young people.

The mixed findings regarding the true impact of peer mentoring highlight the need for successful schemes to be investigated further in order to identify what works and the reasons why, so that those factors can be mirrored in future schemes. As Petticrew and Roberts (2006) have highlighted, we must be aware of the difference between assumed knowledge and real knowledge. As discussed in section 2.7, within the literature surrounding peer mentoring there is a large amount of assumed knowledge regarding its effectiveness; however, the real knowledge gained from a review of the literature and the current study casts doubt on its effectiveness.

Peer mentoring can be seen as one means of enabling young people to 'make a positive contribution', in line with the ECM outcomes (DfES, 2003). The results of the research suggest that peer mentors largely felt that they had been able to make a positive contribution by supporting the Year 7s. Having said this, no quantifiable outcomes were found in support of peer mentoring. Before peer mentoring can be endorsed as a beneficial intervention, a great deal more research is required to further explore its impact and the aspects of successful schemes.

6.6.1. Discussion of Epistemology

It is important to be aware of the impact that one's epistemological stance has on the interpretation of results. The impact of holding a post-positivist stance has been discussed throughout the paper; however, the question of how researchers holding other epistemological beliefs would interpret the results has not been fully explored. In the methodology chapter three main alternative epistemological stances were described: social constructionist, emancipatory and pragmatist. The current research will be discussed from each point of view to give a broader view of the research from different perspectives.

Researchers holding a social contructionist stance are likely to feel that the current research placed too much weight on quantitative measures in terms of measuring outcomes and in terms of identifying those who were at risk of social, emotional and behavioural difficulties. Social constructionists believe that there are multiple subjective realities that are influenced by things such as culture, linguistics and society. Due to this, they would view the use of the SDQ as an objective measure which tries to quantify subjective factors such as behaviour difficulties, emotional difficulties and pro-social behaviour as fundamentally flawed. To identify pupils who may be at risk during transition, a social constructionist researcher is likely to have used methods such as observation, interviews and questionnaires. Through observing a child in Year 6, speaking to them about their views regarding transition and speaking to their parents and teachers about any emerging behaviour or concerns they have, one may be more likely to build up a true picture of that individual, how

they view their world and to make an informed assessment of their level of risk during transition. This approach would give a 'richer' understanding of the issues and individuals involved. To evaluate the impact of a peer mentoring intervention they may have used similar methods in terms of observing and interviewing those involved regarding their experience of the intervention. Much of the previous research into peer mentoring has drawn upon these methods. The current researcher acknowledges the value in such methods; however she also believes that, with large enough sample sizes, results can be generalised beyond the individual and feels that this is vitally important when planning potentially widespread interventions such as peer mentoring. It can be challenging to quantify factors such as behaviour and social skills and measures of such factors are not likely to give a holistic view of the attribute; having said this, the researcher believes that it is worthwhile endeavouring to identify individuals through readily measurable variables as it would enable us to reach a much wider range of individuals who may need additional support but for whom the resources for a thorough assessment of their individual needs are not available. Furthermore, while quantifiable measures of intended objectives may not give the complexity and depth of characterisation as many qualitative measures, they allow for ready comparison and the benefits of evaluating impact in larger populations. While qualitative methods may be best placed for conceptualising the nature of any effects, this researcher posits that, quantitative methods are a more reliable and robust method to determine the extent, but perhaps not the nature, of any impact.

Researchers holding an emancipatory epistemological stance are likely to strongly criticise the current research as they would consider that there were power imbalances within the research. There may be a power imbalance between the researcher and the pupils involved in the research in that the researcher used the SDQ to determine who was at risk and offered them an intervention of her choosing; in doing so, the power-imbalance and difficulties may be reinforced. An emancipatory researcher is likely to have approached research aimed at supporting young people through transition by first giving the young people an opportunity to put forward their views regarding transition and by then working with them and allowing them to have control over support that they might want, who would have access to that support and how they would like to see it implemented. The current researcher agrees that there are likely to have been power imbalances in the present research but feels strongly that the aim of the research has been to explore methods to support young people through transition and does not feel that the power imbalances impacted greatly on the research outcomes, especially when viewed from a post-positivist stance.

A pragmatist researcher is unlikely to differ in view too much from the present researcher as the research drew upon a number of methods to meet different research objectives. Quantitative methods were used to address objectives regarding the impact of peer mentoring and qualitative methods were used to address questions regarding pupil views regarding peer mentoring. Having said this, researchers holding a pragmatic stance would be more likely to use a variety of methods to explore the same research objective.

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For example, the present research could have used the SDQ, observations and interviews to evaluate the impact of peer mentoring. Whilst a number of methods were used within the current research, it did not use a mixed methods design as the methods were exploring different research questions.

As discussed, the present research adhered largely to a post-positivist epistemological stance and this impacted greatly upon the methods used and interpretation of the results. Researchers holding other epistemological stances may be likely to consider the present research in different ways and may disagree with some of the methods used or interpretation of results. The current researcher believes that there are likely to be strengths and weaknesses within all epistemological paradigms and that bringing research from all areas together could be the most beneficial way to explore theories, concepts and interventions. From reviewing the literature regarding peer mentoring, there were clear gaps within the literature in terms of research using a post-positivist stance and the researcher aimed to bridge this gap.

6.7. Discussion of Methods

Before summarising and making conclusions about the data in the concluding chapter, there are several methodological issues to consider.

6.7.1. Study Quality

The current study aimed to provide a well-conducted investigation into the effectiveness of peer mentoring. From the literature review it was apparent that there is a lack of good quality quantitative research focused on measuring

the impact of peer mentoring. It is believed that this aim has been achieved. The Downs and Black (1998, see Appendix 2) checklist for measuring study quality was completed for the present study and a score of 28 out of 31 was achieved. Points were deducted as there was no attempt to conceal who received the intervention to staff or students. The Downs and Black checklist was created with medical trials in mind and creating single- and double-blind studies within education is challenging due to the nature of such interventions. This study, therefore, based on the study quality checklist, is considered a high quality study into peer mentoring. Peer mentoring has been promoted by a number of researchers and professionals for at least the past 15 years without well-conducted research having been carried out to assess the actual impact of the intervention. The theoretical basis underpinning the use of peer mentoring is, however, sound. Once interventions have been designed they should be piloted and their impact investigated before they are widely implemented. The design of this study is considered to be easily replicable and it would be valuable to conduct further research to explore issues such as the long-term effects of peer mentoring; its effects on factors not measured in the current study, such as academic achievement or social skills; and to compare it with other interventions such as social skills training, which has been demonstrated to have similar outcomes (Denham *et al.*, 2006).

The researcher acknowledges that critics may argue that a disproportionate level of weight has been placed on the results gained from the quantitative data collected in the form of the SDQ, RSCA and school attendance data. It is here that the researcher's epistemological stance is noticeable and when the

epistemological seam becomes evident throughout the research. The present research adhered to a largely post-positivist stance but recognises limitations in our ability to objectively know reality. Nevertheless, one would expect the quantitative evidence to broadly support any theoretic assumptions and the author is mindful of the inherent biases and limitations within all research. For some research questions, the researcher also gave value to the pragmatic approach, as it allowed the flexibility to address these questions more comprehensively; quantitative methods would have been insufficient as they are primarily designed to measure variables defined by the researcher. The primary research question and first secondary research question were addressed using quantitative methods and the final two secondary research questions were addressed using qualitative methods. All results are thought to have been appropriately analysed and they have been discussed in line with their associated research questions. The primary objective of the research has been to investigate the impact of peer mentoring on measurable outcomes and so, for this purpose, more weight has been given to the quantitative data. The qualitative methods were employed to allow the researcher to compare the results with previous questionnaire studies and to inform features of future peer mentoring schemes.

6.7.2. Sample Size and Generalisability

The schools in which the peer mentoring took place were chosen using purposive sampling in which a sample is put together to meet the needs of the project (Robson, 2002). It was felt that, in the schools chosen, there was a higher than average level of need for additional support for vulnerable pupils

during transition. This feeling was supported by the SDQ scores of all pupils screened as there were a higher than average proportion of concerning SDQ scores. This has implications for the generalisability of the results beyond the schools involved as they are not representative of all schools and were not chosen using random sampling.

The current research had a relatively small sample size of between sixteen and nineteen in each group. As discussed in the methods chapter, this raises issues regarding the reliability and generalisability of results (Cohen *et al.*, 2007). This small sample size was due to difficulties recruiting peer mentors, which has been discussed at a later point in this chapter. The small sample size limits the generalisability of results and, while some conclusions can be drawn from the present study, the study would benefit from being replicated using a larger sample size, preferably drawn from a wider population.

6.7.3. Peer Mentoring Organisation

The peer mentoring schemes were designed using knowledge gained from previous literature in the area. The researcher aimed to put into place aspects that have been suggested to influence more positive outcomes in peer mentoring (Parsons *et al.*, 2008) such as:

1. pre-arranged mentor-mentee meetings with a set time and set place each week;

2. formal meetings between mentors and mentees;

3. scheme coordinator available 'around' for sessions;

4. scheme coordinators are approachable people with an 'open door policy';

5. mentor-mentee pairs well matched (e.g. similar hobbies / interests);

6. same gender mentee-mentor pairs; and

7. a designated mentoring area within the school.

Whilst all of these were aimed for within the current study, they were not all fully realised for a number of reasons. This has implications for treatment fidelity within the study. Treatment fidelity refers to the extent to which an intervention is implemented as intended. It is believed that the mentoring took place at a pre-arranged set time and place each week; however, no attendance records were kept. Whilst no absences were reported, hypothetically, there may have been weeks in which some mentees did not receive the mentoring. Consequently, there is the possibility that some pupils may have received peer mentoring each week, whereas others may have attended sporadically. It would have been useful to collect attendance data because, if some pupils attended more sessions than others, there may be differences in their outcomes.

Another issue relating to the treatment fidelity is that minimal checks regarding what happened during peer mentoring were carried out. The researcher supervised the mentors every four weeks however did not visit during the mentoring sessions. This decision was made as it was felt that the link person within the schools would be best placed to offer support if there were any problems during sessions due to their knowledge of and

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relationships with the children. Future research into peer mentoring may wish to carry out monitoring visits to observe the process of peer mentoring and note any similarities and differences between schemes in different schools.

There were differences between the organisation of the peer mentoring in School A and School B which also need to be discussed. The researcher had been working with School A as a TEP for one year before the setting up of the peer mentoring; this meant that she had an understanding of the school systems and was regularly in the school. At the beginning of the project this was very helpful as the links with the school were already developed and approaching them with the peer mentoring proposal was relatively straightforward. Later in the project it seemed to become a slight hindrance because the link member of staff, who should have been monitoring the project, withdrew slightly and was not always available for the peer mentors; this resulted in the peer mentors approaching the researcher as she walked around school during visits for casework and meetings. There were also issues in School B as the link member of staff was off sick for a period of time. The school organised for another member of staff to step in and the researcher was able to work closely with her but there was a lack of continuity for the pupils involved in the research.

These issues highlight some of the difficulties in carrying out research in applied settings. Although one strives to put into place the aspects of peer mentoring that have been suggested to influence more positive outcomes for

young people, it is challenging when working in a complex school environment. Staff in schools are often under a lot of pressure and, from the researcher's experience, they sometimes find it difficult to make time for additional responsibilities that they are given. With the pressures on the staff involved within the project, one cannot be certain that they were always 'around' for sessions or that they were always approachable with an 'open door policy'. Future research should build in more rigorous checks to monitor the schemes within schools and ensure that they are being carried out as planned. This would help to increase the reliability of the results of the research.

There were difficulties in implementing the final three features thought to influence positive outcomes in peer mentoring outlined by Parsons *et al.* (2008). These factors are as follows: mentor-mentee pairs well matched (e.g. similar hobbies / interests), same gender mentee-mentor pairs and a designated mentoring area within the school. There were too few male mentors to match with the male mentees and, whilst the best efforts were made to match pairs on as many factors as possible, some pairs shared only two common interests. Previous studies have also had difficulty in recruiting boys to become peer mentors (Philip and Spratt, 2007). Future schemes may wish to explore effective ways of overcoming this, by identifying and addressing reasons which prevent boys putting themselves forward for mentoring. One factor which could have adversely influenced the number of applications from boys may have been that a female researcher introduced the project. Involving more male members of staff in coordinating and

introducing the schemes may be advantageous. Another question regarding the èngagement of boys in peer mentoring that the researcher has not seen discussed in previous literature is whether peer mentoring in its usual format is suitable for engaging boys. Peer mentoring typically involves two pupils sitting with each other and having a conversation about anything that the mentee wishes to discuss. Research into gender differences have found that, in general, girls spend more time in social conversation and tend to engage in more pro-social behaviour than boys; boys tend to engage in more sporting activities and games (Rose & Rudolph, 2006). While these findings are of course not true of every boy or every girl, they suggest that girls may benefit more from peer mentoring as it may be more suited to their preferred style of social interaction. Due to the relatively small sample size and low number of boys, the results were not analysed separately for boys and girls. This would be a very interesting area for future research and, if differences in outcomes were noted, it would have wider implications for the type of interventions aimed at boys.

There were barriers to securing a designated mentoring area within the school. The results of the evaluation forms indicate that this was noted by the pupils involved in the scheme, as a number of pupils highlighted the need for somewhere better to meet. As an outside researcher, with little knowledge of the rooms in the school and what they were used for, it was not easy to convince schools to designate an area specifically for the use of the peer mentors. With more knowledge of the timetabling of available space, one may be able to review how spaces are used and identify a suitable location. While

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the support of the schools was gained prior to setting up the current projects, the researcher focused on the aspects of the projects that may benefit the school, rather than on the input that would be expected of the school. From the researcher's experience working as a TEP, interventions are sometimes better received and maintained when they are requested rather than offered. Once successful interventions have been designed, it may be beneficial for EPs and other professionals to introduce them when the need is identified by schools themselves, or in close collaboration with schools. This may increase their chances of success and longevity.

Having discussed the limitations of the peer mentoring organisation, it is important to note that despite all of these difficulties, the peer mentoring evaluation questionnaires show that the scheme was reviewed well by all involved..

6.7.4. Identification of Mentees

To identify those who may benefit from peer mentoring, the SDQ was used. It had been hoped that all children entering Year 7 in the target schools would complete the SDQs, which would ensure that all pupils within the year who had high SDQ scores had the chance to be part of the peer mentoring programme. Unfortunately in School A there was only a 52.6% SDQ return rate from the Year 7 pupils. This was due to an error within the school which led to two form groups not completing the SDQs. The researcher attempted to give another opportunity to complete the SDQ to those who had missed the first; regrettably, due to time constraints, the school was unable to get the

form groups to complete the SDQs before the pupils were to be selected for the peer mentoring. This reduced the size of the population that the sample was drawn from and may have led to pupils who would have been identified as at risk of social, emotional and behavioural difficulties being missed. This may raise some issues relating to the ethics of the study. However, in hindsight, as the evidence to support the effectiveness of peer mentoring was not compelling, the children were not denied access to a clearly beneficial intervention.

6.7.5. Recruitment of Peer Mentors

When recruiting peer mentors, very few students from either school applied for the role. The role was advertised by the researcher speaking at an assembly in both schools for a short time. Batty *et al.* (1999) advertised their mentoring project through an assembly and fifty students from Year 12 applied for the role. It may be that Year 12 students were more concerned about gaining the experience, as they would shortly be leaving school, or it may have been that the materials used during their assembly were more effective for gaining interest. Very few papers reviewed specified how peer mentors had been recruited and this would be useful information for future research. In the present study, it may have been more effective to have jointly introduced the project with a member of school staff such as the Head of Year. It may also have been useful to advertise the scheme through posters in school. If repeating the scheme within the same school, one may consider asking the current peer mentors to help in the recruitment of new peer mentors by sharing their experiences.

7.0. CHAPTER 7: CONCLUSION

7.1. Overview of Chapter

This final chapter draws together the outcomes of the current research, discusses the future of peer mentoring, outlines areas for future research and explores the implications of the research for EPs.

7.2. The Future of Peer Mentoring

The current research aimed to address the *'very poor evidence base'* (Hall, 2003, p.15) for peer mentoring in the UK. The majority of research had explored peer mentoring using qualitative methods; there was an apparent lack of quantitative research focused on exploring the impact of the intervention. This study tackled problems identified in previous research such as a lack of control groups and studies drawing conclusions based on perceptions, rather than measurable outcomes (Hall, 2003). The main focus of the research was to investigate the use of peer mentoring to support pupils who may be at risk of developing behavioural, social and emotional difficulties during their transition from primary to secondary school.

The current research has provided no quantifiable support for the efficacy of peer mentoring for these ends. Peer mentoring had no significant impact on emotional needs, behavioural difficulties, peer relationship problems, hyperactivity, pro-social behaviour, resilience or attendance. Although this was only a small-scale study with a relatively small sample size, it is, to the researcher's knowledge, the highest quality quantitative research carried out in the area.

Having reviewed previous literature and carried out a randomised-controlled trial exploring the impact of peer mentoring, the researcher does not feel able to firmly recommend the use of peer mentoring for improving resilience, behaviour, emotional needs, pro-social behaviour or attendance until more research conducted in this area empirically supports the scheme. The qualitative results of the study are in line with previous literature which found largely positive views regarding peer mentoring (Philip and Spratt, 2007). They suggest that the pupils enjoyed the experience and, given the result alongside the quantitative evidence, we can be relatively confident that the intervention does not cause any damaging results. While pupils enjoyed it, there were no quantifiable significant outcomes and one may wish to pose a question regarding whether the outcomes justify the high level of time and resources required. Whilst further research is carried out regarding the effectiveness of peer mentoring, it may also be time to explore other interventions which aim to prevent social, emotional and behavioural difficulties. It may be that other interventions that are enjoyable for pupils, allow them to interact positively with pupils' from their year and from other years and give them some responsibility, would achieve the same, and possibly better, results than those achieved through peer mentoring. Alternatives may be social skills groups (Denham et al., 2006), organised sports, team activities involving a mix of year groups or group peer mentoring.

Clearly there were flaws within the current research and so peer mentoring cannot be disregarded. However, the evidence-base for peer mentoring from a post-positivist perspective is fairly weak and so much more research must be carried out to investigate the true impact of the intervention.

It may be useful to begin a debate regarding whether holding onto interventions with questionable levels of impact is helpful or cost-effective. The fundamental aim for EPs and those working within education is to promote positive outcomes for children and young people and so we should be always working to improve interventions, increase the use of those found to be effective and discontinue those found not to support this fundamental aim.

Another implication of the results that has been mentioned is whether the research was measuring the correct outcome. Given the questionnaire results which suggest that the majority of pupils felt that they have benefited from the intervention, it may be that there was an impact for which a measure was not taken. Future research may wish to take measures such as pupil's social skills, self-esteem and views towards school. They may also wish to take measures from parents, teachers and pupil achievement to give a broader perspective.

The researcher does not want to over-generalise the results of this study, which she has highlighted have limitations; however, there is presently very little dispute regarding the effectiveness of peer mentoring in the literature and

the researcher wishes to begin a comprehensive debate regarding its true impact and viable alternatives.

7.3. Further research

The researcher has made a call for further research to evaluate the impact of peer mentoring. Another RCT should be carried out taking into consideration the challenges faced during the current study. Setting up an RCT in two schools with only one researcher who had limited time was very challenging and, to repeat this on a larger scale and address some of the methodological flaws, a larger research team who have more preparation time and time to give the schools support would be beneficial. This research should explore the impact on both mentees and peer mentors. Furthermore, the current study took measures only from the pupils and it may be beneficial to collect measures from teachers and parents, to explore the impact on factors such as pupil behaviour at home and at school.

The pre- and post-measures taken in the current study found significant increases in a number of factors for mentees as well as pupils in the control group, suggesting that pupils may naturally progress following transition. There is a great deal of research regarding the difficulties of transition and it would be interesting for some longitudinal research to be conducted to explore pupil well-being prior to, and following, periods of transition. Using such research, it may be possible to identify times where pupils may profit most from the support of an external intervention.

One further area for study surrounds the engagement of boys in interventions such as peer mentoring. As discussed, there are gender difference in terms of preferred methods of interaction and it may be that peer mentoring in its typical format appeals more to girls than it generally does to boys. It would be beneficial to carry out research comparing the engagement with and impact of interventions aimed at preventing social, emotional and behavioural difficulties in boys.

7.4. Unique Contribution of the Research

The review of previous literature in the area identified gaps within the research surrounding the effectiveness of peer mentoring. The majority of the previous research exploring peer mentoring appeared to have adhered to a social constructionist stance. The vast majority of the qualitative evidence suggested very positive outcomes of peer mentoring. The researcher noted that there was very little research carried out by researchers holding a post-positivist epistemological stance and felt that the triangulation of data is essential when evaluating interventions. There was a clear lack of quantitative evidence to corroborate the positive qualitative findings.

The researcher was aware that peer mentoring is a widely used intervention and is often recommended to schools. Training as an Educational Psychologist, the researcher strives to work towards evidence-based practice and felt the need to address the apparent gap within the literature. The main unique contribution of the present research was to carry out a pre-test post-test RCT to evaluate the impact of peer mentoring. It was also hoped that the

research would demonstrate how this type of research can be carried out by EPs and professionals within education.

7.5. Implications for Educational Psychologists

EPs are evidence-based practitioners who aim to recommend and put into place interventions and support strategies that are based upon sound theory and evidence. The results of the current study highlight that whilst the theory behind an intervention may be sound, the evidence for its effectiveness is not always necessarily as robust. As evidence-based practitioners it is extremely important that EPs continually monitor the effectiveness of interventions, in order to evaluate their impact and make any changes necessary to ensure positive outcomes for the children and young people for whom they are working.

Leyden and Miller (1996) highlighted the need for EPs to become involved in peer interventions. The researcher felt that leading peer mentoring interventions would allow a very positive way of working with schools and may enable EPs to work in a more proactive way. The experience of initiating and leading peer mentoring schemes was not found to have a striking impact on the manner in which the researcher worked as a TEP. The researcher was the link TEP for one of the secondary schools and, while she became more familiar with some members of staff and a number of the pupils recognised her when she walked around school, her day-to-day work remained fairly consistent for the duration of the scheme. Having said this, she has recently been asked to support them in running a Year 10 PHSCE day; the Special

Educational Needs Co-ordinator (SENCo) informed her that this was as a result of her work on the peer mentoring scheme. The experience seemed to be positive for those involved and so schemes, such as this, where the EP jointly runs an intervention that targets a large number of pupils may, in the longer-term, raise the profile of EPs within a school and lead to a number of other projects.

The three year Doctorate in Applied Educational Psychology allows TEPs to develop their research skills and apply them while working as a TEP. This experience has been invaluable for the researcher. As discussed, EP work can all too easily become overwhelmed by individual casework, allowing little time for other work such as research projects. The West Midlands local authority, in which the researcher works, assigns their EPs half a day per week for project work. This proactive approach enables them to continually develop their research skills and to contribute to the literature and research in a range of areas. The researcher believes that EPs, with their knowledge of research methods and their access to schools and assessment materials, are well-placed to take a leading role in real-world educational research to promote positive outcomes for children and young people.

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Appendix 1: **Information regarding the search engines and databases**
used during the systematic literature search.

British Education Index: Covers more than 300 UK based education and

training journals. http://www.leeds.ac.uk/bei/bei.htm

ERIC: (Educational Research Information Center) – funded by the US

Department of Education's Institute of Education Sciences and

contains over 1 million abstracts of literature on education research

and practice (1966-present). http://www.eric.ed.gov/

Google Scholar: Covers a wide range of literature from a variety of

disciplines and sources. Ranks articles in terms of relevance,

publication in which it appears and number of citations.

http://scholar.google.co.uk/

PsycINFO: Produced by the American Psychological Association.

Includes over 2,150 journals from psychology and related

disciplines (1800-present). http://www.apa.org/psycinfo/

Web of Science: The Social Sciences Citation Index covers over 1,950

journals across 50 social sciences disciplines (1956-present).

http://scientific.thomson.com/products/wos/

Appendix

Checklist for measuring study quality

Reporting

1. *Is the hypothesis/aim/objective of the study clearly described?*

yes	1
no	0

2. *Are the main outcomes to be measured clearly described in the Introduction or Methods section?*
   If the main outcomes are first mentioned in the Results section, the question should be answered no.

yes	1
no	0

3. *Are the characteristics of the patients included in the study clearly described ?*
   In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.

yes	1
no	0

4. *Are the interventions of interest clearly described?*
   Treatments and placebo (where relevant) that are to be compared should be clearly described.

yes	1
no	0

5. *Are the distributions of principal confounders in each group of subjects to be compared clearly described?*
   A list of principal confounders is provided.

yes	2
partially	1
no	0

6. *Are the main findings of the study clearly described?*
   Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).

yes	1
no	0

7. *Does the study provide estimates of the random variability in the data for the main outcomes?*
   In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes	1
no	0

8. *Have all important adverse events that may be a consequence of the intervention been reported?*
   This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).

yes	1
no	0

9. *Have the characteristics of patients lost to follow-up been described?*
   This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered no where a study does not report the number of patients lost to follow-up.

yes	1
no	0

10. *Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?*

yes	1
no	0

External validity
All the following criteria attempt to address the representativeness of the findings of the study and whether they may be generalised to the population from which the study subjects were derived.

11. *Were the subjects asked to participate in the study representative of the entire population from which they were recruited?*
    The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant

population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as unable to determine.

yes	1
no	0
unable to determine	0

12. *Were those subjects who were prepared to participate representative of the entire population from which they were recruited?*
The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.

yes	1
no	0
unable to determine	0

13. *Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?*
For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered no if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals most of the source population would attend.

yes	1
no	0
unable to determine	0

Internal validity - bias

14. *Was an attempt made to blind study subjects to the intervention they have received ?*
For studies where the patients would have no way of knowing which intervention they received, this should be answered yes.

yes	1
no	0
unable to determine	0

15. *Was an attempt made to blind those measuring the main outcomes of the intervention?*

yes	1
no	0
unable to determine	0

16. *If any of the results of the study were based on "data dredging", was this made clear?*
Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.

yes	1
no	0
unable to determine	0

17. *In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls ?*
Where follow-up was the same for all study patients the answer should yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.

yes	1
no	0
unable to determine	0

18. *Were the statistical tests used to assess the main outcomes appropriate?*
The statistical techniques used must be appropriate to the data. For example non-parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes	1
no	0
unable to determine	0

19. *Was compliance with the intervention/s reliable?*
Where there was non compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes.

yes	1
no	0
unable to determine	0

20. *Were the main outcome measures used accurate (valid and reliable)?*

For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.

yes	1
no	0
unable to determine	0

Internal validity - confounding (selection bias)

21. *Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?*

For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case-control studies where there is no information concerning the source of patients included in the study.

yes	1
no	0
unable to determine	0

22. *Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?*

For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.

yes	1
no	0
unable to determine	0

23. *Were study subjects randomised to intervention groups?*

Studies which state that subjects wererandomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.

yes	1
no	0
unable to determine	0

24. *Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?*

All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.

yes	1
no	0
unable to determine	0

25. *Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?*

This question should be answered no for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In non-randomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no.

yes	1
no	0
unable to determine	0

26. *Were losses of patients to follow-up taken into account?*

If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.

yes	1
no	0
unable to determine	0

Power

27. *Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%?*

Sample sizes have been calculated to detect a difference of x% and y%.

	Size of *smallest* intervention group	
A	$<n_1$	0
B	n_1-n_2	1
C	n_3-n_4	2
D	n_5-n_6	3
E	n_7-n_8	4
F	n_9+	5

Appendix 3: **Consent letter for intervention group mentees**

Dear Parent/Guardian,

RE: Peer Mentoring Opportunity

Your child has been selected to take part in an exciting peer mentoring project as it is thought that this will be positive for them during their first year at _____ . They will be given a peer mentor from Year 9 who will meet with them once a week for 30 minutes to discuss how they are getting on at school and any concerns they might have. This meeting will take part in tutorial time so that your child does not miss any lessons.

The mentors have been trained and will be closely supervised. What is said in the mentoring relationship is confidential, except for two rare but important exceptions; if your child discloses anything which would cause their mentor to worry about their safety or the safety of others the mentor will have to tell a member of school staff.

The project is being run by Elaine Perry who is in the final year of her training to be an Educational Psychologist and is working in the Multiagency Support Team. She is training at The University of Nottingham and the results of this project form part of her thesis which is exploring the benefits of peer mentoring. Previous research has found that peer mentoring can have a positive impact on children's self- esteem and on their experience of school. This project hopes to contribute to research so your child will be asked to complete some questionnaires about their emotional well-being and experiences of school before the peer mentoring and in February 2010. **All of the information is confidential and their names will not be used.** Your child has the right to withdraw at any time. The information gained by this research could help us to design more effective ways of supporting all children in school and making their transition from primary to secondary school more enjoyable.

If you have any further questions about the research or the mentoring relationship please do not hesitate to contact Elaine Perry either by email or telephone.

Please complete and return the consent form at the bottom of this letter to tell us whether you do or do not give permission for your child to take part in the peer mentoring project.

Yours sincerely,

(Head of Year 7)

I do/do not (circle one) give permission for my child _____**to**
participate in the peer mentoring project described above.

_____

(Print) Parent/Carer's name

_____   _____

Parent/Carer's signature   Date

Appendix 4: **Consent letter for control group mentees**

Dear Parent/Guardian,

RE: Peer Mentoring Opportunity in February 2010

Your child has been selected to take part in an exciting peer mentoring project. It is part of a research project being carried out by Elaine Perry who is in the final year of her training to be an Educational Psychologist and is working in the Multiagency Support Team. She is training at The University of Nottingham and the results of this project form part of her thesis which is exploring the impact of peer mentoring. Your child has been chosen to be part of the control group until February half term. After this they will be offered a peer mentor from Year 9 who will meet with them once a week for 30 minutes to discuss how they are getting on at school and any concerns they might have. These meetings will take part in tutorial time so that your child does not miss any lessons.

I am writing to you at this time as this project hopes to contribute to research into peer mentoring and so your child will be asked to complete some questionnaires about their emotional well-being and experiences of school now and in February 2010. **All of the information is confidential and their names will not be used.** Your child has the right to withdraw from the research at any time. The information gained by this research could help us to design more effective ways of supporting all children in school and making their transition from primary to secondary school more enjoyable.

If you have any further questions about the research please do not hesitate to contact Elaine Perry either by email or telephone.

Please complete and return the consent form at the bottom of this letter to tell us whether you do or do not give permission for your child to take part in the peer mentoring project.

Yours sincerely,

(Head of Year 7)

I do/do not (circle one) give permission for my child _____

_____**to participate in the peer mentoring project described above.**

_____

(Print) Parent/Carer's name

_____   _____

Parent/Carer's signature   Date

Appendix 5: Peer mentor application form

Peer Mentor Application Form

Name: _____   **Form/Tutor Group:** _____

Please state why you would like to become a peer mentor:

What qualities do you think you have that could be used?

What skills do you have which could be used?

What career are you interested in?

Are you planning to go on to further education?

Teachers Reference:
Teachers Signature:

Student Signature: ....

I/We support our son/daughter/Ward in this application to be a peer mentor.

Parent/Carer Signature: ....

Please return this form to: ....

Appendix 6: **Peer mentoring matching form**

3   <u>**Peer Mentoring Matching Form**</u>

Student Information:

Name...

Form...

Date...

School

What is your favourite lesson?.................................

What is your least favourite lesson?.........................

Do you like doing homework?   **Yes / No**

Hobbies & Interests (Please tick the ones that apply to you)

Football	☐	Watching TV	☐	Reading	☐
Tennis	☐	Socialising	☐	Painting	☐
Basketball	☐	Shopping	☐	Cricket	☐
Computer Games	☐	Listening to music	☐	Writing	☐
Others	☐				

Please specify   ....

Skills & Attributes

Are you a good listener?	**Yes / No**
Can you keep a secret?	**Yes / No**
Do your friends come to you for advice?	**Yes / No**
Can you talk to new people?	**Yes / No**
Do you think positively?	**Yes / No**
Are you good at solving problems?	**Yes / No**
Are you hardworking?	**Yes / No**
Can you use your own initiative?	**Yes / No**
Are you able to ask for help or support?	**Yes / No**
Do you think before you speak or act?	**Yes / No**

In your own words, please explain briefly what Peer Mentoring means:

....
....
....
....

Appendix 7: **Peer mentoring evaluation form for peer mentees**

Peer Mentoring Evaluation

Thank you very much for being part of the peer mentoring programme. We want to find out your views on the peer mentoring and how it has been run. To help us do this we would be grateful if you could complete this evaluation form.

Please read the following sentences and circle the number that you agree with most. There are no right or wrong answers.

	X		?		✔
	strongly disagree	disagree	don't know	agree	strongly agree
I enjoyed having a peer mentor	1	2	3	4	5
I would recommend peer mentoring to my friends	1	2	3	4	5
I would recommend peer mentoring to the new Year 7 pupils in September	1	2	3	4	5
Having a peer mentor helped me settle into Year 7	1	2	3	4	5
I got on well with my peer mentor	1	2	3	4	5

What were the most helpful things about the peer mentoring?

_____

_____

_____

_____

Is there anything about the peer mentoring that could have been improved?

_____

_____

_____

_____

Thank you very much for your help!

Appendix 8: **Peer mentoring evaluation form for mentors**

<u>Peer Mentoring Evaluation</u>

Thank you very much for being part of the peer mentoring programme. We want to find out your views on the peer mentoring and how it has been run. To help us do this we would be grateful if you could complete this evaluation form.

Please read the following sentences and circle the number that you agree with most. There are no right or wrong answers.

	X		?		✔
	strongly disagree	disagree	don't know	agree	strongly agree
I enjoyed being a peer mentor	1	2	3	4	5
I would recommend being a peer mentor to my friends	1	2	3	4	5
The training I had before the peer mentoring really helped me in being a mentor	1	2	3	4	5
I think that being a peer mentor has helped me to develop new skills	1	2	3	4	5
I have felt supported in my role as a peer mentor	1	2	3	4	5

What were the best things about being a peer mentor?

_____

_____

_____

_____

Is there anything about the peer mentoring that could have been improved?

_____

_____

_____

_____

Thank you very much for your help!

Appendix 9: **Overview of peer mentor training**

Learning to Mentor

Unit 1:   What is Mentoring?

Aims: To introduce young people to mentoring
             To explore the context of mentoring
             To contrast and compare mentoring with friendship
             To explore what skills are important as a mentor

Unit 2:   Communication Skills

Aims: To identify the importance of good communication and listening skills
             To examine the use of various questioning styles
             To highlight the importance of body language to aid communication

Unit 3:   Differences, Values and Attitudes

Aims: To raise awareness of different values and attitudes
             To discuss the effect that making assumptions can have on a peer mentoring
             relationship
             To understand how it is important to remain non-judgemental in a peer
             mentoring relationship

Unit 4:   How do Peer Mentors Help?

Aims: To identify some of the problems encountered by mentees
             To identify when and how peer mentors can help
             To identify useful helping strategies
             To identify other sources of help

Unit 5:   Ground Rules

Aims: To identify boundaries of the peer mentoring relationship
             To explore what is appropriate behaviour
             To understand issues of confidentiality
             To explore responsibilities of peer mentors

Unit 6:   Starting the Relationship

Aims: To look at the different ways of matching peer mentor and mentee
             To understand the importance of keeping records and what to record
             To identify appropriate opportunities for the peer mentors to meet with
             mentees

Appendix 10: **Thematic Analysis Cohen's Kappa - Test for inter-rater reliability**

This formula shown in was followed for each question using the guidelines in Robson (2002) to calculate Cohen's Kappa.

$$K = \frac{P_0 - P_c}{1 - P_c}$$

Cohen's Kappa = K

Proportion of agreements (P_0) = $\dfrac{\text{(number of agreements)}}{\text{(number of agreements + number of disagreements)}}$

For each question a 'confusion matrix' was drawn up which shows the pattern of agreements and disagreements in each theme. The questions are addressed below in turn, showing the confusion matrix and the process of calculating Cohen's Kappa.

What were the best things about being a peer mentor?

A: Getting to know new people and making new friends

B: Helping others to solve their problems

C: Getting to support other people

D: The responsibility

E: The peer mentor training

		Coder 2					
		A	B	C	D	E	Total
Coder 1	A	4	1	0	0	0	5
	B	0	3	1	0	0	4
	C	1	0	2	0	0	3
	D	0	0	0	2	0	2
	E	0	0	0	0	1	1
	Total	5	4	3	2	1	

$$P_0 = \frac{4+3+2+2+1}{15} = \frac{12}{15} = 0.800$$

$$P_c = (0.05 \times 0.05) + (0.04 \times 0.04) + (0.03 \times 0.03) + (0.02 \times 0.02) + (0.01 \times 0.01)$$
$$= 0.0055$$

$$K = \frac{0.8 - 0.0055}{1 - 0.0055} = 0.799$$

Cohen's Kappa is 0.799, which is 'excellent' according to Fliess (1981).

What were the most helpful things about the peer mentoring?

A: Having someone to talk to

B: Talking to someone about my problems

C: Learned to trust others

		Coder 2			
		A	**B**	**C**	*Total*
Coder 1	**A**	6	2	0	8
	B	0	3	0	3
	C	0	0	1	1
	Total	6	5	1	

$$P_0 = \frac{6 + 3 + 1}{12} = \frac{10}{12} = 0.833$$

$$P_c = (0.06 \times 0.08) + (0.05 \times 0.03) + (0.01 \times 0.01)$$
$$= 0.0056$$

$$K = \frac{0.833 - 0.0056}{1 - 0.0056} = 0.832.$$

Cohen's Kappa is 0.832, which is 'excellent' according to Fliess (1981).

Is there anything about the peer mentoring that would have been improved?

A: Nothing

B: Better organisation and support

C: Having a better place to go for peer mentoring sessions.

D: Having more peer mentoring sessions

E: Having more activities to do

		Coder 2					
		A	**B**	**C**	**D**	**E**	*Total*
	A	13	0	0	0	0	13
	B	0	2	0	0	0	2
Coder 1	**C**	0	0	2	0	0	2
	D	0	0	0	2	0	2
	E	0	0	0	0	1	1
	Total	13	2	2	2	1	

$$P_0 = \frac{13 + 2 + 2 + 2 + 1}{20} = \frac{20}{20} = 1.00$$

$$P_c = (0.12 \times 0.12) + (0.02 \times 0.02) + (0.02 \times 0.02) + (0.01 \times 0.01)$$
$$= 0.0153$$

$$K = \frac{1 - 0.0153}{1 - 0.0153} = 1.00.$$

Cohen's Kappa is 1.0, which is 'excellent' according to Fliess (1981).