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Evaluating the outcomes of the ‘Circles
of Adults’ intervention on adults
supporting Looked After Children at
risk of exclusion.

Jennifer Turner

Thesis submitted to the University of Nottingham for
the degree of Doctor of Applied Educational
Psychology

May 2014

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Abstract

Looked After Children (LAC) are a potentially vulnerable population who are at risk of negative outcomes such as increased rates of exclusion from school linked to challenging behaviour. Although pupil behaviour may have negative implications for teachers, the literature on staff support suggests that group problem-solving approaches may be a useful mechanism of peer support which can consequently have direct and indirect effects for the school staff and pupils, respectively. One such approach is the 'Circle of Adults' (CoA) (Wilson & Newton, 2006) and was the focus of evaluation in the current study.

Existing literature suggests CoA can enhance teacher capacity to respond to difficult behaviour. It was hypothesised that the CoA process would have positive effects upon teacher self-efficacy and causal attributions. A mixed-method design was employed, which combined a quasi-experimental component, to quantifiably measure any changes which occurred for the school staff, with a qualitative element to determine the participants' views regarding the process and perceived outcomes. The study compared the participants' outcomes from the four CoA sessions (n=10) with those attending two Personal Education Plan (PEP) meetings (n=5). The findings indicate that participation in the CoA intervention has no statistically significant effect upon school staffs' causal attributions or perceived self-efficacy. However, there is some evidence to suggest that participation in the CoA leads to statistically significant increases in the perceived success of actions. Additionally, through a series of focus groups, participants reported that they valued the structure and visual representation of the CoA. However, school staff also highlighted functional difficulties in arranging support processes for LAC young people: in ensuring that relevant staff were present at the meetings and challenges associated with supporting LAC who often experience rapidly changing circumstances.

Acknowledgments

Firstly, I would like to thank my University tutor, Anthea Gulliford, for her guidance and support throughout my time at the University of Nottingham. As well as the tutor team, I would also like to thank my 'Team TEP' colleagues for their support, encouragement and friendship, over the last three years.

My deepest gratitude goes to my colleagues in the Educational Psychology Service and the Children and Young People in Care Education Service for providing the knowledge, enthusiasm and assistance to allow this study to take place. Additionally, I would like to thank all of the members of staff who took part in the study for having the willingness to explore alternatives to supporting Looked After Children.

I would like to thank my friends and family, particularly my parents, for their unwavering support and understanding. Finally, I would like to express my gratitude to my husband, Mike, who not only proof read numerous versions of this thesis but who has also been a source of constant support, patience and encouragement throughout.

1. Setting the Scene

The current study aims to evaluate the CoA approach with secondary school staff who are supporting LAC at risk of exclusion due to challenging behaviour. Whilst on placement in the Local Authority (LA) in which I was working as a Trainee Educational Psychologist (TEP), the Educational Psychology Service (EPS) was approached by the Children and Young People in Care Education Service (CYPCES) who were hoping to identify a more structured approach to supporting LAC in mainstream schools. Through discussions it was explained that a number of LAC in the authority were causing concern due to their behaviour at school and that, in a number of cases, the schools felt unable to meet their needs. It was explained that in these situations members of the CYPCES in the LA would generally arrange a meeting with the school to identify possible ways forward. However, it was reported that such meetings often lacked structure or the solution-focused emphasis which the CYPCES were keen to encourage.

Whilst in doctoral training at the University of Nottingham I developed a keen interest in group facilitation approaches such as CoA (Wilson & Newton, 2006) and had opportunities to develop my skills in process and graphic facilitation. It was felt that the structure of the process could be of benefit to the situations described by the CYPCES team, in offering a clearer and more positive approach to problem-solving. Despite the limited evidence base (Bennett & Monsen, 2011) it was agreed that due to the accessibility of the guide in facilitating a CoA session (Wilson & Newton, 2006), this approach would be developed in collaboration with the CYPCES team.

In order to evaluate the method it was recognised that measuring the outcomes for the members of staff involved would be of high importance. In the CoA manual Wilson and Newton (2006) describe a number of aims of the approach,

however, none of these have been empirically measured in published research. Through further stakeholder discussions with the CYPCEs it was suggested that one problem which they frequently faced was teachers ‘blaming’ the pupil’s background for their behaviour. This linked closely to the construct of attributions (Weiner, 1980). Similarly, it was recognised in these preliminary discussions that schools often have the skills and knowledge to support LAC in their schools but frequently report a lack of confidence in their abilities. This linked closely to the construct of self-efficacy (Bandura, 1977) and it was therefore agreed that by providing a measure of these constructs, the CoA process could be evaluated more systematically.

1.1. Overview

This thesis will be presented in six chapters, the content of which will be described shortly. Relevant subsections will be provided in each of the chapters, detail of which is provided in the table of contents.

Chapter 2: Literature Review

The relevant literature to explore the rationale for the current study will be discussed and aims to explore the possible outcomes of problem-solving approaches with school staff. The chapter culminates with a description of the problem-solving approach to be used in the current study, namely the ‘Circle of Adults’ approach (Wilson & Newton, 2006), and the associated research questions to be explored.

Chapter 3: Methodology

The philosophical perspectives are presented and lead to a discussion about the methodological decisions made in the current study. The specific method of the current study is described with reference to the measures taken to ensure validity and reliability.

Chapter 4: Results

The key findings are presented in terms of both the quantitative and qualitative elements of the current study. Visual representation of the results is provided where appropriate.

Chapter 5: Discussion

The findings of the current study are considered in terms of the literature which is presented in Chapter 2. The strengths and limitations of the study are reviewed, and finally the implications of the research are considered for future research and for practice.

Chapter 6: Conclusion

Key findings of the research are presented and discussed in relation to the unique contribution of the current study.

2. Literature Review

The following section aims to explore the literature surrounding the current study. The context for this study is first discussed in terms of the current policies and research surrounding LAC and behaviour in general. A qualitative review of the literature into methods of group consultation and problem-solving is presented with specific detail provided on the CoA intervention (Wilson & Newton, 2006) as the focus of the current research. In order to reduce the bias which may be associated with qualitative literature searches (Petticrew & Roberts, 2006), a systematic review was carried out to explore the evidence into group problem solving approaches with school staff. The findings are presented and the possible outcomes of group consultation are explored in the final section. Finally, the original contribution of this research is discussed.

2.1. Looked After Children

The subsequent section aims to provide the background and context for the current study. Following clarification of the term ‘LAC’, the outcomes for such populations are reported with particular focus on school achievement and behaviour. Following this, the current support available to LAC in schools is highlighted, with reference to relevant government documentation.

At any one time there are approximately 60,000 children in care, those who for whatever reason have been taken from their families into the care of the state (DCSF, 2009a). Following the introduction of the term in the 1989 Children’s Act ‘looked after’ children are defined as those who are “placed in the care of a local authority by a court (under a Care Order) or provided with accommodation by social services for more than 24 hours” (Dent & Cameron, 2003, p. 3). This may occur for a variety of reasons (DfEE, 2000), but in all situations there are significant concerns for the welfare of the child or young

person (Scott, 2011). Many have experienced forms of abuse including neglect (DfEE, 2000) and it is therefore argued that LAC are one of the most vulnerable groups in our society (Cameron & Maginn, 2011).

2.1.1. Outcomes for Looked After Children

Negative outcomes for LAC are all too often reported (Dent & Cameron, 2003), often linked in the literature to the adverse factors influencing these young people's lives. Outcomes reported include lower educational attainment (DfE, 2011); increased risk for developing challenging behaviour (Sempik, Ward, & Darker, 2008); and heightened incidence of school exclusion (DfE, 2012a). Such negative outcomes are likely to continue beyond school age with higher proportions of LAC being unemployed (DCSF, 2009a).

Most children who are taken into care will have been subject to poor care from their primary care giver and as a result approximately 62 per cent of LAC have experienced abuse or neglect (McAuley & Davis, 2009). All LAC have experienced a disrupted relationship with their primary attachment figure, regardless of whether this is a positive attachment or not (Scott, 2011). Attachment is 'fundamental to child development' (Scott, 2011), but due to their experiences of loss and rejection, many LAC experience insecure attachments (Golding, 2006). This often leads to difficulties in forming later attachments with key figures as well as feelings of rejection and anxiety (Golding, 2006). Such feelings may lead to maladaptive behaviours and consequently LAC are at a heightened risk for developing behavioural difficulties (Sempik et al., 2008).

This risk is further highlighted by the DfE (2012a) who report that 72.8 per cent of LAC had a Special Educational Need (SEN) compared with 20.6 per cent of the general population, the majority of which were related to Behavioural,

Emotional and Social Difficulties or Moderate Learning Difficulty. Consequently, the percentages of LAC who have had at least one fixed term exclusion in primary or secondary school is significantly higher than the general school population (DfE, 2012a). As of March 2011, 18.7 per cent of LAC in secondary schools had received at least one fixed-term exclusion compared with 8.6 per cent of all children. Although this figure has decreased from 21.4 per cent in 2010 it is still substantially higher than other groups of pupils (DfE, 2012a). It is probable that these exclusions from school are the result of behavioural difficulties which may be a manifestation of the “effects of broken schooling, unmet emotional needs and being seriously behind with school work” (DfEE, 2000, p. 54). It is therefore imperative that professionals, such as social workers, Educational Psychologists (EPs) and school staff work collaboratively to support LAC in schools.

2.1.2. Support for Looked After Children

In recent years Governments have introduced a number of measures to support LAC in schools including the development of the ‘designated teacher’ (DT) role and PEPs (DfEE, 2000). In addition to this, local authorities have been encouraged to appoint a ‘virtual school head’ (VSH) to be responsible for tracking the attainment of LAC as well as ensuring that schools are implementing appropriate provision for LAC pupils on roll at their school (DCSF, 2009a). The outcomes of this role were measured in a pilot study by Berridge, Henry, Jackson, & Turney (2009) and it was reported that in the majority of the 11 authorities which appointed a VSH, improvements in GCSE results of LAC were noted.

Within schools it is the role of DT to be an advocate for any LAC who may be on roll (DfEE, 2000). They are also responsible for ensuring that any necessary resources are available to support the young person to achieve academically as

well as setting appropriate targets to monitor learning (DCSF, 2009b). Information about these targets, as well as other information about the young person's achievement and additional needs is provided in the PEP which is completed collaboratively with the child's social worker and the DT of the school (DCSF, 2009a). As well as providing a record of the young person's progress the purpose of the PEP is to ensure stability and access to the appropriate support and services required for them to achieve.

2.1.3. Summary

LAC are vulnerable group in our society (Cameron & Maginn, 2011) who have often experienced adversity as a result of their primary care giver's inability to provide adequate care (McAuley & Davis, 2009). Despite a number of government initiatives being implemented in schools (DCSF, 2009a) negative outcomes for LAC are often reported (Dent & Cameron, 2003). LAC have lower academic attainment (DfE, 2011) and are at increased risk of exclusion from school due to behavioural difficulties (DfE, 2012a). It is therefore essential that professionals, such as those in the current study, work together to safeguard such pupils and ensure that measures are taken to support LAC in schools to overcome the negative outcomes which are all too often associated.

2.2. Pupil Behaviour

As has been described in section 2.1, the number of LAC pupils receiving a fixed-term exclusion due to challenging behaviour is significantly greater than the general population (DfE, 2012a). The following subsection aims to explore the effects of challenging pupil behaviour on school staff and the consequences for the pupils themselves.

Media reports of pupil behaviour in schools indicate that it is a substantial problem (Munn, Johnstone, Sharp, & Brown, 2007) and although recent Ofsted inspection data indicates that the behaviour of pupils is generally improving (DfE, 2012b) it is recognised that the challenging behaviour of even a small minority of pupils can impact upon other pupils' enjoyment of school (The Education Committee, 2011). It is rightly argued that teachers and pupils have a right to work and be educated in a safe environment (Steer, 2009) and therefore addressing the issue of challenging pupil behaviour continues to be a priority for the current Coalition Government (The Education Committee, 2011).

2.2.1. Defining challenging behaviour

One approach to defining challenging behaviour is to consider it along a continuum (Miller, 2003) and such definitions have the advantage that they recognise the heterogeneous nature of pupils who display challenging behaviour (DfE, 2012b). In more recent years, there has been a move away from 'within child' explanations for challenging behaviour towards the recognition that other factors such as the child's home and school environment have the potential to influence behaviour (DfE, 2012b). Such changes in attitudes have primarily been the result of the highly influential Elton Report; a government enquiry into discipline in schools which recognised the importance of teacher factors on pupil behaviour (DES, 1989).

Teachers have been highly involved in research into the types of pupil behaviour which they report as being difficult to manage in the classroom. Research frequently indicates that low level disruptive behaviour is most prevalent (DES, 1989; Munn et al., 2009) in both primary (Munn et al., 2009; Wheldall & Merrett, 1988) and secondary schools (Little, 2005), where ‘talking out of turn’ and ‘hindering others’ are identified as the most troublesome behaviours. Whilst more severe incidents of challenging behaviour such as verbal or physical abuse are rare (Ofsted, 2005), they are more prevalent amongst secondary school pupils (DfE, 2012b) and may, in some cases, lead to exclusions from school.

2.2.2. Consequences of poor behaviour

In order to promote positive behaviour, schools are required to have policies and procedures in place which clearly state the behaviours which are expected of pupils (DCSF, 2008). For the vast majority of pupils breaches of school behaviour policies are rare. However, it is a statutory requirement that schools have discipline procedures for pupils who do misbehave in school (The Education Committee, 2011). These may include reactive approaches such as detentions but in more severe cases may involve a fixed-term or even permanent exclusion from school (DCSF, 2008).

Permanent exclusion refers to pupils who are permanently removed from the school’s roll (Gordon, 2001). This type of exclusion should be viewed as a last resort once other measures have been tried (Reed, 2005). More commonly occurring are ‘fixed-term exclusions’ which are defined as the exclusion from school “for a fixed, predetermined period of time” (p.71), following which the pupil is allowed to return to the same school and resume their studies (Gordon, 2001).

During the 1990s there was a dramatic increase in the number of pupils being permanently excluded from schools (Parsons, 1999). This led to the development of a number of government incentives to reduce exclusion rates including ‘managed moves’ (The Education Committee, 2011). Despite this, the most recent data indicates that in 2009/10 there were 5,740 permanent exclusions and 331,380 fixed-term exclusions from primary, secondary and special schools in England (DfE, 2012b). Although this number continues to be in decline, the majority of exclusions were in secondary schools and were the result of persistent disruptive behaviour (DfE, 2012b).

Exclusion from school is frequently linked with a number of negative outcomes such as offending behaviour, low grades when leaving school and even homelessness (The Education Committee, 2011) and social exclusion in later life (Parsons, 1999). Consequently, a number of proactive approaches are being developed in schools with the aim of reducing pupil exclusions (Hallam & Castle, 2001). Inter-agency working has been frequently cited as the most effective way of supporting pupils who are at risk of exclusion (Miller, 2003). Further advocacy for the use of professionals working together was provided in a study by Hallam and Castle (2001) which considered the most effective ways of preventing exclusion. Using questionnaire responses from ninety-one participants working in a variety of LAs, the authors concluded that both ‘Multi-disciplinary Behaviour Support Teams’ and ‘In-school Centres’ were effective in reducing exclusions.

2.2.3. The effects of challenging pupil behaviour on teachers

The ways in which teachers respond to challenging pupil behaviour may vary depending on a number of factors (Poulou & Norwich, 2002). However, pupil behaviour has frequently been linked to feelings of low morale and confidence in teachers which may ultimately lead to increased stress (The Education

Committee, 2011). Consequently, pupil behaviour is often cited as one of the most prominent reasons for teachers leaving the profession (Steer, 2009) and has frequently been associated with teacher 'burnout' (Hastings & Bham, 2003) where 'burnout' is described as "feelings of emotional exhaustion, attitudes that tend to depersonalise students and low level of personal accomplishment in their work" (p.116).

In a large-scale study conducted by Hastings and Bham (2003), 100 British primary school teachers completed a self-report questionnaire including measures of student behaviour in the classroom and their level of burnout. Although it should be recognised that no actual observations of student behaviour were recorded, the results suggest that student behaviour in the classroom predicted the severity of teacher burnout. More specifically, it was reported that the 'disrespect' factor of pupil behaviour predicted the 'emotional exhaustion' dimension of teacher burnout. It is recognised that causal inferences cannot be explicitly made (Hastings & Bham, 2003), however, the results of this study highlight the potential relationship between student behaviour and teacher burnout.

This relationship has also been explored by Bibou-Nakou, Stogiannidou and Kiosseoglou (1999) who posited that teachers' causal attributions for challenging behaviour may predict teacher burnout levels. Using a variety of self-report measures the responses from 200 Greek teachers were analysed using t-tests. The results indicated that teachers who attributed challenging behaviour to internal student-related factors, such as family background, were more likely to report higher levels in the emotional exhaustion factor of burnout. Conversely, no statistically significant results were found between burnout and teacher-related attributions. This may imply that teachers who attribute challenging pupil behaviour to teacher factors are less likely to experience burnout. Although the

study was conducted in Greece, and may therefore lack generalisability to a UK population, the findings demonstrate the importance of supporting teachers in changing their attributions for difficult pupil behaviour.

Another psychological construct which has been associated with burnout is that of self-efficacy. Developed from social cognitive theory, the concept of 'self-efficacy' was given prominence by Albert Bandura who suggested that our beliefs and cognitions have the potential to influence our actions (Bandura, 1997). The subject of teacher self-efficacy will be discussed in more depth in section 2.5. However, Brouwers and Tomic (1999) have demonstrated the cyclical relationship between teacher self-efficacy, pupil behaviour and burnout using a Structural Equation Modelling technique.

558 participants from the Netherlands were asked to complete three self-report measures including Emmer and Hickman's (1991) 'Teacher Efficacy in Classroom Management and Discipline Scale'. The responses were analysed and a model was developed which demonstrated the complex relationship between burnout, self-efficacy and pupil behaviour. Specifically, the model suggested that teachers who frequently experience challenging pupil behaviour present with lower perceived self-efficacy for classroom management which ultimately leads to higher levels of burnout. This then leads to higher incidents of challenging pupil behaviour and so the cycle continues. Although the study is heavily reliant upon self-report measures, it does highlight the need to ensure that appropriate strategies are put in place to support teachers and enhance their sense of self-efficacy.

2.2.4. Summary

Despite the difficulties in defining challenging behaviour (DfE, 2012b) the wealth of Government policies reflects the importance of improving pupil

behaviour in schools. Rates of exclusion are gradually decreasing (DfE, 2012b), however, pupil behaviour is still a major concern for teachers and is one factor in predicting 'burnout' and stress amongst teachers (Hastings & Bham, 2003). Both perceived self-efficacy (Brouwers & Tomic, 1999) and teachers' causal attributions for challenging behaviour (Bibou-Nakou et al., 1999) have been associated with burnout. Additionally, Brouwers and Tomic (1999) demonstrated that increased levels of burnout can have negative implications on student behaviour. It is therefore imperative that ways of enhancing teachers' self-efficacy and changing their attributions for challenging behaviour are identified in order to prevent teacher burnout. One such way may be through problem-solving groups and will now be explored in the subsequent sections.

2.3. Support for teachers and schools staff

As has been highlighted in section 2.2, challenging pupil behaviour can have a detrimental effect upon the well-being of teachers, which can potentially have further negative effects on pupil behaviour (Brouwers & Tomic, 1999; Hanco, 1999). It is therefore vital that in order to support pupils, school staff are provided with the support to enhance their self-efficacy and build their capacity to support pupils with challenging behaviour. The following section considers the possible ways in which this support might be provided and begins with a discussion about the importance of peer support for staff in schools before considering the role of the EP in supporting school staff.

2.3.1. Peer support

The importance of peer support amongst school staff is by no means a new concept (DES, 1989) and it continues to be advocated by the current Coalition Government as a way of promoting high quality teaching (DfE, 2010). Peer support amongst teachers has also been recognised as important in encouraging the inclusion of children with SEN (Boyle, Topping, Jindal-Snape, & Norwich, 2011; Norwich & Daniels, 1997).

There are many reported benefits of peer support including opportunities to share expertise (Frederickson, Dunsmuir, Lang & Monsen, 2004), share good practice (Boyle et al., 2011) and identify strategies which may then also be applied to supporting other pupils (Norwich & Daniels, 1997). Additionally, it is also argued that peer support enables teachers to feel supported by their colleagues and may lead to a change in attitudes regarding inclusion of pupils with SEN (Boyle et al., 2011).

Creese, Norwich and Daniels (1998) estimated that approximately 25 per cent of schools have some sort of teacher support group in operation, with less formal

peer support groups being the most prevalent. In this national survey, all types of collaborative teacher groups were reported to be useful, with a lack of time and involvement of the senior leadership team being identified as factors which could potentially hinder the success of the groups.

More structured methods of peer support have also been developed, namely 'Teacher Support Teams' (Norwich & Daniels, 1997), whereby a group of school staff are responsible for problem-solving and supporting the teacher who made the initial referral. The approach was evaluated by Norwich and Daniels (1997) and in addition to an increased awareness of strategies and approaches to support pupils, referring teachers also reported an increase in confidence, a construct which has found to be positively correlated with self-efficacy (Allinder, 1994).

In terms of the EPs perspective, the reported benefits of peer support highlight the importance of advocating such methods of support between members of staff in schools. Although the structure of peer support groups may vary considerably, the underlying function is that it supports teachers and school staff to solve problems which they face (Boyle et al., 2011; Creese et al., 1998; Norwich & Daniels, 1997). EPs may therefore play an important role in ensuring that systems of peer support are available within schools to support teachers in becoming more autonomous (Jones, Monsen, & Franey, 2013) and reflective in their practice (Creese et al., 1998).

2.3.2. The role of the Educational Psychologist

Although peer support groups do not necessarily require the role of an EP, as with the Teacher Support Teams (Norwich & Daniels, 1997), EPs have played an important role in developing consultation and supervision in a group capacity to support teachers (Hanko, 1999). The role of the EP in facilitating peer support

groups will now be the focus of discussion, beginning with a consideration of the models of supervision and consultation, in order to provide a conceptual grounding to the potential processes involved in group support. Some examples of the ways such approaches may be applied in a group capacity will then be briefly introduced.

2.3.2.1. Supervision

Supervision can be described as a psychological process which allows for reflection and professional development in a supportive capacity between the supervisor and supervisee (Callicott & Leadbetter, 2013). Both Hawkins and Shohet (2006) and Shaife (2001) have developed comprehensive models of supervision which can be applied in a professional capacity. The reported functions of supervision vary depending upon which model is adopted, however, Hawkins and Shohet (2006) emphasise the way in which supervision can support the supervisee in developing their knowledge and skills as well as promoting their emotional well-being.

Although most models of supervision imply a dyadic relationship between the supervisor and supervisee, supervision can be applied in a group capacity (Proctor & Inskipp, 2001). There are many advantages to delivering supervision in a group capacity including time and cost effectiveness (Hawkins & Shohet, 2006). Furthermore, group members may be able to draw upon the wider experience of the group and feel supported in a safe, trusting environment (Proctor & Inskipp, 2001). Although delivering supervision in a group capacity may have some advantages, it is imperative that the supervisor has an awareness of group processes and the potential effects of group dynamics (Hawkins & Shohet, 2006).

Schein (1988) suggests that within a group each individual must develop an identity. Any control, power or influence issues must be acknowledged by the group leader and group members should be supported in developing process norms. Within groups, there is the potential for conflicts to arise and generally it is the role of the group leader to dispel such issues (Johnson & Johnson, 2009). For example, when making decisions as a group, there is the potential for more dominant members of the group to influence the overall decision even if they are in a minority (Johnson & Johnson, 2009). Through ‘maintenance function’ techniques described by Schein (1988) the group leader is responsible for ensuring that all members of the group are as equally involved as possible.

Much of the research into the efficacy of supervision focuses on professionals such as EPs (e.g. Atkinson & Woods, 2007). There is a strong emphasis which is placed upon the value of supervision for EPs (Dunsmuir & Leadbetter, 2010), not only from the professional requirement for supervision. However, for many professionals in the field of education, such as teachers, opportunities for supervision are uncommon (Dennison, McBay, & Shaldon, 2006). This is particularly pertinent as research suggests that there may be a relationship between teachers’ perceived utility of supervision and their sense of efficacy (Coladarci & Breton, 1997). Consequently, “supervision is one way in which EPs can work creatively towards enabling better outcomes for children” (Callicott & Leadbetter, 2013) and may be implemented at a group level (Hawkins & Shohet, 2006), as in the current study.

2.3.2.2. *Consultation*

A further way in which EPs can support others in problem-solving is through consultation (Farrell et al., 2006). Consultation as a model of service delivery in the field of educational psychology has increased rapidly in the last few decades (Wagner, 2008). There is an increased emphasis on EPs utilising a consultative

approach to working in a multi-agency capacity (Farrell et al., 2006) and this is particularly pertinent when considering the most effective support for vulnerable pupils such as LAC (Dent & Cameron, 2003).

Defining the term ‘consultation’

Despite the apparent popularity, consultation is still a term which is surrounded by discrepancies in its definition (Leadbetter, 2006). However, in the field of education Wagner (2000) describes consultation as a “voluntary, collaborative, non-supervisory approach, established to aid the functioning of a system and its inter-related systems” (p. 11). It is an indirect service delivery model in which the consultant supports the consultee in developing the transferable skills and knowledge required to respond more effectively to future problems (Conoley & Conoley, 1990). Consultation is therefore frequently described as a problem-solving process which primarily focuses on attempts to meet the consultee’s work-related needs (Bozic & Carter, 2002; West & Idol, 1987). For this reason consultation was identified as a potential approach to supporting school staff in the current study.

Models of consultation

West and Idol (1987) identify ten consultation models which all differ in the terms of their theoretical underpinnings, knowledge base and the processes involved (Kennedy, Frederickson, & Monsen, 2008). Whilst knowledge of other consultation models may be of importance to the work of EPs the majority of the literature focuses on three main models: the mental health model (Caplan, 1970); the behavioural model (Bergan & Tombari, 1975); and, of most relevance to the current study, the process model of consultation (Schein, 1988).

Within the model of process consultation Schein (1988) describes the role of the consultant as enhancing the consultee's awareness of events and processes which have the potential to affect the system and organisation in which the client is based. Consequently, the consultee is supported in exploring the processes around the problem so that solutions can be developed (Schein, 1999). There is a strong emphasis on the interactions between the consultant and consultee and through the development of this relationship attempts are made to address changes in views, attitudes and behaviours (Leadbetter, 2006).

With so much emphasis on exploring the interactions within the system in which the consultee operates, it is evident that process consultation is underpinned by systems theory (West & Idol, 1987). Systems theory recognises the importance of the organisation of a system and the interactions which occur within the overall system (Miller, 2003). Consequently, an individual's behaviour is seen as a function of the system in which they exist. Applied to process consultation, an appreciation of systems theory would lead the consultant to enquire at a wider level to take into account the interactions between all of the different systems, for example, school and family systems (Wagner, 2000). The very nature of process consultation therefore lends itself to use within education and, more specifically, in a group capacity (Farouk, 2004; Hanks, 1999).

Applications of consultation in a group capacity

In her earlier work Hanks (1999) developed a group consultation approach to working with school staff. The approach is highly influenced by psychodynamic insights and places a strong emphasis upon the collaborative relationship between the consultant and the school staff within the group (Hanks, 1999). The EP takes on the role of the consultant, or facilitator, and through asking answerable questions the group are guided in developing their own solutions. Members of

the group are supported in developing their knowledge and skills and are therefore able to restore objectivity to a situation (Hanko, 1999).

Whilst this approach was pioneering in valuing working with groups of teachers (Bozic & Carter, 2002), Farouk (2004) felt that it was lacking in its consideration of the “preconceptions, emotional needs and personal agendas” (p.209) which group members bring and can ultimately impact upon the success of the group. Despite this, it has continued to be an approach which has been utilised and developed by EPs in the UK.

In response to the recommendations highlighted in the Elton Report (DES, 1989) Stringer, Stow, Hibbert, Powell and Louw (1992) evaluated one of the earliest examples of consultation delivered in a group capacity. The teachers were trained in the process of group consultation and the authors used a variety of methods to evaluate the approach in schools. The evaluation form was completed by 61 members of staff from nine of the schools involved in the project and using the information Stringer et al. (1992) reported on the typical profile of the groups as well as the advantages and disadvantages which were identified by the teachers. The groups generally involved between six and twelve members of staff who met on a fortnightly basis.

Due to the way in which the groups were established there was a large variation in the number of sessions which had been carried out and thus the findings should be approached with some caution. Despite this, the participants were able to identify a number of advantages of being involved in the staff support groups including feeling less isolated and having more opportunities to reflect upon situations with the support of colleagues. The main difficulty faced was the limited time available in schools to carry out the sessions.

A more recent application of consultation delivered in a group capacity is the 'Exceptional Professional Learning' (EPL) model which was developed by Truscott et al. (2012). The authors developed a model combining elements of school-based consultation and professional development to support the consultees in sustaining changes to their learning and behavioural practice (Truscott et al., 2012).

Although the framework currently has a very limited evidence base, the model has strong psychological underpinnings and the authors claim that the results of the small scale EPL projects have indicated that it can lead to changes in the instructional or behavioural practices of teachers as well as increased confidence when working with students who are experiencing difficulties. It should be recognised, however, that the complexity of the model may hinder its applicability in UK schools. Despite this, the EPL model provides further emphasis on the importance of implementing group problem-solving models which are underpinned by consultative approaches in order to enhance changes in school staff (Truscott et al., 2012).

2.3.3. Summary

A range of peer support, group supervision and group consultation approaches have been used with school staff. There are many reported benefits including opportunities to reflect (Stringer et al., 1992), share expertise (Frederickson et al., 2004) and feel supported by colleagues (Boyle et al., 2011). The use of a group problem-solving approach was therefore considered to be an appropriate method of supporting school staff in the current study. However, in order to ensure objectivity when selecting an appropriate problem-solving approach, as well as to identify the possible outcomes for the members of school staff, a systematic review of the literature was carried out and will be detailed in the following section.

2.4. Systematic Review

Systematic reviews involve the synthesis of research evidence in order to provide evidence for “what works and what does not” (Petticrew & Roberts, 2006, p. 2). Through clearly defining the criteria for the inclusion of research studies the author systematically appraises the evidence and examines how the findings collectively provide evidence for the research question posed (Gough, 2007). Figure 2.1 demonstrates the stages involved in the current systematic review, as described by Gough (2007).

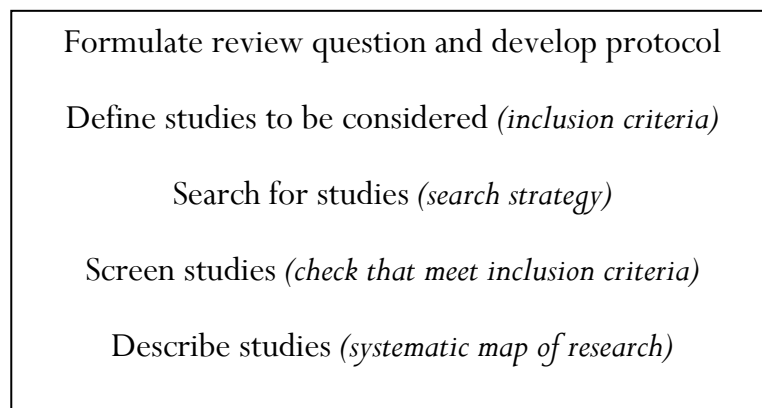


Figure 2.1. Stages of the systematic review (Gough, 2007)

2.4.1. Objective

The objective of this systematic review was to evaluate the outcomes of group problem-solving approaches for staff in schools.

2.4.2. Criteria for selecting studies

An initial key terms search was carried out and the abstracts and titles of the resulting articles were scanned for relevance by the author. Following this, specific eligibility criteria were applied to select the final papers to be reviewed.

Studies were only selected if the main focus of the research involved an evaluation of a problem-solving or consultation approach with groups of school

staff. It was therefore a requirement of the studies that the ‘group’ constituted more than two people (Johnson & Johnson, 2009). A further inclusion criterion was that some form of outcome measure was reported for the adult participants involved. To ensure that a range of studies were included, all designs were considered and, for practical reasons, studies must have been translated into English and have been published since 2000.

2.4.3. Search methods for identification of studies

Key word searches were carried out using three electronic databases including Web of Science, Scopus and PsycINFO. A further search was then carried out using Google Scholar. The key words which were searched for were:

- Consultation OR problem-solving AND
- Group OR collaborative AND
- School staff

The key words, including truncated versions, were all included in the article title, the abstract or the keywords of the study.

2.4.4. Data collection and analysis

Following the identification of the possible studies, the titles and abstracts of the papers were scanned by the author to determine whether they would be appropriate for this review. Any studies identified were then analysed further using the inclusion criteria and any remaining studies were critically reviewed using the ‘Weight of Evidence’ model (Gough, 2007) as detailed in Figure 2.2.

2.4.5. Results of the search

The titles and abstracts of the resulting articles were scanned by the author and 13 studies were considered to potentially meet the inclusion criteria described above. Upon closer inspection five articles were excluded from the review as they did not meet the specific inclusion criteria (Appendix 2). The eight studies which did meet the inclusion criteria were critically appraised using Gough's (2007) 'Weight of Evidence' model (Figure 2.2), a more detailed description of which is provided in Appendix 3. A summary of the included studies is also provided in Table 2.1.

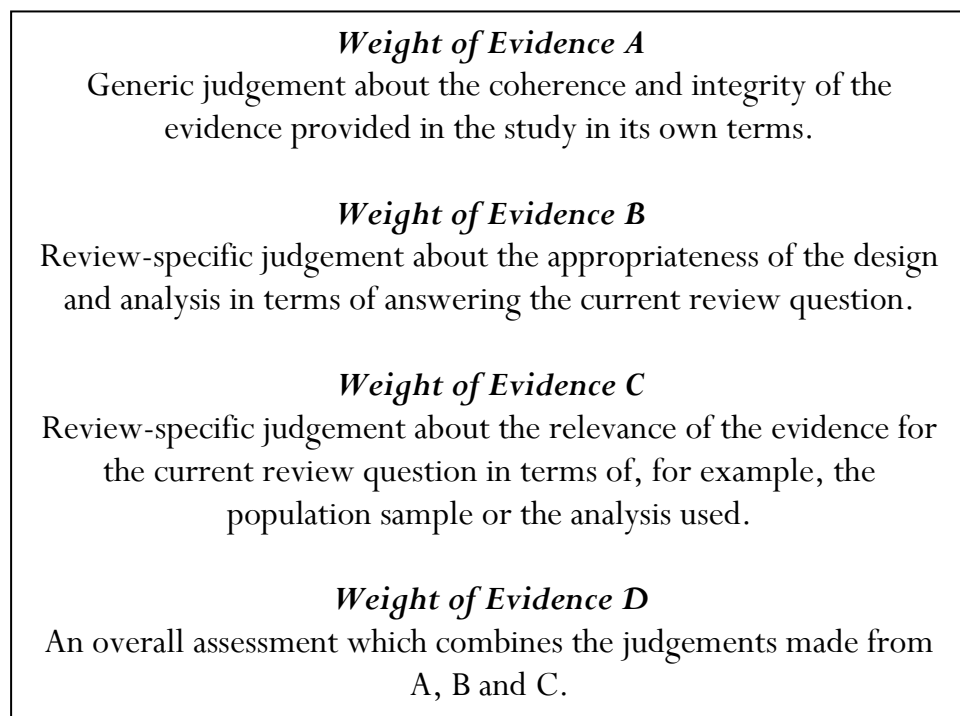


Figure 2.2. Application of the 'Weight of Evidence' framework (Gough, 2007, p. 223)

Although it is recognised that systematic reviews generally involve a synthesis of quantitative research (Noyes, Popay, Pearson, Hannes, & Booth, 2008), the majority of the studies featured in the current systematic review involve qualitative methods. The value of including qualitative research in systematic

Citation	Participants	Intervention	Design	Key findings
Bahr et al. (2006)	134 educators from 24 elementary schools	Creative Problem Solving	Quasi-experimental RCT	Experimental group reported significantly higher ratings of effectiveness following intervention.
Newton et al. (2012)	Teams of school staff from 34 elementary schools	Team-Initiated Problem Solving model	Quasi-experimental RCT	Following training, participants were observed engaging in behaviours which were characteristic of a problem-solving model which may imply the effectiveness of the training.
Brown & Henderson (2012)	Group of newly qualified secondary school teachers; 9 primary school teachers	Solution Circles	Post-hoc evaluation	Teachers rated the process highly in terms of the opportunity to consider issues systemically and develop strategies which had a positive impact upon practice.
Bozic & Carter (2002)	31 members of school staff including teachers, teaching assistants and SENCos.	Consultation group based on Hanko (1999)	Post-hoc evaluation	Deeper thinking about individual children (92%); increased awareness of strategies (80%).
Jones, Monsen & Franey (2013)	20 members of primary school staff including teachers and other senior members of staff	Staff Sharing Scheme (Gill & Monsen, 1996)	Mixed-method case study	Participants valued the opportunity for reflection. Statistically significant increases in the amount the participants felt supported by colleagues. Statistically significant changes in the patterns of causal attribution.
Evans (2005)	Teachers from 16 different schools.	Group consultation based on solution-focused approach	Post-hoc evaluation	Participants reported feeling more enabled to develop a plan of action to support pupils; valued the opportunity to work with others with different experiences and skills.
Jackson (2008)	95 members of school staff	Work discussion groups	Mixed-method involving case-studies and post-hoc evaluation	Participation in the group led to feelings of confidence, support and deeper understanding of the possible meaning of the behaviour.
Farouk (2004)	Group of teachers from 3 different educational settings	Process consultation	Case study	Using an approach which is underpinned by psychodynamic and systemic theories is an effective way of supporting groups of teachers in developing strategies to support young people with EBD.

Table 2.1. Summary of included studies

reviews is gaining prominence in the field and although the methodological guidance for appraising qualitative methods is still in the early stages of development, Noyes et al. (2008) suggest that quantitative and qualitative methods can be synthesised on a parallel or multilevel basis. The current systematic review aims to synthesise the studies using the multilevel approach, and consequently, the qualitative and quantitative evidence will be synthesised separately. An overall synthesis of both the quantitative and qualitative findings will then be presented and will form the basis of the rationale for the outcome measures chosen in the current study, as described in section 3.4.

2.4.5.1. Quantitative review

Bahr et al. (2006) conducted a quasi-experimental Randomised Control Trial (RCT) to evaluate a 'Creative Problem Solving' (CPS) approach with 134 educators from 24 elementary schools in the US. The process involves three main stages: 'understanding the challenge'; 'generating and selecting interventions'; and 'action planning' and is guided by a facilitator. The 24 schools were randomly allocated to either the experimental group, who received training in the CPS approach, or a wait-list control group, who were encouraged to continue to use their current group processes.

The participants were asked to rate ten items on a Team Effectiveness Scale using a six-point Likert-type scale at both pre- and post-intervention. The measure included items such as 'our team is effective in meeting the needs of the problem identifier'. Results of the ANOVA indicated a significant increase in the reported effectiveness of the CPS approach compared with the control group. Although this study may be criticised due to the nature of the participant selection processes, it does highlight the potential benefits of a structured problem-solving approach to support teachers in developing solutions to a variety of school-based issues.

Newton, Horner, Algozzine, Todd and Algozzine (2012) conducted a randomised wait-list control study to evaluate problem-solving groups involving school staff from 34 elementary schools. Prior to the experimental group receiving specific training in a Team-Initiated Problem Solving (TIPS) model, baseline observation data were collected using a Decision Observation, Recording, and Analysis (DORA) instrument. This checklist involved recording whether specific behaviours were observed during the session such as the characteristics of the problem presentation.

Two observers were present at 31 per cent of the meetings and inter-observer agreement ranged from 89 per cent to 96 per cent. The observational data was analysed using an ANCOVA and statistically significant differences were found between the experimental and control group across all observational variables. These findings suggest that following explicit training in a specific group problem-solving method participants were more likely to ensure the treatment integrity of that approach, potentially suggesting a more effective approach. However, due to the nature of the outcome measures used such inferences can only be made tentatively and the authors recognise that further research is required.

The findings of the two quantitative studies included in the review (Newton et al., 2012; Bahr et al., 2006) suggest that both CPS and TIPS may be potential problem-solving approaches for use with school staff. The CPS approach was found to be rated by participants as significantly more effective than other problem-solving approaches (Bahr et al., 2006) and following training in the TIPS approach, participants engaged in more problem-solving behaviours (Newton et al., 2012). However, to further consider the effectiveness of problem-solving approaches with school staff it is important to also consider the

outcomes as reported by the participants themselves. Consequently, attention will now turn to the qualitative studies which are included in the review.

2.4.5.2. *Qualitative review*

Brown and Henderson (2012) utilised a Solution Circles (SC) approach with primary and secondary school teachers. The SC process involves four key steps: problem presentation; clarification; discussion of solutions; and identification of the first steps. As a method of evaluating the process with a group of newly qualified secondary school teachers, the first author considered the comments made by the participants in the ‘round of words’ and concluded that the sessions were viewed positively. Participants valued the opportunity for reflection and reported feelings of enthusiasm following their involvement in the sessions.

A SWOT (strengths, weaknesses, opportunities and threats) analysis was then carried out to evaluate the approach with nine primary school teachers. It was identified that the participants found the approach to be ‘supportive’ and allowed them to consider issues more systemically. The participants also identified a number of challenges of the approach including pressures of time. Using a 5-point rating scale participants were asked to consider how useful they found the sessions as well as how much they felt it had impacted upon their practice. A mean of 3.9 was obtained for both scores and, despite the small sample size, the authors conclude that SC may be an effective method of supporting school staff.

Bozic and Carter (2002) conducted an evaluation of a group consultation approach based upon a model developed by Hanko (1999). Four separate consultation groups were arranged involving a total of 31 school staff from one county in the UK. The groups met frequently over a period of one or two school terms and following the final meeting, participants were asked to respond to a

series of open and closed questions which focused on the potential benefits of the group.

92% of participants felt that the group consultation made them think more deeply about individual children and 80% reported an increased awareness of strategies to try in the classroom. Despite this, only 64% of participants reported that they then went on to try 'new things' in the classroom. This may be explained by the finding that only 56% of staff felt 'more confident about working with children with SEN'. Qualitative data from the questionnaire also suggested that participants felt 'less isolated', a concept which the authors tentatively link to changes in the staff causal attributions for pupil behaviour. Although the study may be criticised for its lack of pre-intervention measures it does begin to highlight the potential outcomes of group consultation.

Using a case-study approach **Jones, Monsen and Franey (2013)** evaluated the outcomes of the Staff Sharing Scheme (SSS) (Gill & Monsen, 1996) with 20 primary school staff. Participants were asked to respond to items from the Causal Attribution Inventory (Poulou & Norwich, 2000) as well as eight Likert-type statements which focused on their perceptions of their behaviour management abilities. Following the pre-intervention measures, the staff attended five 1½ hour SSS training sessions. After a six week period, post-measures were completed and in-depth interviews were carried out with six members of staff.

The results indicated that staff valued the opportunity for reflection within the peer-support groups. However, it should be recognised that due to time constraints only one formal SSS session had actually taken place with most groups having engaged in alternative ad hoc peer-support groups. Despite this, the authors carried out a paired sample t-test on the behaviour perception statements and found that two questions were significantly different; staff found

it easier to talk to colleagues and felt more supported. Through the interview data, many participants reported that the training sessions had led them to consider the causes of behaviour. This was reflected in the t-tests carried out on the Causal Attribution Inventory (Poulou & Norwich, 2000). Following the training, participants reported significantly high ratings for the teacher, school and child factors of causal attributions of behaviour, with teacher factors showing most change from pre- to post-intervention.

Based heavily upon solution-focused thinking (Rhodes & Ajmal, 1995), as well as using guidance from Wagner (2000) on school-based consultation, **Evans (2005)** developed a group consultation approach for teachers which was facilitated by two EPs. The group consultations were arranged half-termly and involved teachers from up to five schools. Each session lasted approximately two and a half hours and involved a structured problem-solving process including problem exploration, target setting and agreement of actions.

Session evaluations were completed by the participants and, despite the criticisms of the potential biases involved in self-report measures, the results suggest that following the group consultation teachers felt more enabled to develop an action plan to support the focus pupil. Although the authors recognise that such findings do not necessarily imply a direct impact upon teaching, qualitative information suggested that the actions of teachers changed positively as the result of participation. Additionally, teachers reported that the sessions enabled them to benefit from the skills and experiences of others within the group. However, teachers were less positive about the effect of the group on their own skills suggesting limited feelings of personal empowerment.

Using a case study approach **Jackson (2008)** describes how work discussion groups may be utilised by teaching staff in a variety of educational settings. Some benefits of work discussion groups are highlighted including an

opportunity to reflect upon practice and consider alternative approaches to difficulties which were being faced by the teachers. An evaluation form was also completed by 95 teachers. Although the use of self-report measures may be criticised, the findings suggest that over 90 per cent of staff found the discussion groups to be supportive, helped them to develop a deeper understanding and helped them to identify alternative strategies for supporting challenging pupils. Additionally, qualitative comments indicate that participants had an increased confidence following participation in the sessions.

Farouk (2004) utilised a case study approach to provide a detailed description of process consultation and its application with groups of school staff working with pupils displaying emotional and behavioural difficulties. Based heavily upon the work of Hanko (1999) and Schein (1988) the group consultation approach described applies both psychodynamic and systemic theories to group work in schools. Farouk (2004) described the use of process consultation with groups of teachers in three different educational settings. Each group was facilitated by the author and followed a similar process reportedly allowing for an opportunity to reflect and develop personal theories to support the generation of strategies. It should be noted however, that no evaluative methods were developed to allow the participants an opportunity to reflect upon the effectiveness of the approach and that all outcomes were reported anecdotally by the author.

In summary, the findings from the qualitative element to this systematic review indicate that problem-solving groups can lead to a range of positive outcomes for school staff. Participants suggested that they had a deeper understanding of the pupil (Bozic & Carter, 2002; Jackson, 2008) which may have led to changes in their causal attributions for challenging behaviour (Brown & Henderson, 2012; Jones et al., 2013). Despite some reports of staff feeling more enabled to support pupils (Evans, 2005; Jackson, 2008) others indicated that they still

lacked confidence when working with SEN children (Bozic & Carter, 2002). The implications of these findings will be discussed further in section 2.5 but prior to this, the findings of both the quantitative and qualitative elements will be synthesised together in the following sub-sections.

<i>Study</i>	<i>Weight of Evidence A: trustworthiness</i>	<i>Weight of Evidence B: appropriateness of design</i>	<i>Weight of Evidence C: relevance of evidence</i>	<i>Weight of Evidence D: overall judgement</i>
<i>Bahr et al.(2006)</i>	Medium	High	Medium	Medium
<i>Newton et al. (2012)</i>	Medium	High	Low	Low / Medium
<i>Brown & Henderson (2012)</i>	Medium/High	Low / Medium	Medium/High	Medium/High
<i>Bozic & Carter (2002)</i>	Medium	Low / Medium	Medium/High	Medium/High
<i>Jones, Monsen and Franey (2013)</i>	Low / Medium	Medium	High	Medium
<i>Evans (2004)</i>	Medium	Low / Medium	Medium	Medium
<i>Jackson (2008)</i>	Low	Low / Medium	Low / Medium	Low / Medium
<i>Farouk (2004)</i>	Low / Medium	Low	Low / Medium	Low

Figure 2.3. 'Weight of Evidence' (Gough, 2007) for included studies.

2.4.6. Methodological quality of included studies

The 'Weight of Evidence' model (Gough, 2007) was used to assess the methodological quality of the studies which were included (Figure 2.3). The majority of the studies used variations of case study or evaluative approaches and were thus rated as 'low' or 'medium' in terms of the trustworthiness of results and appropriateness of design. Two studies utilised a RCT method (Bahr et al.,

2006; Newton et al., 2012) and were thus given a higher rating for appropriateness of design. However, both studies were limited in other areas such as the opportunistic sampling method used to recruit participants (Bahr et al., 2006) and the large variation in inter-observer agreement scores (Newton et al., 2012).

2.4.7. Risk of bias in included studies

As is highlighted by Petticrew and Roberts (2006) “uncontrolled studies are more susceptible to bias than studies with control groups” (p.65). The majority of studies included in this review lacked a control group and simply involved a post-hoc evaluation of a group consultation approach (Bozic & Carter, 2002; Brown & Henderson, 2012; Evans, 2005; Jones et al., 2013). Additionally, the researchers were all either involved in the training of the group problem-solving method (Bahr et al., 2006; Jones et al., 2013; Newton et al., 2012) or had the role of group facilitator (Bozic & Carter, 2002; Brown & Henderson, 2012; Evans, 2005; Farouk, 2004; Jackson, 2008). Thus when self-report measures were used to evaluate the process participants may have been more inclined to report more favourably than perhaps would have been the case if the researcher was not so explicitly involved.

2.4.8. Outcomes of participation in problem-solving groups

In order to consider the collective findings of the studies the data must now be synthesised (Robson, 2011). It was suggested that methods of group consultation allowed participants to think more deeply about individual children (Bozic & Carter, 2002; Jackson, 2008); feel more confident in supporting pupils (Evans, 2005); and enabled participants to explore a wide range of possible solutions to the problem (Bozic & Carter, 2002; Brown & Henderson, 2012; Jackson, 2008). Additionally, staff reported feeling more supported as a result of participation in

the group (Brown & Henderson, 2012; Jackson, 2008; Jones et al., 2013) which could potentially have a positive impact upon their emotional well-being in a profession which is highly stressful and fraught with the potential for burnout (Hastings & Bham, 2003).

These findings were further supported by Bahr et al. (2006) who found that, following participation in a problem-solving group, school staff reported significantly higher ratings of effectiveness in terms of factors such as improved communication and support between staff members. Both RCT studies also concluded that, following training in the problem-solving methods, participants were more likely to engage in behaviours which were indicative of an effective group problem-solving session (Bahr et al., 2006; Newton et al., 2012). This is particularly pertinent bearing in mind the potential positive outcomes of group problem-solving which have been identified above.

2.4.9. Overall completeness and applicability of the evidence

The number of studies included in this review is relatively limited. The initial searches yielded 13 studies, five of which had to be excluded due to a variety of reasons. Of the eight studies which were subjected to critical appraisal three-quarters utilised case study or evaluation approaches. Some of these failed to describe the participants in detail and therefore it is probable that relatively few participants were involved in this review which affects the overall completeness of the evidence. Additionally, the range of problem-solving approaches used as well as the variations within these impacts upon the overall completeness of the evidence. Despite this, there is some consensus among the studies that group problem-solving approaches can lead to a range of positive outcomes and may therefore be an effective way of supporting teachers and school staff.

2.4.10. *Potential biases in the review process*

Although the nature of a systematic review, particularly the use of search criteria and eligibility criteria to identify possible studies, reduces the potential for bias (Petticrew & Roberts, 2006), some risks of bias still remain. Firstly, the initial search process led to the finding of over 500 articles. The author then scanned the titles and abstracts to assess the relevance of the articles to the current research question. This method may have led to bias as particular studies may have been omitted through this search process. Additionally, the search process did not include unpublished studies which may have also potentially biased the findings.

The 'Weight of Evidence' model (Gough, 2007) was used to critically appraise the identified studies. Whilst efforts were made to explicitly provide justification for the decisions made, the variations in design and intervention meant that this was a particularly challenging task. Ideally, a second researcher would have rated the evidence independently which would have provided a measure of inter-rater reliability.

2.4.11. *Summary of the systematic review*

Eight studies were found which met the inclusion criteria following a systematic search using specified search criteria. The primary outcome of all eight studies was to evaluate problem-solving or consultation processes with groups of school staff. The overall results are positive and suggest that such approaches can support teachers in a variety of ways including increasing awareness of strategies (Bozic & Carter, 2002) and an opportunity to reflect upon practice (Farouk, 2004; Jackson, 2008). Despite this, the over representation of post-hoc evaluation studies and case studies highlights the need for more rigorous experimental designs to be used to determine the effectiveness of group problem-solving approaches.

2.4.12. Overall summary

Numerous approaches to working with teachers in a group capacity have been explored (Stringer et al., 1992; Wilson & Newton, 2006) and although the research for some of the specific approaches is particularly limited (Bennett & Monsen, 2011) the results of the systematic review suggest that group consultation and problem-solving approaches may lead to a range of positive outcomes which can support teachers in dealing with the challenging behaviour of pupils in their schools.

Problem-solving groups have been found to enhance teachers' understanding of children and young people (Jackson, 2008) and lead staff to feel less isolated (Bozic & Carter, 2002). Such findings may be linked with a change in their attributions for the causes of challenging behaviour (Jones et al., 2013) which has been shown to predict teachers intentions to support pupils (Poulou & Norwich, 2002). Research has also suggested that participation in problem-solving groups can lead participants to feel more confident (Jackson, 2008) and enabled to support pupils (Evans, 2005) which may be linked to their sense of self-efficacy.

Consequently, the construct of self-efficacy and of causal attributions will be subject to further investigation in section 2.5 and will inform the focus of the current study. Despite some staff reporting that involvement in the groups had an impact upon their practice (Brown & Henderson, 2012; Evans, 2005), no specific measures of changes in staff behaviour were provided in any of the studies. This provides the rationale for also exploring the relevance of the Theory of Planned Behaviour (TPB) in the following section.

2.5. Enhancing change for school staff

Truscott et al. (2012) argue that enhancing and sustaining change in school staff is by no means a simple process; a view underpinned by a long conceptual and research literature. The overall findings of the systematic review suggest that problem-solving groups may lead to initial changes in terms of the adults' causal attributions, self-efficacy and perceptions of their own behaviour change. However, the evidence available indicates that further research is required and will therefore be the focus of the outcomes measured in the current study.

The aim of the following section is therefore to describe the main features of attribution theory (Weiner, 1980), self-efficacy (Bandura, 1977) and the TPB (Ajzen, 1991) with particular consideration on how they might be applicable to the field of education. The various methods available to measure the constructs are presented with a view to informing the measures used in the current study. The section will then conclude with a consideration of how the three constructs may be related.

2.5.1. Attribution theory

Attribution theory is “concerned with how individuals invoke causes and explanations for various phenomena and the effects of these ‘cognitions’ on their subsequent behaviour” (Miller, 2008, p. 158). Weiner (1980) developed a theoretical framework to support the theory of attribution. This stated that humans make causal attributions about behaviours and events which can be placed along three dimensions: locus of control (internal or external); stability (stable or unstable); and controllability (controllable or uncontrollable). The behavioural responses of the observer are then affected by their causal attributions as well as their emotional responses (Weiner, 1980).

This framework is particularly relevant when considering the effects of causal attributions in the field of education (Miller, 2008). For example, if a pupil is displaying troubled and challenging behaviour the teacher may attribute this to internal, unstable and controllable causal factors such as the teacher's personality. Conversely, a causal attribution for a pupil's misbehaviour may be perceived as being external, unstable and uncontrollable such as parenting style (Mavropoulou & Padeliadu, 2002). A number of studies have been conducted to investigate the causal attributions of teachers (Croll & Moses, 1985; Miller, 1995) and these will now be the focus of discussion.

2.5.1.1. Teacher attributions for challenging behaviour

In 1985, Croll and Moses conducted a postal survey which obtained responses from 428 junior school teachers in 61 different schools. The teachers were asked to consider the causal factors which they believed to be implicated in children with special needs from four categories including 'behaviour or emotional problems'. In almost two-thirds of cases the teacher's causal attributions for the pupils' behaviour were found to involve 'home' factors such as parental attitudes. In 30.8 per cent of the cases the teacher's attributed behavioural or emotional problems to 'within-child' factors such as ability and attitude to learning.

Interestingly though, only 2.5 per cent of cases the teachers attributed pupil behavioural or emotional problems to school or teacher factors. Similar conclusions were later drawn in the Elton Report (DES, 1989) and results were also replicated in a subsequent study (Croll & Moses, 1999). Whilst this study does highlight some major discrepancies in attributions for special needs it should be noted that in some cases teachers were able to identify multiple causal attributions which may have skewed the results slightly.

In a grounded theory study, Miller (1995) used structured interviews to explore the views of 24 primary teachers with regard to challenging behaviour. The teachers were identified by EPs and were selected if they had implemented an intervention with a pupil displaying challenging behaviour which was deemed at least partially successful. Through the interviews the teachers were asked questions about the possible causes of the challenging behaviour as well as information about the solutions.

Teachers identified fifteen possible parental factors as a causal attribution for challenging pupil behaviour including 'management of difficult behaviour' and 'lack of affection'. However, there were only three possible mechanisms in which parents were implicated in the solution to the problem thus suggesting that teachers attributed parental factors as being the cause of the problem behaviour far more than the cause of the solution. Conversely, the participants identified ten teacher factors as the cause of challenging behaviour but recognised twenty different factors in which teachers were responsible for the improvement in the pupil's behaviour.

These results therefore suggest that teachers more readily attribute parental factors as the cause of challenging pupil behaviour but attribute themselves as the likely reason for any improvements which occur, despite the fact that all successful interventions had been delivered collaboratively. This study not only highlights the differences in causal attributions, but also the effects this has on the perceived responsibility for the solutions. It should be noted, however, that the cases were all described retrospectively. Additionally, had the study involved cases where interventions were less successful the findings may have been somewhat different.

More recent studies have also come to similar conclusions with regard to teachers' causal attributions for challenging pupil behaviour (Mavropoulou &

Padeliadu, 2002). However, Poulou and Norwich (2000) provide some contradictory evidence for the basis of teachers' causal attributions. Using an Attribution Inventory, participants were presented with one of six vignettes describing a pupil with varying degrees of behavioural problems. They were then asked to respond to a series of statements regarding the possible causes, responses and strategies on a Likert-type scale. In terms of the teachers' causal attributions, the findings of this study indicated that teachers more frequently located the cause of challenging pupil behaviour to school and teacher factors. Additionally, the teachers reported that they were committed and felt responsible for supporting the pupils with behavioural problems.

Whilst it is recognised that the gap between causal attributions of home and school factors may potentially be narrowing (Gibbs & Gardiner, 2008) the link between causal attributions and teachers' emotional and behavioural responses is receiving increasing attention in the research literature (Poulou & Norwich, 2000, 2002). This relationship will be explored shortly but first, the challenge of measuring causal attributions will be addressed.

2.5.1.2. Measuring attributions

A range of methods have been used to measure attributions. Some have relied upon the use of vignettes (Hastings, 1997; Poulou & Norwich, 2000), whilst others have used structured interviews (Miller, 1995) to develop a subsequent questionnaire which asks participants to respond to a simple statement about the possible causes of misbehaviour (Lambert & Miller, 2010).

The Challenging Behaviour Attributions Scale (CHABA) was devised by Hastings (1997) as a measure of the causal attributions of staff working with those with 'intellectual disabilities'. Participants were presented with a vignette about a young woman with learning disabilities who presents with challenging

behaviour. The participants were then required to rate 39 statements about the possible causes of the woman's behaviour on a Likert scale. Whilst the authors report that the measure is easy to understand and complete (Hastings, 1997), Grey, McClean and Barnes-Holmes (2002) suggest that the "subscales appear to lack content validity" (p.307). Due to the way in which this measure was constructed it is also argued that it may not be appropriate for those working in school settings.

Consequently an Attribution Inventory (Poulou & Norwich, 2000, 2002) was developed which specifically considered teacher's attributions for challenging pupil behaviour. Participants are presented with one of six vignettes about a pupil who presents with varying degrees of emotional and behavioural difficulties. Teachers are then asked to consider a variety of statements and indicate their views on a 5-point Likert Scale. Whilst the Attribution Inventory (Poulou & Norwich, 2000, 2002) potentially provides a measure of teacher attributions for behavioural difficulties the authors report no reliability or validity scores. Additionally, although vignettes have the benefit that all participants respond to the same information (Robson, 2011), thus increasing experimental control, Grey et al. (2002) claim that vignettes often lack ecological validity. This incongruity continues to be the source of much debate when attempting to measure attributions.

2.5.2. Self-efficacy

Bandura (1997) defined self-efficacy as the "beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments" (p.3). Therefore, self-efficacy is a strong influence on our behaviour and it is argued that the strength of our perceived self-efficacy will affect the likelihood that we will engage in a certain behaviour and persist even if obstacles are faced (Bandura, 1977).

Self-efficacy varies upon three dimensions: the *magnitude* of task difficulty; the amount the efficacy has been *generalised* from other situations; and the *strength* of the expectation (Bandura, 1997). We also base our personal self-efficacy upon four main information sources, the most influential of which is ‘performance accomplishments’. This implies that if we succeed in a task our experience of personal mastery will be positive which will consequently increase our perceived self-efficacy in similar situations in the future. Our self-efficacy is also influenced through the observation of others succeeding or failing at a task, whether we are verbally persuaded by others to engage in a behaviour and finally, the level of emotional arousal elicited by that situation (Bandura, 1977).

2.5.2.1. *Teacher efficacy*

The theory of self-efficacy has been applied to education where the construct of teacher efficacy is defined as a teacher’s belief that their actions can influence positive outcomes for students (Gibson & Dembo, 1984). Although research suggests that teacher efficacy is not a stable concept and changes depending on the stage of teacher training (Woolfolk Hoy & Burke Spero, 2005) and years of experience (Klassen & Chiu, 2010; Soodak & Podell, 1996), teacher efficacy has been found to influence teachers in a number of ways.

Teachers who report higher levels of self-efficacy are more organised (Allinder, 1994), have more positive attitudes towards students (Tschannen-Moran & Hoy, 2001) and use less controlling techniques to manage pupil behaviour (Woolfolk & Hoy, 1990). Teacher efficacy has been found to influence teacher responses to pupil learning in the classroom (Gibson & Dembo, 1984), as well as teacher’s perceived success in supporting pupils with special needs in mainstream classrooms (Brownell & Pajares, 1999).

Brownell and Pajares (1999) designed a measure to investigate the variables which may impact upon teacher efficacy and perceived success when working with pupils with learning and behavioural difficulties. One hundred and twenty-eight second grade teachers completed the self-report measure and, although the findings may lack generalisability due to specific inclusion criteria of the participants, a path analysis technique was used to analyse the results.

Teachers' perceptions of success were significantly affected by five variables including teacher efficacy thus suggesting that teachers with higher efficacy beliefs were more likely to report successes when teaching pupils with learning and behavioural difficulties. Additionally, the authors found that teacher efficacy was significantly influenced by perceived collegiality. This implied that teachers who experienced frequent supportive interactions with their colleagues reported higher levels of teacher efficacy which, in turn, had a positive effect upon their perceptions of success. Although the study was completely reliant upon self-report measures, this finding may have significance for the current study in terms of the potential for increasing teacher self-efficacy through peer support.

As well as the positive effects on the teachers themselves, teacher efficacy has also been associated with a number of pupil outcomes including academic achievement (Caprara, Barbaranelli, Steca, & Malone, 2006) and rates of pupil exclusion (Gibbs & Powell, 2012). The importance of identifying strategies to enhance teacher self-efficacy is thus recognised. In order to ascertain any changes in teacher efficacy, and to therefore evaluate the impact of any strategies on teacher efficacy, a suitable tool for measuring the construct must be identified and this will now be the focus of discussion.

2.5.2.2. *Measuring self-efficacy*

The topic of measuring self-efficacy and, more specifically, teacher efficacy is one which continues to cause a great deal of debate. The first measures of teacher efficacy were based upon Rotter's locus of control theory (Rotter, 1966) and simply used two items to measure 'general teaching efficacy' and 'personal teaching efficacy' (Woolfolk & Hoy, 1990). Later measures were influenced by social cognitive theory (Bandura, 1977) and, in particular, lead to the development of the Teacher Efficacy Scale (Gibson & Dembo, 1984).

Gibson and Dembo (1984) claimed that the dimensions of teacher efficacy reflected the two strands of Bandura's social cognitive theory. Through factor analysis of their 30-item scale the authors identified two dimensions of teacher efficacy, namely 'personal teaching efficacy' and 'teaching efficacy'. Gibson and Dembo (1984) argue that the two dimensions correspond to Bandura's (1977) constructs of efficacy and outcome expectations, respectively. However, Woolfolk and Hoy (1990) argue that such associations are tentative and that Bandura's concepts are subtly different.

In response to the argument that the application of teacher efficacy to pupil learning is distinct from that of pupil behaviour, Emmer and Hickman (1991) developed the 'Teacher Efficacy in Classroom Management and Discipline' scale with pre-service and student teachers. Using previous literature a 36-item scale was developed in which participants were required to rate their level of agreement with statements on a 6-point Likert-type scale. Through a factor analysis, three factors of teacher efficacy were identified: classroom management/discipline; external influences; and personal teaching efficacy. The authors claim that the second and third factors correspond to those identified by (Gibson & Dembo, 1984), therefore providing an extension of this previous measure.

Measures of teacher efficacy have continued to be developed (Dellinger, Bobbett, Olivier, & Ellett, 2008; Tschannen-Moran & Hoy, 2001) and although there are now a variety of measures which claim to measure the construct, one difficulty which is frequently encountered is that the concept is defined and measured in many different ways (Woolfolk & Hoy, 1990). Despite this, the current research recognises the importance of providing some measure of teacher efficacy in order to evaluate an intervention which may potentially promote teacher self-efficacy when supporting pupils with challenging behaviour.

2.5.3. Theory of Planned Behaviour

As an extension of the theory of reasoned action, Azjen (1991) developed the TPB. This theory states that personal attitude towards a specific behaviour, the subjective norm and perceived behavioural control all influence one's intention to perform that behaviour. Collectively, these constructs may all have an effect on actual behaviour. The key development of the TPB was the addition of the 'perceived behaviour control' aspect which provides some explanation as to why intentions alone do not always result in expected behaviour (Armitage & Conner, 2001). It is therefore postulated that those with a higher perceived control, combined with a positive attitude and subjective norm, will be more intent on performing the desired behaviour (Yan & Sin, 2013).

2.5.3.1. Measuring behaviour

Providing a reliable measure of TPB has proved to be somewhat of a challenge (MacFarlane & Woolfson, 2013). Although there are criticisms around the use of self-report measures in terms of the possibility of bias (Robson, 2011), this is frequently used as a measure of behaviour and attitudes in studies specifically looking at TPB. Additionally, although observing actual behaviour may be

preferable, some studies have used rating scales to explore teachers' behaviour (Yan & Sin, 2013).

In response to the increasing focus on evidence-based practice and the distinct limitations of the Goal Attainment Scaling method of evaluation, Dunsmuir, Brown, Iyadurai and Monsen (2009) developed a Target Monitoring and Evaluation (TME) system. Using this model, the client selects three behaviour targets and is then asked to provide a description and rating of the current behaviour as a baseline measure. After a period of time the client is asked again to rate and describe the level achieved in terms of the agreed targets. Although Dunsmuir et al. (2009) recognise that such methods cannot be standardised, it is argued that TME is an effective way of evaluating outcomes of an intervention in terms of actual behavioural changes.

2.5.4. The relationship between causal attributions, self-efficacy and behaviour

Although the theoretical concepts of attributions, self-efficacy and TPB have been presented as distinct constructs thus far, Poulou and Norwich (2002) developed a model (Figure 2.4) which aimed to explore the complex relationship between the concepts. The theoretically based model combined aspects of attribution theory (Weiner, 1972) with social cognitive theory (Bandura, 1977) and the TPB (Ajzen, 1991) to identify the influence which the underlying constructs have upon each other. Using the results of a previous study in which an Attribution Inventory was developed and then completed by 391 Greek Teachers (Poulou & Norwich, 2000), Poulou and Norwich (2002) carried out a regression analysis to identify the predictive nature cognitive, emotional and behavioural responses to pupils with challenging behaviour.

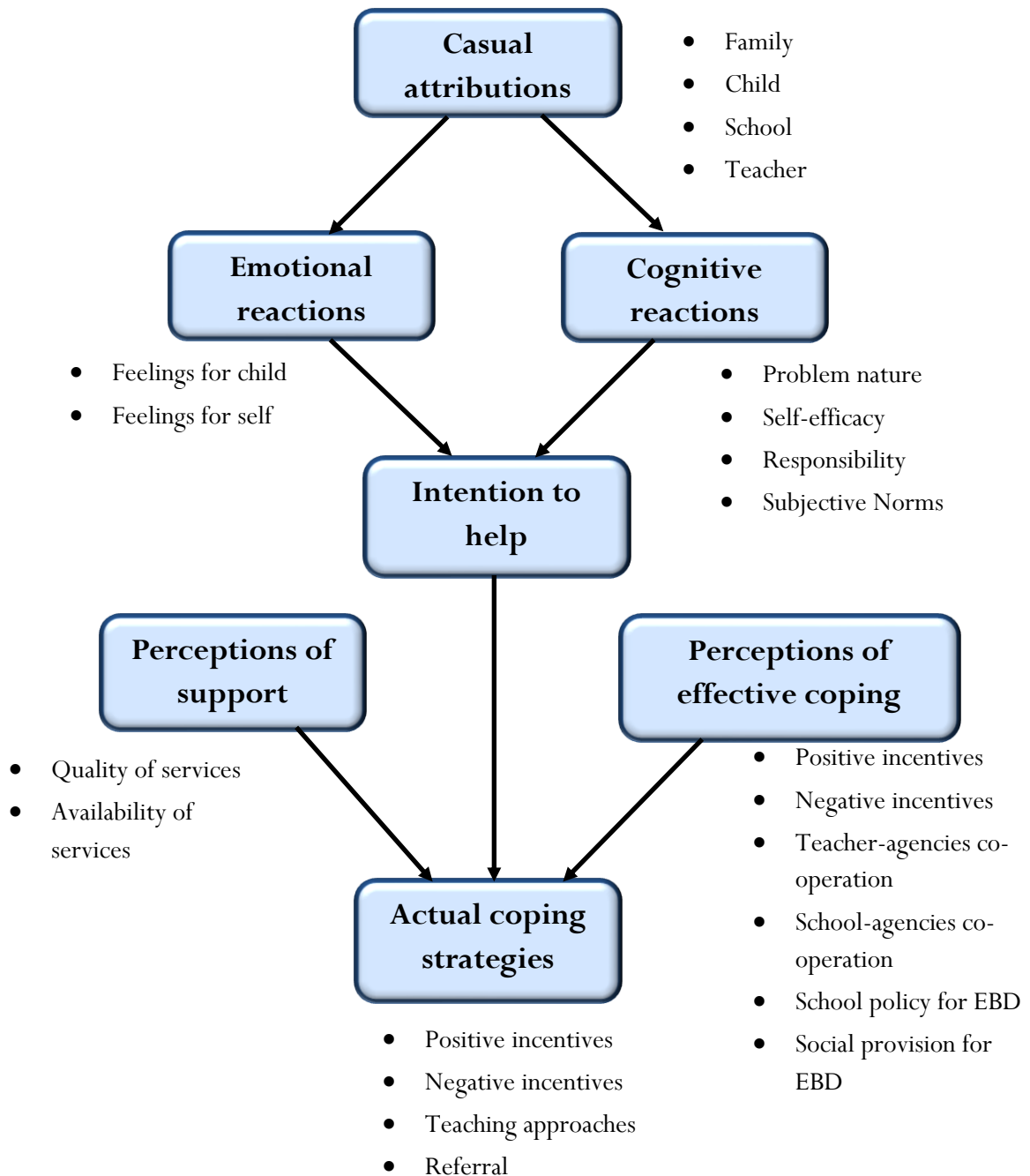


Figure 2.4. Poulou and Norwich's (2002) potential model of teachers' causal attributions, emotional and cognitive responses and actions towards children with emotional and behavioural difficulties.

In the first phase of analyses, an investigation into the relationship between teachers' causal attributions and their emotional and behavioural responses was carried out. The findings of this suggested that cognitive and emotional responses

to pupils with challenging behaviour were predicted by the teacher, school and child causal attributions. Interestingly, teachers' causal attributions for family factors did not significantly predict any element of emotional or cognitive responses. Through further investigation it was identified that if teachers attributed the cause of the pupil's behaviour to 'teacher' factors they were more likely to perceive that the behaviour could be changed and that *they* were responsible for finding a solution.

In the second phase of analyses, predictors of the teachers' intention to help were considered and indicated that there were significant correlations between a number of emotional and cognitive reactions and the intentional behaviour of the teachers. For example, if teachers had greater feelings of responsibility for the solution or if they presented with a stronger self-efficacy then their intention to help was positively affected. In the final stage of analyses, Poulou and Norwich (2002) sought to identify associations between the teachers' intentional behaviour and their actual behaviour. Teachers were asked to report on the coping strategies which they would use for the pupil in the vignette. The results suggest only certain teacher behaviours, namely positive incentives and teaching approaches, were predicted by their intentional behaviour although it should be noted that no observational data were obtained at this stage to confirm such findings.

Whilst this model may suggest strong links between attributions, self-efficacy and teacher responses to challenging behaviour, it should be recognised that despite extensive searches only one published study was found which utilised the model in any capacity (Jones et al., 2013). Therefore, any links made between the constructs should be viewed as tentative and will require further exploration.

2.5.5. Summary

Attributions describe the way in which we explain the actions of others (Miller, 2008). In the context of education, research suggests that teachers attribute the cause of challenging behaviour to home and pupil factors more readily than school or teacher factors (Croll & Moses, 1985; Miller, 1995) although such discrepancies may have narrowed over time (Poulou & Norwich, 2000). Self-efficacy describes the belief a person has in their abilities and applied to teachers describes their belief that their actions can positively influence the outcomes for students (Gibson & Dembo, 1984). Poulou and Norwich (2002) developed a model which explored the link between attributions and self-efficacy and found that teachers' attributions predicted their emotional and cognitive responses to pupils with challenging behaviour. This, in turn, predicted the teachers' intentional behaviour which then predicted some aspects of actual behaviour (Poulou & Norwich, 2002).

Such findings are particularly pertinent when considering that self-efficacy and attributions have been shown to predict teacher burnout which can have a further negative impact upon pupil's behaviour (Bibou-Nakou et al., 1999; Brouwers & Tomic, 1999). As has been emphasised throughout this literature review, it is imperative that staff are supported in changing their attributions and enhancing their self-efficacy in order to provide indirect support to the pupils they work with. One such way may be through the use of problem-solving groups with school staff (Bozic & Carter, 2002; Jones et al., 2013). Although a number of problem-solving groups were identified through the systematic review, it was felt by the author that the often complex situations of LAC (Cameron & Maginn, 2011) required a problem-solving process which allowed for in-depth exploration. Further consideration was therefore necessary and one potentially suitable approach was identified, namely, the CoA (Wilson & Newton, 2006).

2.6. Circles of Adults

The CoA approach was developed by Wilson and Newton (2006) as a means of providing adults working with pupils with challenging emotional and behavioural needs an opportunity for collaborative problem-solving (Newton, 1995). The approach combines group processes and graphic facilitation to support the adults to develop a deeper understanding of the challenging behaviour (Wilson & Newton, 2006). It “provides a forum for group supervision” (Wilson & Newton, 2006, p. 6) and draws upon the processes involved in group consultation (Hanko, 1999), as described in section 2.3.

2.6.1. Theoretical Underpinnings

Based heavily upon the work of Hanko (1999), the CoA approach recognises the importance of the applying a psychodynamic perspective to work with groups of adults in schools (Wilson & Newton, 2006). The psychodynamic perspective emphasises the importance of inter- and intra-personal interactions and it is argued that through a consideration of key psychodynamic theories, such as transference and projection, the intricacies of human interactions can be better understood (Billington, 2006). This perspective therefore recognises that our behaviours and responses are influenced by our conscious and unconscious thoughts (Bennett & Monsen, 2011).

Hanko (2002) suggests that through exploring the emotions and responses of pupils, teachers may be supported in recognising that similar feelings are resonated within themselves which may affect their behaviour towards the young person. Further influences of the CoA approach include the work of Hawkins and Shohet (2006) who also recognise the importance of psychodynamics in group supervision. Akin to the CoA process it is proposed that group supervision allows an opportunity for reflection and feedback whilst also recognising the influences of group dynamics on a situation.

Additionally, Wilson and Newton (2006) highlight the influence of person centred planning tools such as MAPS and PATH on the development of the CoA process. Such approaches emphasise the importance of co-facilitation and graphics when developing planning tools both of which have been integrated into the CoA process which is described below.

2.6.2. *Aims*

Wilson and Newton (2006) suggest that there are five main aims of the CoA process. These include an opportunity for:

- shared problem solving;
- reflection;
- an exploration of how organisational factors may be influencing the situation;
- support on an emotional level through developing a shared understanding;
- feedback from the group.

Through achieving these aims it is suggested that the group will be supported in developing a deeper understanding of the challenging behaviour and unmet needs of the young person so that supportive strategies can be developed (Wilson & Newton, 2006).

2.6.3. *Process*

The structured ten-stage process (Figure 2.5) lasts up to 90 minutes and is led by two facilitators who are key in guiding the questions and recording the responses of the group (Wilson & Newton, 2006).

Following an agreement of the ground rules, one member of the group will be asked to describe any relevant information about the young person so that a

‘rich’ picture is created. Through questioning from the process facilitator the group is then encouraged to consider the quality of relationships surrounding the young person. The group will then collectively identify any factors within the organisation which may be ‘helping’ or ‘hindering’ the current situation. At the beginning of the session members will be asked to volunteer to be the ‘voice of the child’. The member who is selected for this role will be asked to suggest what the child might say had they been present during the previous three stages. Following this, the graphic facilitator will briefly highlight the comments made by the group so far and will try to identify patterns or conflicting elements of the ‘story’.

- 1) *Agreement of GROUND RULES for the session*
- 2) *PRESENTATION OF PROBLEM*
- 3) *EXPLORATION OF RELATIONSHIPS*
- 4) *Consideration of ORGANISATIONAL FACTORS*
- 5) *Listen to the CHILD’S VOICE*
- 6) *SYNTHESIS*
- 7) *Generation of HYPOTHESES*
- 8) *Generation of STRATEGIES*
- 9) *Agreement of FIRST STEPS*
- 10) *‘Round of Words’*

Figure 2.5. The 10-stage 'Circle of Adults' process

Using the information provided the members of the group are then asked to offer any theories or hypotheses which they feel may be relevant to the situation so that linking strategies can be developed. The problem presenter is encouraged

to consider which strategies they could implement and the first steps towards achieving these are agreed. At the end of the session the group is asked to briefly describe their experience of the session in the ‘round of words’ (Wilson & Newton, 2006).

2.6.4. Evidence Base

Whilst the approach has received anecdotal support for its implementation in schools (Newton, 1995; Wilson & Newton, 2006) its current lack of evidence base is a major criticism of the approach (Bennett & Monsen, 2011). The value of increasing the evidence-based practice of CoA will be discussed further in section 3.1. However, the structure and accessibility of the materials provides some support for the CoA intervention as a potential group problem-solving process (Bennett & Monsen, 2011).

Perhaps in response to this, some unpublished doctoral theses are beginning to emerge with the overarching aim of increasing the evidence-base for the approach. Syme (2011) combined an experimental design with a multiple case-study approach to investigate the outcomes of the CoA approach on both the adults and pupils involved. Using a range of pupil and adult measures including the ‘Strengths and Difficulties Questionnaire’, ‘Teacher Attribution Questionnaire’ and frequency of behaviour incidents the author used a combination of visual and statistical analysis to consider the effects of the intervention in the five case studies described. Although there were some contradictions within the findings, the study provides some tentative evidence that CoA can have an effect upon pupil’s behaviour and can potentially lead to changes in the adults’ attitudes and perceptions regarding the pupil’s behaviour.

Dempsey (2012) also explored the effects of the CoA approach using a mixed-methods design with 30 secondary school staff working with children displaying

challenging behaviour. The participants were allocated to either the experimental or wait-list control group and measures were taken at pre- and 8-weeks post intervention phase. Using t-tests, a statistically significant difference was found between the experimental and control groups at time 2 in terms of the extent to which they attributed the challenging behaviour to child factors, however, it should be noted that no statistically significant differences were noted across time for either group. Additionally, the study provided some evidence to suggest that participation in a CoA group may prevent a decrease in self-efficacy when supporting pupils displaying challenging behaviour.

Furthermore, both studies provided qualitative evidence that participants rate the CoA approach highly. Participants reported that they gained a deeper understanding of the focus pupil and developed strategies to support them (Syme, 2011). Additionally, through a thematic analysis of the evaluation questionnaires Dempsey (2012) found that participants valued the structure of the approach and the opportunity to work in a group with colleagues.

Using an Interpretative Phenomenological Analysis methodology, Dawson (2013) compared participants' experiences of school and their relationships within school before and after involvement in a CoA intervention. Three members of school staff were asked to provide a written reflective account of their experiences. Interestingly, the author also sought to gain the views of the two focus pupils by carrying out semi-structured interviews immediately after and six weeks post-intervention. Although the study may be criticised for the use of retrospective accounts, the results of the qualitative analysis led to the identification of a number of shared key themes for staff and pupils including 'self-reflection'. Additionally, the adult participants reported increased feelings of confidence and understanding of the pupil following the CoA intervention, thus further supporting its potential use in the current study.

2.6.5. Summary

Although the CoA approach has a very limited evidence base (Bennett & Monsen, 2011), it has strong theoretical underpinnings and is based heavily upon the processes involved in group supervision and consultation (Wilson & Newton, 2006), the benefits of which have been described throughout the literature review. Additionally, the structured process, accessibility of materials and availability of training for the author led to the decision that it would be an appropriate group problem-solving approach for use with school staff supporting LAC at risk of exclusion, as in the current study.

2.7. Original contribution

LAC are a particularly vulnerable group in our society and negative outcomes are frequently reported (Dent & Cameron, 2003): the educational attainment of LAC is considerably lower than the general population (DfE, 2011); they are more likely to be identified with an SEN (DfE, 2012a); and LAC are also at higher risk of exclusion due to challenging behaviour (DfE, 2012a). The literature described above highlights the importance of supporting adults who work with pupils with challenging behaviour (Hastings & Bham, 2003) and the CoA approach (Wilson & Newton, 2006) has been identified as a potential problem-solving process aimed at supporting such adults.

The lack of empirical evidence for the CoA approach (Bennett & Monsen, 2011) highlights the need for further research into the efficacy of this group problem-solving approach. Poulou and Norwich (2002) have provided some evidence of the relationship between self-efficacy, causal attributions and the actions of teachers who support pupils with challenging behaviour. However, no published research has looked at changes in such outcomes as a result of group problem-solving interventions such as CoA. Furthermore, the impact of group problem-solving approaches on school staff specifically working with LAC has, to the researcher's knowledge, not received any specific attention in the research domain. This will therefore be the focus of the following research study.

2.8. Research Questions

The present study intends to address the following research question.

*What are the outcomes of the CoA intervention
for adults supporting LAC at risk of exclusion?*

A number of subsidiary research questions will also be addressed including:

- 1) Does involvement in a CoA intervention result in a change in the participants' attributions for the causes of challenging pupil behaviour?
- 2) Does involvement in a CoA intervention result in a change in the participants' self-efficacy to support the pupil with challenging behaviour?
- 3) Are the outcomes of those participants taking part in the CoA intervention significantly different from the reported outcomes of the participants in the PEP meeting control group?
- 4) Are any changes noticeable four weeks post-intervention?
- 5) Do adults who attend a CoA session report higher ratings of success in carrying out agreed actions when compared with those who attended the PEP meeting control group?
- 6) What are the participants' views of the CoA process? What are their perceived outcomes of CoA?

The hypothesis is that involvement in the CoA intervention will result in changes to the adults' causal attributions for behavioural difficulties and will increase the adults' self-efficacy to support the LAC at risk of exclusion when compared with adults who attended a PEP meeting. A further hypothesis is that adults who attend a CoA session will report higher ratings of success in carrying out agreed actions when compared with those who attended the PEP meeting control group. The null hypothesis is that there will be no effect of the intervention and there will be no difference between the reported outcomes of the two groups of participants.

3. Methodology

The aim of the current study was to evaluate the CoA intervention with school staff supporting LAC at risk of exclusion. In order to develop a suitable method to conduct the evaluation effectively a number of considerations were reviewed. The following section discusses these considerations in depth and aims to describe the philosophical perspective of the current research in the context of evidence-based practice. The methods used in the current study are described in detail and an in-depth discussion regarding the reliability and validity of the research is presented.

3.1. Evidence-based practice

In recent years there has been an increased emphasis on the importance of evidence-based practice in the field of educational psychology (Fox, 2003; Miller & Todd, 2002) which arguably leads to greater accountability (Dunsmuir et al., 2009). Consequently, research has been identified as one of the key roles of EPs (Farrell et al., 2006).

The quality of research in education continues to be a source of strong debate (Frederickson & Cline, 2009). Some argue that research in this field can only play a relatively limited role in informing practice (Hammersley, 1997). In contrast, others argue that research should explicitly inform practice and that through evaluating interventions and strategies, professionals can be informed as to what may work for specific populations under what conditions (Frederickson, 2002). One such way of determining the effectiveness of interventions is through measuring the outcomes using evaluative research (Fox, 2003). The importance of evaluative research will now be the focus of discussion and will begin with a consideration of the purposes of such research.

3.1.1. Evaluative Research

Whilst it is argued that evaluative research is simply an extension of general research (Cohen, Manion & Morrison, 2011), in that they both seek to generate knowledge through research methods, evaluations go one step further and aim to use this ‘knowledge’ to inform future decisions (Mertens & McLaughlin, 2004). Consequently, the purpose of an evaluation is to measure the effectiveness of an intervention, policy or service which then generally leads to change as a result of the finding (Pawson & Tilley, 1997).

The subject of evaluation is often guided by key stakeholders such as policy makers (Cohen et al., 2011) or those who are otherwise intrinsically involved in the programme or intervention being studied (Mertens & McLaughlin, 2004). It is therefore imperative that, whilst recognising the potential ethical issues, stakeholders are encouraged to be actively involved in the planning process to ensure that the evaluation has relevancy and value to those who may be potentially affected by the results (Mertens & McLaughlin, 2004). Consequently, evaluative research varies widely in terms of its purpose and the research methods which are used (Robson, 2011). However, evaluation studies generally fall under two broader headings of formative or summative evaluation.

Formative evaluation is often associated with evaluating the processes of an intervention and is generally concerned with improving an intervention or programme whilst it is still in the development phase (Mertens, 2005). Conversely, summative evaluation “concentrates on assessing the effects and effectiveness” (p.181) of an intervention which has already been established (Robson, 2011). The current research study can therefore be described as a summative evaluation which seeks to consider the possible outcomes of the CoA intervention.

In addition to considering whether or not an intervention ‘works’, Pawson and Tilley (1997) emphasise the importance of considering the underlying mechanisms which influence change in different contexts. In the current research it is therefore important to not only consider whether CoA is effective, specifically in the context of school staff supporting LAC at risk of exclusion, but also *how* and *why* it might be effective in terms of the participants’ interpretations and perspectives regarding the intervention (Pawson & Tilley, 1997). Consequently, it was necessary for the researcher to reflect upon the possible ways to gather data regarding both the outcomes and mechanisms of the CoA intervention. Further information about such decisions is provided in the context of the overall design in section 3.4.

3.1.2. *Hierarchy of evidence*

There are a range of approaches which can be utilised by researchers to provide evaluations of interventions and programmes, although some methods are more credible than others (Fox, 2003). The hierarchy of evidence (Figure 3.1) indicates that highest quality of evidence is a systematic review of RCT, closely followed by individual RCTs (Fox, 2003).

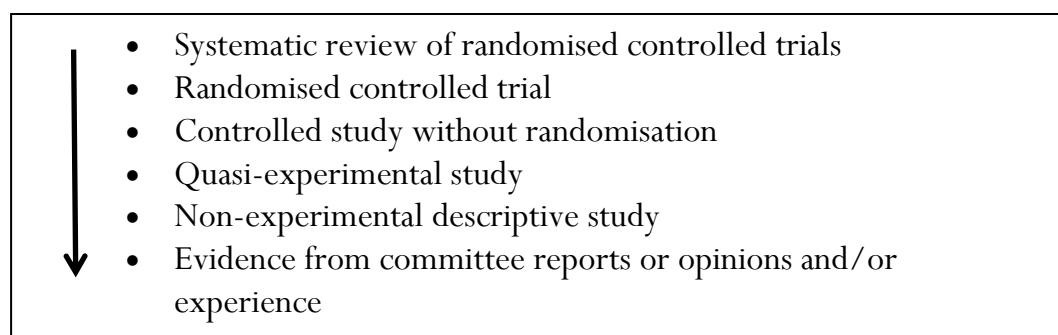


Figure 3.1. Hierarchy of Evidence (Fox, 2003)

In research terms, RCTs are often cited as being the ‘gold standard’ to which all research should aim to achieve (Shadish, Cook, & Campbell, 2002). This method

involves making comparisons between participants who have been randomly allocated to either an experimental group, who receive the treatment or intervention, or a control group who do not receive any treatment. Despite the arguably high acclaim of RCTs in the field of research, their use in education may be limited due to practical and ethical factors and other research methods are often preferred (Frederickson, 2002). Such methods are placed lower down on the hierarchy of evidence and are often criticised due to their lack of quality (Fox, 2003). However, it is argued that this may be due to a lack of criteria or guidelines which are available when using other ‘non-RCT’ methods (Shadish et al., 2002).

In response to this, Gersten et al. (2005) developed a set of quality indicators for use when conducting experimental and quasi-experimental research. For example, when developing a research proposal for experimental or quasi-experimental research it is deemed essential that a clear description of the intervention is provided and that measures are taken to ensure that participants are comparable across conditions (Gersten et al., 2005). Such indicators have been considered throughout the current research study to ensure that quality is maintained which may potentially enhance the growing evidence-base for the CoA approach.

However, in the drive to promote evidence-based practice, researchers are not only required to reflect upon the quality of the chosen research method but also consider the influence of their epistemological standpoint (Fox, 2003). This will now therefore be the focus of discussion and aims to inform the key methodological decisions made in the current study.

3.2. Philosophical perspectives on research

Research is strongly influenced by the paradigm, or belief system, which is adopted by the researcher (Hennink, Hutter, & Bailey, 2011). Consequently, in order to reliably inform any decisions made with the current methodology, it was necessary to consider the main features of some key philosophical perspectives. The following section aims to provide a balanced view of the different philosophical perspectives underlying research and begins with definitions of the terminology used.

Mackenzie and Knipe (2006) state that the very definition of ‘research’ is dependent upon the theoretical framework which is adopted. Support for the various paradigms are influenced by personal experience, culture and history and are therefore not necessarily static (Creswell & Plano Clark, 2007). However, within research, paradigms lead to certain philosophical assumptions and values which influence the ontology, epistemology and methodology of the study in question (Cohen et al., 2011).

Ontology refers to “the nature of reality” (Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005, p. 225) and varies depending on the extent to which researchers support the possibility of singular or multiple realities (Creswell & Plano Clark, 2007). Conversely, epistemological assumptions are concerned with the way in which knowledge is gained (Willig, 2001). To apply this in a research context, researchers may differ in terms of the emphasis which is placed upon objectivity when collecting data (Creswell & Plano Clark, 2007).

Although the terms ‘method’ and ‘methodology’ are terms which are often used interchangeably, Willig (2001) argues that they are fundamentally different and should therefore be clearly defined. Methodology refers to the processes involved in research (Hanson et al., 2005) whereas the ‘method’ refers to the actual tools and procedures which are used to collect and analyse the data

(Mackenzie & Knipe, 2006). As has already been described the methodological assumptions are intrinsically linked to the ontology and epistemology of a research study which are ultimately guided by the paradigm adopted by the researcher. Consequently, the main features of some key paradigms will now be discussed in order to consider the philosophical viewpoint of the current study.

3.2.1. Positivism and post-positivism

Although now widely replaced by post-positivism (Mackenzie & Knipe, 2006) advocates of the positivist paradigm believe that “objective knowledge can be gained from direct experience or observation, and is the only knowledge available to science” (Robson, 2011, p. 21). Therefore, positivists are only concerned with observable entities and claim that there is a singular reality whereby hypotheses are either supported or rejected (Creswell & Plano Clark, 2007). Often cited as the scientific approach, positivists use theoretical concepts to formulate hypotheses (Hennink et al., 2011). Following data collection and analysis, data are then used to evaluate whether the initial hypothesis can be supported or not. As such, quantitative methods are often associated with the positivist paradigm (Mackenzie & Knipe, 2006).

Positivists assume that researchers can, and should, remain objective throughout (Fox, 2003). However, this failure to acknowledge the subjective nature of research has led to the paradigm being widely criticised (Hennink et al., 2011). In response to such criticisms an alternative ‘scientific’ approach has been developed, namely that of post-positivism.

Similar to positivists, post-positivists seek to test theories and hypotheses through data collection which often involves quantitative methods (Creswell & Plano Clark, 2007). However, a key development of post-positivism is the recognition that observations have the potential to be influenced by the

background knowledge, values and hypotheses of the researcher (Robson, 2011). Despite this recognition, post-positivists still place a high emphasis on the importance of objectivity to ensure that biases are minimal (Creswell & Plano Clark, 2007), and has therefore been considered carefully throughout the development of the quantitative element to the current study.

3.2.2. Interpretivism

At the other end of the paradigm spectrum is the interpretivist, or constructivist approach, which is largely associated with qualitative research (Mackenzie & Knipe, 2006). Developed in response to the criticisms of positivist approaches, interpretivists argue that social meaning is constructed through our interpretation of interactions with others (Hennink et al., 2011). Consequently, in terms of the ontological assumptions of this approach, interpretivists argue that there are multiple realities which are constructed in different ways by different people (Fox, 2003). The role of the researcher is “to understand the multiple social constructions of meaning and knowledge” (p.24) whilst recognising the existence of their own values and subjectivity (Robson, 2011). Interpretivism therefore has particular relevance to the CoA process as it draws heavily upon the different perspectives of the group members (Wilson & Newton, 2006).

3.2.3. The incompatibility debate

Some have argued that the quantitative and qualitative methods which are associated with the positivist and interpretivist paradigms, respectively, are widely incompatible (Hanson et al., 2005). Although the two main paradigms may appear distinct from each other, thus implying that the researcher must strictly adhere to only one framework, Mackenzie and Knipe (2006) state that no paradigm specifically prescribes the use of either approach. Consequently,

researchers should view the different methods along a paradigm continuum (Miller & Todd, 2002) and consider combining the “most valuable features of each” (Mackenzie & Knipe, 2006, p. 193).

3.2.4. Pragmatism

The very meaning of the word ‘pragmatic’ implies a focus on the practical aspects of research and consequently, pragmatism focuses on ‘what works’ in practice (Creswell & Plano Clark, 2007). The research question leads to the identification of the most appropriate methods and the researcher is not necessarily required to adhere to any one specific philosophical stance (Mackenzie & Knipe, 2006). Pragmatism is therefore often associated with mixed methods designs where a combination of quantitative and qualitative methods are used to consider what works in practice (Creswell, 2007).

3.2.5. Theoretical perspective of the current study

The current study sought to evaluate the outcomes of the CoA intervention on school staff supporting LAC at risk of exclusion. In order to consider the outcomes holistically a pragmatic approach was adopted which combined elements of both post-positivist and interpretivist paradigms. The post-positivist view informed the quantitative element of the study and recognised that the background knowledge, values and hypotheses of the researcher had the potential to influence what was observed (Robson, 2011). The importance of gaining an understanding of the social construction of the participants’ experiences was also recognised. Therefore, the interpretivist paradigm informed the qualitative aspect to the current research study (Mackenzie & Knipe, 2006).

3.3. Mixed method research

By applying a pragmatic perspective to the current research a mixed method approach was employed to evaluate the CoA intervention. Traditionally scientists have been required to make a decision between either quantitative or qualitative methods in their research (Robson, 2011), whereby the focus was on numerical or descriptive data, respectively (Creswell, 2003). However, in order to counterbalance the limitations of either method (Creswell & Plano Clark, 2007), researchers are encouraged to consider employing a mixed methods approach which incorporates aspects of both qualitative and quantitative data collection and analysis in a single study (Creswell, 2003; Mertens, 2005). Such methods arguably have the advantage that they allow for “a deeper understanding of the phenomenon of interest” (Hanson et al., 2005, p. 224).

Despite variations in the terminology used, four main mixed methods designs have been identified (Creswell & Plano Clark, 2007): triangulation; embedded; explanatory; and exploratory. Although the four approaches all integrate both quantitative and qualitative data, they vary depending upon the order in which the data is collected, the priority which is given to either method and the way in which the two datasets are mixed (Creswell & Plano Clark, 2007). In order to increase the validity of mixed method studies researchers are encouraged to make such decisions explicit (Creswell, 2003) and these will now be described in relation to the current study.

According to Creswell (2003) mixed method data collection can occur either sequentially or concurrently. The current study employs a concurrent design whereby the quantitative and qualitative data are driven by different questions and subject to independent analysis techniques. In such designs, the results of each method are then synthesised together to provide inferences in relation to

the overarching research questions which were initially proposed (Teddlie & Tashakkori, 2006).

When developing a mixed method design, researchers are generally encouraged to consider whether the quantitative or qualitative element is given priority (Creswell & Plano Clark, 2007). However, in their typology of mixed method designs, Teddlie and Tashakkori (2006) encourage a more flexible approach to the weighting of either methods. Their argument is that such decisions cannot be “completely determined before the study occurs” (p.13). Consequently, although the current study proposed a greater emphasis on the quantitative element, it was recognised that the researcher must be flexible to any changing circumstances through the course of the study.

Klingner and Boardman (2011) argue that ultimately the research question and purpose should be at the forefront in guiding decisions about the most appropriate methods to use. With this in mind, a two-phase embedded mixed method design was identified as the most appropriate method to consider the research questions in the current study. The main reason for this decision was that whilst the data would be collected simultaneously, the purpose of the qualitative element was to provide a supplementary component to a fundamentally quantitative research study. The data gained from both elements was then integrated at the analysis phase in an attempt to provide answers to the research questions which were initially proposed. The following section provides a description of the specific design and procedures used to carry out the current mixed methods research study.

3.4. Method of the current study

In order to evaluate the outcomes of the CoA intervention on school staff who support LAC pupils at risk of exclusion, a quasi-experimental design was complemented by a qualitative element through an embedded mixed-methods design. By triangulating the findings from both aspects of the study it was hoped that a deeper understanding of the potential outcomes of CoA would be gained.

Following correspondence from the DTs at the participating schools, the pupils to be the focus of the CoA or PEP meeting were allocated to either the experimental or control group. School staff were then allocated to the experimental or control group according to the pupil they supported. It should be recognised, however, that the pupils themselves did not attend the meeting and outcome measures were only taken from the school staff participating.

The following sub-sections describe the methods used in the current study and aim to highlight the key decisions made in the process of designing and carrying out the research. Following a discussion about the specific design and sampling procedures, the processes involved in establishing trustworthiness and ensuring that the research is ethically sound are presented.

3.4.1. Stakeholder engagement

As the EP service was directly approached with regard to exploring an alternative way of supporting LAC in schools it was imperative that key stakeholders such as the CYPCES were consulted at all stages of the research. Stakeholder engagement is recognised as key to ensuring the effectiveness and practicability of research (Cohen et al., 2011). Therefore it was essential that initial discussions took place regarding the purpose and structure of the research. For example, although the CYPCES had no prior knowledge of the CoA approach, it was identified that changing staff perceptions of LAC in schools was

of key importance to their current work in schools. Through negotiation it was agreed that the CoA process may be a suitable approach to exploring this outcome.

Initially, it was suggested that the VSH would be responsible for identifying potential focus pupils from secondary schools within the LA in which the research was taking place. However, it was recognised that the DTs for LAC in schools were also vital stakeholders with regard to the practical aspects of delivering the intervention as well as the political issues associated with the potential successes or limitations of the approach (Mertens, 2005). Therefore, it was agreed that DTs from all mainstream secondary schools in the LA would be contacted and given the opportunity to participate should they identify any pupils who met the criteria discussed below. A meeting was then arranged with any DTs who had expressed an interest in participating in the study. The purpose of this meeting was to clarify their potential involvement in the study and negotiate logistical factors such as arranging dates and the location of the meeting.

3.4.2. Pilot study

Initially, three pupils were identified by the VSH to be the focus of a pilot study CoA. All pupils were LAC who had either been or were deemed to be at risk of exclusion. Two of the focus pupils currently attended a Pupil Referral Unit for pupils in Y7 to Y9. The third pupil was currently attending Y8 of a mainstream secondary school. A total of fifteen members of school staff attended a pilot CoA session regarding one of the identified pupils and included a range of school staff such as teachers, Teaching Assistants (TAs) and Behaviour Support staff. The purpose of the pilot study was to trial the measures and to allow all members of the CYPCES team an opportunity to practise facilitating the process with the researcher. Consequently, a discussion regarding the data obtained through the pilot study is not necessary. However, participants were given an opportunity to

provide feedback on the measures used and through this, it was suggested that no changes were required. Additionally, following each CoA meeting there was an opportunity for feedback between the two facilitators to ensure that any adjustments to the process were made prior to the main study commencing.

3.4.3. Sampling procedures

The DTs for LAC in all mainstream secondary schools in the LA in which the research was conducted were initially contacted to provide them with information about the CoA intervention (Appendix 4) and to give them the opportunity to participate in the study (Appendix 5). Thus, a convenience sampling method was used whereby participants were initially identified due to the relative ease with which contact could be made (Howitt & Cramer, 2011). Although such methods are often criticised for their lack of randomisation, thereby potentially impacting upon the generalisability of any findings (Howitt & Cramer, 2011), due to the researcher's position within the LA it was argued that this was the most appropriate method of initially recruiting potential participants.

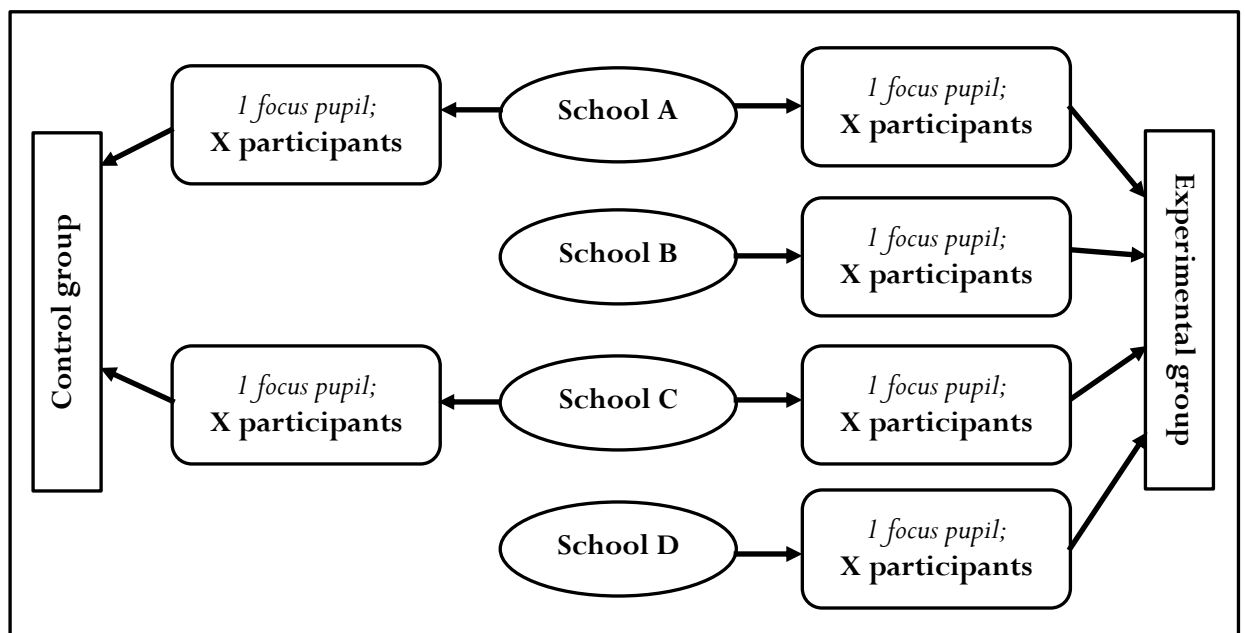


Figure 3.2. Diagram to show the allocation of participants

The DTs for LAC were asked to identify any pupils who met the following criteria: currently attending a mainstream secondary school; in Year 7 to Year 11; defined by the LA as being a Looked After Child; and at risk of exclusion due to challenging behaviour. It is reiterated that although the pupils were the focus of discussion, they did not attend the meetings and were not otherwise involved in the study.

Seven focus pupils were initially identified from four different secondary schools (Figure 3.2). As the pupils were 'looked after' by the LA consent was sought from each pupil's social worker (Appendix 6). Each pupil was then allocated to be the focus of a CoA experimental group or a PEP meeting wait-list control group. Pupils were allocated depending on the planned date for their PEP meeting which takes place at least once a year. This resulted in three pupils being allocated to the control group and four pupils being allocated to the experimental group. Unfortunately, as is relatively common with LAC pupils (DCSF, 2009a), one pupil who was allocated to the control group moved schools prior to the start of the study. This resulted in only two control group PEP meetings taking place.

The participants were then invited by the DT to attend either the PEP or CoA meeting which was allocated to the pupil they were involved with. The adults participating in the study were any members of school staff who were involved in supporting the LAC pupil and included roles such as Special Educational Needs Co-ordinators (SENCOs) and Behaviour Support teachers. All participants were invited to attend a brief meeting approximately two-weeks prior to either the PEP or CoA session and consent for participation was gained (Appendix 7 & Appendix 8). Initially, the study involved 17 participants in the experimental group and six participants in the control group. However, due to attrition throughout the course of the study, complete data were only collected from ten

participants in the experimental group and five participants in the control group. Although completed data were only collected from ten participants in the experimental group it should be noted that thirteen members of staff attended the Circle of Adults meetings and follow-up focus groups. Information regarding the demographics of the participants is provided below.

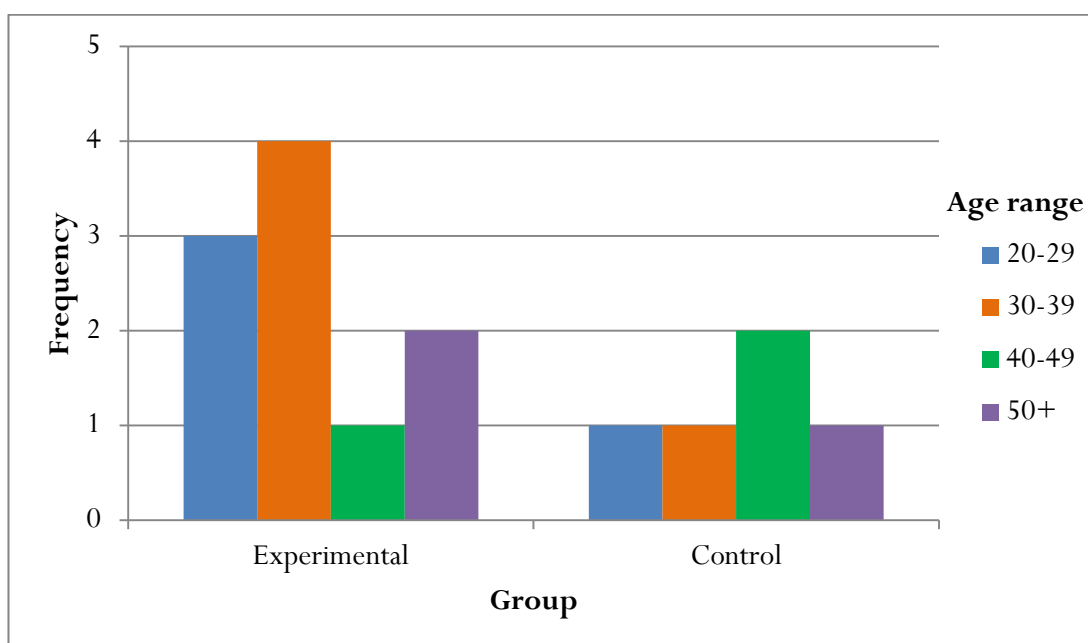


Figure 3.3. A graph to show the age of participants in the experimental (n=10) and control groups (n=5).

Figure 3.3 demonstrates that the ages of the participants in both groups ranged from 20-29 to 50+. Whilst the differences in participant numbers should be recognised, the mode age range was 30-39 and 40-49 in the experimental and control groups, respectively.

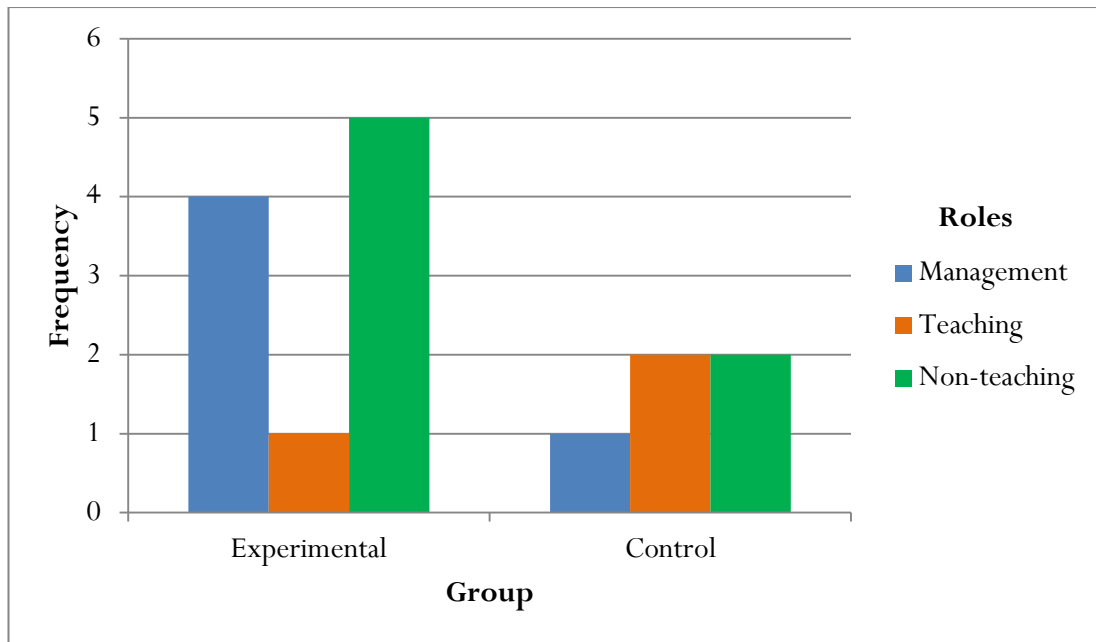


Figure 3.4. A graph to show the roles of the participants in the experimental (n=10) and control groups (n=5).

The participants were asked to describe their current role and the responses were grouped into three categories: management; teaching; and non-teaching. ‘Management’ included roles such as Head of Year and Inclusion Manager. Teachers were the only members of staff considered under the ‘teaching’ role and roles such as Learning Mentors and Support Officers were considered to be ‘non-teaching’ roles. Both the experimental and control group included a range of roles although the majority of the experimental group consisted of participants with non-teaching or management roles.

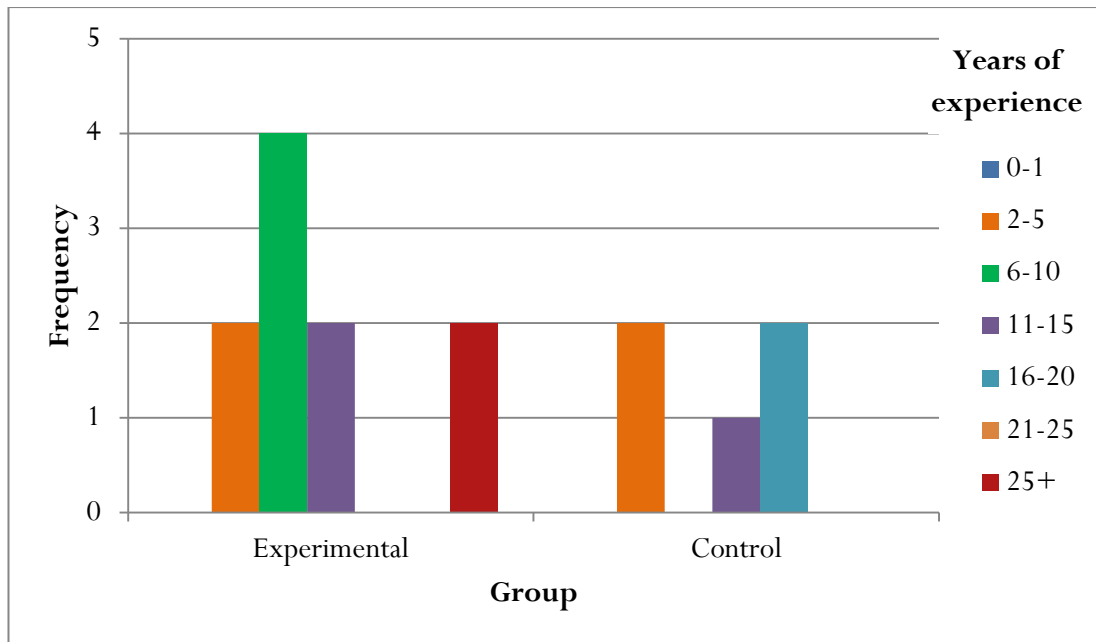


Figure 3.5. A graph to show the number of years' experience participants have working with children and young people for both the experimental (n=10) and control groups (n=5).

Figure 3.5 shows the range in years of experience the participants had in working with children and young people. In the experimental group, the majority of participants had between two and 15 years' experience, with a small minority having over twenty-five years' experience. In the control group, participants either fell within the 2-5 years' experience range or the 11-20 range. This information suggests that there was a slight variation in the years of experience for the participants in the experimental and control groups.

3.4.3.1. *Changes to inclusion criteria*

Initially it was suggested that, due to the importance of early intervention (Steer, 2009), the focus pupils would be currently attending in Year 7 to Year 9. However, due to low recruitment numbers this was extended to include pupils in Year 10 and Year 11.

Additionally, changes to the final criteria were made as it was initially stated that focus pupils must have had at least one fixed-term exclusion in the last year. However, through discussions with key stakeholders, it was agreed that this should be adapted as schools are discouraged from excluding LAC pupils unless absolutely necessary (DCSF, 2009b). It was therefore decided that the final criteria would be ‘*at risk* of exclusion due to challenging behaviour’. Whilst it is recognised that such statements could be open to interpretation, it is argued that secondary schools use a range of methods to define and monitor challenging behaviour (Steer, 2009) and this is therefore reflected in the inclusion criteria for the current study.

3.4.4. *Intervention*

Specifying the nature of the intervention is important in generating practice based evidence. The CoA (Wilson & Newton, 2006) intervention was used in all four experimental group cases and was led by two facilitators, one of whom was a Trainee EP and the author of the research. The researcher had received training in CoA through University taught modules and took the role of the process facilitator. The graphic facilitator in all cases was a member of the CYPCES team. Unfortunately, due to financial constraints within the LA, it was not possible for the CYPCES to have formal training in the process. However, a training session was delivered by the researcher and all members of the CYPCES had the opportunity to practise and receive feedback on the process through the pilot study.

The intervention itself took place during the Autumn and Spring term and consisted of one session lasting approximately 1 hour 15 minutes. Through initial discussions with the DTs at each of the participating schools it was agreed that, as suggested by Wilson and Newton (2006), a member of school staff would be responsible for inviting the relevant professionals to the session. As such, the

participants consisted of school staff with various roles including teachers, Learning Mentors and Behaviour Support staff. Parents, carers and the pupils themselves were not invited to the sessions although schools were encouraged to provide feedback if agreed through the CoA process.

To confirm that the CoA sessions all followed the same procedure, and thereby establish treatment integrity, two of the four sessions were observed by EP colleagues of the researcher. An observation checklist (Appendix 9) was provided to the two observers which included the main elements which should be covered at each stage of the CoA process. For example, within the 'organisational factors' stage, each group was asked 'what is helping and hindering him/her in terms of the systems/organisational factors around the pupil?'. The purpose of this question was to enable the group to 'look at the bigger system picture' (Wilson & Newton, 2006). Treatment integrity was calculated as a percentage of the total elements observed and was rated at 92% and 96% for the first and second observation, respectively.

3.4.5. Research design

Through adopting a pragmatic perspective, a mixed-methods design was utilised which involved a qualitative element embedded within a primarily quantitative research study. The first phase of the study involved a pre-test post-test non-equivalent group quasi-experimental design (Robson, 2011). Following the identification of the LAC who met the specific inclusion criteria, the participants were allocated to either the experimental CoA group or the PEP meeting wait-list control group depending upon the outcome of the focus pupil allocation process. As PEP meetings generally occur only once a year, it was not possible to randomly allocate participants and therefore condition allocation was based upon whether the PEP meeting was due to take place in the Autumn term.

The second phase of the study involved a qualitative element to ascertain the participant's views regarding the CoA process and their perceived outcomes. The participants in the four experimental groups were all invited to attend a focus group following the final data collection phase and key themes were identified through thematic analysis.

Prior to a discussion about the quantitative measures and data collection methods of the current study, it is necessary to briefly discuss the purpose and structure of focus groups. Additionally, the process of thematic analysis is discussed in relation to analysing the data gained through the focus groups.

3.4.6. Focus groups

In recent years, focus groups have become increasingly popular as a qualitative method of gaining perspectives on a range of topics (Krueger & Casey, 2009) including those within the field of education (Frederickson et al., 2004). Often described as a type of group interview, focus groups rely heavily upon the interactions between group members (Morgan, 1997). Through careful planning and preparation, the group is led through a series of open-ended questions aimed to explore the views of all group members (Krueger & Casey, 2009). In this way, rich data is produced through the process by which participants challenge, extend and develop each other's statements (Willig, 2001) without a requirement to reach a consensus of opinion (Krueger & Casey, 2009). As Krueger and Casey (2009) highlight, "a group possesses the capacity to become more than the sum of its parts, to exhibit a synergy that individuals alone don't possess" (p.19). Consequently, the interactive nature of focus groups makes it distinct from other interviewing techniques (Litosseliti, 2003).

Depending on the focus of the research, the structure of focus groups may vary (Morgan, 1997). However, focus groups generally involve between five and ten

people all of whom have certain characteristics in common (Krueger & Casey, 2009). The level of group homogeneity is also dependent upon the research focus, but should ensure that a wide range of views can be captured (Hennink et al., 2011). The researcher generally carries out at least three focus groups on each given topic to ensure that comparisons can be made through an analysis of the responses (Krueger & Casey, 2009).

Focus groups are led by a moderator who is responsible for creating an environment which is conducive to participants expressing their personal views and opinions without fear of judgement (Hennink et al., 2011). The role of the moderator is particularly complex and requires effective communication and interpersonal skills in order to ensure that the group is effectively managed (Litosseliti, 2003). The moderator must guide the group through the key questions without expressing opinion and thus influencing the participants' views. Although a potential criticism of focus groups is that dominant individuals can have a strong influence over the discussion, Krueger and Casey (2009) argue that this risk can be minimised by a 'skilled' moderator who ensures that *all* group members are given an opportunity to express their views. The moderator must therefore be aware of the potential influence of unconscious group behavioural dynamics on the discussion itself (Smit & Cilliers, 2006).

Focus groups are an efficient method of gathering views and opinions on a range of topics (Morgan, 1997) and are argued to be more naturalistic than individual interviewing techniques (Litosseliti, 2003). Krueger and Casey (2009) argue that the method allows participants who may be reluctant to express their views on an individual basis to discuss their opinions in a safe environment thus allowing for extensive data to be collected generally through audio recording. Following a series of focus groups on a particular topic, the data is then systematically

analysed to identify specific trends and patterns. One such method of analysis is that of ‘thematic analysis’ and this process will now be the focus of discussion.

3.4.7. Thematic Analysis

Thematic analysis is described as “a method for identifying and analysing patterns in qualitative data” (Clarke & Braun, 2013, p. 120). It involves a rigorous process of coding data and identifying key themes which can be analysed and interpreted to provide rich detail about specific of topics of interest (Robson, 2011). Thematic analysis is not associated with any particular theoretical framework and therefore has the distinct advantage of being theoretically flexible and accessible to a range of methods (Braun & Clarke, 2006). For this reason it is widely used, particularly amongst those with relatively limited experience in qualitative data analysis (Howitt & Cramer, 2011).

3.4.7.1. Phases of Thematic Analysis

Although there is no standardised procedure for carrying out thematic analysis (Howitt & Cramer, 2011), Braun and Clarke (2006) have developed a set of

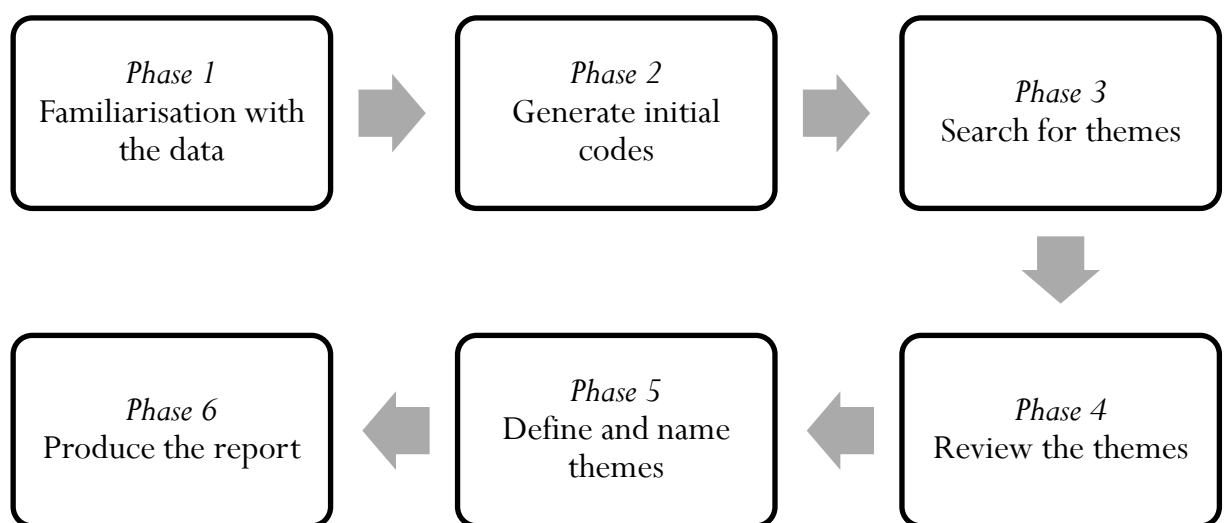


Figure 3.6. The six phases of thematic analysis.

guidelines which formed the basis for the use of thematic analysis in the current study. Figure 3.6 shows the six phases of thematic analysis and, whilst it is presented as a linear process, Braun and Clarke (2006) suggest that it should be perceived as a “recursive process” (p.86) whereby the researcher revisits previous phases if necessary.

3.4.7.2. *Role of the researcher*

Although thematic analysis has the advantage of being a flexible and relatively easy method to carry out, the process itself is often not well described in research (Braun & Clarke, 2006). It is therefore sometimes perceived as lacking in kudos when compared with other analytic methods (Robson, 2011). Through the process of thematic analysis, researchers are required to make a number of decisions and by making such decisions explicit (Braun & Clarke, 2006) it is argued that thematic analysis is now beginning to be recognised as a valid method of qualitative analysis (Clarke & Braun, 2013).

One such decision is concerned with whether researchers identify themes using either an inductive or deductive approach (Braun & Clarke, 2006). The current study utilised an inductive approach whereby the data were coded purely through the researcher’s interaction with the data. In contrast, a deductive approach makes use of pre-existing codes to provide an analysis of the data (Braun & Clarke, 2006). However, this approach is often criticised due to potential biases surrounding preconceptions about codes and themes (Robson, 2011). In order to reduce such biases and enhance reliability, inter-rater checks were carried out through the thematic analysis process in the current study.

A further decision to be considered is the depth with which the themes are interpreted. Braun and Clarke (2006) suggest that themes are identified either at a semantic or latent level, where the latent level examines “the underlying ideas,

assumptions and conceptualisations” (p.84) of the data. Conversely, researchers utilising a semantic approach to data interpretation would consider the data at a surface level and would not require any analysis of the meanings of the participants’ comments. The current study aimed to interpret the themes using a semantic approach whereby only the explicit comments of the participants were subject to analysis.

3.4.8. Measures

The primary aim of the current study was to consider the outcomes of the CoA intervention for school staff supporting LAC at risk of exclusion. Following considerable review and reflection, a number of measures were used to consider the specific research questions, as is highlighted in Table 3.1.

Research Question	Measure
1) Does involvement in a CoA intervention result in a change in the participant's attributions for the causes of challenging pupil behaviour?	Attribution Inventory (adapted from Poulou & Norwich, 2000)
2) Does involvement in a CoA intervention result in a change in the participant's self-efficacy to support the pupil with challenging behaviour?	Teacher Efficacy in Classroom Management and Discipline scale (adapted from Emmer & Hickman, 1991)
3) Are the outcomes of those participants taking part in the CoA intervention significantly different from the reported outcomes of the participants in the PEP meeting control group?	Attribution Inventory (adapted from Poulou & Norwich, 2000) Teacher Efficacy in Classroom Management and Discipline scale (adapted from Emmer & Hickman, 1991)
4) Are any changes noticeable 4 weeks post-intervention?	Attribution Inventory (adapted from Poulou & Norwich, 2000) Teacher Efficacy in Classroom Management and Discipline scale (adapted from Emmer & Hickman, 1991)
5) Do adults who attend a CoA session report higher ratings of success in carrying out agreed actions when compared with those who attended the LAC review control group?	Target Monitoring and Evaluation (Dunsmuir et al., 2009)
6) What are the participant's views of the CoA process? What are their perceived outcomes of CoA?	Focus group

Table 3.1. An outline of the measures which were used in the current study.

3.4.8.1. *Measuring attributions*

Poulou and Norwich's (2000) 'Attribution Inventory' was adapted for use in the current study. As has been described in section 2.5, participants are required to respond to a vignette by rating a series of statements from 1 'very unlikely to be a cause' to 6 'most likely to be a cause'. The statements related to four factors including family environment, child, teacher and school. For each participant a total score was calculated for all four factors and analysed across time and condition.

Although Poulou and Norwich (2000) developed six vignettes as part of the measure, it was agreed that in order to provide an element of control, the same vignette would be presented to all participants. The selected vignette was described by the authors as one which depicted 'emotional and conduct difficulties' (Poulou & Norwich, 2000) and it was argued that this vignette most closely represented the situations of the pupils in the current study.

The Attribution Inventory covers three main aspects of behaviour including: 'causes'; 'coping strategies'; and 'suggestions for effective approaches' (Poulou & Norwich, 2000). However, for the purposes of the current study, only the 'causes' section was presented to the participants as it was deemed that the other two sections were not relevant to the research questions at the focus of the study. The amended version of the measure is provided in Appendix 10. A major criticism of the Attribution Inventory is the lack of reliability and validity statistics. Furthermore, adaptations to the original measure means that reliability and validity scores cannot be reported and results may therefore be taken with caution.

3.4.8.2. *Measuring self-efficacy*

The measurement of self-efficacy continues to be a contentious issue (Woolfolk & Hoy, 1990) and although a number of measures were considered, it was decided the Teacher Efficacy in Classroom Management and Discipline (Emmer & Hickman, 1991) scale would be used in the current study as it specifically aimed to measure self-efficacy in the context of challenging pupil behaviour. It is therefore argued that the scale has good content validity.

The original scale involves statements relating to three factors: classroom management/discipline; external influences; and personal teaching efficacy. For the purposes of the current study only questions relating to the first two factors were included. The decision to exclude the 'personal teaching efficacy' factor was two-fold. Firstly, not all participants were teaching members of staff and additionally, it was argued that the questions relating to this factor were not applicable to the subject of self-efficacy and challenging pupil behaviour. The authors report a reliability coefficient of .79 although due to adaptations of the scale, such claims cannot be applied in the current study.

Consequently, the revised scale (Appendix 11) involved twenty items relating to the 'personal belief in classroom management/discipline' factor (items 2, 5, 8, 9, 10, 13, 14, 17, 20) and 'external influences' factor (items 1, 3, 4, 6, 7, 11, 15, 16, 18, 19). Participants were required to rate each statement on a 6-point Likert scale where 1 is 'strongly disagree' and 6 is 'strongly agree'. The scores for the 'external influences' items were reversed and the total was then combined with the total score for the self-efficacy in classroom management and discipline factor.

3.4.8.3. *Measuring the success of agreed actions*

In an attempt to explore the link between causal attributions, self-efficacy and the TPB (Poulou & Norwich, 2000, 2002), the TME (Dunsmuir et al., 2009) was used to identify the perceived success of agreed actions (Appendix 12).

Through the process of the CoA session and the comparison PEP meetings a number of actions were identified by the members of school staff. These were then converted into targets in collaboration with the researcher. The DT, or another key member of staff, was asked to rate the current situation on a 10-point scale where 1 indicated that the action had not been carried out and 10 was where it had been carried out completely. The participant was also asked to give a brief description of the current situation. To ensure that the measure was used consistently across all participants, a standardised procedure was developed by the researcher (Appendix 13). Scores obtained for each target at the 4-week post intervention meeting were compared with those given immediately after either the PEP or CoA meeting.

3.4.8.4. *Measuring participants' views*

Following the completion of the quantitative measures, participants in the experimental group were invited to attend a brief focus group which was led by the researcher. A standardised procedure was followed (Appendix 14) in which a series of open-ended questions were asked to gain the participants views on the CoA process itself as well as their perception of any outcomes of the intervention. Although it is recommended that focus groups involve at least five people with similar characteristics (Krueger & Casey, 2009), this was limited in the current study due to low participant numbers. However, four focus groups were carried out, each with a minimum of three participants present. Each of the focus groups were recorded using audio recording equipment and were then transcribed by the researcher in order to ensure familiarisation with the data.

The six phases of thematic analysis were then followed in order to identify key themes which could then be subject to interpretation (Braun & Clarke, 2006).

3.4.9. Data collection procedures and analysis

In order to identify any changes as a result of participation in either the CoA meeting or PEP meeting, participants completed the Attribution Inventory (Poulou & Norwich, 2000) and Teacher Efficacy in Classroom Management and Discipline scale (Emmer & Hickman, 1991) on three separate occasions (Table

Week	Procedures/measures	
	<i>Experimental group</i>	<i>Control group</i>
1	<u>Initial meeting</u> <ul style="list-style-type: none"> • Consent gained • Pre-measures taken <ul style="list-style-type: none"> - <i>Teacher Efficacy in Classroom Management and Discipline Scale</i> - <i>Attribution Inventory</i> 	<u>Initial meeting</u> <ul style="list-style-type: none"> • Consent gained • Pre-measures taken <ul style="list-style-type: none"> - <i>Teacher Efficacy in Classroom Management and Discipline Scale</i> - <i>Attribution Inventory</i>
3	<u>Circle of Adults meeting</u> <ul style="list-style-type: none"> • Post-measures taken <ul style="list-style-type: none"> - <i>Teacher Efficacy in Classroom Management and Discipline Scale</i> - <i>Attribution Inventory</i> • <i>Target Monitoring and Evaluation</i> 	<u>PEP meeting</u> <ul style="list-style-type: none"> • Post-measures taken <ul style="list-style-type: none"> - <i>Teacher Efficacy in Classroom Management and Discipline Scale</i> - <i>Attribution Inventory</i> • <i>Target Monitoring and Evaluation</i>
7	<u>Review meeting</u> <ul style="list-style-type: none"> • 4-week post-measures taken <ul style="list-style-type: none"> - <i>Teacher Efficacy in Classroom Management and Discipline Scale</i> - <i>Attribution Inventory</i> • <i>Target Monitoring and Evaluation</i> • Focus group • Debrief 	<u>Review meeting</u> <ul style="list-style-type: none"> • 4-week post-measures taken <ul style="list-style-type: none"> - <i>Teacher Efficacy in Classroom Management and Discipline Scale</i> - <i>Attribution Inventory</i> • <i>Target Monitoring and Evaluation</i> • Debrief

Table 3.2. Timeline for data collection procedures.

3.2). Measures were taken two weeks prior to the meeting and immediately after the meeting. Additional measures were also taken approximately four weeks following either condition to identify whether any changes were longer-term, as well as to allow participants an opportunity to implement any agreed actions of the meeting.

In order to measure whether agreed actions were more likely to be carried out following either condition, the DT was asked to complete the TME (Dunsmuir et al., 2009) measure immediately after the meeting and at the four week post-session meeting. The data from the quantitative measures were analysed using repeated measures mixed Analysis of Variance (ANOVA). Where a significant difference was identified by the ANOVAs, a Tukey's HSD post-hoc test was conducted to identify between which factors the significant difference occurred.

At the 4-week post intervention stage a focus group was carried out with the school staff immediately after the final measures were taken. The participants were guided through a series of open-ended questions designed to ascertain their views about the process and their perceived outcomes. The focus groups were recorded using an audio recording device following verbal consent from each of the participants in the focus group. Transcripts of the recordings were produced by the researcher and analysed using thematic analysis (Braun & Clarke, 2006).

3.4.10. *Ethical considerations*

A number of potential ethical issues were addressed throughout this research study (BPS, 2009; HPC, 2009). As is highlighted by Mertens (2005), "ethics in research should be an integral part of the research planning and implementation process" (p.33). They ensure that participants are respected (BPS, 2009) and are safeguarded from harm (BPS, 2009; Mertens, 2005). Table 3.3 highlights the ethical issues which were considered in the current research and provides detail

as to what precautions or steps were taken to overcome any potential issues. Ethical approval was obtained from the University of Nottingham ethics committee, as is evidenced in Appendix 15.

Ethical issue	Actions taken to address them
<i>Informed Consent</i>	<ul style="list-style-type: none"> • Initial meeting in school to provide basic information regarding the research study and the CoA intervention. • Written consent gained from all adult participants. • Social worker consent gained for all focus pupils.
<i>Deception</i>	<ul style="list-style-type: none"> • Debriefing session was attended by all participants to explain to full purpose of research study. • Participants given opportunity to withdraw at any time. • Participants were provided with CoA information sheet.
<i>Confidentiality and anonymity</i>	<ul style="list-style-type: none"> • All participants were allocated an anonymous identification code which was only known to the researcher. • All data were stored in a locked cabinet in the Educational Psychology office where the research took place. • Focus group data was stored on an encrypted USB stick and kept in a locked cabinet. Any names were not included in the transcription. • Ground rules established and enforced through CoA session.
<i>The right to withdraw</i>	<ul style="list-style-type: none"> • All participants were informed through consent letter and discussion at the initial meeting that they had the right to withdraw at any time, without giving a reason. • It was explained that should participants wish to withdraw from the research study they were still able to take part in the CoA session.
<i>Withholding an intervention</i>	<ul style="list-style-type: none"> • Allocation process explained to participants and consent gained. • Participants in the wait-list control group were invited to attend a CoA session in the Spring/Summer term.
<i>Avoiding harm</i>	<ul style="list-style-type: none"> • CoA process followed closely by the facilitators. • Ground rules established and enforced through CoA session. • Participants had the right to withdraw. • Contact details of the researcher were provided.
<i>Debriefing</i>	<ul style="list-style-type: none"> • Review meeting arranged approximately 4 weeks after the PEP or CoA meeting. Through this all participants were debriefed. • Opportunity to ask the researcher any questions. • Contact details of the researcher were provided.

Table 3.3. Ethical considerations and steps taken to control for them.

3.4.11. *Establishing trustworthiness*

When carrying out research, it is imperative that any findings are deemed trustworthy. In order to establish trustworthiness the researcher must ensure that efforts are made to control for any factors which may threaten the reliability or validity of a study. The following sub-section describes the steps made to control for such threats but also highlights the potential limitations of the current study in terms of the reliability and validity.

Validity refers to whether the findings of a research study are truthful or trustworthy (Shadish et al., 2002). Three main types of validity should be considered when carrying out quality research: construct; internal; and external validity. These will now be the focus of discussion.

3.4.11.1. *Threats to construct validity*

Construct validity is concerned with whether the measures actually measure what they propose to (Cohen et al., 2011). Applied to the current research study construct validity refers to whether, for example, the Attribution Inventory (Poulou & Norwich, 2000) does in fact measure attributions. As a means of addressing construct validity in the current study, the measures used in the quantitative element were derived from previously established measures.

3.4.11.2. *Threats to internal validity*

Internal validity is concerned with whether a study can provide evidence of a “causal relationship between treatment and outcome” (Robson, 2011, p. 88). A research study has achieved internal validity if it can state that any changes observed are as a direct result of the independent variable and not some other extraneous variables (Mertens, 2005). Therefore efforts should be taken to control for internal validity so that the researcher is able to draw inferences about the research (Creswell, 2003). Table 3.4 highlights steps taken to attempt

to achieve internal validity in the current research.

Threats to internal validity	What was done to control for such threats
History <i>Events that occur during the research phase not directly related to the research</i>	<ul style="list-style-type: none"> • Control group used; • Intervention occurred at different times in different schools thus attempting to control for extraneous factors such as training.
Testing <i>Practice effects from completing the same measures on numerous occasions</i>	<ul style="list-style-type: none"> • Where possible, a minimum of two weeks was allowed between completing measures.
Mortality <i>Participants 'drop out' during the course of the study</i>	<ul style="list-style-type: none"> • All secondary schools in the Local Authority invited to participate to ensure the maximum number of participants; • Designated teachers were asked to ensure a minimum of five members of staff although difficulties in guaranteeing this were encountered.
Maturation <i>Changes to the participants throughout the course of the study which are not directly related to the research</i>	<ul style="list-style-type: none"> • Relatively short time-frame of study therefore attempting to control for extraneous factors such as staff training; • Control group used.
Diffusion of treatments <i>Participants inadvertently receive aspects of the other condition</i>	<ul style="list-style-type: none"> • If adults are due to attend meetings for both conditions, the PEP meeting will take place first as this is normal practice. The participant will only complete measures for the PEP meeting but will be invited to attend the CoA meeting as a regular member; • Four different schools involved in the study; • Focus pupils attending the same schools were in different year groups which led to different members of school staff being invited to participate.
Compensatory equalisation of treatments <i>Pressures for the control group to receive the intervention</i>	<ul style="list-style-type: none"> • Control group will have the opportunity to receive the intervention after the study has ended if positive effects are identified.
Instrumentation <i>Change in the way the measures are implemented across time</i>	<ul style="list-style-type: none"> • Measures had been previously developed and have been used in other studies; • Same measures administered in the same way for all participants on all three occasions.
Selection <i>Group differences already established before intervention takes place</i>	<ul style="list-style-type: none"> • Random allocation was not possible although statistical methods were carried out to identify any initial differences between the two groups prior to the CoA/PEP meeting.

Table 3.4. Potential threats to internal validity and steps taken to control

3.4.11.3. Threats to external validity

External validity can be defined as the ‘extent to which findings in one study can be applied to another situation (Mertens, 2005) and is therefore concerned with the generalisability of the findings (Shadish et al., 2002). The small-scale nature of the current study means that external validity is arguably difficult to establish although efforts were made to control for specific threats to external validity (Table 3.5). Additionally, Mertens (2005) highlights the difficulties in achieving both internal and external validity simultaneously and argues that in order to achieve one type of validity perfectly proposes a distinct challenge when trying to achieve the other at the same time.

Threats to external validity	What was done to control for such threats
Selection, setting and history <i>Findings are specific to the group and context in which the study takes place; the findings may be affected by experiences of participants.</i>	<ul style="list-style-type: none"> • Specific inclusion criteria identified for the recruitment of focus pupils; • Detail provided as to the method of the current study to allow for it to be replicated; • Multiple participants from a range of settings; • Control group used; • Study carried out over a relatively short period of time thus reducing any history effects.
Construct effects <i>The constructs being measured may be only specific to the group of participants being studied.</i>	<ul style="list-style-type: none"> • Measures had been previously developed and have been used in other studies; • Vignette used to provide an element of control when measuring attributions; • Instruments chosen to measure specific constructs i.e. self-efficacy for coping with challenging pupil behaviour.

Table 3.5. Potential threats to external validity and steps taken to control for them.

3.4.11.4. *Threats to reliability*

In terms of the post-positivist element of the current study, reliability refers to whether the participants' scores in the quantitative measures are "consistent and stable over time" (Creswell & Plano Clark, 2007, p. 133). If the measures can claim to have good reliability then they would lead to the same results if they were repeated (Cohen et al., 2011). Although it is recognised that additional steps could have been taken to increase the reliability of the measures used in the current study, such as alternating the order of the measures, a number of strategies were implemented which attempted to go some way to ensuring reliability. Robson (2011) suggests that two factors which should be considered are "participant error" and "participant bias" (p.86).

Participant error when completing the measures may occur due to extraneous influences such as tiredness. Although it is difficult for researchers to control for such factors, certain steps were taken in the current study to ensure that participant error was kept to a minimum. For example, all participants were given ample time to complete the measures in a quiet environment without any pressure from the researcher to complete them in a specified period of time.

Participant bias was a potential source of error in the current study which may have affected the reliability of the findings. This occurs when participants adapt their responses in an effort to appease the researcher and provide 'good results' (Robson, 2011). As the DTs in each of the schools had volunteered to be involved, reducing participant bias was an area which required serious consideration. Consequently, it was agreed that all measures would be completed anonymously and participants were reminded of this on a number of occasions. Additionally, specific details regarding the purposes of the measures were not discussed with the participants until the debrief session.

3.4.11.5. Establishing trustworthiness in qualitative research

Whilst the reliability and validity issues discussed above apply with relative ease to the quantitative element of the study, it is important that the interpretivist aspect of the study is not overlooked in terms of establishing trustworthiness. The concepts of reliability and validity were operationalised within the positivist paradigm and there is strong debate as to how they can or should be applied to qualitative research (Robson, 2011). Indeed, Creswell and Plano Clark (2007) argue that “reliability has limited meaning in qualitative research” (p.135). On the other hand, Cohen et al. (2011) suggest that the terms simply have different meanings in quantitative and qualitative research. In support of this idea, Golafshani (2003) argues that such concepts should be redefined for use in the qualitative research paradigm. For example, validity continues to be concerned with whether the findings are accurate or true regardless of whether the term is applied to quantitative or qualitative research methods. Three main threats to validity in qualitative research have been identified and the steps taken to control for these threats is provided in Table 3.6.

Threats to validity in qualitative methods	What was done to control for such threats
<p>Description</p> <p><i>Incomplete or inaccurate data collection</i></p>	<ul style="list-style-type: none"> • Focus groups were recorded using audio equipment; • Transcription of entire focus group discussion; • Quality checks completed by an impartial colleague; • Entire transcript was subject to coding through thematic analysis.
<p>Interpretation</p> <p><i>Researcher imposes own meaning when interpreting results</i></p>	<ul style="list-style-type: none"> • Inter-rater reliability checks will be carried out by an impartial colleague and changes will be made if necessary; • Process of thematic analysis was followed according to guidance developed by Braun and Clarke (2006).
<p>Theory</p> <p><i>Failing to consider alternative explanations e.g. biases</i></p>	<ul style="list-style-type: none"> • Participants reminded that all responses during focus group were anonymous; • Triangulation of data with quantitative findings.

Table 3.6. Potential threats to validity in qualitative methods and steps taken to control for them.

4. Results

The following section aims to present an analysis of the quantitative and qualitative findings of the current study. Both descriptive and inferential statistics will be discussed in terms of the individual research questions and associated hypotheses, as highlighted previously in section 2.8. Visual representation of the analysis will be provided where appropriate and will be described using a brief commentary. Further detail and exploration will be provided in the later discussion section and raw data are provided in Appendix 16. The final subsection describes the findings of the thematic analysis in terms of the key themes arising from the focus group discussions which explored the participants' views of the CoA process as well as their perceived outcomes of CoA.

Prior to any further exploration of the results, the research questions, hypotheses (H_1) and null hypotheses (H_0) will be presented as a reminder to the reader:

- 1) Does involvement in a CoA intervention result in a change in the participant's attributions for the causes of challenging pupil behaviour?

H_1 : involvement in the CoA intervention will result in significant changes to the participants' causal attributions for challenging behaviour.

H_0 : involvement in the CoA intervention will have no effect on the participants' causal attributions for challenging behaviour.

- 2) Does involvement in a CoA intervention result in a change in the participant's self-efficacy to support the pupil with challenging behaviour?

H_1 : involvement in the CoA intervention will result in a significant increase in the participants' perceived self-efficacy.

H_0 : involvement in the CoA intervention will have no effect on the participants' perceived self-efficacy.

- 3) Are the outcomes of those participants taking part in the CoA intervention significantly different from the reported outcomes of the participants in the PEP meeting control group?

H₁: The outcomes for the participants in the CoA experimental group will be significantly different from those in the PEP meeting control group.

H₀: There will be no significant difference between the outcomes for the experimental and control group.

- 4) Are any changes noticeable four weeks post-intervention?

H₁: Any changes in outcomes will be noticeable four weeks post-intervention.

H₀: Any changes in outcomes will not be noticeable four weeks post-intervention.

- 5) Do adults who attend a CoA session report higher ratings of success in carrying out agreed actions when compared with those who attended the PEP meeting control group?

H₁: Participants who attend a CoA session will report significantly higher ratings of success in carrying out agreed actions than participants who attend the PEP meeting.

H₀: There will be no significant difference between the reported outcomes of the adults in the experimental or control group.

- 6) What are the participants' views of the CoA process? What are their perceived outcomes of CoA?

4.1. Summary of dependent variables

The overarching aim of the current study was to evaluate the outcomes of the CoA intervention for adults supporting LAC at risk of exclusion. A number of dependent variables were implicated, as is highlighted in Table 4.1. In order to approach the overarching research question comprehensively, a number of sub-questions were explored using measures including the Attribution Inventory (Poulou & Norwich, 2000), the Teacher Efficacy in Classroom Management and Discipline scale (Emmer & Hickman, 1991) and TME (Dunsmuir et al., 2009). Due to the amount of dependent variables, it was recognised that there was an increased likelihood of a Type I error occurring whereby the null hypothesis could be falsely rejected (Pallant, 2001). It was therefore decided that a Bonferonni adjustment would be applied to set the alpha level at .01.

Another consideration of the current study was regarding the use of Likert-type scales upon which all three measures were based. Likert scales typically involve

Measure	Dependent Variable
Attribution Inventory (Poulou & Norwich, 2000)	Parent factors Child factors Teacher factors School factors
Teacher Efficacy in Classroom Management and Discipline scale (Emmer & Hickman, 1991)	External influences Personal belief in classroom management/discipline Overall self-efficacy (combined score)
Target Monitoring and Evaluation (Dunsmuir et al., 2009)	Participant rating for perceived success of outcome on agreed target

Table 4.1. Measures used and the corresponding dependent variables.

responding to a descriptive category which is assigned a numerical value (Jamieson, 2004). For example, where 1 is equal to strongly disagree and 5 is equal to strongly agree. Whether such data is considered as ordinal or nominal has long been a source of controversy and is argued to influence the type of inferential statistics which are used to analyse the data (Knapp, 1990).

In order for a scale to be considered as interval, the distribution of scores should be equal (Wright, 2003). Jamieson (2004) argues that the intervals between values in a Likert scale cannot be presumed to be equal as it is impossible to identify the exact nature of the difference between, for example, 'disagree' and 'strongly disagree', and this view is widely noted (Lowther, 2013). However, Norman (2010) suggests that Likert scales can be considered as interval data if they consist of the sum of many items, as with the attribution and self-efficacy measures in the current study, and accepted practice documents uses of this approach (Dunsmuir et al., 2009).

It is also recognised that the authors of the attribution and self-efficacy measures used in this study carried out statistical analysis on the assumption that the data were perceived as an interval scale (Emmer & Hickman, 1991; Poulou & Norwich, 2000) and therefore the data were viewed in this way in the current research. Conversely, it was suggested that the data obtained through the TME (Dunsmuir et al., 2009) measure would be treated as ordinal due to the fact that the Likert scale responses to each item were analysed on an individual basis (Norman, 2010). In order to establish whether parametric or non-parametric tests should be used on the data, tests of normality were carried out and are discussed in section 4.3. However, prior to this the descriptive statistics for each of the variables are presented and briefly discussed.

4.2.Descriptive statistics

Descriptive statistics are used for a range of purposes (Pallant, 2001) and in the following section are used to present the measures of central tendency for each of the dependent variables. The participants' mean scores at the three time periods are presented in graphical form for the four subscales derived from the attribution measure: parent; child; teacher; and school (Poulou & Norwich, 2000). Similarly, the mean scores derived from the self-efficacy measure are also presented in relation to each of the three subscales: external influences; personal belief in classroom management/discipline; and overall self-efficacy (Emmer & Hickman, 1991). A brief description is provided for each figure and will be discussed further in Chapter 5. Although it is still appropriate to report means for ordinal data (Knapp, 1990) as with the data derived from the TME measure (Dunsmuir et al., 2009), it is recognised that such calculations are sensitive to extreme scores. Therefore the median, range and standard deviation will also be provided for the TME data.

4.2.1. Causal attributions

The participants' causal attributions for challenging behaviour were measured using Poulou and Norwich's (2000) 'Attribution Inventory'. This measure separates causal attributions into four factors including: parent; child; teacher; and school factors. The graphs demonstrate any changes in each of these factors across the three times in which the measures were taken.

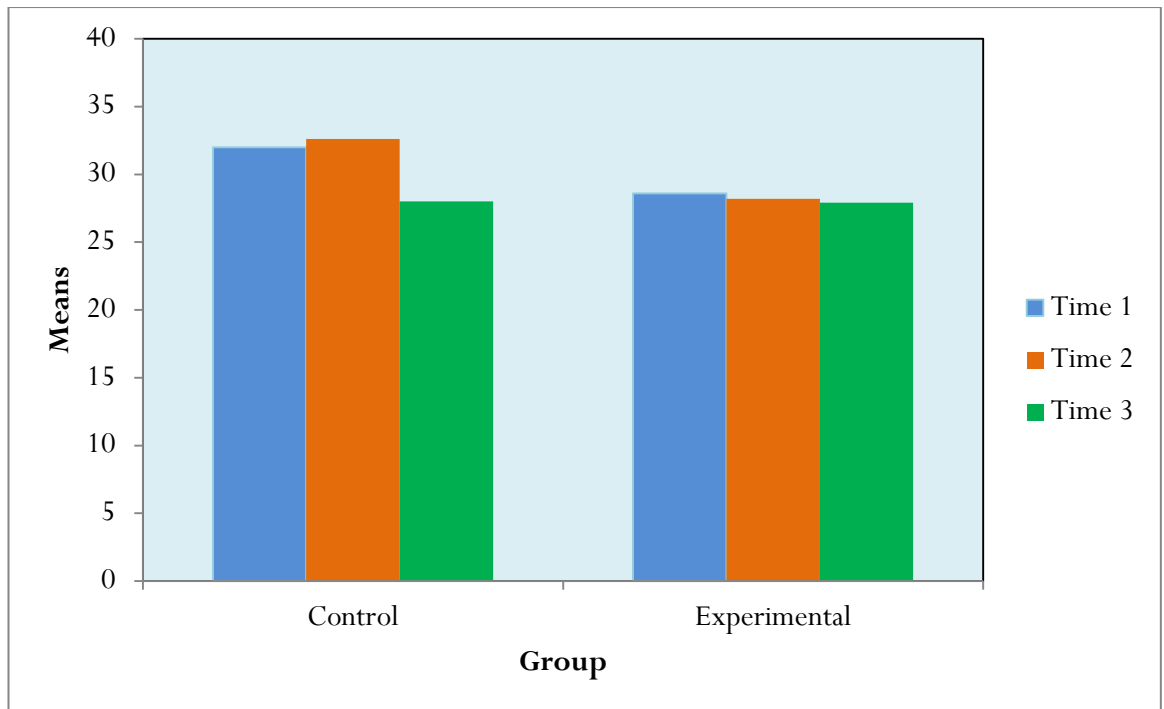


Figure 4.1. A graph to show the participants' causal attributions for parent factors at time 1, time 2 and time 3 for the control (n=5) and experimental group (n=10).

The graph displayed in Figure 4.1 shows that the causal attributions for parent factors of those in the experimental group stayed relatively stable across the three time periods with a very slight decrease between time 1 and time 3. For those in the control group, there was a very slight increase in the participants' causal attributions for parent factors at time 2 which then decreased at time 3.

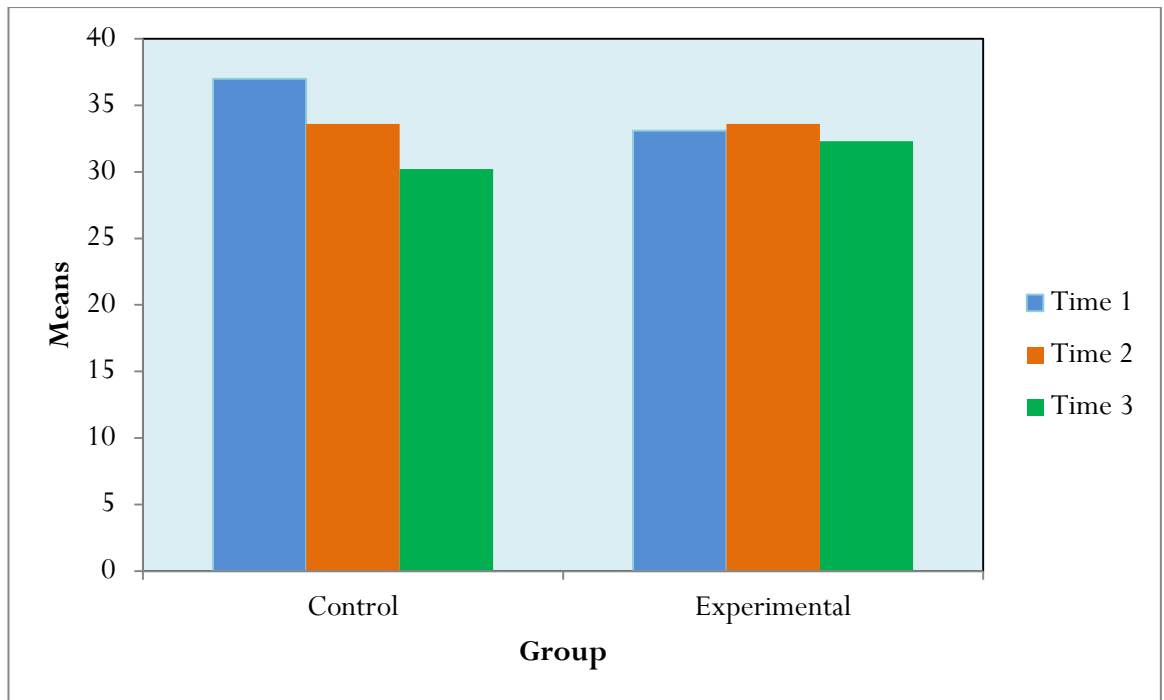


Figure 4.2. A graph to show the participants' causal attributions for child factors at time 1, time 2 and time 3 for the control (n=5) and experimental group (n=10).

Figure 4.2 indicates that the degree to which those in the control group attributed challenging behaviour to child factors decreased over time. For those in the experimental group, there was a slight increase in participants' causal attributions for child factors immediately after the CoA intervention which decreased slightly at time 3.

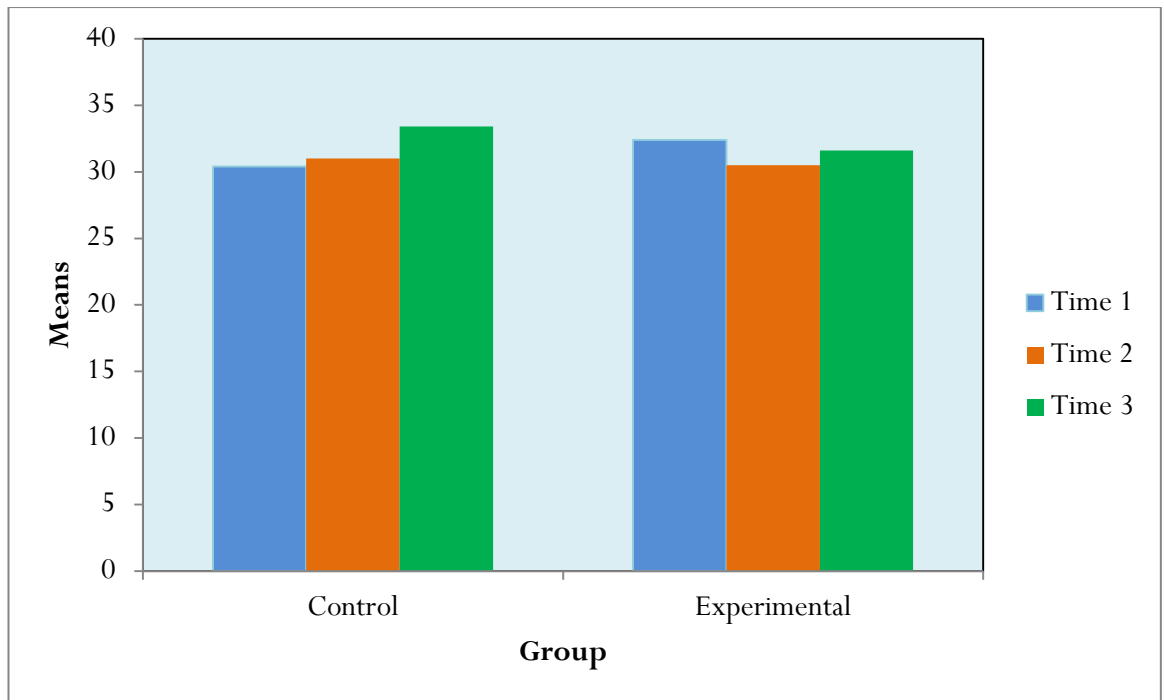


Figure 4.3. A graph to show the participants' causal attributions for teacher factors at time 1, time 2 and time 3 for the control (n=5) and experimental group (n=10).

As shown in Figure 4.3, the causal attributions for teacher factors of those in the experimental group remained relatively stable across the three time periods with a slight dip at time 2, immediately after the CoA session had taken place. For those in the control group, there was a slight increase in the participants' causal attributions for teacher factors across the three time periods.

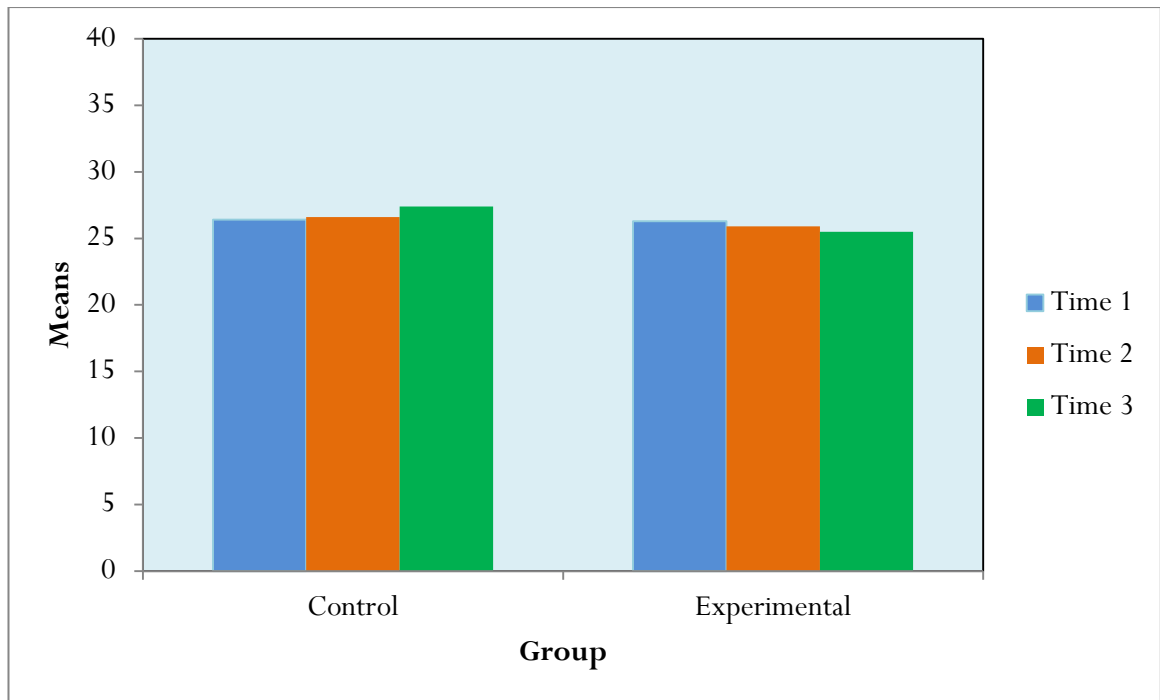


Figure 4.4. A graph to show the participants' causal attributions for school factors at time 1, time 2 and time 3 for the control (n=5) and experimental group (n=10).

Figure 4.4 indicates that the participants' causal attributions for school factors remained relatively stable for both groups across all three time periods. There was a slight increase in the causal attributions related to school factors for participants in the control group across time and a slight decrease for those in the experimental group.

In summary, the causal attributions for challenging behaviour of participants in the experimental group remained fairly stable for each factor across the three time periods. However, over the six week period, the participants in the control group reported a decrease in the amount to which they attributed challenging behaviour to parent and child factors and a slight increase with regard to teacher and school factors of causal attributions. The significance of these findings will be discussed in more depth in Chapter 5.

4.2.2. Self-efficacy

The participants' self-efficacy was measured using the Teacher Efficacy in Classroom Management and Discipline scale (Emmer & Hickman, 1991). The scale provides measures on two factors of self-efficacy including 'external influences' and 'personal belief in classroom management/discipline'. An overall self-efficacy score is obtained by combining the scores on the previous two factors. The graphs presented show the participants' mean scores for each of the self-efficacy factors at time 1, time 2 and time 3.

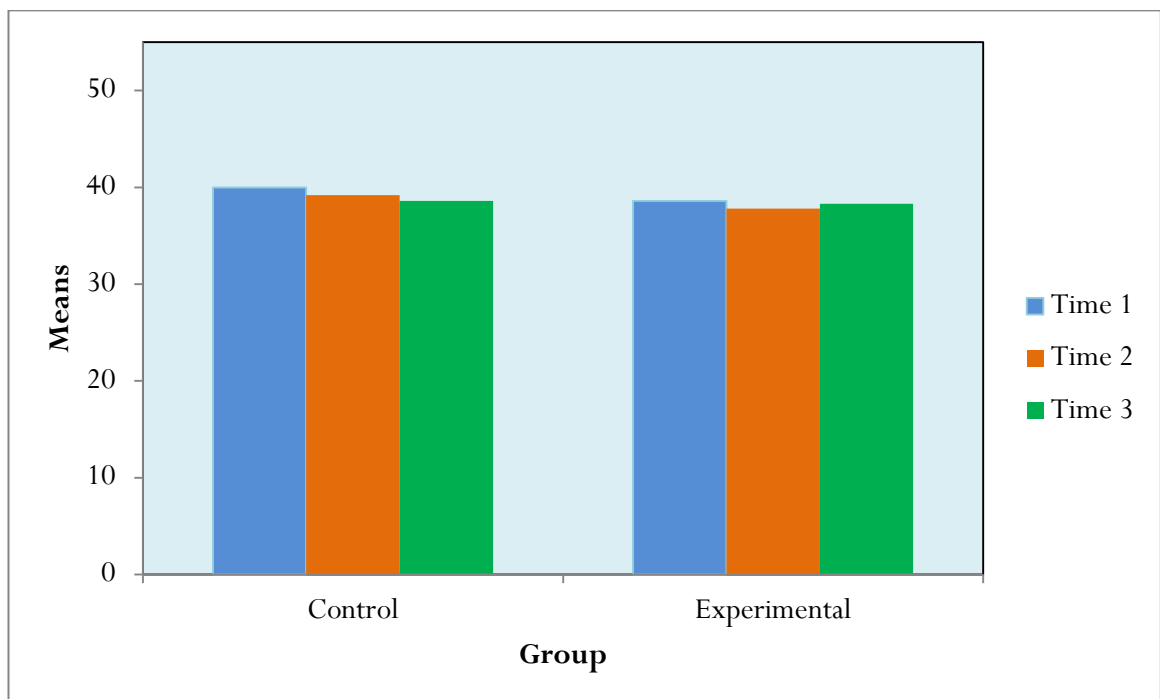


Figure 4.5. A graph to show the participants' mean scores for the external influences factor of self-efficacy at time 1, time 2 and time 3 for the control (n=5) and experimental group (n=10).

The graph shown in Figure 4.5 suggests that the 'external influences' factor of self-efficacy slightly decreased across the three time periods for those participants in the control group. Conversely, for those participants in the experimental group there was a small decrease in the mean score for 'external influences' at time 2, immediately after the CoA session, which slightly increased at time 3.

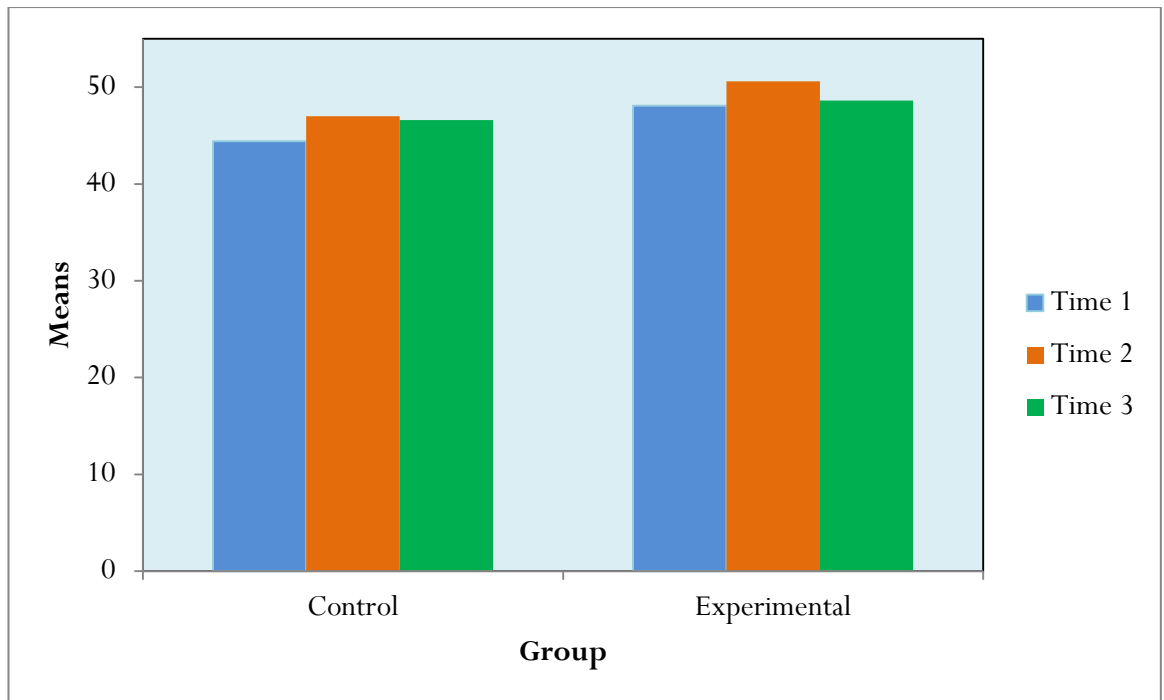


Figure 4.6. A graph to show the participants' mean scores for the personal belief in classroom management/discipline factor of self-efficacy at time 1, time 2 and time 3 for the control (n=5) and experimental group (n=10).

As shown in Figure 4.6, the mean scores for the 'personal belief in classroom management/discipline' factor of self-efficacy initially increased between time 1 and time 2 for participants in both the control and experimental group, with the time 1 score being slightly elevated for the participants in the experimental group. For both groups, there was a decrease in mean scores between time 2 and time 3 although this was slightly more pronounced for those in the experimental group.

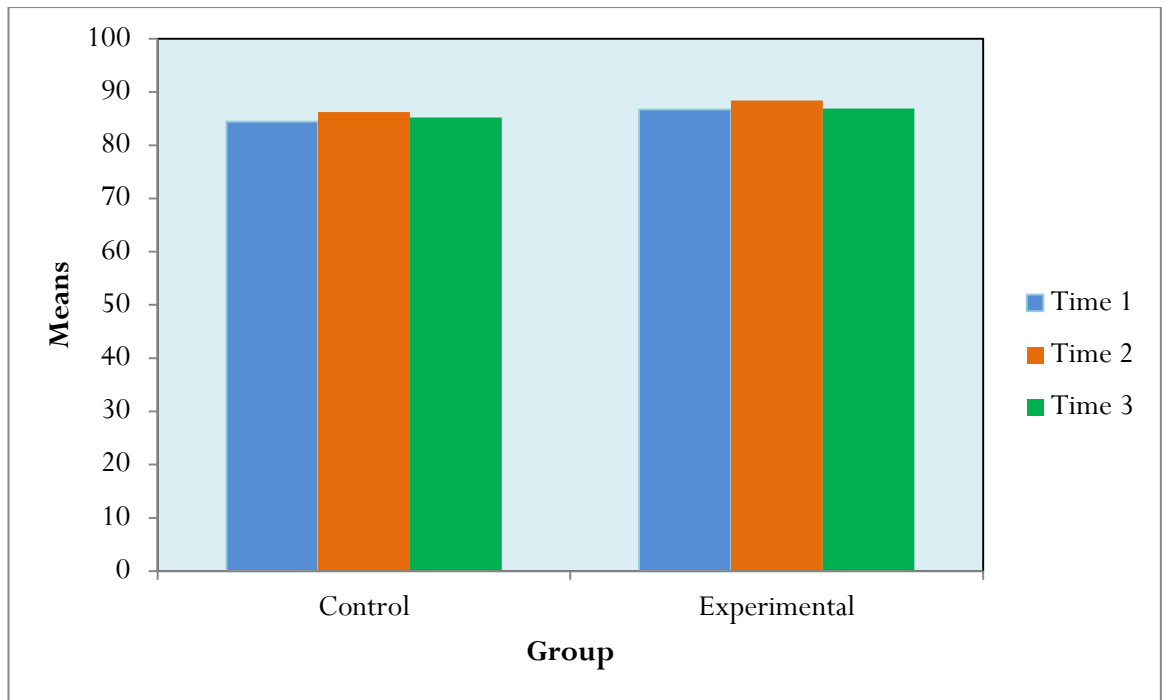


Figure 4.7. A graph to show the participants' mean scores for overall self-efficacy at time 1, time 2 and time 3 for the control (n=5) and experimental group (n=10).

The graph shown in Figure 4.7 suggests similar patterns in the overall self-efficacy scores for participants in both the experimental and control group, with an increase between time 1 and time 2 followed by a decrease at time 3. However, the mean scores for participants in the experimental group at all three time points were slightly elevated compared with those in the control group.

To summarise, the self-efficacy scores for all three factors were relatively stable for both groups across all three time periods. For the personal belief factor, the participants' scores in both the experimental and control groups initially increased after the CoA or PEP meeting, but then decreased again at time 3. Similar patterns were noted for the overall perceived self-efficacy score. The implications of these findings will be discussed further in Chapter 5.

4.2.3. Participant rating for perceived success on agreed target

Through the process of the CoA and PEP meetings a range of action points were identified which were then prioritised by the DT and written as three specific targets. For example, one action which was identified through a CoA meeting was that the pupil may benefit from having a key worker allocated to them. Consequently, this was developed into the target ‘allocate a key worker’ to the pupil. Following the identification of targets the DT for LAC, or another key member of staff, was required to rate their own perceived success with regard to the target using the 10-point scale on the TME (Dunsmuir et al., 2009) measure. This was completed immediately after the CoA or PEP meeting and again four weeks later, at Time 3, by the same member of staff. As the data were derived from an ordinal scale, the median and standard deviation are reported in addition to the mean scores (Knapp, 1990).

	Time 2				Time 3			
	Mean	SD	Median	Range	Mean	SD	Median	Range
Experimental (<i>n</i> = 4)	1.58	0.67	1.50	2.00 (1 – 3)	8.17	1.99	8.50	5.00 (5 – 10)
Control (<i>n</i> = 2)	2.00	1.67	1.00	4.00 (1 – 5)	5.17	2.71	6.00	7.00 (1 – 7)

Table 4.2. A table to show the mean, standard deviation, median and range in participants' rating scores on the Target Monitoring and Evaluation scale at time 2 and time 3 for the control and experimental group.

The data presented in Table 4.2 shows that for the control group there is an increase in the mean scores for perceived success on target outcomes from time 2 ($M = 2.00$, $SD = 1.67$) to time 3 ($M = 5.17$, $SD = 2.71$). There is a similar trend for the experimental group although the increases in the mean scores from time 2 ($M = 1.58$, $SD = 0.67$) to time 3 ($M = 8.17$, $SD = 1.99$) are arguably more prominent. The median scores at time 2 for both groups are similar

although the median scores at time 3 are higher for the experimental group. This may indicate some potential benefits of the CoA intervention in terms of the participants' perceptions about the success on the agreed targets and will be subject to further analysis in section 4.4.

4.3. Assumptions required for parametric tests

When carrying out statistical analysis in research, there are a number of assumptions which must be met to determine the type of analysis which can be used (Dancey & Reidy, 2007; Pallant, 2001). In order to carry out analyses using parametric tests the data must be drawn from a sample which is normally distributed, has equal variance and involves only interval or ratio scales (Brace, Kemp, & Snelgar, 2003). Should these assumptions be violated, the use of non-parametric tests is recommended (Dancey & Reidy, 2007), although such tests are arguably “less powerful than their parametric equivalents” (Brace et al., 2003, p. 10).

As the data for the TME measure (Dunsmuir et al., 2009) were treated as ordinal, and therefore did not meet one of the assumptions required for parametric tests (Dancey & Reidy, 2007), non-parametric tests were employed for this data. Tests of normal distribution or equal variance on this data are therefore not reported.

4.3.1. Normal distribution

The Shapiro-Wilk test of normality is arguably the most robust method to assess whether the data are normally distributed (Razali & Wah, 2011) and was used in the current study. The scores indicated that all data derived from the attribution and self-efficacy measures were normally distributed (Appendix 17), thus allowing the use of parametric tests. In order to further assess the normality of the data, graphical methods were also considered including skewness and kurtosis. A value of 0 for both skewness and kurtosis indicates perfect distribution (Dancey & Reidy, 2007), although it is suggested that this is extremely uncommon in applied research (Pallant, 2001). The vast majority of skewness and kurtosis scores for the variables in the current study fell within the appropriate limits to indicate a normal distribution (Appendix 17). Norman

(2010) also argues that statistical tests such as ANOVAs are “highly robust to things like skewness and non-normality” (p.629). Consequently, the decision was made to employ parametric statistical methods to analyse the data, provided that the sample indicated equal variance.

4.3.2. Homogeneity of variance

Homogeneity of variance considers whether the populations in both the experimental and control groups have equal variance (Dancey & Reidy, 2007). The Levene’s test for equality of variance was carried out with each of the variables. No significant values were obtained, thus indicating that equal variances can be assumed for all variables.

Despite the minor violations with regard to the assumptions of normal distribution described above, it is argued that the data obtained from the attribution and self-efficacy measures are suitable for analysis using parametric methods. Conversely, due to the use of ordinal data, the scores obtained from the TME (Dunsmuir et al., 2009) measure will be analysed using non-parametric methods. The appropriate statistical analyses were carried out for the data obtained from each of the measures and will be considered below in relation to the associated research hypotheses.

4.4. Statistical analysis

As the self-efficacy and attribution data met the assumptions required for parametric tests, further statistical analyses were carried out using a mixed between-within ANOVA. The following section aims to report the findings of this analysis in relation to each of the associated research questions. The data for the non-parametric analysis of the TME (Dunsmuir et al., 2009) measure will then be presented prior to a summary of the quantitative results.

For the purposes of the current study, the between-subjects factor was the group in which the participants were assigned to; the CoA experimental group or the PEP meeting control group. The within-subjects factor was the time at which the measures were taken and included Time 1 (approximately two weeks before the meeting), Time 2 (immediately after the meeting) and Time 3 (approximately four weeks after the meeting). The following section will highlight any statistically significant findings between and within the groups across the three time periods. As is recommended by Wright (2003), effect sizes will also be reported using Cohen's *d* (Cohen, 1988) where significant results are found, to indicate the strength of differences between the means.

Prior to any further analysis, it was necessary to consider whether there were any differences between the two groups at Time 1.

4.4.1. *Tests for equivalent groups*

Particularly due to the non-random allocation of participants and large differences in sample size, it was necessary to identify whether the experimental and control groups were equivalent at Time 1. An independent t-test was therefore carried out to compare the mean scores at Time 1 for the two groups. The results indicated that for the external influences ($t=-0.313$, $df=13$, $p=0.759$, two-tailed), personal belief in classroom behaviour and management

($t=1.42$, $df=13$, $p=0.179$, two-tailed) and overall perceived efficacy ($t=0.449$, $df=13$, $p=0.661$, two-tailed) there were no statistically significant differences between the groups at Time 1 suggesting that the groups were equivalent prior to the intervention. For the attribution measure there were also no statistically significant differences between the groups at Time 1 for any of the factors: parent ($t=-1.481$, $df=13$, $p=0.162$, two-tailed); child ($t=-1.275$, $df=13$, $p=0.224$, two-tailed); teacher ($t=0.672$, $df=13$, $p=0.513$, two-tailed); and school ($t=-0.030$, $df=13$, $p=0.977$, two-tailed).

4.4.2. Parametric tests

Each of the research hypotheses will now be considered in relation to the results from the mixed between-within subjects ANOVA. In addition to the assumptions which are required for parametric tests, ANOVAs also assume sphericity which requires that “the variance of the population difference scores for any two conditions are the same as the variance of the population difference scores for any other two conditions” (Pallant, 2001, p. 214). Consequently, the output from Mauchly’s test of sphericity will be examined. Should a non-significant score be reported, which indicates that the null hypothesis stands and sphericity can be assumed, normal degrees of freedom will be reported. Alternatively, the Greenhouse-Geisser epsilon will be reported (Dancey & Reidy, 2007).

Causal attributions

Hypothesis: Participation in the CoA intervention will result in significant changes to the adults’ causal attributions for behavioural difficulties, when compared with participants who attended the PEP meeting. Any changes will be noticeable four weeks post-intervention.

Within the causal attribution measure, the data are analysed for each of the four dependent variables: parent factors; child factors; teacher factors; and school factors. The two independent variables are time and the group to which the participants were allocated.

Parent factor

A mixed-ANOVA was performed on the data for participants' causal attributions for challenging behaviour, parent factors. Since Mauchly's test of sphericity showed a non-significant result, sphericity was assumed. The results of the mixed-ANOVA indicate that there were no statistically significant differences between the scores at any time point ($F(2,12) = 1.15, p=0.35$). There was also no significant interaction for the test of within-subjects effects ($F(2,26) = 1.14, p=0.34$). This indicates that there are no significant changes in participants' scores for the parent factor of causal attribution at any time period for either the control or experimental group.

Child factor

When analysing the child factor of the participants' causal attributions, Mauchly's test of sphericity showed a non-significant result; sphericity was therefore assumed. The results of the mixed-ANOVA indicate that there were no statistically significant differences between the scores at any time point ($F(2,12) = 3.54, p=0.06$). There was also no significant interaction for the test of within-subjects effects ($F(2,26) = 2.60, p=0.09$). This indicates that there were no significant changes in the participants' scores for the child factor of causal attribution at any time period for either the control or experimental group.

Teacher factor

When analysing the teacher factor scores, Mauchly's test of sphericity was significant and therefore the Greenhouse-Geisser will be reported. The results of the mixed-ANOVA indicate that there are no statistically significant differences between the scores at any time point ($F(2,12) = 1.95, p=0.19$). There was also no significant interaction for the test of within-subjects effects ($F(2,26) = 1.16, p=0.31$). This indicates that there were no significant changes in the participants' scores for the teacher factor of causal attribution at any time period for either the control or experimental group.

School factor

When analysing the school factor of the participants' causal attributions, Mauchly's test of sphericity showed a non-significant result; sphericity was therefore assumed. The results of the mixed-ANOVA indicate that there were no statistically significant differences between the scores at any time point ($F(2,12) = 0.01, p=0.99$). There was also no significant interaction for the test of within-subjects effects ($F(2,26) = 0.19, p=0.83$). This indicates that there were no significant changes in the participants' scores for the child factor of causal attribution at any time period for either the control or experimental group.

To summarise, no statistically significant differences were found between the participants' scores on any of the factors of causal attributions for either the control or experimental group. This indicates that neither participation in the CoA or PEP meeting had an effect upon the school staff causal attributions for challenging behaviour. Therefore, the null hypothesis must be accepted which suggests that the CoA intervention has no effect upon the school staff casual attributions for challenging behaviour. The significance of this will be discussed further in Chapter 5.

Perceived self-efficacy

Hypothesis: Participation in the CoA intervention will lead to a significant increase in the adults' perceived self-efficacy to support LAC at risk of exclusion when compared with participants who attended the PEP meeting. Any changes will be noticeable four weeks post-intervention.

Personal belief in classroom management and discipline

A mixed-ANOVA was performed on the data for the 'personal belief' factor of teacher self-efficacy. Since Mauchly's test of sphericity showed a non-significant result sphericity was assumed. The results of the mixed-ANOVA indicate that there were no statistically significant differences between the scores at any time point ($F(2,12) = 2.34, p=0.14$). There was also no significant interaction for the test of within-subjects effects ($F(2,26) = 0.30, p=0.75$). This indicates that there were no significant changes in the participants' score for the personal efficacy factor of self-efficacy at any time period for either the control or experimental group.

External influences on challenging behaviour

When analysing the 'external influences' subscale of the participants' self-efficacy, Mauchly's test of sphericity showed a non-significant result. Sphericity was therefore assumed. The results of the mixed-ANOVA indicate that there are no statistically significant differences between the scores at any time point ($F(2,12) = 0.16, p=0.85$). There was also no significant interaction for the test of within-subjects effects ($F(2,26) = 0.72, p=0.93$). This indicates that there were no changes in the participants' score for the external influences factor of self-efficacy at any time period for either the control or experimental group.

Overall self-efficacy

The scores from the ‘personal belief’ and ‘external factors’ were then combined to produce an overall self-efficacy score. Since Mauchly’s test of sphericity showed a non-significant result sphericity was assumed. The results of the mixed-ANOVA indicate that there were no statistically significant differences between the scores at any time point ($F(2,12) = 0.59, p=0.57$). There was also no significant interaction for the test of within-subjects effects ($F(2,26) = 0.01, p=0.99$). This indicates that there were no significant changes in the participants’ scores for overall self-efficacy at any time period for either the control or experimental group.

In summary, no statistically significant differences were found between the participants’ scores on any of the factors of self-efficacy for either the control or experimental group. This indicates that neither participation in the CoA or PEP meeting had an effect upon the school staff’s perceived self-efficacy. Therefore, the null hypothesis must be accepted which suggests that the CoA intervention has no effect upon the school staff’s perceived self-efficacy. The significance of this will be discussed further in Chapter 5.

4.4.3. Non-parametric tests

As described above, non-parametric tests were appropriate to analyse the participant’s rating for success in carrying out agreed actions, as measured through the TME (Dunsmuir et al., 2009) scale. As with parametric analysis, it was necessary to carry out tests to identify whether the groups were equivalent upon completing of the first rating at Time 2. A Mann-Whitney U test was carried out and indicated no significant differences between the experimental or control group baseline rating scores ($U = 35.50, N^1 = 12, N^2 = 6, p = 0.96$, two-tailed) thus suggesting that the groups were equivalent. It was then

necessary to analyse whether there were any significant differences between the groups at Time 3.

Participant ratings of success

Hypothesis: Participation in the CoA session would lead to high ratings of success in carrying out agreed actions when compared to those who attended the PEP meeting.

A Mann-Whitney U test was carried out to identify whether there were any differences between the participant ratings at Time 3, four weeks after either the CoA or PEP meeting. No statistically significant differences were found between the groups ($U = 13.00$, $N^1 = 12$, $N^2 = 6$, $p = 0.03$, two-tailed). Consequently, the null hypothesis must be accepted which states that participation in the CoA intervention has no effect on participants' ratings of success in carrying out agreed actions.

To analyse whether there were any differences between the participants' ratings between Time 2 and Time 3, a Wilcoxon Signed Rank test was carried out individually for the control and experimental group. The results of this indicated that there was no significant difference between Time 2 and Time 3 for the control group ($z = -1.84$, $p = 0.07$). However, a statistically significant increase in rating scores between Time 2 and Time 3 was found for the experimental group ($z = -3.07$, $p < 0.01$). Consequently, the null hypothesis can be rejected suggesting that participation in the CoA may have a positive effect upon the perceived success of agreed actions.

4.5. Overall summary of quantitative results

To summarise, the analyses indicated no statistically significant findings for any of the four factors measuring the participants' causal attributions for either the control or experimental group across the three time periods. Therefore, in this instance the null hypothesis must be accepted which states that participation in the CoA intervention has no effect on the adult's causal attributions for challenging behaviour.

The analyses of the perceived self-efficacy measure also indicated no statistically significant findings for any of the three factors measuring the participants' self-efficacy for either the control or experimental group across the three time periods. The null hypothesis must be therefore accepted which states that participation in the CoA intervention had no effect on the adults' self-efficacy when supporting LAC at risk of exclusion.

Non-parametric tests were used to analyse the participants' rating scores on their perceived success of actions which were agreed through the CoA or PEP meeting. There were no statistically significant differences between the rating scores of the participants in the experimental or control group at Time 2 or Time 3. However, a statistically significant difference was found across time within the experimental group, indicating that participants perceived higher ratings of success with agreed actions than those in the control PEP meeting group.

The implications of all findings noted above will be reviewed shortly, in chapter 5. However, prior to this, the thematic analysis of data obtained through the qualitative phase of the study will now be the focus of discussion.

4.6. Thematic analysis

The aim of the following section is to provide an analysis of the data obtained through the focus groups which were carried out following the CoA sessions, with ten participants. The purpose of the focus groups was to consider the participants' views of the CoA intervention and to explore their perceptions of the potential outcomes of the process. The section is presented in terms of the phases of thematic analysis as described by Braun and Clarke (2006). Although the analysis is presented as a linear process it should be recognised that the analysis was approached recursively whereby the researcher moved between phases as necessary.

4.6.1. Phase 1: Familiarisation with the data

The first phase of thematic analysis involves the researchers familiarising themselves with the data (Braun & Clarke, 2006). In the current study, initial familiarisation was facilitated through the process of transcribing the audio recordings from the focus group discussions. The entire discussions were transcribed except for one instance where the focus group was interrupted by another member arriving. During the process of transcribing the data initial ideas, patterns and codes were noted for reference in the following stages (Braun & Clarke, 2006). Once transcripts were produced, they were checked for accuracy using the original recordings. Once all transcripts were deemed to be exact replication of the focus group discussions, the researcher engaged in further immersion with the data through repeated reading whilst making further notes of key ideas in preparation for generating initial codes.

4.6.2. Phase 2: Generate initial codes

The coding process involves the identification of labels for the “important features of the data of relevance to the research question guiding the analysis”

(Clarke & Braun, 2013, p. 121). The researcher highlighted segments of raw data from the transcripts to represent units of data (Appendix 18). The units of data varied in length depending on the content and included anything from one word to a few sentences (Vaughn, Schumm, & Sinagub, 1996). Each unit of data was then coded using the list of initial codes which were produced in phase one (Appendix 19).

All data extracts were coded, except for those instances where participants began discussing other topics not relevant to the research question, such as the behaviour of other pupils in the school. In some cases, it was necessary to code a data extract for two potential codes as can be seen in Figure 4.8. In order to ensure that the context of the data extracts was not lost, additional contextual information were provided where necessary. For example, in response to a question about the challenges of CoA, one participant simply replied ‘time’. Clearly, this was an essential unit of data to be analysed although it required further contextual information to ensure that the actual meaning was retained.

Unit of data	Code
We got to the bottom of getting some strategies together...erm...obviously with everybody else involved you get that different perspective. (<i>Participant E14</i>)	<ol style="list-style-type: none"> 1. Development of strategies 2. Different perspectives of staff

Figure 4.8. Data extract with associated codes.

Once all data were coded, the researcher collated all of the units of data which represented each code. The researcher then carefully read the extracts of data which were associated with each code to ensure that they collectively gave an accurate representation of the code. Where necessary, codes were deleted, renamed or data were given alternative codes. To consider the inter-rater reliability at this stage, two colleagues were provided with a sample of data extracts and asked to match them to the list of initial codes. Inter-rater reliability

was calculated at 63 per cent and once the researcher was satisfied that the units of data represented the defined codes, the codes were analysed to develop potential themes.

4.6.3. Phase 3: Search for themes

A theme can be defined as “a coherent and meaningful pattern in the data relevant to the research question” (Clarke & Braun, 2013, p. 121). In order to facilitate this process, all codes were typed onto pieces of paper and grouped according to the potential overarching themes (Appendix 20). The relevant data extracts were also collated within the overarching themes (Appendix 21) to clarify that the data accurately represented the themes.

At this stage the researcher began considering the different levels of themes and whilst some codes were collated to represent key themes, others were defined as sub-themes. For example, the codes of ‘different perspectives of staff’ and ‘opportunity to listen to the views of others’ were grouped together under the sub-theme of ‘different perspectives’ which was placed within the overarching theme of ‘working in groups’. There are no specific guidelines as to what constitutes as a theme in terms of the prevalence of data within the theme. In other words, a theme which is more prevalent across the data set is not necessarily more significant than another (Litosseliti, 2003).

Initially, eight main themes were identified although following a review of the themes in the next phase this was reduced to six themes. Any contradictions within the themes and subthemes were noted for later discussion.

4.6.4. Phase 4: Review the themes

Following some initial refinements it was necessary to further review the themes to ensure that the coded data represented the themes accurately (Vaughn et al.,

1996). Additionally, the review process involved considering whether there was sufficient data to represent a theme. Some significant changes were made at this stage following validity checks by two colleagues with some experience in thematic analysis. For example, it was agreed that the limited amount of data for 'pupil change' did not allow for this to be considered a theme. Consequently, the 'staff change' and 'pupil change' themes were combined into one overarching theme of 'change'.

At this stage, Braun and Clarke (2006) emphasise the importance of developing distinctive themes which fit together to tell an overall story. Consequently, additionally reviewing procedures were also carried out including further reading of the original data set to clarify whether it is accurately represented by the themes which emerged. As stated by Robson (2011) "no data set is without contradictions" (p.481) and the process of coding data and developing themes could continue *ad infinitum*. Following some further minor changes, it was therefore judged that the necessary refinements had been made to provide a comprehensive analysis of the original data set. Figure 4.9 shows a visual representation of the themes and underlying subthemes which were produced through this comprehensive thematic analysis.

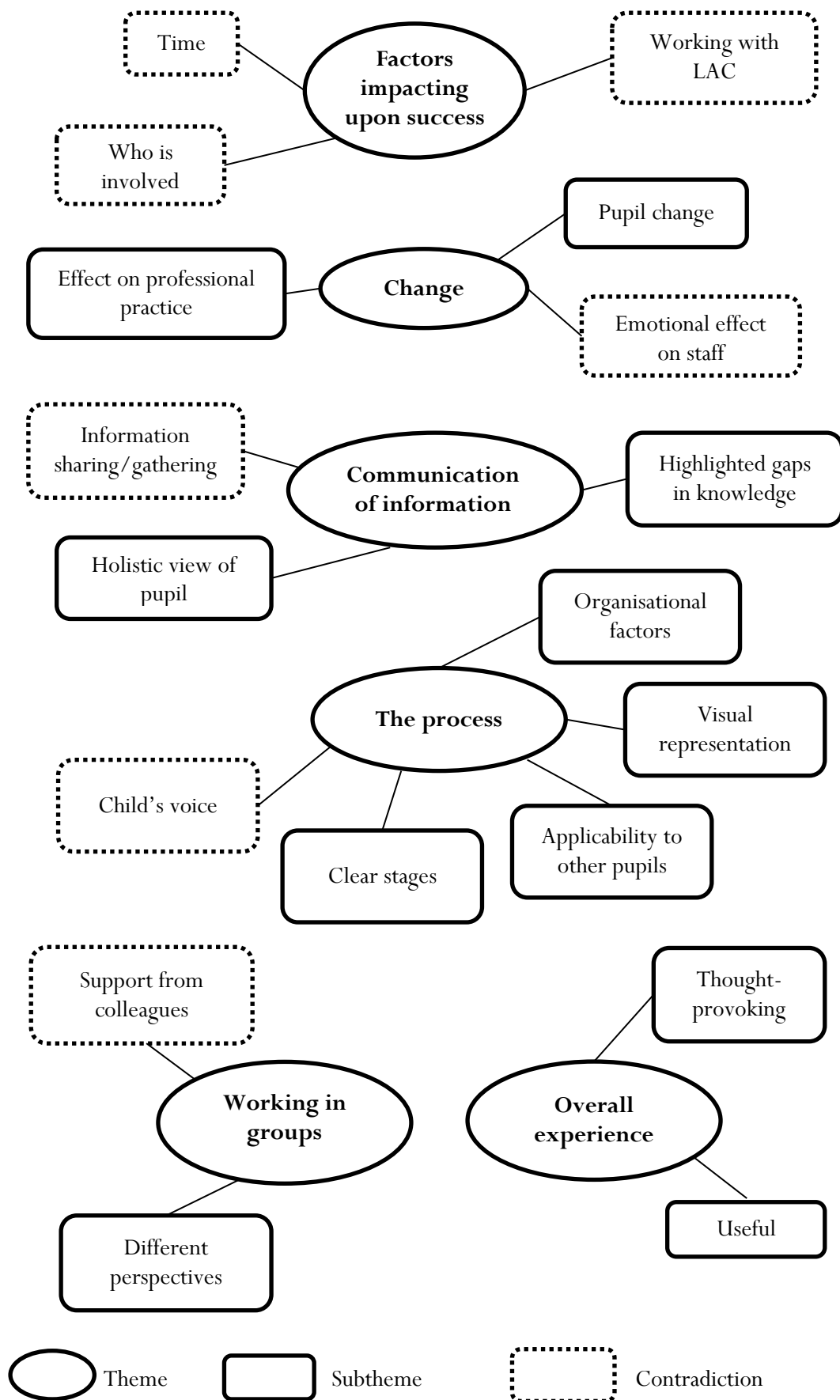


Figure 4.9. A thematic map to represent the main themes and subthemes developed from the participants responses regarding their experience of the CoA process and the perceived outcomes.

4.6.5. Phase 5: Define and name themes

Once an acceptable thematic map is produced, the penultimate phase of analysis can begin whereby a detailed analysis of each theme is provided (Braun & Clarke, 2006). Throughout this phase, the researcher engaged in a reflexive process to identify the themes and the patterns within and between them (Clarke & Braun, 2013). The following section aims to provide a clear description of each key theme and will culminate in an overall story of this qualitative element in the current research study. Where direct quotes from participants are cited, the corresponding participant code will be provided.

The process

The most prominent theme in the analysis, in terms of the prevalence of comments made by participants, was that of ‘the process’ of CoA. A number of sub-themes were developed under this main theme including:

- Visual representation
- Clear stages
- Child’s voice
- Organisational factors
- Applicability to other pupils

Participants frequently commented on the benefits of the visual representation, suggesting that it was good “*to see everything all at once*” [participant E6]. Some participants also alluded to the visual graphic as appealing to their “*way of thinking about things*” [E13]. Linked to the positive views of the visual representation, participants also appeared to value the clear stages of the CoA process which facilitated the development of strategies. For example, one participant commented “*I thought the areas that we looked at were very clear and it helped you to focus*” [E13].

Within this theme, one contradiction which arose related to the ‘child’s voice’. One participant felt that the CoA gave them an opportunity to “*actually think about [pupil] and how he’s actually feeling at that time*” [C6]. In contrast, another participant felt that through this stage of the CoA “*we’ve actually made lots and lots of assumptions about him and think we know him but actually, nobody knows [pupil] like [pupil]*” [E9].

Participants also suggested that one of the benefits of the CoA process was the opportunity to discuss the organisational factors which may be impacting upon the pupil. For example, one participant commented that it gave them an opportunity to “*review our processes as a school and what works for [pupil] as an individual*” [E5]. Participants were also very eager to consider the applicability for other students in school with one participant commenting that “*it makes me realise ‘wow’ this is such an essential process and you know, there are so many others who could benefit from the same strategy*” [E17].

Communication of information

Many of the comments made during discussions about the benefits and challenges of the CoA process related to the theme of ‘communication of information’. Within this theme three subthemes were identified:

- Information sharing/gathering
- Holistic view of the pupil
- Highlighted gaps in knowledge

One of the major benefits of the CoA process appeared to be the opportunity to share information between members of staff. Participants commented that it was “*useful getting your [another member of staff] point of view*” [C6] and that “*you just get more information about the child don’t you?*” [E15]. This information gathering and sharing then seemed to lead participants to develop a ‘holistic view of the pupil’.

One participant commented that *“it was nice as well to be pulling out the good bits and piecing together sort of the [pupil] jigsaw”* [E8] and another felt that it enabled them to *“think of all those elements and how they come together”* [E13].

Despite many participants valuing the opportunity to sharing information to develop a holistic view of the child, some participants also commented that it highlighted gaps in their knowledge of the pupil. For example, one participant suggested that a challenge of the process was *“not knowing the child very well beforehand”* [E13]. Another participant made similar comments regarding the lack of information she had about the pupil prior to the CoA session by stating vehemently, *“the way that information is on a need to know basis is almost undermining a teacher’s professionalism”* [E17].

Factors impacting upon the success

Participants made a number of comments regarding the possible factors which impacted upon the perceived success of the CoA process. This theme highlighted a number of contradictions which will be discussed in relation to the three subthemes of:

- Time
- Who is involved
- Working with LAC

Many of the participants remarked that one of the advantages of the CoA process was having the dedicated time to discuss one pupil. For example, participants commented that *“it was very useful to devote such a long time...to talk about one child”* [E6] and *“I did like the time to actually sit down and talk about it”* [C6]. Conversely, participants in all focus groups also identified that the time required for the session was also a challenge. Participants commented that the *“time factor is always difficult for us. Giving that much time up”* [E6].

A further consideration which seemingly influenced the perceived success of the CoA session was related to people required for participation in the group. A major challenge of the CoA session was the number of staff required to make it viable and that frequently, key members of staff were absent. For example, one participant commented that *“his key worker was missing, I think that was a challenge really”* [E9]. Another participant reiterated this by saying *“I just wish that we could have had more staff there”* [C6]. Such comments may be perceived as a contradiction with the potentially supportive qualities of the CoA session, as described in the ‘working in groups’ theme.

One final subtheme which was particularly relevant to the current study was the apparent ‘challenges in supporting LAC’. In all but one of the follow up sessions to the CoA, the LAC pupil’s circumstances had rapidly changed in a short period of time. For example, one participant commented that *“his situations changed dramatically since then”* [E6] and another indicated that *“we came up with all those plans but then the situation [pupil] changes”* [E8]. Participants suggested that this was due to difficulties in ensuring the right people were present to share the information with one participant saying that *“it would have been helpful to have few more people there from other situations...they could have told us that”* [E6].

Change

Through the focus groups, questions were asked to elicit the participants’ views as to how the CoA session might have affected them. Responses appeared to be related to three main subthemes:

- Effect on professional practice
- Emotional effect on staff
- Pupil change

Primarily, staff reported changes in terms of their perception of the pupil through such comments as *“deep down she’s a good person” [E5]* and *“I think you look at the whole child more than you did” [E13]*. Staff also reported that their behaviour towards the pupil changed with one participant suggesting that *“I’m making that extra effort with [pupil]” [E16]*.

Participants also emphasised the emotional effect which the CoA session had on them, although this subtheme involved contradictions between positive and negative emotions. Whilst some participants felt that the process made them feel *“quite enthusiastic and...all sort of geared up to go” [E6]*, other participants suggested that they experienced feelings of frustration following the session because the changing situation of the LAC pupils meant that *“you can’t actually do most of what you’ve done” [E13]*. Participants made comments relating to the emotive nature of the process and indicated that the process increased their empathy towards the pupil. For example, one comment explained that the process allows you *“to sort of try and walk in his shoes for a little while” [E6]*.

Finally, although the data were relatively sparse in the area of ‘pupil change’, it felt necessary to highlight that one participant suggested that *“it hasn’t changed very much so far” [E9]* whilst another implied that the strategies had a positive effect on the pupil and he had *“done really good in this lesson” [C6]*. The possible reasons for this will be considered later in the discussion section.

Working in groups

Through analyses of the comments made by participants, it appeared that participants valued the opportunity to work in groups. Two subthemes were identified in relation to this theme including:

- Support from colleagues
- Different perspectives

Participants described the collaborative, supportive nature of the CoA approach through comments such as *“listening to some of the things you were saying, it sort of like backed up and I found that really useful to work with [pupil]” [C6]*. As has already been identified, this contradicts with comments made regarding the difficulties in ensuring that relevant professionals are present as in the ‘factors impacting upon success’ theme.

Participants also valued the opportunity to listen to the different perspectives of the group. For example, one participant explained that *“obviously with everybody else involved you get that different perspective” [E14]* and another indicated that it was useful *“to get everyone’s opinions of [pupil]” [E2]*.

Overall experience

The final theme related to the participants perception of the overall experience of CoA. Two underlying subthemes were identified:

- Useful
- Thought-provoking

Comments were made in all focus groups which suggested that participants valued the process and felt it was useful. Participants commented that *“I think for us it’s been really worthwhile” [E13]* and suggested that it was *“definitely the most useful meeting that we’ve had for reviewing a child and the processes and protocols we’ve got in place” [E5]*.

Participants also reported that a further strength of the process was that it allowed for reflection and one participant explained that *“I found myself thinking about it that night and the next day, which perhaps you wouldn’t do after an ordinary meeting” [E6]*.

Overall story

Participant comments from four focus groups were combined and analysed using thematic analysis. A thematic map is provided in Appendix 22 which highlights the potential links between themes and subthemes. Six main themes were identified which related to the overarching research questions which aimed to consider participants views of the CoA process in general as their perceptions of the potential outcomes.

The most dominant themes in terms of the range and frequency of comments made by participants were ‘the process’ and ‘communication of information’. Within ‘the process’, participants valued the graphic representation of the discussion which also highlighted the clear stages of the process. One major contradiction within this theme was the way in which the ‘child’s voice’ was perceived, with some participants highlighting the potentially subjective nature of this element of the process.

Within the ‘communication of information’ theme, participants valued the opportunity to share information with colleagues to develop a holistic view of the pupil. This links with the ‘factors impacting upon success’ theme as participants frequently described difficulties in ensuring that the relevant professionals were present so that information could be communicated effectively. Some participants also felt that the process highlighted gaps in knowledge of the pupil which could have potentially had an emotional effect on staff. Despite this, participants appeared to value to different perspectives of colleagues which was highlighted in the ‘working in groups’ theme.

Participants were able to recognise a number of ways in which the CoA process led to ‘change’. The changes for staff related to both an effect on their professional practice but also an emotional effect on staff, with some staff claiming that the process made them feel motivated. The emotional effect on

staff was a source of contradiction though, as other participants suggested that it lead to feelings of frustration. This could have been due to the challenges of working with LAC, which were described under the 'factors impacting upon success' theme. In all but one of the CoA groups, the LAC pupil had experienced dramatic changes in the four weeks between the CoA session and the follow-up meeting. This may have, understandably, caused participants to feel frustrated and helpless. Time was also identified as a factor which could have impact upon the success of approach, although many participants valued the opportunity to have the time to discuss the pupil.

The final theme related to the participants' 'overall experience' of the process with participants appearing to value the process and suggesting that it allowed an opportunity for reflection.

5. Discussion

5.1. Overview

This chapter considers the key findings of the current study in relation to the literature presented in Chapter 2, with a specific emphasis upon the research questions addressed. The possible explanations for the results are discussed, particularly where unanticipated findings have been ascertained. Following this, a critical reflection of the methodology will be presented and will include an evaluation of the study design and measures used. The implications for future research will be considered and will lead to the final conclusions of the present study.

5.2. Key findings of the research

The overarching aim of the current study was to consider:

*What are the outcomes of the CoA intervention
for adults supporting LAC at risk of exclusion?*

The justification for the use of the CoA intervention was two-fold. Firstly, the authors report that the approach is a problem-solving process used to support adults who work with children with complex emotional and behavioural difficulties (Wilson & Newton, 2006). The underlying rationale behind problem-solving approaches, including consultation and supervision, is to indirectly support pupils through providing direct support to those who work with them (Gutkin & Conoley, 1990) thereby potentially punctuating the cyclical relationship between pupil behaviour and teacher burnout (Brouwers & Tomic, 1999). Consequently, upon reflection of a range of problem-solving processes discussed in the literature review, it was suggested that the CoA approach may be the most appropriate for use with school staff supporting LAC, a vulnerable group who often have complex needs (Cameron & Maginn, 2011).

Secondly, although the approach has a limited evidence base (Bennett & Monsen, 2011) it is considered to have strong psychological underpinnings and is based heavily upon a collaborative group problem-solving process described by Hanco (1999). Despite this, the actual process and mechanisms involved in the intervention are not made explicit (Bennett & Monsen, 2011) and required further exploration. The current study therefore aimed to contribute to the increasing evidence-base for the CoA approach in attempting to understand both the *effects* of the intervention as well as the *mechanisms of change* which were potentially implicated (Gulliford, 2014).

The researcher hypothesised that the CoA intervention would lead to changes in the adults' perceptions of the pupil's challenging behaviour. It was further hypothesised that this would influence the adults' self-efficacy and capacity to initiate change in terms of their own actions following the intervention (Poulou & Norwich, 2002). Consequently, through using a mixed-methods design, a range of quantitative measures were used to ascertain whether any changes occurred for the adults involved. Additionally, qualitative methods were used to consider the participants' perceptions of the approach.

The subsidiary research questions will now be considered with reference to the literature and research evidence described in Chapter 2.

5.2.1. Research Question 1

Does involvement in a CoA intervention result in a change in the participants' attributions for the causes of challenging pupil behaviour?

The participants were asked to complete the Attribution Inventory (Poulou & Norwich, 2000) on three separate occasions. Analysis of data indicated that there were no statistically significant differences in the causal attribution patterns of the school staff across time, between any of the time periods. Additionally, no

statistically significant differences were noted between the control and experimental groups, thus indicating that in this study the CoA intervention had no effect upon school staff causal attributions for challenging behaviour.

Whilst other studies have offered some indication of the changes in teachers' causal attributional patterns over time (Jones et al., 2013; Miller, 1995), the current study sought to provide evidence of shifts in attributional patterns following participation in group problem-solving processes such as CoA. It was therefore hypothesised that participation in the CoA intervention would lead to a change in the adults' attributions for challenging pupil behaviour. More specifically, it was anticipated that the CoA would lead participants to attribute challenging behaviour more to school and teacher factors, and less to parent and child factors.

Dempsey (2012) provided some evidence that CoA may lead to a decrease in the degree to which participants attribute challenging behaviour to child factors, although the current study could not replicate such results. Conversely, the results of the current study indicated that participation in the CoA intervention actually lead to very slight increase in the adults scores on the child factor component of the measure, similar to the second case study described by Syme (2011). That is, participation in the CoA session may have actually led the participants to attribute the cause of challenging behaviour to within-child factors. However, four weeks following the intervention the participants' mean scores for the child factor decreased to lower than they had been at time 1. This may indicate that any changes for adults as a result of the CoA are not immediate and may require additional time for reflection. Alternatively, it may be that the CoA process actually enhances the participants' capacity for reflection over time, thus resulting in an overall decrease in their tendency to attribute challenging behaviour to child factors.

Jones et al. (2013) found that, following involvement in Staff Sharing sessions, the mean scores for all four factors of the Attribution Inventory (Poulou & Norwich, 2000) increased, with statistically significant differences found for three of the factors. The greatest increase was within the teacher factor scores, although similar findings were not replicated in the current study. In fact, the mean scores of the teacher factors subscale for the experimental group initially decreased following the CoA session but then slightly increased again four weeks later. That is, immediately following the CoA session the participants initially attributed the cause of challenging behaviour less to teacher factors implying that, as a group of teaching professionals, they felt less responsible for the cause of the pupil's behaviour. Conversely, the mean scores of the control group participants increased between time 1 and time 3, meaning that they attributed challenging pupil behaviour increasingly to teacher factors following participation in the PEP meeting. This may be explained by the variation in the *roles* which the participants held within the school. Only 10 per cent of the experimental group had a teaching role within the schools compared with 40 per cent of the control group. It is possible that the use of the measure with non-teaching staff may have influenced the results and will be discussed further in section 5.3.

There are a number of other potential reasons for the limited change in the attributional patterns of the adults in the current study. Firstly, it is possible that, as suggested by Poulou and Norwich (2002), the school staff already placed higher emphasis on causal attributions for teacher and school factors. Although it is difficult to make comparisons due to the variation in the number of questions implicated in each factor, the means for both factors do appear to be slightly elevated when compared with those established by Dempsey (2012) and Syme (2011). This may suggest that the school staff already attributed challenging behaviour more readily to teacher and school factors, which is the desired

attributional pattern in terms of the development of solutions (Poulou & Norwich, 2002).

Furthermore, as is recommended by Wilson and Newton (2006), the CoA should be viewed as a voluntary process. Therefore, the findings may have been influenced by the biases involved in volunteering which could have led to an unrepresentative sample of participants in terms of them being staff who already showed a high motivation to support LAC pupils. This may be reflected by the numbers of staff who attended the initial pre-meeting and gave consent to be involved in the study, but then failed to attend the next meeting. It is possible that the participants who chose to attend the CoA or PEP meetings already attributed themselves towards the solution of the problem and therefore attributed teacher or school factors as being most implicated in the cause of challenging pupil behaviour. This potential opportunity for further research will be explored later in section 5.4.

Whilst there was a lack of significant change in the participants' causal attributions, as measured by the Attribution Inventory (Poulou & Norwich, 2000), qualitative analyses suggested that participants may have changed their *perceptions* of the pupil following the CoA session which was reflected in the 'effect on staff professional practice' subtheme. This may imply that through gaining an awareness of the pupil and their situation, the school staff were more empathetic towards the pupil (Wilson & Newton, 2006), thus affecting their tendency to attribute the challenging behaviour to pupil factors.

Additionally, within the 'working in groups' theme it was identified that school staff valued the opportunity to gain different perspectives and feel supported by their colleagues. Such findings may be comparable with previous studies which found that teachers who engaged in group problem-solving approaches felt 'less isolated' (Bozic & Carter, 2002; Stringer et al., 1992), a concept which Bozic

and Carter (2002) explain using attribution theory. It is suggested that through being more aware that colleagues may be experiencing similar problems, teachers may change their causal attributions for challenging behaviour (Bozic & Carter, 2002). Whilst it is recognised that such assertions can only be made tentatively, the current study does perhaps suggest a discrepancy between the quantitative and qualitative findings with regard to the participants' causal attributional patterns following the CoA session. It is possible that a Type II error has occurred whereby the null hypothesis is falsely accepted and will be the subject of further consideration in section 5.3.

5.2.2. Research Question 2

Does involvement in a CoA intervention result in a change in the participants' self-efficacy to support the pupil with challenging behaviour?

Analysis of data from the 'Teacher Efficacy in Classroom Management and Discipline scale' (Emmer & Hickman, 1991) indicated that there were no statistically significant differences in the perceived self-efficacy of the school staff across time. Additionally, no statistically significant differences were found between the control and experimental groups, thus indicating that the CoA intervention has no effect upon school staff perceived self-efficacy for dealing with challenging pupil behaviour.

The current study has strong justification for exploring ways of enhancing the self-efficacy of school staff. Low self-efficacy has been associated with burnout in teachers which potentially impacts further upon pupil behaviour (Brouwers & Tomic, 1999). Conversely, teachers who report higher self-efficacy are more likely to have positive perceptions of success when supporting children with SEN (Brownell & Pajares, 1999). A number of factors have been implicated in enhancing teachers' self-efficacy including support from external agencies

(Poulou & Norwich, 2000) and higher quality interactions with colleagues (Brownell & Pajares, 1999), both of which were potentially facilitated through the current study. Gutkin and Conoley (1990) also suggest that delivering consultation may be one way in which EPs can work to enhance teachers' self-efficacy. Such findings have particular significance for the current study as CoA draws heavily upon group consultation approaches (Wilson & Newton, 2006) and was delivered externally by the EPS and CYPCES. It was hypothesised that participation in the CoA intervention would lead to elevated perceived self-efficacy for the school staff involved.

Although no statistically significant changes were found across time or between the control and experimental group, the current study did highlight some potential trends which may benefit from further research. The 'Teacher Efficacy in Classroom Management and Discipline scale' (Emmer & Hickman, 1991) involved three factors: *external efficacy*, *personal belief* in classroom management; and *overall perceived efficacy*. The most pertinent to the current study was the 'personal belief in classroom management/discipline' as this was specifically related to the participants' perceived self-efficacy for supporting pupils with challenging behaviour. For this factor, there was a similar pattern for both the experimental and control groups whereby there was an increase, albeit not statistically significant, in the mean scores immediately after the PEP or CoA meeting, but then a decrease four weeks later.

In contrast to the findings by Dempsey (2012), who suggested that participation in the CoA intervention could prevent a 'dip' in self-efficacy, similar patterns of 'overall' perceived self-efficacy were noted between the groups. That is, participants overall perceived self-efficacy increased slightly regardless of which meeting they attended. Such findings may provide some explanation for the increases in the TME ratings, which will be discussed shortly, as behavioural

change is strongly determined by self-efficacy (Bandura, 1977). Furthermore, Azjen (1991) suggests that the concept of perceived behavioural control can be captured through measuring the construct of teacher efficacy, thus further highlighting the link between self-efficacy and teachers' intentions to carry out agreed actions (Poulou & Norwich, 2000).

It is also possible that the participants' perceived self-efficacy was elevated following the initial meeting which took place two weeks before the PEP or CoA meeting. The researcher noted that at a number of the initial meetings, the school staff took advantage of the opportunity of contact with colleagues and immediately began discussing strategies. Ethically, the researcher did not feel it was appropriate to stop such discussions as they could have potentially led to the implementation of strategies to support the LAC pupil.

Although studies have shown that increased self-efficacy may lead to alternative instructional (Allinder, 1994) and behaviour management techniques (Woolfolk & Hoy, 1990), it may be possible that through attending the initial meeting participants felt supported by their colleagues (Brownell & Pajares, 1999). This may have potentially had an immediate effect upon their perceived self-efficacy thereby reducing any later effects of the PEP or CoA meeting on the self-efficacy of the school staff. As has already been highlighted in section 5.2, one limitation of the current study is the relatively high participant attrition rates between time 1 and time 2. It is possible that the larger group numbers at the initial meeting positively affected the participants' perceived self-efficacy. Further research could therefore explore the optimum group size to influence teacher self-efficacy. This could also link to another issue which was noted in the current study which could have had an influence on the school staff perceived self-efficacy, namely, the roles of those involved in the group.

The control and experimental groups consisted of five and ten participants, respectively. Although the participants in the CoA valued the support from colleagues, it was identified through the focus groups that an area of contention for the participants was related to the composition of the groups. CoA typically involves a group of 8-12 adults (Wilson & Newton, 2006). However, in the current study the CoA sessions only involved a maximum of four adults meaning that the integrity of the approach may have been compromised. Additionally, only forty per cent of the participants were in management roles which, similar to Syme (2011) and Creese et al. (1998), may have had an impact upon the perceived success of the group. Furthermore, a number of participants held non-teaching roles such as TAs. It is possible that, as indicated by Higgins and Gulliford (2014), the self-efficacy of the 'non-teaching' participants in the current study was adversely affected by the socio-political context of the school, particularly in terms of their lack of power or control over organisational factors. Consequently, the CoA approach may benefit from further investigation into the optimal group composition for change in self-efficacy, particularly with regard to the roles held by those in the group.

Finally, as has been described by Bandura (1977), if we experience success we are more likely to engage in similar actions in the future which will have a positive impact upon our perceived self-efficacy. Therefore, it may be that the effects of participation in CoA are deferred and that adults need to experience the success of the approach in order to experience heightened self-efficacy in the future. None of the staff involved had any experience of CoA. It would therefore be interesting to consider whether attendance at future CoA sessions has an impact upon the participants' self-efficacy.

5.2.3. *Research Question 5*

Do adults who attend a CoA session report higher ratings of success in carrying out agreed actions when compared with those who attended the PEP meeting control group?

The TME (Dunsmuir et al., 2009) measure was used to assess the effects of the CoA intervention on participants' perceived success in carrying out agreed actions. Through the process of the PEP meeting or CoA session a number of target outcomes were identified. The DT for LAC, or another key member of staff, was asked to rate their perceived success of achieving the target on two occasions: immediately after the meeting; and four weeks following the meeting. As described in section 4.3, non-parametric tests were carried out and statistically significant differences were found between the scores of the experimental group at time 2 and time 3, suggesting that participants who attended the CoA session were more likely to perceive that their actions were successfully carried out following a period of four weeks. Conversely, no statistically significant differences were found for the change in the control group scores. However, the scores between the control and experimental group were not statistically significant, thus indicating that there may be some discrepancies in the findings. The following section will now discuss these findings in terms of the existing literature.

As highlighted by Truscott et al. (2012), creating change in school staff is a complex process which requires an understanding of the mechanisms underlying change. This complexity is also reflected in the model presented by Poulou & Norwich (2002) which suggests that human behaviour is influenced by a number of factors including cognitive reactions and causal attributions. A number of studies which have evaluated group problem-solving approaches claim that participation has an effect upon the teachers' behaviour in terms of their use of strategies (Bozic & Carter, 2002; Brown & Henderson, 2012; Jackson, 2008).

However, no actual measures of behaviour change were used, thus highlighting the importance of exploring this element in the current study.

Although Dunsmuir et al. (2009) provide examples of the TME measure in use with child-based targets, the targets devised in the current study related to the actions which would be carried out by the members of staff. The participants may therefore have felt more inclined to report elevated scores if they perceived that they were responsible for carrying out the action (Poulou & Norwich, 2002). Furthermore, the biases associated with self-report measures (Kazdin, 2003) are particularly pertinent with regard to the TME as it was completed directly with the researcher. Although a standardised procedure was followed to minimise any biases, it is possible that the participants in the experimental group provided emphatic ratings of success which may explain the significant finding between time 2 and time 3.

Whilst the current study did tentatively indicate that participation in the CoA process may lead to higher ratings of perceived success in carrying out agreed actions, it should be acknowledged that an adaptation of the measure was used. Dunsmuir et al. (2009) suggest that upon identification of the target, participants also report an 'expected level' rating score whereas in the current study participants only reported the perceived level achieved. According to Weiner (1980) our actions are predicted by our expectations of success. However, Poulou and Norwich (2002) recognise that there may be a discrepancy between intentional and actual behaviour. It is also possible that the participants who provided the ratings were influenced by the '*subjective norm*' of the group, as described by Azjen (1991) in the TPB, an issue which could have been further exacerbated through providing a score of expected success. For these reasons, the researcher felt it was not necessary to provide a measure of the participants' expected success. Further research is therefore required into the use of TME

measure, particularly with regard to the use of the 'expected level' score and will be considered further in section 5.3.

It is posited that self-efficacy strongly influences our actions (Bandura, 1977). Consequently, it might be assumed that due to the lack of changes in the school staff perceived self-efficacy in the current study, the impact of the CoA session on the participants' perceived success might be limited. However, this was not the case and perhaps highlights the difficulties in ascertaining a relationship between self-efficacy and actions. As has already been alluded to, the findings related to the participants' perceived success on agreed actions could be explained by the biases associated with self-report measures. Another explanation is that only one person from each of the CoA sessions completed the measure, those with the greatest responsibility for actions around the focus pupil. The rationale behind this was to ensure some level of consistency in the ratings. However, it is possible that the participants completing the measure did present with a higher self-efficacy if the results were analysed on an individual level. It was beyond the scope of the current research to explore this further, although future research could consider exploring the correlations between perceived self-efficacy and ratings of success.

A final point for discussion with regard to the TME data is concerned with the limited change in reported success of actions for those attending the PEP meeting. Whilst this may initially suggest encouraging evidence for the use of the CoA process in ensuring that actions are carried out, it should be recognised that only two PEP meetings took place with a total of five members of staff. It is possible that the participants in the PEP meeting group were delegated with comparably more responsibilities in terms of carrying out the agreed actions than those in the CoA group, which in addition to their already high workload (The Education Committee, 2011), may have impacted upon the success of such

actions. It should also be acknowledged that members of school staff other than the DT are not typically invited to attend PEP meetings. For the purposes of providing a comparison with the CoA in the current study, schools agreed to invite additional members of school staff. Despite this, only two teachers were involved. This highlights a systemic issue in that the teachers involved in implementing the changes were not necessarily present at the PEP meeting which may have impacted upon the success of such actions.

5.2.4. Research Question 6

What are the participants' views of the CoA process? What are their perceived outcomes of CoA?

Whilst the main focus of the current study was to evaluate the CoA process in terms of the quantifiable changes for the members of staff involved, Pawson and Tilley (1997) also emphasise the importance of exploring the mechanisms which influence change. Consequently, the importance of gaining the participants' views was recognised, particularly as the approach had not previously been used by the EPS or CYPCES.

Through the focus groups the participants commented on the 'overall experience' and reported finding the process useful and thought-provoking, as has similarly been reported with previous evaluations of group problem-solving approaches (Brown & Henderson, 2012), including CoA (Dempsey, 2012; Syme, 2011). Although participants reported on the perceived utility of the process, this did not seem to influence their sense of efficacy, as was suggested by Coladarci & Breton (1997). However, this may be due to limitations of the current study which will be discussed shortly.

CoA is described as a structured problem-solving tool which combines both process and graphic facilitation (Wilson & Newton, 2006). It is perhaps not surprising then that the school staff reported on the visual representation, clear stages and opportunity to explore organisational factors as being helpful to the process. These findings mirror those described by previous studies (Dempsey, 2012; Syme, 2011). As is the case with other problem-solving processes (Brown & Henderson, 2012), the clear structure of the process appeared to be valued by school staff supporting pupils with challenging behaviour, such as the LAC pupils in the current study. Within 'the process' theme, there were contradictions with regard to the 'child's voice' stage. Whilst some participants felt that this stage allowed them to consider the pupil's feelings, one participant highlighted their concerns about the assumptions which were being made about the pupil. As is advised by Wilson & Newton (2006), pupils are not invited to attend the CoA session. However, in light of the renewed emphasis on the importance of involving children and young people in decision making around their SEN (DfE, 2014), it may be necessary to reconsider how children and young people can be involved in the CoA process.

As has been noted previously (Bozic & Carter, 2002; Stringer et al., 1992), school staff who participate in group problem-solving approaches reported feeling supported by their colleagues. The current study echoes these findings in which the participants also reported that they valued the different perspectives of the other group members. Through sharing information between staff, the participants suggested that they were able to gain a holistic view of the pupil, which may reflect the 'deeper understanding' which is gained through the CoA process (Wilson & Newton, 2006). However, participants also reported that the process highlighted gaps in their knowledge. Whilst this was helpful for the overarching goal of supporting the vulnerable pupils, it may provide some

explanation for the feelings of vulnerability which were described by some staff, perhaps influencing their perceived self-efficacy.

Although the school staff appeared to value the CoA process, a number of factors were also highlighted which may have impacted upon the perceived utility of the process. Firstly, as is evident in reviews of other problem-solving processes (Brown & Henderson, 2012; Creese et al., 1998), the length of time required for the session was identified as a challenge which may have impacted upon the numbers of staff involved in each of the groups. Such findings replicate those described by Dempsey (2012) and Syme (2011) and highlight the importance of working with stakeholders to ensure that the process is feasible in their school. Secondly, the 'challenges in supporting LAC' was identified as a key subtheme which reflected the participants' frustrations following many of the CoA meetings. In all but one of the experimental groups, the LAC pupils' situation had changed dramatically since the CoA meeting itself which potentially had an effect upon the school staff ability to carry out successful action as a result of the session. The implications of this will be discussed further in section 5.4. Despite this, such challenges did not appear to be reflected in the TME data, although this could be due to the limitations which will be discussed shortly.

The current study aimed to consider what change occurred for the participants as a result of their involvement in the CoA process. As described by Truscott et al. (2012), facilitating and maintaining staff change solely through consultation methods can be a challenge, as is evident in the current study. However, through the focus groups the participants reported changes both in terms of an emotional effect and an effect upon their professional practice. Similar to Dawson (2013), it was identified that participation in CoA could lead to a change in staff behaviour towards the pupil although no behavioural observations were carried out to confirm such reports. The use of the TME measure therefore goes some

way to add to the claims that involvement in problem-solving groups can lead to change in school staff behaviour (Bozic & Carter, 2002; Brown & Henderson, 2012).

5.2.5. Summary of key findings

The purpose of the current study was to explore changes in school staff following participation in a CoA intervention. Although no statistically significant changes were found in terms of the participants' causal attributions and self-efficacy, there was a significant increase in the participants' ratings of success on agreed actions for those in the experimental group. Additionally, through qualitative methods, participants reported a number of effects of participation in the CoA process including positive changes of their own behaviour towards the pupil. Such findings provide some cautious evidence for supporting the use of CoA with adults supporting LAC. They also provide insights into the mechanisms of change within the process. There are a number of considerations for the design of the current study which will now be the focus of discussion.

5.3. Strengths and limitations of the research

The current study has a number of strengths which may add value to its place within the evidence base for the CoA approach. With reference to the evaluation of four problem-solving approaches, including CoA, Bennett & Monsen (2011) state that:

“All of the existing research could be significantly improved by the inclusion of validated pre- and post-intervention measures, with some statistical analysis of the data presented and the use of control groups” (p.32).

The current study aimed to include these components in addition to the use of a control group. The current study also utilised a pilot study which allowed the researcher the opportunity to reflect upon and gain further support in aspects of the CoA process as well as more practical elements of the study, such as trialling the use of the measures. Despite this, there are some limitations of the current study which will now be considered.

5.3.1. Evaluation of measures

To identify whether any changes occurred following participation in the CoA or PEP meeting, the school staff were required to complete a range of measures which had been developed and utilised in previous published studies (Dunsmuir et al., 2009; Emmer & Hickman, 1991; Poulou & Norwich, 2000). Whilst efforts were made to ensure the reliability and validity of such measures, as is described in section 3.4, the researcher acknowledges the limitations associated with the use of self-report data to attempt to capture constructs such as self-efficacy and causal attributions, which will now be the focus of further discussion.

5.3.1.1. Self-report data

Although self-report measures are widely used in educational research (Kazdin, 2003), they are heavily reliant upon the honesty of the respondent which may

affect their validity (Mertens, 2005). Participants' responses may be influenced by a variety of extraneous factors including the motivation of the respondents (Robson, 2011). Additionally, self-report data may be affected by the biases associated with social desirability (Dunsmuir et al., 2009) This is particularly pertinent with the TME data in which the participants were required to provide a rating on their perceived success of a target in the presence of the researcher. The participants were also given brief information on the process prior to their involvement. The purpose of this was to provide an element of control in terms of the information which was shared with participants. However, it could have increased their awareness of the possible focus of the research which may have influenced their responses in the measures. For a similar reason, a decision was made to omit the 'expected level' rating in the TME as it was suggested that this may have led to biases associated with demand characteristics (Robson, 2011) and potentially influenced the participants' actual rating of perceived success on the agreed actions. A further consideration with regard to the reliability and validity of the self-report data is that the same measures were used repeatedly on three occasions. Although the purpose of this was to consider whether any changes occurred over time, the use of repeated measures can create risks, thus potentially influencing explanations of the lack of statistically significant findings. To reduce the possible practice effects future research should consider randomising the order of the questions and extending the length of time between completing the measures.

Both the Attribution Inventory (Poulou & Norwich, 2000) and the Teacher Efficacy in Classroom Management/Discipline scale (Emmer & Hickman, 1991) were developed for use with teachers. However, the current study involved a number of participants who were other non-teaching members of staff. Consequently, the measures were adapted for use thus affecting any comparisons which can be made with the original measures. For this reason, any reliability

and validity data reported by the original authors cannot be applied to the current study.

5.3.1.2. *Difficulties in capturing constructs*

A further limitation in the current study is concerned with the difficulties associated with accurately capturing constructs such as attributions and self-efficacy, otherwise known as construct validity (Cohen et al., 2011). Perceived self-efficacy is defined as one's belief in their capabilities to carry out a certain action. The 'Teacher Efficacy in Classroom Management and Discipline' scale (Emmer & Hickman, 1991) was used to measure self-efficacy specifically in relation to school staff experiences of behaviour management. It is therefore argued that the measure was domain specific (Bandura, 2006) and consequently, achieves good construct validity. Furthermore, the scale devised by Emmer and Hickman (1991) is based upon a measure devised by Gibson and Dembo (1984) which claimed to correspond to Bandura's (1977) constructs of efficacy and outcome expectations. However, Woolfolk and Hoy (1990) reject such claims and argue that self-efficacy is a complex construct which is difficult to measure.

In order to ensure that the perceived self-efficacy measured in the current study was domain specific, the researcher made the decision to omit the 'Personal Teaching Efficacy' factor as it was identified that a number of participants were not in teaching roles. The score obtained in the two remaining factors were then combined to provide an 'overall' measure of self-efficacy. However, the omission of one factor may have influenced the overall self-efficacy scores and therefore may not be representative of the participants' actual self-efficacy.

In attempt to provide a measure of attributions, Poulou & Norwich (2000) developed a range of vignettes designed to replicate the types of behavioural problems which teachers may face. One vignette was chosen for use in the current study as it most closely represented the situations of the LAC pupils at

the focus of the CoA and PEP meetings. Although vignettes have the advantage that they provide an element of control in the situations to which the participants are responding, it is argued that vignettes may lack ecological validity and therefore not accurately represent the participants' attributions (Grey et al., 2002).

The challenges associated with construct validity are further emphasised by the contradictions found between the quantitative and qualitative data. Whilst no statistically significant results were identified for the attribution measure, analysis of qualitative data indicated that participation in the CoA session may have had an effect upon the staff in terms of their perceptions of the pupil. It is therefore possible that, through rigorously attempting to avoid a Type I error the researcher actually encountered a Type II error whereby the null hypothesis was falsely accepted (Clarke, 2004). Further research may therefore explore alternative measures of teachers' attributions such as those developed by Lambert and Miller (2010).

5.3.2. Experimental design

In addition to the considerations described in relation to the measures used, the results of the current study may be influenced by further issues with regard to the use of an experimental design in a 'real world' context.

5.3.2.1. Sample size

The researcher recognised that conclusions from the current study would be optimised by the use of a large sample size. All secondary schools in the LA in which the research took place were contacted. Despite this, only a small number of school staff were involved which also resulted in differences between the participant numbers of the control and experimental group. Therefore, any conclusions made in the current study are tentative; further research would

benefit from an increased sample of participants, as calculated by a power analysis (Wright, 2003).

5.3.2.2. *Bias*

As has already been described in section 5.3, the participants' responses in the self-report measures may have been subject to bias. Additionally, as is typical of research carried out in the field (Bozic & Carter, 2002; Farouk, 2004), the researcher in the current study was also the facilitator of the intervention. In recognition of the post-positivist standpoint, the researcher attempted to remain objective at all times (Creswell & Plano Clark, 2007). However, it is acknowledged that the CYPCES were understandably eager for positive outcomes of the CoA approach. Therefore, it is possible that the objectiveness of the facilitators was sometimes compromised, although through clearly negotiating the purpose of the research with the stakeholders during the planning stage of the research it is suggested that such biases were minimal.

5.3.2.3. *Lack of randomisation*

RCTs are often perceived as the highest quality research method and allow for clear conclusions to be made with regard to the effectiveness of interventions (Fox, 2003). Despite this, Frederickson (2002) argues that RCTs in the field of education do not necessarily reflect whether an intervention is effective in practice. It should be acknowledged that the current study initially attempted an RCT whereby the focus pupils would be randomly allocated to either the experimental or control group. However, it was necessary to reconsider this due to the timing of the pupil's PEP meetings. Future research may seek to explore this option further.

5.3.3. External and Internal Validity

As identified in section 3.4, a number of threats to the external and internal validity were encountered in the current study. Although steps were taken to control for such threats, the following section describes any further challenges which were faced through the implementation of the study.

5.3.3.1. External validity

The current research aimed to evaluate the CoA intervention for a very specific population: school staff supporting LAC at risk of exclusion. The amount to which the findings are generalisable may therefore be minimal, thus affecting the external validity of the study (Shadish et al., 2002). It should be recognised, however, that the study took place in four different secondary schools, thus expanding on previous research (Dempsey, 2012). As has already been identified, the researcher attempted to carry out the research with a larger sample size and the initial pupil inclusion criteria was broadened to increase this further. However, it was argued that any further changes to the inclusion criteria, for example including school staff working at Pupil Referral Units, would have had implications for the internal validity of the study (Robson, 2011).

5.3.3.2. Internal validity

The current research contained a number of threats to the internal validity particularly in the following areas.

History – the current study aimed to carry out the research in one term, thus reducing the potential effects of extraneous events on the participants. However, due to difficulties in arranging a suitable time for the meetings to take place, two of the CoA sessions took place in the Spring term. It is possible that extraneous events may have occurred in these schools which impacted upon the participants' outcomes.

Testing – In order to determine any changes in the adults as a result of their participation in the CoA intervention, the school staff were required to complete the measure on three separate occasions. It is therefore possible that the results were influenced by practice effects, despite a minimum two week period between the completion of measures.

Mortality – A number of initial participants failed to attend the CoA or PEP meeting despite having given consent in the pre-intervention meeting, thus leading to a high mortality rate. Additionally, one LAC pupil moved schools during the course of the study, thus reducing the number of participants in the control group.

Diffusion of treatment – Two schools were involved in both the experimental and control conditions of the current study, although only one member of staff attended both meetings. In this situation, the PEP meeting took place first, as is typical practice, and the participant only completed measures for this group. In the other school, it was unfortunately not possible to arrange the PEP meeting first. Although different members of staff attended the PEP and CoA meetings, it is possible that the staff discussed the CoA with the control group participants thus reducing the validity of the findings.

Selection – Although random allocation was not possible, pre-test analyses indicated that the groups were comparable at time 1.

5.3.3.3. *Treatment integrity*

The CoA intervention (Wilson & Newton, 2006) at the focus of this evaluative study had not been previously used by the EPS or CYPCES. Although the lack of clarity surrounding the training requirements of CoA is a criticism of the approach (Bennett & Monsen, 2011), it is recognised that the limited training received by the CYPCES may have influenced the reliability and validity of the

findings. Furthermore, despite receiving extensive training in the approach, the researcher had relatively little experience in delivering the process prior to the study. Consequently, it was imperative that treatment integrity checks were carried out. Although the ratings of the treatment integrity were high, thus indicating that the ten stages of the process were followed accurately, it should be recognised that the observers had very limited experience in the approach which may have affected their judgements.

5.3.4. Trustworthiness of qualitative data

As identified by Cohen et al. (2011), reliability and validity are equally applicable to qualitative methods and may simply require redefining (Golafshani, 2003). In relation to the current study, validity is concerned with whether the data obtained in the focus groups is an honest representation of the participants' views about the CoA process. A number of steps were taken to control for the threats to validity in the qualitative element of the current study and are discussed in section 3.4. However, the researcher acknowledges that some further difficulties were encountered which may limit the trustworthiness of the qualitative data.

Primarily, these surround the challenges experienced in implementing focus groups. Focus groups ideally involve between five and ten participants (Krueger & Casey, 2009). However, due to the small group sizes some focus groups in the current study only involved three participants. This will have likely impacted upon the interactive nature of the discussion, a distinct quality of focus groups (Litosseliti, 2003).

With regard to the thematic analysis of the responses, a number of steps were taken to ensure that the analysis was representative of the focus group discussions, as described in section 3.4. Whilst the researcher used reflexivity to

consider the influence upon the data, the potentially subjective nature of thematic analysis is recognised.

5.4. Implications of the research

The researcher will now consider the implications of the current study for future research, LA and schools, and EPs.

5.4.1. Implications for applied research

Whilst the anecdotal evidence for CoA is promising (Newton, 1995; Wilson & Newton, 2006), the current study sought to objectively evaluate the approach through measuring the outcomes and exploring the underlying processes, as is encouraged in the drive for evidence-based practice (Frederickson, 2002; Gulliford, 2014). Although the importance of changing attributions is recognised (Poulou & Norwich, 2002), the current study reiterates the difficulties in shifting attributions simply through involvement in interventions (Frederickson, Warren & Turner, 2005; Wiley, Tankersley, & Simms, 2012). Additionally, the current study experienced similar challenges to Gibbs and Powell (2012) with regard to changing the self-efficacy of school staff in a real world context.

This lack of conclusive findings highlights the complexity of measuring interventions such as CoA. Indeed, as is identified by Gulliford (2014), CoA is an example of an intervention with complex chains of causality where the causes and effects may not be clearly separable (Clarke, 2004). Future research may therefore seek to explore alternative methodological approaches to evaluating CoA, for example, through sequential analysis which aims to “understand how the present generates the future” (p.81) to lead positive outcomes (Clarke, 2004). Table 5.1 presents further ways in which the research into CoA could be developed, based on the preceding discussion.

Possible research question	Potential methods to investigate the research question
Are the outcomes for school staff more pronounced if more than one CoA session is attended?	Quasi-experimental design in which participants attend multiple CoA sessions, potentially on a half-termly basis.
What impact does CoA have on the focus pupils?	Experimental design which uses quantitative measures to explore outcomes for the pupil (i.e. attendance, behaviour).
What are the outcomes of the CoA intervention for primary school staff?	Mixed-methods study similar to that of the current study.
Is there a correlation between the adults' self-efficacy and their ratings of perceived success with regard to specific targets?	Correlational design which combines a measure of teacher efficacy with the Target Monitoring and Evaluation (Dunsmuir et al., 2009) measure.
Is there a correlation between the adults' attributional pattern and their ratings of perceived success with regard to specific targets?	Correlational design which combines a measure of teacher attributions with the Target Monitoring and Evaluation (Dunsmuir et al., 2009) measure.
Does involvement in a CoA intervention result in a change in the participants' attributions for the solutions to challenging pupil behaviour?	Mixed-methods design which involves the 'coping strategies' component to the Attribution Inventory (Poulou & Norwich, 2000).

Table 5.1. Consideration of future research questions to be addressed.

Furthermore, as has been identified, any further research into the CoA approach would benefit from more adults attending the sessions which would lead to a larger sample size. Additionally, the experience and training of the facilitators should be carefully considered.

5.4.2. Implications for Local Authorities and schools

Although the current study has provided inconclusive results with regard to whether the CoA approach is an effective approach for supporting school staff working with LAC, this may be due to the difficulties encountered in conducting ‘real world’ research. Consequently, the outcomes of this research may still have implications for the LA in which the research took place, as well as the participating schools. Through initial discussions with key stakeholders, the CYPCES, it was identified that much of their role in schools is to indirectly support LAC pupils through directly supporting the staff. However, the lack of structure in such support was identified as a challenge thus supporting the use of the highly structured CoA approach. Consequently, the research was very relevant to the needs of the CYPCES.

Whilst no changes in the participants’ causal attributions or perceived self-efficacy were noted following involvement in the CoA intervention, the analysis of the TME data indicated that participants’ who attended the CoA session rated significantly higher in terms of perceived success with agreed actions than those attending the PEP meeting. This may indicate that participation in CoA leads adults to carry out agreed actions successfully. However, for the reasons described above, such claims can only be made tentatively but may have potential implications for the LA and schools, in which measurable outcomes are becoming increasingly important (DfE, 2014).

Furthermore, through the analysis of the focus group discussions, it was identified that participants generally viewed the CoA positively, and valued the opportunity to share information with colleagues. A number of participants commented on the applicability of the process for other pupils, further supporting its continued use in the LA.

Despite the positive implications identified, the current research may also have financial implications for the LA, as it has been identified that the delivery of the CoA intervention may be enhanced by formal training in the approach which may influence the outcomes for the members of staff involved.

5.4.3. Implications for EPs

As highlighted in section 3.1, EPs may play an important role in the drive for evidence-based practice (Farrell et al., 2006). The evidence base for the CoA is somewhat limited (Bennett & Monsen, 2011) and the current study sought to add to this. Consequently, the study has a number of implications for EP practice.

Firstly, although the group approach utilised in the current study did not lead to any significant changes in terms of the causal attributions and perceived self-efficacy of the school staff, the comments made through the qualitative element to this study have particular implications for EPs. Participants valued having dedicated time for discussions and the support they received from colleagues. Despite this, one of the major limitations of the current study was the small group numbers, potentially due to the time required for the session. It may therefore be appropriate to consider how to increase the feasibility of the approach for school staff who are already under a high level of pressure.

For EPs working in the LA in which the research took place, LAC are a priority and will continue to be considered as ‘core’ work as the service becomes traded.

Consequently, the current research has strong implications for how EPs may provide indirect support to LAC, particularly if further research can be carried out to identify what effects, if any, the approach has on the outcomes for the pupils at the focus of the discussion.

In light of the current developments in the SEN Code of Practice (DfE, 2014), there is an increased emphasis on the importance of gaining the views of children, young people and their parents or carers. Young people and their parents are not typically invited to attend CoA sessions, thus questioning the sustainability of the approach. It may therefore require further consideration as to how the approach is 'sold' to schools and perhaps more emphasis should be placed upon the 'group supervision' (Wilson & Newton, 2006) function of the approach.

6. Conclusions

The aim of the current study was to evaluate the CoA approach with school staff supporting LAC at risk of exclusion. The final section will consider the research in light of its initial aims and will present a general conclusion of the current research.

LAC are a particularly vulnerable group in our society (Cameron & Maginn, 2011) and have often experienced adversity which may lead to them being over-represented in school exclusion rates (DfE, 2012a), often due to challenging behaviour. Supporting children who display challenging behaviour can be extremely frustrating for school staff (Poulou & Norwich, 2002). This can lead to teacher burnout which may have a cyclical effect upon the pupil's behaviour (Brouwers & Tomic, 1999). Consequently, the importance of identifying ways to support teachers and enhance change was recognised, potentially through the use of a group problem-solving approach. A range of approaches were explored and upon reflection, CoA (Wilson & Newton, 2006) was identified as a suitable intervention for use with the school staff who participated in the current study.

The present study aimed to expand upon previously unpublished doctoral thesis by utilising a mixed-method approach to explore the effects of the CoA approach on school staff supporting LAC at risk of exclusion. Additionally, it proposed to explore the claims made by previous research that participation in group problem-solving approaches leads to behaviour change in school staff (Bozic & Carter, 2002; Brown & Henderson, 2012) through the use of the TME (Dunsmuir et al., 2009). The evidence base for the CoA approach is somewhat limited and therefore the current research aimed to enhance the current research base. A pragmatic approach was adopted which combined elements of a post-positivist quasi-experimental design with an interpretivist approach to gain qualitative information regarding the participants' views of the CoA

intervention. The research took place in four secondary schools in the North of England and involved a total of 15 participants. Whilst no statistically significant changes were observed with regard to the participants' causal attributions or perceived self-efficacy, participants in the experimental group did report statistically significant increases in their ratings of perceived success on the agreed actions. Through the qualitative element to the study, participants reported that they valued the clear stages of the process and the opportunity to have discussions with colleagues. Participants' also reported that their involvement in the process lead to changes in their professional practice and had an emotional effect upon them. However, some challenges of the process were also noted. In particular, participants commented on the rapidly changing circumstances of the LAC pupils which impacted on their ability to carry out actions. Additionally, ensuring that the relevant professionals were present may have implications on the success of the approach.

Upon reflection, the current research may have benefitted from a number of changes to the design and implementation, as have been described in section 5.3. For example, the current research may be limited by the small sample size and the biases associated with focus groups and self-report data. The researcher considered the limitations of the current study and provided a brief exploration of further research possibilities with regard to the CoA approach.

Although the current study provides some support for the use of the CoA approach, further research is required to identify more conclusively as to whether the CoA is an effective approach which can lead to positive change for staff supporting vulnerable pupils in schools. As is typical of intervention research, the current study aimed to uncover the effects of the CoA intervention. However, in cases such as this where there are long chains of causality (Gulliford, 2014), it is imperative that future research focuses upon the

underlying theoretical mechanisms and processes in order to consider not only *what* changes may occur but also *why* such changes may occur as the result of participation in the CoA intervention.

References

- Allinder, R. M. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17*(2), 86-95.
- Armitage, C. J., and Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology, 40*, 471-499.
- Atkinson, C., and Woods, K. (2007). A model of effective fieldwork supervision for Trainee Educational Psychologists. *Educational Psychology in Practice, 23*(4), 299-316.
- Azjen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Processes, 50*(2), 179-211.
- Bahr, M. W., Walker, K., Hampton, E. M., Buddle, B. S., Freeman, T., Ruschman, N., Sears, J., McKinney, A., Miller, M. and Littlejohn, W. (2006). Creative problem solving for general education intervention teams - A two-year evaluation study. *Remedial and Special Education, 27*(1), 27-41.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. USA: W.H Freeman and Company.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 307-337). Greenwich, CT: Information Age Publishing.

- Bennett, S., and Monsen, J. J. (2011). A critical appraisal of four approaches which support teachers' problem-solving within educational settings. *Educational Psychology in Practice*, 27(1), 19-35.
- Bergan, J. R., and Tombari, M. L. (1975). The analysis of verbal interactions occurring during consultation. *Journal of School Psychology*, 13(3), 209-226.
- Berridge, D., Henry, L., Jackson, S., and Turney, D. (2009). *Looked After and Learning: Evaluation of the Virtual School Head Pilot*. Bristol: DCSF.
- Bibou-Nakou, I., Stogiannidou, A., and Kiosseoglou, G. (1999). The relation between teacher burnout and teachers' attributions and practices regarding school behaviour problems. *School Psychology International*, 20(2), 209-217.
- Billington, T. (2006). Psychodynamic theories and the 'science of relationships' (Bion): A rich resource for professional practice in children's services. *Educational and Child Psychology*, 23(4), 72-79.
- Boyle, C., Topping, K., Jindal-Snape, D., and Norwich, B. (2011). The importance of peer-support for teaching staff when including children with special educational needs. *School Psychology International*, 33(2), 167-184.
- Bozic, N., and Carter, A. (2002). Consultation Groups: Participants' views. *Educational Psychology in Practice*, 18(3), 189-201.
- BPS. (2009). *Code of Ethics and Conduct*. Leicester: The British Psychological Society.
- Brace, N., Kemp, R., and Snelgar, R. (2003). *SPSS for Psychologists: A guide to data analysis using SPSS for Windows* (2nd ed.). Hampshire: Palgrave MacMillan.

- Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brouwers, A., and Tomic, W. (1999). Teacher burnout, perceived self-efficacy in classroom management, and student disruptive behaviour in secondary education. *Curriculum and Teaching*, 14(2), 7-26.
- Brown, E., and Henderson, L. (2012). Promoting staff support in schools: Solution Circles. *Educational Psychology in Practice*, 28(2), 177-186.
- Brownell, M. T., and Pajares, F. (1999). Teacher efficacy and perceived success in mainstreaming students with learning and behavior problems. *Teacher Education and Special Education*, 22(3), 154-164.
- Callicott, K., and Leadbetter, J. (2013). An investigation of factors involved when educational psychologists supervise other professionals. *Educational Psychology in Practice*, 29(4), 383-403.
- Cameron, S., and Maginn, C. (2011). Living psychology: The 'emotional warmth' dimension of professional childcare. *Educational and Child Psychology*, 28(3), 44-62.
- Caplan, G. (1970). *The Theory and Practice of Mental Health Consultation*. New York: Basic Books.
- Caprara, G. V., Barbaranelli, C., Steca, P., and Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6), 473-490.
- Clarke, D. D. (2004). "Structured judgement methods" - the best of both worlds? In Z. Todd, B. Nerlich, S. McKeown & D. D. Clarke (Eds.), *Mixing Methods in Psychology* (pp. 81-100). Hove: Psychology Press.

- Clarke, V., and Braun, V. (2013). Teaching thematic analysis. *The Psychologist*, 26(2), 120-123.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). Hillsdale, NJ: Academic Press.
- Cohen, L., Manion, L., and Morrison, K. (2011). *Research Methods in Education* (7th ed.). Oxford: Routledge.
- Coladarci, T., and Breton, W. A. (1997). Teacher efficacy, supervision and the special education resource-room teacher. *The Journal of Educational Research*, 90(4), 230-239.
- Conoley, J. C., and Conoley, C. W. (1990). Staff consultative work in schools. In N. Jones & N. Frederickson (Eds.), *Refocusing educational psychology* (pp. 84-103). Basingstoke: Falmer.
- Creese, A., Norwich, B., and Daniels, H. (1998). The prevalence and usefulness of collaborative teacher groups for SEN: Results of a national survey. *Support for Learning*, 13(3), 109-114.
- Creswell, J. W. (2003). *Research Design. Qualitative, Quantitative, and Mixed Methods Approaches* (2nd ed.). London: Sage Publications Ltd.
- Creswell, J. W. (2007). *Qualitative Inquiry and Research Design: Choosing among five approaches* (2nd ed.). London: Sage Publications Ltd.
- Creswell, J. W., and Plano Clark, V. L. (2007). *Designing and Conducting Mixed Methods Research*. London: Sage Publications Ltd.
- Croll, P., and Moses, D. (1985). *One in Five. The Assessment and Incidence of Special Educational Needs*. London: Routledge and Kegan Paul.
- Croll, P., and Moses, D. (1999). *Special Needs in the Primary School: One in Five?* London: Continuum.

- Dancey, C. P., and Reidy, J. (2007). *Statistics Without Maths for Psychology* (4th ed.). Essex: Pearson Education Limited.
- Dawson, K. (2013). *An interpretative analysis of key adults' and children's experiences of school and their relationship before and after a Circle of Adults intervention*. Unpublished doctoral dissertation, University of Sheffield.
- Department for Children, Schools and Families (DCSF, 2008). *Improving behaviour and attendance: guidance on exclusion from schools and pupil referral units*. Nottingham: DCSF.
- Department for Children, Schools and Families (DCSF, 2009a). *Improving the educational attainment of children in care (Looked after Children)*. London: DCSF.
- Department for Children, Schools and Families (DCSF, 2009b). *The role and responsibilities of the designated teacher for looked after children: statutory guidance for school governing bodies*. Nottingham: DCSF.
- Dellinger, A. B., Bobbett, J. J., Olivier, D. F., and Ellett, C. D. (2008). Measuring teachers' self-efficacy beliefs: Development and use of the TEBS-Self. *Teaching and Teacher Education*, 24(3), 751-766.
- Dempsey, K. (2012). *A mixed-method study investigating a Circle of Adults approach to group work in schools*. Unpublished doctoral dissertation, University of Nottingham.
- Dennison, A., McBay, C., and Shaldon, C. (2006). Every team matters: The contribution educational psychology can make to effective teamwork. *Educational and Child Psychology*, 23(4), 80-90.
- Dent, R. J., and Cameron, R. J. S. (2003). Developing Resilience in Children Who are in Public Care: The educational psychology perspective. *Educational Psychology in Practice*, 19(1), 3-19.

- Department for Education (DfE, 2010). *The Importance of Teaching. The schools white paper 2010*. Norwich: The Stationary Office.
- Department for Education (DfE, 2011). *Outcomes for Children Looked After by Local Authorities in England, as at 31 March 2011* London: DfE.
- Department for Education (DfE, 2012a). *Outcomes for children looked after as at 31st March 2011 – additional tables*. London: DfE.
- Department for Education (DfE, 2012b). *Pupil Behaviour in Schools in England*. London: DfE.
- Department for Education (DfE, 2014). *Draft special educational needs and disability code of practice: 0 to 25 years. Statutory guidance for organisations who work with and support children and young people with special educational needs and disabilities*. In press. Retrieved May 3, 2014, from www.aep.org.uk/system/files/SEN_Code_of_Practice.pdf
- Department for Education and Employment (DfEE, 2000). *Guidance on the Education of Children and Young People in Public Care* London: DfEE.
- Department for Education and Skills (DES, 1989). *Discipline in Schools (The Elton Report)*. London: HMSO.
- Dunsmuir, S., Brown, E., Iyadurai, S., and Monsen, J. (2009). Evidence-based practice and evaluation: from insight to impact. *Educational Psychology in Practice*, 25(1), 53-70.
- Dunsmuir, S., and Leadbetter, J. (2010). *Professional supervision: Guidelines for practice for educational psychologists*. Leicester: British Psychological Society.
- Emmer, E. T., and Hickman, J. (1991). Teacher efficacy in classroom management and discipline. *Educational and Psychological Measurement*, 51(3), 755-765.

- Evans, S. (2005). The development of a group consultation approach to service delivery. *Educational Psychology in Practice*, 21(2), 131-146.
- Farouk, S. (2004). Group work in schools: A process consultation approach. *Educational Psychology in Practice*, 20(3), 207-220.
- Farrell, P., Woods, K., Lewis, S., Rooney, S., Squires, G., and O'Connor, M. (2006). *A review of the functions and contributions of educational psychologists in England and Wales in light of 'Every Child Matters: Change for Children'*. Manchester: University of Manchester.
- Fox, M. (2003). Opening Pandora's Box: Evidence-based practice for educational psychologists. *Educational Psychology in Practice*, 19(2), 91-102.
- Frederickson, N. (2002). Evidence-based practice and educational psychology. *Educational and Child Psychology*, 19(3), 96-111.
- Frederickson, N., and Cline, T. (2009). *Special Educational Needs, Inclusion and Diversity* (2nd ed.). Maidenhead: Open University Press.
- Frederickson, N., Dunsmuir, S., Lang, J., and Monsen, J. J. (2004). Mainstream-special school inclusion partnerships: pupil, parent and teacher perspectives. *International Journal of Inclusive Education*, 8(1), 37-57.
- Frederickson, N., Warren, L., and Turner, J. (2005). "Circle of Friends"—An Exploration of Impact Over Time. *Educational Psychology in Practice*, 21(3), 197-217.
- Gersten, R., Fuchs, L. S., Compton, D., Coyne, M., Greenwood, C., and Innocenti, M. S. (2005). Quality indicators for group experimental and quasi-experimental research in Special Education. *Exceptional Children*, 71(2), 149-164.

- Gibbs, S., and Gardiner, M. (2008). The structure of primary and secondary teachers' attributions for pupils' misbehaviour: a preliminary cross-phase and cross-cultural investigation. *Journal of Research in Special Educational Needs*, 8(2), 68-77.
- Gibbs, S., and Powell, B. (2012). Teacher efficacy and pupil behaviour: The structure of teachers' individual and collective beliefs and their relationship with numbers of pupils excluded from school. *British Journal of Educational Psychology*, 82(4), 564-584.
- Gibson, S., and Dembo, M. H. (1984). Teacher efficacy: a construct validation. *Journal of Educational Psychology*, 76(4), 569-582.
- Gill, D., and Monsen, J. (1996). The Staff Sharing Scheme: A school based management system for working with challenging child behaviour. In E. Blyth & J. Milner (Eds.), *Exclusions from school: Inter-professional issues for policy and practice*. (pp. 185-207). London: Routledge.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-607.
- Golding, K. S. (2006). 'Forgotten miseries': Can attachment theory help to guide interventions? In K. S. Golding, H. R. Dent, R. Nissim & L. Stott (Eds.), *Thinking psychologically about children who are Looked After and adopted*. (pp. 333-360). West Sussex: John Wiley & Sons Ltd.
- Gordon, A. (2001). School Exclusions in England: Children's voices and adult solutions? *Educational Studies*, 27(1), 69-85.
- Gough, D. (2007). Weight of Evidence: a framework for the appraisal of the quality and relevance of evidence. *Research Papers in Education*, 22(2), 213-228.

- Grey, I. M., McClean, B., and Barnes-Holmes, D. (2002). Staff Attributions about the Causes of Challenging Behaviours: Effects of Longitudinal Training in Multi-Element Behaviour Support. *Journal of Intellectual Disabilities*, 6(3), 297-312.
- Gulliford, A. (2014). Evidence-based practice in educational psychology: the nature of evidence. In T. Cline, A. Gulliford & S. Birch (Eds.), *Educational Psychology*. Hove: Taylor and Francis. In press.
- Gutkin, T. B., and Conoley, J. C. (1990). Reconceptualizing school psychology from a service delivery perspective: Implications for practice, training, and research. *Journal of School Psychology*, 28, 203-223.
- Hallam, S., and Castle, F. (2001). Exclusion from School: What can help prevent it? *Educational Review*, 53(2), 169-179.
- Hammersley, M. (1997). Educational Research and Teaching: a response to David Hargreaves' TTA lecture. *British Educational Research Journal*, 23(2), 141-161.
- Hanko, G. (1999). *Increasing Competence Through Collaborative Problem-Solving*. London: David Fulton Publishers.
- Hanko, G. (2002). Making psychodynamic insights accessible to teachers as an integral part of their professional task. *Psychodynamic Practice*, 8(3), 375-389.
- Hanson, W. E., Creswell, J. W., Plano Clark, V. L., Petska, K. S., and Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, 52(2), 224-235.
- Hastings, R. P. (1997). Measuring staff perceptions of challenging behaviour: the Challenging Behaviour Attributions Scale (CHABA) *Journal of Intellectual Disability Research*, 41(6), 495-501.

- Hastings, R. P., and Bham, M. S. (2003). The relationship between student behaviour patterns and teacher burnout. *School Psychology International*, 24(1), 115-127.
- Hawkins, P., and Shohet, R. (2006). *Supervision in the helping professions* (3rd ed.). Maidenhead: McGraw-Hill.
- Health Professions Council (HPC, 2009). *Standards of Conduct, Performance and Ethics*. London: Health Professions Council.
- Hennink, M., Hutter, I., and Bailey, A. (2011). *Qualitative Research Methods*. London: Sage Publications Ltd.
- Higgins, H., and Gulliford, A. (2014). Understanding teaching assistant self-efficacy in role and in training: its susceptibility to influence. *Educational Psychology in Practice*, 30(2), 120-138.
- Howitt, D., and Cramer, D. (2011). *Introduction to Research Methods in Psychology* (3rd ed.). Essex: Pearson Education Limited.
- Jackson, E. (2008). The development of work discussion groups in educational settings. *Journal of Child Psychotherapy*, 34(1), 62-82.
- Jamieson, S. (2004). Likert scales: how to (ab)use them. *Medical Education*, 38, 1217-1218.
- Johnson, D. W., and Johnson, F. P. (2009). *Joining Together: Group Theory and Group Skills* (10th ed.). New Jersey: Pearson.
- Jones, D., Monsen, J., and Franey, J. (2013). Using the Staff Sharing Scheme to support school staff in managing challenging behaviour more effectively. *Educational Psychology in Practice*, 29(3), 258-277.
- Kazdin, A. E. (2003). *Research Design in Clinical Psychology* (4th ed.). Boston: Allyn & Bacon.

- Kennedy, E. K., Frederickson, N., and Monsen, J. (2008). Do educational psychologists “walk the talk” when consulting? *Educational Psychology in Practice*, 24(3), 169-187.
- Klassen, R. M., and Chiu, M. M. (2010). Effects on Teachers' Self-Efficacy and Job Satisfaction: Teacher Gender, Years of Experience, and Job Stress. *Journal of Educational Psychology*, 102(3), 741-756.
- Klingner, J. K., and Boardman, A. G. (2011). Addressing the “Research Gap” in Special Education Through Mixed Methods. *Learning Disability Quarterly*, 34(3), 208-218.
- Knapp, T. R. (1990). Treating ordinal scales as interval scales: An attempt to resolve the controversy. *Nursing Research*, 39(2), 121-123.
- Krueger, R. A., and Casey, M. A. (2009). *Focus Groups: a practical guide for applied research* (4th ed.). London: SAGE publications Ltd.
- Lambert, N., and Miller, A. (2010). The temporal stability and predictive validity of pupils' causal attributions for difficult classroom behaviour. *British Journal of Educational Psychology*, 80(4), 599-622.
- Leadbetter, J. (2006). Investigating and Conceptualising the Notion of Consultation to Facilitate Multi-agency Work. *Educational Psychology in Practice*, 22(1), 19-31.
- Litosseliti, L. (2003). *Using Focus Groups in Research*. London: Continuum.
- Little, E. (2005). Secondary school teachers' perceptions of students' problem behaviours. *Educational Psychology*, 25(4), 369-377.
- Lowther, C. (2013). Rocket science: an exploration of what information is of meaning to educational psychologists when evaluating their work. *Educational Psychology in Practice*, 29(3), 243-257.

- MacFarlane, K., and Woolfson, L. M. (2013). Teacher attitudes and behavior toward the inclusion of children with social, emotional and behavioral difficulties in mainstream schools: An application of the theory of planned behavior. *Teaching and Teacher Education*, 29(0), 46-52.
- Mackenzie, N., and Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research*, 16(2), 193-205.
- Mavropoulou, S., and Padeliadu, S. (2002). Teachers' Causal Attributions for Behaviour Problems in Relation to Perceptions of Control. *Educational Psychology*, 22(2), 191-202.
- McAuley, C., and Davis, T. (2009). Emotional well-being and mental health of looked after children in England. *Child & Family Social Work*, 14(2), 147-155.
- Mertens, D. M. (2005). *Research and Evaluation in Education and Psychology: Integrating diversity with quantitative, qualitative and mixed methods* (2nd ed.). London: Sage Publications Ltd.
- Mertens, D. M., and McLaughlin, J. A. (2004). *Research and Evaluation Methods in Special Education*. London: Sage Publications Ltd.
- Miller, A. (1995). Teachers' attributions of causality, control and responsibility in respect of difficult pupil behaviour and its successful management. *Educational Psychology*, 15(4), 457-471.
- Miller, A. (2003). *Teachers, parents and classroom behaviour: A psychosocial approach*. Maidenhead: Open University Press.
- Miller, A. (2008). Challenging behaviour in schools, who is to blame? In N. Frederickson, A. Miller & T. Cline (Eds.), *Educational Psychology: Topics in Applied Psychology* (pp. 157-174). London: Hodder Education.

- Miller, A., and Todd, Z. (2002). Educational psychology and difficult behaviour in schools: Conceptual and methodological challenges for an evidence-based profession. *Journal of Educational and Child Psychology*, 19(3), 82-95.
- Morgan, D. L. (1997). *Focus groups as qualitative research* (2nd ed.). London: Sage Publications.
- Munn, P., Johnstone, M., Sharp, S., and Brown, J. (2007). Violence in schools: Perceptions of secondary teachers and head teachers over time. *International Journal on Violence and Schools*, 3, 52-80.
- Munn, P., Sharp, S., Lloyd, G., Macleod, G., McCluskey, G., Brown, J., and Hamilton, H. (2009). *Behaviour in Scottish Schools 2009*. Edinburgh: Education Analytical Services, Scottish Government.
- Newton, C. (1995). Circles of Adults: Reflecting and problem solving around emotional needs and behaviour. *Educational Psychology in Practice*, 11(2), 8-14.
- Newton, J. S., Horner, R. H., Algozzine, B., Todd, A. W., and Algozzine, K. (2012). A randomized wait-list controlled analysis of the implementation integrity of team-initiated problem solving processes. *Journal of School Psychology*, 50(4), 421-441.
- Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in Health Sciences Education*, 15, 625-632.
- Norwich, B., and Daniels, H. (1997). Teacher Support Teams for Special Educational Needs in Primary Schools: evaluating a teacher-focused support scheme. *Educational Studies*, 23(1), 5-24.
- Noyes, J., Popay, J., Pearson, A., Hannes, K., and Booth, A. (2008). Qualitative research and Cochrane reviews. In J. P. T. Higgins & S. Green (Eds.), *Cochrane Handbook for Systematic Reviews of Interventions*. (pp.

- 571-591). Chichester: The Cochrane Collaboration and John Wiley & Sons Ltd.
- Ofsted. (2005). *Managing challenging behaviour*. London: Ofsted.
- Pallant, J. (2001). *SPSS Survival Manual*. Maidenhead: Open University Press.
- Parsons, C. (1999). *Education, Exclusion and Citizenship*. London: Routledge.
- Pawson, R., and Tilley, N. (1997). *Realistic Evaluation*. London: Sage.
- Petticrew, M., and Roberts, H. (2006). *Systematic reviews in the social sciences: A practical guide* Oxford: Blackwell.
- Poulou, M., and Norwich, B. (2000). Teachers' causal attributions, cognitive, emotional and behavioural responses to students with emotional and behavioural difficulties. *British Journal of Educational Psychology*, 70(4), 559-581.
- Poulou, M., and Norwich, B. (2002). Cognitive, Emotional and Behavioural Responses to Students with Emotional and Behavioural Difficulties: A model of decision-making. *British Educational Research Journal*, 28(1), 111-138.
- Proctor, B., and Inskipp, F. (2001). Group supervision. In J. Scaife (Ed.), *Supervision in the Mental Health Professions. A Practitioner's Guide* (pp. 99-121). Hove: Brunner-Routledge.
- Razali, N. M., and Wah, Y. B. (2011). Power comparisons of shapiro-wilk, kolmogorov-smirnov, lilliefors and anderson-darling tests. *Journal of Statistical Modeling and Analytics*, 2(1), 21-33.
- Reed, J. (2005). *Towards Zero Exclusion: an action plan for schools and policy makers*. London: Institute for Public Policy Research.

- Rhodes, J., and Ajmal, Y. (1995). *Solution Focused Thinking in Schools*. London: BT Press.
- Robson, C. (2011). *Real World Research* (3rd ed.). West Sussex: Wiley.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, 1-28.
- Schein, E. H. (1988). *Process consultation: Its role in organisation development* (2nd ed. Vol. 1). Workingham: Addison-Wesley.
- Schein, E. H. (1999). *Process consultation revisited: Building the helping relationship*. Reading, MA: Addison Wesley.
- Scott, J. (2011). The impact of disrupted attachment on the emotional and interpersonal development of looked after children. *Educational & Child Psychology*, 28(3), 31-43.
- Sempik, J., Ward, H., and Darker, I. (2008). Emotional and Behavioural Difficulties of Children and Young People at Entry into Care. *Clinical Child Psychology and Psychiatry*, 13(2), 221-233.
- Shadish, W. R., Cook, T. D., and Campbell, D. T. (2002). *Experimental and Quasi-Experimental Designs for General Causal Inference*. New York: Houghton Mifflin.
- Shaife, J. (2001). *Supervision in the Mental Health Professions. A Practitioner's Guide*. Hove: Brunner-Routledge.
- Smit, B., and Cilliers, F. (2006). Understanding implicit texts in focus groups from a systems psychodynamic perspective. *The Qualitative Report*, 11(2), 302-316.
- Soodak, L. C., and Podell, D. M. (1996). Teacher efficacy: Toward the understanding of a multi-faceted construct. *Teaching and Teacher Education*, 12(4), 401-411.

- Steer, A. (2009). *Learning Behaviour. Lessons Learned. A review of behaviour standards and practices in our schools.* London: Institute of Education.
- Stringer, P., Stow, L., Hibbert, K., Powell, J., and Louw, E. (1992). Establishing Staff Consultation Groups in Schools: A programme to train facilitators of school based staff support groups in consultancy. *Educational Psychology in Practice*, 8(2), 87-96.
- Syme, W. (2011). *An evaluation of the impact of 'Circles of Adults'*. Unpublished doctoral dissertation, University of Nottingham.
- Teddlie, C., and Tashakkori, A. (2006). A general typology of research designs featuring mixed methods. *Research in the Schools*, 13(1), 12-28.
- The Education Committee (2011). *House of Commons Education Committee: Behaviour and Discipline in Schools, first report of session 2010-2011, Volume 1.* London: The Stationary Office Ltd.
- Truscott, S. D., Kreskey, D., Bolling, M., Psimas, L., Graybill, E., Albritton, K., and Schwartz, A. (2012). Creating consultee change: A theory-based approach to learning and behavioral change processes in school-based consultation. *Consulting Psychology Journal: Practice and Research*, 64(1), 63-82.
- Tschannen-Moran, M., and Hoy, A. W. (2001). Teacher efficacy: capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783-805.
- Vaughn, S., Schumm, J. S., and Sinagub, J. (1996). *Focus group interviews in education and psychology.* London: Sage.
- Wagner, P. (2000). Consultation: Developing a comprehensive approach to service delivery. *Educational Psychology in Practice*, 16(1), 9-18.
- Wagner, P. (2008). Consultation as a framework for practice. In B. Kelly, L. Woolfson & J. Boyle (Eds.), *Frameworks for Practice in Educational*

- Psychology. A textbook for trainees and practitioners.* (pp. 139-161). London: Jessica Kingsley Publishers.
- Weiner, B. (1972). Attribution Theory, Achievement Motivation, and the Educational Process. *Review of Educational Research*, 42(2), 203-215.
- Weiner, B. (1980). A cognitive (attribution)-emotion-action model of motivated behavior: An analysis of judgments of help-giving. *Journal of Personality & Social Psychology*, 39(2), 186-200.
- West, J. F., and Idol, L. (1987). School Consultation (Part 1): An interdisciplinary perspective on theory, models and research. *Journal of Learning Disabilities*, 20(7), 388-408.
- Wheldall, K., and Merrett, F. (1988). Which classroom behaviours do primary school teachers say they find most troublesome? *Educational Review*, 40(1), 13-27.
- Wiley, A. L., Tankersley, M., and Simms, A. (2012). Teachers' causal attributions for student problem behavior: Implications for school-based behavioral interventions and research. In B. G. Cook, M. Tankersley & T. J. Landrum (Eds.), *Advances in Learning and Behavioral Disabilities, Volume 25: Classroom Behavior, Contexts, and Interventions* (pp. 279-300). Bingley: Emerald Group Publishing Limited.
- Willig, C. (2001). *Introducing Qualitative Research in Psychology: Adventures in theory and method*. Buckingham: Open University Press.
- Wilson, D., and Newton, C. (2006). *Circles of Adults: A team approach to problem solving around challenging behaviour and emotional needs*. Nottingham: Inclusive Solutions.
- Woolfolk, A. E., and Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology*, 82(1), 81-91.

- Woolfolk Hoy, A., and Burke Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: a comparison of four measures. *Teaching and Teacher Education*, 21, 343-356.
- Wright, D. B. (2003). Making friends with your data: Improving how statistics are conducted and reported. *British Journal of Educational Psychology*, 73, 123-136.
- Yan, Z., and Sin, K. (2013). Inclusive education: teachers' intentions and behaviour analysed from the viewpoint of the theory of planned behaviour. *International Journal of Inclusive Education*, 1-14.

Appendix 1. List of Acronyms

ANOVA – Analysis of Variance

CHABA – Challenging Behaviour Attributions Scale

CoA – Circle of Adults

CPS – Creative Problem Solving

CYPCES – Children and Young People in Care Education Service (CYPCES)

DORA – Decision Observation Recording and Analysis

DT – Designated Teacher

EP – Educational Psychologist

EPL – Exceptional Professional Learning

EPS – Educational Psychology Service

LA – Local Authority

LAC - Looked After Children

PEP – Personal Education Plan

RCT – Randomised Control Trial

SC – Solution Circle

SEN – Special Educational Need

SENCo – Special Educational Needs Co-ordinator

SSS – Staff Sharing Scheme

SWOT – Strengths, Weaknesses, Opportunities and Threats

TA – Teaching Assistant

TEP – Trainee Educational Psychologist

TIPS – Team-Initiated Problem Solving

TME – Target Monitoring and Evaluation

TPB – Theory of Planned Behaviour

VSH – Virtual School Head

Appendix 2. Summary of excluded studies from systematic review

Study	Reason for excluding
Thomson et al. (2003)	Outcomes of the group consultation were not the primary focus
Yetter (2010)	Outcomes of the group consultation were not the primary focus
White et al. (2013)	Problem-solving approach delivered on an individual level
Bennett & Monsen (2011)	No outcome measures used
Lam (2006)	Outcomes of the group consultation were not the primary focus

Appendix 3. Detailed description of the ‘Weight of Evidence model

<i>Study</i>	<i>Weight of Evidence A: trustworthiness</i>	<i>Weight of Evidence B: appropriateness of design</i>	<i>Weight of Evidence C: relevance of evidence</i>	<i>Weight of Evidence D: overall judgement</i>
<i>Bahr et al. (2006)</i>	Medium Recruitment of participants may have led to biases.	High RCT method utilised	Medium Suggests that problem-solving approach is effective but conducted in US and therefore may not be generalisable.	Medium
<i>Newton et al. (2012)</i>	Medium Replicability affected by range in inter-observer agreement.	High RCT wait-list control	Low Outcomes of the problem-solving groups not explicit	Low/Medium
<i>Brown & Henderson (2012)</i>	Medium/High Detail given on process and methods were triangulated.	Low/Medium Method fit for purpose of evaluation but could have benefitted from pre-measures.	Medium/High Teachers rated the process highly but limited by small scale of the study.	Medium/High
<i>Bozic & Carter (2002)</i>	Medium Detail given on process but no fidelity checks.	Low/Medium Method fit for purpose of evaluation but could have benefitted from pre-measures.	Medium/High Suggests some possible outcomes of group consultation including ‘deeper thinking’.	Medium/High
<i>Jones, Monsen and Franey (2013)</i>	Low/Medium Only one formal SSS session was carried out.	Medium Mixed-methods used but no control group.	High Causal attributions changed as a result of participation	Medium
<i>Evans (2004)</i>	Medium Triangulation of measures but potential biases.	Low/Medium Method fit for purpose of evaluation but could have benefitted from pre-measures.	Medium Suggests that group consultation may be effective.	Medium

<i>Jackson (2008)</i>	Low Limited replicability and unclear as to whether other factors may have influenced.	Low/Medium Method fit for purpose of evaluation but could have benefitted from pre-measures.	Low/Medium Some positive effects of work discussion groups but limited information on the process	Low/Medium
<i>Farouk (2004)</i>	Low/Medium Limited replicability but includes high level of detail on problem-solving process.	Low Purely descriptive	Low/Medium Descriptive report does suggest that method would be effective.	Low

Appendix 4. Circles of Adults information sheet

'Circles of Adults'

*Adapted from information provided in 'Circles of Adults'
by Wilson & Newton (2006)*



'Circles of Adults' is a problem-solving process which supports adults who are working with pupils displaying challenging behaviour and emotional difficulties. The process lasts approximately one hour and will be led by staff from _____ Educational Psychology Service and a member of the Children and Young People in Care Education Service. The facilitators will lead the group through the 10-stage process which is detailed below. Parents and carers are not typically invited to 'Circles of Adults' sessions. However, school will be encouraged to feedback appropriate information, particularly regarding the actions agreed through the meeting.

One facilitator will be responsible for guiding the group through a series of questions which aims to develop a deeper understanding of the pupil's challenging behaviour. This then leads to the development of hypotheses and possible strategies to support the young person. Throughout the process the graphic facilitator will record the responses using key words and images on large paper which will be visible to the whole group. At the end of the session this will be left with the school to provide prompts for future review sessions.

The 10-stage process:

1) *Agreement of GROUND RULES for the session*

2) *PRESENTATION OF PROBLEM*

One member of the group will be asked to describe any information about the young person which they think may be relevant. This person will have volunteered before the session and will be someone who knows the young person well. Following this, other members of the group will be asked to

contribute any additional information about the young person's current situation so that a 'rich' picture of the young person is created.

3) *EXPLORATION OF RELATIONSHIPS*

Through questions from the facilitator, this stage aims to encourage the problem-presenter and other members of the group to consider the quality of their relationship with the young person.

4) *Consideration of ORGANISATIONAL FACTORS*

The group will collectively identify any factors within the organisation which may be 'helping' or 'hindering' the current situation.

5) *Listen to the CHILD'S VOICE*

At the beginning of the session members will be asked to volunteer to be the 'voice of the child'. At this point, the member who is selected for this role will be asked to suggest what the child might say had they been present during the previous three stages.

6) *SYNTHESIS*

The graphic facilitator will briefly highlight the comments made by the group so far and will try to identify patterns or conflicting elements of the 'story'.

7) *Generation of HYPOTHESES*

Members of the groups will be asked to offer any theories/hypotheses which they feel may be relevant to the situation. At this stage, the emphasis will be on the generation of any possible hypotheses and there is no expectation for the group to agree on any one hypothesis.

8) *Generation of STRATEGIES*

With support from the facilitator the group will be guided in developing possible strategies which explicitly link to the hypotheses which were generated in the previous stage. The group will be encouraged to elaborate, develop and strengthen each other's strategies.

9) *Agreement of FIRST STEPS*

The problem-presenter is invited to consider which two or three strategies could be implemented immediately or within the next week. The facilitators will support the problem-presenter in developing clear outcomes related to the agreed strategies. Other members of the group will be encouraged to support the problem-presenter in carrying out the strategies.

10) *'Round of Words'*

All members of the group will be asked to describe their experience of the 'Circle of Adults' session in no more than 3 or 4 words.

Further information on the 'Circles of Adults' process can be found at:

<http://www.inclusive-solutions.com/problemsolving.asp>

Appendix 5. Recruitment letter sent to schools



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

Contact: Jennie Turner

Tel:

Fax:

E-Mail:

Web:

Date:

Evaluating the ‘Circles of Adults’ intervention for adults supporting Looked After Children at risk of exclusion.

Dear _____ (Headteacher),

I am a Trainee Educational Psychologist from the University of Nottingham currently working at _____ Educational Psychology Service. I am carrying out a doctoral research project to evaluate the ‘Circles of Adults’ intervention (see additional information) on adults supporting Looked After Children at risk of exclusion. To evaluate this intervention comparisons will be made with the typical Personal Education Plan (PEP) meetings which take place in schools. This will help us understand more about how those involved can most effectively plan for these potentially vulnerable children.

I would like to ask for your support in the project outlined, through:

1. Identification of a focus young person (see below)
2. Consent to convene support meetings around them (see below)

Schools are being asked to identify pupils who meet the following criteria:

- Currently on role in Year 7 to Year 11
- Identified as a Looked After Child
- Identified by school as being ‘at risk of exclusion’ due to challenging behaviour

Additionally, schools are being asked to ensure at least three members of school staff who are involved with the pupil would be available to attend either the PEP



meeting or a 'Circles of Adults' session. The adults involved will be invited to complete a questionnaire on three occasions to gain their views about challenging behaviour: two weeks prior to the meeting; immediately after the meeting; and four weeks after the meeting. The adults will also be invited to attend a brief focus group to discuss their views about the Circle of Adults process.

Consent will be sought from the pupil's social worker. Pupils identified will be randomly assigned to either a 'Circles of Adults' group or a wait-list control group in which a typical PEP meeting will take place. Should participation in the 'Circles of Adults' session be shown to have positive effects on the adults involved any schools who are part of the wait-list control group will be given the opportunity to be involved in a 'Circles of Adults' session once the study has ended.

It would be helpful if you could discuss this request with the designated Teacher for LAC in your school. If you would like to take part in this study or would like to find out any further information, please do contact me on the details provided. I shall be contacting you within a week to ask whether you would like your school to participate. Should you decide to participate I would be grateful if you could provide the names of any pupils who meet the above criteria. This study has the support of the Children and Young People in Care Education Service in _____. The study may lead to written summaries and outputs, and there will be no identifiers in these. All information will be anonymised. During the study all data *will be kept confidential* and will be stored in a secure location at the address provided in this letter.

Yours Sincerely,

Jennie Turner
(Trainee Educational Psychologist)

Appendix 6. Pupil consent letter for Social Workers



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

Contact: Jennie Turner

Tel:

Fax:

E-Mail:

Web:

Date:

Evaluating the 'Circles of Adults' intervention for adults supporting Looked After Children at risk of exclusion.

Dear (Social Worker),

I am a Trainee Educational Psychologist from the University of Nottingham currently working in Educational Psychology Service. I am carrying out a doctoral research study to evaluate the 'Circles of Adults' intervention (see additional information) on school staff supporting Looked After Children at risk of exclusion. The aim of the study is to gain more understanding on how to help schools in their planning for vulnerable children.

The Designated Teacher at (pupil) school has expressed an interest in being involved in this study. As 's Social Worker I am writing to you to ask for permission for him/her to be discussed in either a 'Circles of Adults' meeting or a Personal Education Plan (PEP) meeting. If you give permission (pupil) will be allocated to either a 'Circle of Adults' group or a wait-list control group in which the typical Personal Education Plan (PEP) will take place. The 'Circles of Adults' meeting will take place during the Autumn term and will involve school staff who support (pupil). You will also be invited to attend but are under no obligation to do so. *Please note:* giving consent *does not* mean that this pupil will be involved in the study directly, only that we can look at which planning processes optimise support for LAC.

In order to measure the effects of participation in either the 'Circles of Adults' meeting or the PEP meeting it is a requirement of this study that:

1. At least three members of school staff are invited to the meeting.
2. I, the researcher, am given permission to attend the meetings purely as an observer.

Participation in this study is voluntary and you are under no obligation to give permission for the meeting to take place. You are free to withdraw your consent at any point, before or during the study. All data collected will be kept confidential, stored securely, and used for research purposes only. If you have any questions or would like to find out any further information, please do not hesitate to contact me on the details provided.

Thank you for taking the time to read this information.

Yours Sincerely,

Jennie Turner (Trainee Educational Psychologist)

**Evaluating the ‘Circles of Adults’ intervention for adults supporting
Looked After Children at risk of exclusion.**

Researcher: Jennie Turner (Trainee Educational Psychologist)

I have read and understood the participant information sheet. YES / NO

I have had the opportunity to ask questions and discuss the study. YES / NO

Any questions I had have been answered satisfactorily. YES / NO

I have received enough information about the study. YES / NO

I agree for the adults who support to take
part in a ‘Circles of Adults’ meeting to discuss ways to
support him/her in school. YES / NO

I understand that I am free to withdraw from the study:
At any time. YES / NO
Without having to give a reason YES / NO

“This study has been explained to me to my satisfaction, and I agree to take part.
I understand that I am free to withdraw at any time.”

Signature: Date:

Name: Role:

If you would like any information about the results of this study please provide
your contact details below.

E-mail address:

I have explained the study to the above participant and he/she has agreed to take
part.

Signature of researcher: Date:

Appendix 7. Participant consent letter; control group



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

Contact: Jennie Turner

Tel:

Fax:

E-Mail:

Web:

Date:

Evaluating the ‘Circles of Adults’ intervention for adults supporting Looked After Children at risk of exclusion.

Dear Colleague,

I am a Trainee Educational Psychologist from the University of Nottingham currently working at _____ Educational Psychology Service. I am carrying out a doctoral research project to evaluate the ‘Circles of Adults’ intervention on adults supporting Looked After Children at risk of exclusion. This will help us to understand how staff can best support this potentially vulnerable group of children.

The Headteacher and Social Worker concerned have given consent for this study to take place in this case. Staff will be asked to take part in either a Circles of Adults group or a Personal Education Plan (PEP) meeting regarding a specific pupil. If the Circles of Adults groups are shown to have positive effects any staff who have not taken part in this process will be given the opportunity to do so once the study has ended.

Participation will involve completing a questionnaire to gain your views about challenging behaviour on three occasions. If you agree to take part in this study as part of the wait-list control group I would be grateful if you would complete the attached questionnaire and return it immediately. A PEP meeting has been arranged for (pupil) on (date). Following the PEP meeting you will be asked to complete a further questionnaire and again 4 weeks after the meeting takes place.

Participation in this study is totally voluntary and you are under no obligation to take part. You are free to withdraw at any point, before or during the study. All information will be anonymised. During the study all data *will be kept confidential* and will be stored in a secure location at the address provided in this letter. If you have any questions or would like to find out any further information, please do not hesitate to contact me on the details provided. Thank you for taking the time to read this information.

Yours Sincerely,

Jennie Turner
(Trainee Educational Psychologist)

**Evaluating the ‘Circles of Adults’ intervention for adults supporting
Looked After Children at risk of exclusion.**

Researcher: Jennie Turner (Trainee Educational Psychologist)

I have read and understood the information provided. YES / NO

I have had the opportunity to ask questions and discuss the study. YES / NO

Any questions I had have been answered satisfactorily. YES / NO

I have received enough information about the study. YES / NO

I understand that as part of the wait-list control group I will
be given the opportunity to take part in a ‘Circles of Adults’
session at a later date if positive effects are found. YES / NO

I understand that I am free to withdraw from the study:
At any time. YES / NO
Without having to give a reason YES / NO

I understand that any confidential information which is disclosed
during the PEP meeting should not be disclosed outside of the
group unless it is agreed as part of the meeting. YES / NO

“This study has been explained to me to my satisfaction, and I agree to take part.
I understand that I am free to withdraw at any time.”

Signature: Date:

Name: Role:

If you would like any information about the results of this study please provide
your contact details below.

E-mail address:

I have explained the study to the above participant and he/she has agreed to take
part.

Signature of researcher: Date:

Appendix 8. Participant consent letter; experimental group



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

Contact: Jennie Turner

Tel:

Fax:

E-Mail:

Web:

Date:

Evaluating the ‘Circles of Adults’ intervention for adults supporting Looked After Children at risk of exclusion.

Dear Colleague,

I am a Trainee Educational Psychologist from the University of Nottingham currently working at _____ Educational Psychology Service. I am carrying out a doctoral research project to evaluate the ‘Circles of Adults’ intervention (see additional information) on adults supporting Looked After Children at risk of exclusion.

Consent for this study has already been given by the Headteacher and Social Worker concerned. Participants will be asked to complete a questionnaire on three occasions and invited to attend a brief focus group to gain their views about challenging behaviour. Adults who attend the Circles of Adults session are not obliged to take part in the study and will still have the opportunity to be included in the meeting.

If you agree to take part in this study I would be grateful if you would complete the attached questionnaire and return it to me immediately. A ‘Circles of Adults’ session has been arranged for (pupil) on (date). Following the ‘Circle of Adults’ session you will be asked to complete a further questionnaire and again 4 weeks after the meeting takes place. Participation in this study is totally voluntary and you are under no obligation to take part. You are free to withdraw at any point, before or during the study. All information will be anonymised. During the study all data *will be kept confidential* and will be stored in a secure location at the address provided in this letter.

If you have any questions or would like to find out any further information, please do not hesitate to contact me on the details provided. Thank you for taking the time to read this information.

Yours Sincerely,

Jennie Turner
(Trainee Educational Psychologist)

**Evaluating the ‘Circles of Adults’ intervention for adults supporting
Looked After Children at risk of exclusion.**

Researcher: Jennie Turner (Trainee Educational Psychologist)

I have read and understood the participant information sheet. YES / NO

I have had the opportunity to ask questions and discuss the study. YES / NO

Any questions I had have been answered satisfactorily. YES / NO

I have received enough information about the study. YES / NO

I understand that I am free to withdraw from the study:
At any time. YES / NO
Without having to give a reason YES / NO

I understand that any confidential information which is disclosed
during the ‘Circles of Adults’ meeting should not be disclosed YES / NO
outside of the group unless it is agreed as part of the meeting.

“This study has been explained to me to my satisfaction, and I agree to take part.
I understand that I am free to withdraw at any time.”

Signature: Date:

Name: Role:

If you would like any information about the results of this study please provide
your contact details below.

E-mail address:

I have explained the study to the above participant and he/she has agreed to take
part.

Signature of researcher: Date:

Appendix 9. Circle of Adults treatment integrity checklist

Stage		Completed?
	Welcome the group & introduce facilitators	
	Give a brief overview of the process and agree timings	
	Explain the role of the facilitators	
	Identify who will take the role of the 'problem presenter' and 'voice of the child'.	
Ground Rules	Participants asked to suggest ground rules to enable them to feel safe to discuss the young person.	
	If not suggested, confidentiality is identified as one ground rule which must be adhered to.	
	<i>Graphic facilitator records the responses.</i>	
Present problem	Problem presenter is asked to give full story about the pupil.	
	Encouraged to include information about age, looks, family/home and school.	
	Encouraged to identify positives as well as concerns about behaviour.	
	Rest of the group are invited to add further information.	
	Opportunity for the group to ask the problem presenter any questions they might have about the pupil/situation.	
	<i>Graphic facilitator records the responses using a combination of key words and graphics.</i>	
Explore relationships	Problem presenter is asked to describe the history/story of <u>their</u> relationship with the pupil.	
	Ask 'if I was a fly on the wall what would we see or say about your relationship?'	
	Asked to consider feelings associated with the relationship.	
	Consideration of relationships with others.	
	Ask 'if you were on a remote desert island with him/her how would it be?'	
	Ask 'in the entire world, who do you think loves ____?'	
	Ask the problem presenter and group 'does he/she remind you of anyone?'	
	<i>Graphic facilitator records the responses using a combination of key words and graphics.</i>	
Organisational Factors	Explain that the group are now all invited to contribute to further discussions.	
	Ask 'what is helping and hindering him/her in terms of the systems/organisational factors around the pupil?'	
	Encourage the group to consider the way the school, family system, local authority and other agencies are	

	organised.	
	Highlight the positive elements particularly in relation to the support of the problem presenter and group if this is not identified by the group.	
	<i>Graphic facilitator records the responses using a combination of key words and graphics.</i>	
‘Child’s voice’	Explain that the ‘child’s voice’ is now asked to communicate to the rest of the group how the pupil may be thinking/feeling about the situation.	
	Encouraged to talk as if they are the child.	
	Problem presenter is asked to clarify whether the representation ‘fits’ with their perception.	
	<i>Graphic facilitator records the responses using a combination of key words and graphics.</i>	
The Synthesis	The Graphic Facilitator is asked to identify themes which may need exploring.	
	Encouraged to make links, identify patterns, highlight parts that are hard to make sense of and identify anomalies.	
Generate Hypotheses	Group are asked ‘what are your theories/hypotheses about what is happening that will help to make sense of the problem?’	
	Encouraged to build upon each other’s hypotheses but also consider alternative hypotheses.	
	Process Facilitator rephrases into a theory if necessary.	
	<i>Graphic facilitator records the responses using a combination of key words and graphics.</i>	
	<i>Graphic facilitator gives an overview of the ‘theories’</i>	
Generate Strategies	Ask ‘using theories you have developed, what strategies do you think may be relevant?’	
	Group are reminded to link strategies with the theories and not select ‘favourite strategies’.	
	Encourage the group to build on each other’s ideas.	
	<i>Graphic facilitator records the responses using a combination of key words and graphics.</i>	
Agree First Steps	Ask the problem presenter to consider what they want to take out of the strategies.	
	Identify what could be done in the next few days.	
	Specify first steps.	
	Appoint a ‘coach’.	
	<i>Graphic facilitator records the responses using a combination of key words and graphics.</i>	
Round of Words	The group are asked to give a one-word reflection on the process.	
	Problem holder goes last.	
	Process consultant thanks the group for participating.	

Appendix 10. Attribution Inventory (adapted from Poulou and Norwich, 2002)

Please read carefully and base all of your answers on the following case:

George never seems to finish an assignment. He is easily distracted soon after he starts working. At the slightest opportunity he hinders his classmates, while there are times when he becomes physically aggressive towards them. You constantly plead with him to behave and become more cooperative, but he does not comply with your demands.

Bearing in mind the problem described in the vignette indicate whether each of the following items is likely to be the cause of the problem or not. (You are asked to choose only one number from 1 to 6, with 1 as the *rejection* of a sentence, and 6 as the *acceptance* of the sentence. Numbers 2, 3, 4 and 5 indicate increasing degrees of acceptance).

Please circle the number that best represents your view on whether each statement is very unlikely to be the cause to most likely to be the cause.

Causes	Very unlikely to be the case			Most likely to be the case		
	1	2	3	4	5	6
Poor attachment between parents and child (i.e., parents' lack of time to be with their child, parents' indifference, etc.)						
Parental conflicts/marital problems						
Parents' low educational background						
Parents' inability to help their child						
Excessively strict parental demands						
Lenient parental discipline (spoiling the child)						
Many members in the family						
Parents' low income						

Child's innate personality/temperament	1	2	3	4	5	6
The child wants to attract others' attention	1	2	3	4	5	6
The child cannot control his behaviour	1	2	3	4	5	6
The child does not know what is expected from him	1	2	3	4	5	6
Child's low intelligence level	1	2	3	4	5	6
The child is unable to cope with school's demands	1	2	3	4	5	6
Child's health problems	1	2	3	4	5	6
The child dislikes school (or school work)	1	2	3	4	5	6
The child competes with other children (or siblings)	1	2	3	4	5	6
Teaching style (i.e., authoritarian, democratic, indifferent)	1	2	3	4	5	6
Teacher's personality (i.e., distant, friendly)	1	2	3	4	5	6
Teacher's inappropriate manner towards the child (i.e. reject the child)	1	2	3	4	5	6
Inappropriate manner towards the child of previous teachers	1	2	3	4	5	6
Inadequate teaching method for the child	1	2	3	4	5	6
Poor classroom management	1	2	3	4	5	6

Climate of excessive demands in class	1	2	3	4	5	6
Lack of services for children with challenging behaviour in schools	1	2	3	4	5	6
Irrelevant curricula for the child's interest	1	2	3	4	5	6
Poor school organisation and management (i.e. poor disciplinary systems)	1	2	3	4	5	6
Bad school experiences of the child (i.e. rejection by peers)	1	2	3	4	5	6
Class size too large	1	2	3	4	5	6
Socio-economic level of the school area	1	2	3	4	5	6

Appendix 11. Teacher Efficacy in Classroom Management and Discipline scale (adapted from Emmer & Hickman, 1991)

Please circle the number that best represents your view on whether you agree or disagree with each statement. You are asked to choose only one number from 1 to 6, with 1 being 'strongly disagree' with the statement and 6 being 'strongly agree' with the statement.

Item	Strongly disagree			Strongly agree		
1. If a student becomes disruptive and noisy, I feel assured I know some techniques to redirect him/her quickly.	1	2	3	4	5	6
2. The hours I spend with a student have little influence compared to the influence of home environment.	1	2	3	4	5	6
3. I find it easy to make my expectations clear to students.	1	2	3	4	5	6
4. I know what routines are needed to keep activities running effectively.	1	2	3	4	5	6
5. There are some students who won't behave no matter what I do.	1	2	3	4	5	6
6. I can communicate that I am serious about getting appropriate behaviour.	1	2	3	4	5	6
7. I know what kinds of rewards to use to keep students involved.	1	2	3	4	5	6
8. If students aren't disciplined at home, then they aren't likely to accept it at school.	1	2	3	4	5	6

9. If a student doesn't feel like behaving there's not a lot teachers can do.	1	2	3	4	5	6
10. Student behaviour in the classroom is influenced more by peers than the teacher.	1	2	3	4	5	6
11. When I really try I can get through to the most difficult students.	1	2	3	4	5	6
12. Home and peer influences are mainly responsible for student behaviour.	1	2	3	4	5	6
13. I am unsure how to respond to defiant students.	1	2	3	4	5	6
14. I find some students impossible to discipline effectively.	1	2	3	4	5	6
15. I can keep a few problem students from running an entire class.	1	2	3	4	5	6
16. If students stop working in class, I can usually find a way to get them back on track.	1	2	3	4	5	6
17. Teachers have little effect on stopping misbehaviour when parents/carers don't cooperate.	1	2	3	4	5	6
18. I am confident in my ability to ensure that students will learn and behave well.	1	2	3	4	5	6
19. I have very effective behaviour management skills.	1	2	3	4	5	6
20. Compared to other influences on student behaviour, teacher's effects are very small.	1	2	3	4	5	6

Appendix 12. Target Monitoring and Evaluation (Dunsmuir et al., 2009)

Pupil:	School:
Consultee:	Date of initial consultation:
Consultant:	Date of review:

Target 1:

Rating:	1	2	3	4	5	6	7	8	9	10
Descriptor of baseline level:										
Descriptor of level achieved:										

Target 2:

Rating:	1	2	3	4	5	6	7	8	9	10
Descriptor of baseline level:										
Descriptor of level achieved:										

Target 3:

Rating:	1	2	3	4	5	6	7	8	9	10
Descriptor of baseline level:										
Descriptor of level achieved:										

Any comments?

Appendix 13. Standardised procedure for use of Target Monitoring and Evaluation measure (Dunsmuir et al., 2009)

	Completed?	Comments
Measure completed with Designated Teacher/key member of staff		
Measure completed immediately after the CoA session/PEP meeting		
CoA graphic or notes from the PEP meeting used as a prompt <i>“Can we look again at the strategies which were suggested in the meeting?”</i>		
DT/key staff member asked to prioritise <u>three</u> specific strategies <i>“What strategies aren’t currently in place which you feel are a priority?”</i>		
TME scaling line is used to rate the current situation for each identified target strategy <i>“Using the scaling line, where 1 is that the strategy is not currently in place at all to 10 where it is being used consistently, where would you currently place each of the strategies?”</i>		
A descriptor of the baseline is given if appropriate <i>“Can you briefly describe where you are with this strategy at the moment? What is currently being done to implement this strategy?”</i>		
TME is repeated with the DT/key member of staff after a 4-week period. The previous two steps are repeated to ensure that a rating scale and description is provided.		

Appendix 14. Standardised procedure for focus groups

Stage		Completed?
Welcome	Prior to the focus group the chairs are placed in a circle and refreshments are provided.	
	Welcome the group and thank them for attending.	
	Research team is introduced and roles are briefly described i.e. moderator and note taker.	
Overview of topic	Remind the group of the research which is being carried out i.e. considering ways to support school staff who work with LAC with challenging behaviour.	
	Highlight the commonality of the group and remind the group that they are all here because they took part in a CoA to support a pupil at their school.	
	Explain that the researcher is now interested in finding out the groups views about CoA.	
	<p>Briefly explain the process of a focus group.</p> <ul style="list-style-type: none"> - Participants will be asked a series of questions to respond to - Not going to ask each person individually, participants should join in when they have something to say (distribute post-it notes for participants to use as a prompt) - Explain that everyone's input is important and that the researcher is interested in hearing from all members of the group - Explain that there are no right or wrong answers so members should feel free to express their views even if they differ from other group members. - State that all views will remain anonymous but will be recorded using audio equipment to make sure that views are heard exactly. Clarify that everyone is happy with this. 	

Ground rules	State that all information will be confidential and used only for research purpose. Only first names used in the discussion and recording will be stored in a secure locker at the EP office.	
	Remind the group that their participation is voluntary.	
	Respect the views of others.	
	Only one person talking at once.	
Questions	<ul style="list-style-type: none"> • <i>What were the helpful things about the CoA process?</i> • <i>What, if any, were the challenges of participating in the CoA session?</i> • <i>How did participation in the CoA session affect you or your work?</i> • <i>What has changed, if anything, as a result of your participation in the CoA session?</i> 	
	Moderator prompts & pauses if necessary <i>Could you explain that further?</i> <i>Can you describe what you mean?</i> <i>Could you give us an example?</i>	
Close	Explain to the group that we are now at the end of the discussion.	
	<i>Does anyone have any further comments they would like to add?</i>	
	Thank the group members for their involvement.	

Appendix 15. University ethics approval letter



School of Psychology

The University of Nottingham
University Park
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tel: +44 (0)115 846 7403 or (0)115 951 4344

AS/hcf
Ref. 304

Wednesday, April 24, 2013

Dear Jennifer Turner,

Ethics Committee Review

Thank you for submitting an account of your proposed research 'Evaluating the outcomes of the 'Circles of Adults' intervention on adults supporting Looked After Children at risk of exclusion'.

That research has now been reviewed, to the extent that it is described in your submission, we are pleased to tell you it has met with the Committee's approval.

However:

Please note the following comments from our reviewers;

Reviewer 1

1. In the rationale the researcher says if positive outcomes are obtained for Circle of adults then the control group will be offered Circle of Adults session. In the information to the control group it is said that they will be offered a Circle of Adults session, with no proviso. The researcher needs to be able to ensure these sessions can be carried out.
2. Consent forms of all groups should have the study title, and names of researchers, and University of Nottingham logo.
3. An additional point should be inserted stating that participants understand that confidential information should not be disclosed outside the group unless it is agreed as part of the process of the meeting.
4. Consent of young person: I have mixed feelings about not requesting consent from the young person themselves when this research is looking at a different way of adults supporting them, which at the moment has no empirical evidence. However as they are not physically involved in the session, and any confidential details about them will not be disclosed outside the group unless deemed to be part of the process, and because a review meeting of some kind is usual practice and should not be detrimental to the young person, in this instance I am going to approve.



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Reviewer 2

5. I was unclear how the details about suitable children would be passed to the experimenter. Reassurances should be given to the gatekeepers about confidentiality and security at all stages.
6. The Information Sheets are quite wordy and difficult to follow. They would benefit from further editing and simplification of expression.

Final responsibility for ethical conduct of your research rests with you or your supervisor. The Codes of Practice setting out these responsibilities have been published by the British Psychological Society and the University Research Ethics Committee. If you have any concerns whatever during the conduct of your research then you should consult those Codes of Practice.

Independently of the Ethics Committee procedures, supervisors also have responsibilities for the risk assessment of projects as detailed in the safety pages of the University web site. Ethics Committee approval does not alter, replace, or remove those responsibilities, nor does it certify that they have been met.

Yours sincerely

Dr Alan Sunderland
Chair, Ethics Committee



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AS/hcf
Ref: 338

Monday, September 23, 2013

Dear Anthea Gulliford and Jennifer Turner,

Ethics Committee Review

Further to your request for Chair Approval for amendments to the project:-

Applicant: **Jennifer Turner**

Title: ***Evaluating the outcomes of the 'Circles of Adults' intervention on adults supporting Looked After Children at risk of exclusion.***

Date of approval: **24th April 2013**

Reference number: **304**

Title of the new project:-

Evaluating the outcomes of the 'Circles of Adults' intervention on adults supporting Looked After Children at risk of exclusion. Revised.

Applicants: **Jennifer Turner**

As Chair of the Ethics Committee I am able to grant approval for the following changes:-

- **Addition of a brief focus group which will be recorded using audio equipment and hand-written notes. The discussion will focus upon the participant's views about the Circle of Adults process and will therefore not involve a discussion about the focus pupil.**
- **The data gained from the focus group will be transcribed and analysed using thematic analysis.**
- **Participants will be asked not to name specific pupils but should this occur any names will not be included in the transcription.**
- **All audio recordings will be stored on a password-protected memory stick which will be stored in a locked cabinet in the Educational Psychology office. Any written notes of the discussion will also be stored in a locked cabinet in the Educational Psychology office.**



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Final responsibility for ethical conduct of your research rests with you or your supervisor. The Codes of Practice setting out these responsibilities have been published by the British Psychological Society and the University Research Ethics Committee. If you have any concerns whatever during the conduct of your research then you should consult those Codes of Practice. Independently of ethical approval, you are also responsible for risk assessment and data protection as detailed on the Ethics Committee web pages.

Yours sincerely

Dr Alan Sunderland
Chair, Ethics Committee

Appendix 16. Raw data

Self-efficacy raw data

Group*	External pre	External post	External 4-wk post	BehMan pre	BehMan post	BehMan 4-wk post	SelfEff pre	SelfEff post	SelfEff 4-wk post
1.00	29.00	25.00	26.00	46.00	43.00	48.00	75.00	68.00	74.00
1.00	37.00	38.00	43.00	51.00	51.00	56.00	88.00	89.00	99.00
1.00	34.00	37.00	30.00	51.00	46.00	48.00	85.00	83.00	78.00
1.00	45.00	41.00	42.00	57.00	59.00	58.00	102.00	100.00	100.00
1.00	41.00	45.00	32.00	51.00	52.00	47.00	92.00	97.00	79.00
1.00	50.00	46.00	46.00	39.00	42.00	43.00	89.00	88.00	89.00
1.00	37.00	43.00	52.00	46.00	55.00	52.00	83.00	98.00	104.00
1.00	48.00	42.00	44.00	49.00	58.00	50.00	97.00	100.00	94.00
1.00	37.00	30.00	38.00	47.00	48.00	38.00	84.00	78.00	76.00
1.00	28.00	31.00	30.00	44.00	52.00	46.00	72.00	83.00	76.00
2.00	44.00	46.00	46.00	49.00	52.00	51.00	93.00	98.00	97.00
2.00	47.00	44.00	44.00	37.00	37.00	34.00	84.00	81.00	78.00
2.00	25.00	33.00	34.00	45.00	46.00	53.00	70.00	79.00	87.00
2.00	36.00	29.00	33.00	45.00	49.00	47.00	81.00	78.00	80.00
2.00	48.00	44.00	36.00	46.00	51.00	48.00	94.00	95.00	84.00

* where '1.00' equals experimental group and '2.00' equals control group

Attributions raw data

Group*	Parent factors pre	Parent factors post	Parent factors 4-wk post	Child factors pre	Child factors post	Child factors 4-wk post	Teacher factors pre	Teacher factors post	Teacher factors 4-wk post	School factors pre	School factors post	School factors 4-wk post
1.00	26.00	27.00	32.00	39.00	37.00	37.00	34.00	34.00	32.00	26.00	27.00	28.00
1.00	29.00	28.00	32.00	34.00	31.00	34.00	32.00	30.00	35.00	26.00	27.00	28.00
1.00	32.00	32.00	28.00	35.00	37.00	30.00	34.00	28.00	28.00	28.00	26.00	19.00
1.00	22.00	19.00	25.00	23.00	24.00	25.00	23.00	26.00	29.00	21.00	23.00	20.00
1.00	29.00	27.00	34.00	31.00	32.00	35.00	41.00	35.00	35.00	33.00	30.00	33.00
1.00	27.00	29.00	26.00	29.00	32.00	29.00	25.00	18.00	19.00	15.00	17.00	20.00
1.00	32.00	34.00	22.00	36.00	38.00	33.00	38.00	38.00	40.00	28.00	31.00	28.00
1.00	29.00	27.00	23.00	37.00	35.00	27.00	34.00	35.00	37.00	25.00	23.00	25.00
1.00	29.00	29.00	24.00	25.00	32.00	29.00	32.00	31.00	33.00	30.00	25.00	25.00
1.00	31.00	30.00	33.00	42.00	38.00	44.00	31.00	30.00	28.00	31.00	30.00	29.00
2.00	25.00	35.00	30.00	39.00	36.00	28.00	39.00	39.00	42.00	34.00	33.00	34.00
2.00	40.00	36.00	24.00	43.00	36.00	27.00	29.00	28.00	21.00	30.00	22.00	18.00
2.00	36.00	29.00	29.00	34.00	32.00	28.00	32.00	29.00	36.00	30.00	39.00	31.00
2.00	28.00	33.00	29.00	37.00	39.00	34.00	28.00	28.00	28.00	24.00	24.00	24.00
2.00	31.00	30.00	28.00	32.00	25.00	34.00	24.00	31.00	40.00	14.00	15.00	30.00

* where '1.00' equals experimental group and '2.00' equals control group

Target Monitoring and Evaluation raw data

Group*	TME post	TME 4-wk post
1.00	2.00	10.00
1.00	1.00	10.00
1.00	1.00	5.00
1.00	1.00	10.00
1.00	1.00	8.00
1.00	2.00	10.00
1.00	3.00	6.00
1.00	1.00	8.00
1.00	2.00	5.00
1.00	2.00	10.00
1.00	1.00	7.00
1.00	2.00	9.00
2.00	1.00	1.00
2.00	1.00	7.00
2.00	5.00	7.00
2.00	1.00	3.00
2.00	1.00	8.00
2.00	3.00	5.00

* where '1.00' equals experimental group and '2.00' equals control group

Appendix 17. Tests of normal distribution

Experimental group

Dependent variables		Shapiro-Wilk			Skewness		Kurtosis	
		<i>Statistic</i>	<i>df</i>	<i>Sig.</i>	<i>Statistic</i>	<i>Standard error</i>	<i>Statistic</i>	<i>Standard error</i>
<i>Self-efficacy</i>	<i>External influences</i>	.947	10	.629	.136	.687	-.924	1.334
	<i>Personal belief</i>	.964	10	.834	-.076	.687	.893	1.334
	<i>Overall</i>	.977	10	.949	-.003	.687	-.196	1.334
<i>Attributions</i>	<i>Parent factors</i>	.891	10	.174	-1.085	.687	1.520	1.334
	<i>Child factors</i>	.966	10	.847	-.398	.687	-.656	1.334
	<i>Teacher factors</i>	.938	10	.536	-.374	.687	.237	1.334
	<i>School factors</i>	.923	10	.387	-1.110	.687	1.536	1.334

(df = degrees of freedom; sig. = level of significance)

Control group

Dependent variables		Shapiro-Wilk			Skewness		Kurtosis	
		<i>Statistic</i>	<i>df</i>	<i>Sig.</i>	<i>Statistic</i>	<i>Standard error</i>	<i>Statistic</i>	<i>Standard error</i>
<i>Self-efficacy</i>	<i>External influences</i>	.870	5	.266	-1.180	.913	.420	2.000
	<i>Personal belief</i>	.853	5	.203	-1.435	.913	3.010	2.000
	<i>Overall</i>	.922	5	.544	-.663	.913	-.304	2.000
<i>Attributions</i>	<i>Parent factors</i>	.970	5	.875	.317	.913	-1.423	2.000
	<i>Child factors</i>	.980	5	.937	.377	.913	.630	2.000
	<i>Teacher factors</i>	.955	5	.773	.869	.913	1.176	2.000
	<i>School factors</i>	.893	5	.375	-1.220	.913	1.247	2.000

(df = degrees of freedom; sig. = level of significance)

Appendix 18. Phase 2 of thematic analysis; generate initial codes

Diane GE

Transcription of data from LP Circle of Adults focus group (29/01/14)

Helpful

utility

Information sharing

Views of others

Erm...I just think that I found it useful getting your point of view (member of staff who was present). I just wish that we could have had more staff there. You know, 'cos some of the things I was saying and listening to some of the things that you were saying, it sort of like backed up and I found that really useful to work with ___ and understanding what he's like because I don't see him in the classroom. I see him outside of the classroom, talking to his carers and everything so it was useful to see from your point of view how he is. That's what I found very useful.

Information sharing

Support from colleagues

Focus on one pupil

The opportunity to have a forum for the communication just devoted on one student.

Time: focused on one pupil

Yer, you just had that time for him. It makes me realise 'wow' this is such an essential process and you know, there are so many others who could benefit from the same strategy.

Increased awareness of weaknesses of school/staff

Applicability for other pupils

Erm...it made, one of the things we talked about a lot was, it made us realise as well how little information, I know a lot more information about ___ than his teachers and it sort of highlighted that. It's not passed on. It's not. It's not. And you know, they say it's on a 'need to know basis' but, you know, I think that there's a lot (that's a cop out) that they need to know because I think that there does need to be an understanding of it. I mean, you know, we discussed the ___ (school behaviour system) and it's rigid in this school. And you know, we can't have any...erm...changes from it but we know that ___ is more of a complex case and, you know, there really should be some sort of more understanding there and there should be some sort of change. But we're never going to be able to change that. It's...it's erm...it's kind of out of your hands...yer, it is, yer. I know, it sort of highlights that really.

Highlighted gaps in knowledge/difficulties with info sharing

Questions re who info is shared with

Outcomes/strategies out of member control

Highlights difficulties in school system

Reflection on organisational factors

highlighted gaps in school

I think it's highlighted some real gaps in our pastoral care, to me. I feel quite...erm...embarrassed really. The way that information is on a need to know basis is

Feelings of vulnerability (staff)

Increased awareness of importance of info sharing

Opp for info sharing

-ve - highlighted gaps in knowledge

-ve - getting 'right' staff to attend ie SUT

Appendix 19. Phase 2 of thematic analysis; list of generated codes

- Dedicated time [positive]
- Encouraged a discussion about the pupil's qualities/strengths
- Information gathering from other members of staff
- Range of roles/professionals involved
- Number of staff required [challenge]
- Highlighted gaps in knowledge about the pupil
- Useful
- Consideration of alternative perspectives regarding pupil's behaviour
- Clear stages of the process
- Increased empathy towards pupil
- Pupil not present [helpful]
- Exploration of different factors which might be influencing pupil behaviour
- Opportunity to listen to the views of others
- Consideration of pupil's perspective
- Clarity of information
- Lack of involvement of pupil [challenge]
- Support from colleagues
- Staff feeling vulnerable
- Strategies had a positive impact upon pupil
- Process applicable to other pupils
- Staff behaviour towards pupil [changed]
- Interesting
- Subjective nature of child's voice
- Development of strategies
- Theories inform identification of strategies
- Collaborative
- Length of time required for session [challenge]
- Positive experience
- Information sharing between staff
- Devoted to one pupil
- Exploration of pupil's past experiences
- Increased clarity of pupil's current situation
- Different perspectives of staff
- Thought-provoking
- Consider pupil more holistically [change]
- Emotive
- Consideration of factors within the school which may impact upon the pupil
- Exploration of alternative strategies
- Consideration of underlying theories
- Empowers staff
- Rapidly changing circumstances of LAC pupils
- Lack of control over changing circumstances of LAC pupils
- Increased understanding of the pupil
- Plan of agreed actions
- Sharing information with those not present [challenge]
- Enthusiastic
- Increased awareness of needs of pupil
- Breaking the problem into small manageable parts
- No effect on pupil
- Relevant professionals not present [challenge]
- Feeling motivated
- Feelings of frustration
- Feelings of helplessness
- Gain knowledge/information about the pupil
- Change in staff perception of pupil
- Visual representation of discussion [positive]
- Allows for reflection
- Holistic view of the pupil

Appendix 20. Phase 3 of thematic analysis; searching for themes



Appendix 21. Example of data extracts within codes and themes

Theme	Subthemes	Codes	Data extracts
Change	Effect on staff professional practice	Change in staff perception of pupil	<p>Whereas before I'd have thought 'oh how terrible' whereas now I've looked at it and thought 'is there any wonder really'. [E13]</p> <p>We looked at...sort of...her identity and issues like that I think that's made a massive impact on how we work with ____ and reviewing what works and what won't work. [E5]</p> <p>Deep down she's a good person' [E4]</p> <p>I can sort of...I can sort of look at her now and I think you know...rather than the issue...I think that's your front. That's your front that you're putting on. That's the picture she wants you to see. [E2]</p> <p>I think it depersonalises like sort of the problem from the person as well. It takes that this behaviour is not necessarily this person. [E2]</p>
		Increased clarity of pupil's current situation	Collectively you've got a really good well, overview of the child and I think in a school where you've got pastoral staff, especially in secondary school where you've got...you're either very pastoral or academic...it's blending everything together to get those really clear pictures. [E5]
		Increased understanding of the pupil	<p>I think you understand him more as well don't you. You understand why he is like he is. Yer. [E15]</p> <p>I think it's helped me, erm, learn a lot more about ____ 'cos I did know her quite well but not as well as I thought I knew her erm...but I haven't approached her any differently. [E4]</p>
		Staff behaviour towards pupil [changed]	<p>But I think just speaking to him when I've seen him around and I'm just saying 'how's it going?', you know and we've got something to be able to focus on with that. [C6]</p> <p>I'm making that extra effort with [pupil]. [E17]</p> <p>I suppose it's encouraged me to be a bit more tolerant and to find time to talk to ____ to get to know [pupil] [E17]</p>
		Consider pupil more holistically [change]	<p>I think you look at the whole child more than you did. [E13]</p> <p>We're looking at everything more holistically. [E5]</p>
		Increased awareness of needs of pupil	I think just knowing and thinking he does need to know about the positives. [C6]

Appendix 22. Thematic map

