School of Psychology

A STUDY EXPLORING THE INFLUENCES OF TRAINING ON TEACHING ASSISTANTS' LEARNING, BEHAVIOUR AND SELF EFFICACY

by

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Abstract

There is a growing number of teaching assistants (TAs) in mainstream schools (DCFS, 2009) and research is inconclusive about their efficacy at improving outcomes for children, including those at risk of exclusion (Groom and Rose, 2005; Tennant, 2001). It has been proposed that TAs do not have enough training for their roles (Russell et al, 2005). However, there is debate about the most appropriate adult training methods (Merriam et al, 2007). Nevertheless, several writers suggest that training can influence self efficacy and this can improve performance (Giallo and Little, 2003).

A mixed methods design was implemented. Firstly, two fixed designs evaluated TA self efficacy following training and pupil behaviour following a TA delivered anger management intervention. However, due to design and implementation issues the data produced was very limited and conclusions could not be made. Secondly, a flexible design explored factors that influenced TAs' learning, behaviour and self efficacy. Data was collected from 14 mainstream secondary school TAs using evaluation forms and focus groups. A thematic analysis was carried out on this data.

Themes regarding learning, confidence, training and self efficacy emerged from the data. The learning implied by some of the TAs referred to the acquisition and maintenance of *terminology, developing different knowledge bases* and *the autonomy to adapt materials*. Similarly, some

of the TAs referred to having *confidence* mainly when they had some control over the situation. Training subthemes that seemed to influence TAs' learning and confidence were *confirmation/ reassurance from others, parameters of training, iterative process of training* and *involvement in the process*. Finally, TA self efficacy seems to have been influenced by *Bandura's (1977) sources of information, outcome expectations* and *whole school support and norms.*

In conclusion, it is important to challenge unhelpful outcome expectations, develop whole school norms and the equality of TAs in schools. Furthermore, training of TAs should involve appropriate psychological paradigms from adult learning theories.

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Chapter 1: Introduction

1.1: Outline of the thesis

Mertens (1998) developed several steps for conducting research and these have been used as an overarching framework for this project:

1. Identify own worldview
2. Problem sensing
3. Literature Review; research questions
4. Identify design
5. Identify and select sources of data
6. Identify and select data collection method and instruments
7. Data analysis, reporting and utilization
8. Identify future direction

1.2: Problem sensing

The project developed within the context of an increasing number of teaching assistants (TAs) working within the United Kingdom (DCSF, 2009) and the national agenda to reduce the number of pupil exclusions in the country (Evans et al, 2004). Within this context the specific focus of the investigation evolved due to the differing demands and priorities from the different stakeholders; the National Collaborative Research Project and the local authority (LA)/ Educational Psychology Service (EPS) where the author was employed. The overall aim of the research developed effortlessly as one of the priorities of the LA was to reduce exclusions and this was one of the four possible research topics outlined

by the National Collaborative Research Project. However, there were differing priorities of how the research was going to develop. The focus of the National Collaborative Research Project was to evaluate a specific intervention that could reduce exclusions whereas the local authority focused on training and developing the skills of TAs in order for them to work more effectively with children at risk of exclusion. Therefore, these two differing focuses accumulated into the possibility of developing a multiple level study.

Level A: Evaluation of the TA training

Level B: Evaluation of an intervention

Furthermore, the author decided that it could be possible to evaluate and explore factors that may help or hinder TAs' implementation of an intervention following training. One possible area to investigate is TAs' motivation to implement an intervention. There are several theories of motivation (Reeves, 2009) and self efficacy is one of these theories (Elliott et al, 2001). Self efficacy is a concept that determines how an individual instigates to an action (Bandura, 1977). Bandura (1997 p.3) defined self efficacy as "beliefs in one's capabilities to organise and execute the course of action required to produce given attainment." Therefore, the author wanted to investigate whether the different training approaches might affect self efficacy and furthermore whether self efficacy could affect the instigation of the intervention.

Therefore, this project has three different levels:

Level 1: Evaluation of the training of TAs by EPs

Level 2: The self efficacy of TAs to implement an intervention following training

Level 3: Evaluation of an intervention

1.3: Overview of the project and the chapters of the thesis

Chapter 2: Literature Review

A reasonably systematic literature review will focus on all three levels of project as well as background information about TAs in the UK. These will be as follows:

- Background information: **What information is there generally about TAs in the UK?**
  - History behind the rising number of TAs in the UK
  - TA roles
  - The general effectiveness of TAs
- Level One: **What methods of training could EPs use to develop TAs' skills at working with children displaying challenging behaviour?**
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  - The current training needs of TAs
  - Models of training by EPs
- Level Two: **What factors can affect TA self efficacy when working with children displaying challenging behaviour?**

- The psychology of self efficacy
- The research about TA self efficacy

- Level Three: **Can anger management techniques be used to help reduce challenging behaviour displayed by individual children?**
  - The psychology of anger
  - The efficacy of secondary mainstream school based anger management interventions

Chapter 3: Methodology

Chapter three will discuss the design and implementation of the investigation. The project took place in three mainstream secondary schools. It was the intention to use a mixed methods approach to evaluate and explore three different training conditions; how these affected TA self efficacy and what effect this had on the behaviour of students who were involved in a TA delivered anger management intervention compared to a control condition. To evaluate pupil behaviour and TA self efficacy fixed designs were planned. However, due to design and implementation issues, these parts of the investigation produced very limited and invalid data. These issues and the subsequent data will be included in this section. With the limited data from these parts of the project, the main emphasis of the thesis will be a flexible design exploring factors that affected TAs' learning, behaviour and self efficacy following the training.

Chapter 4: Results

The results section will contain the data from the flexible design which aimed at exploring the factors that influence learning, behaviour and self efficacy following training. This data will be qualitative in nature.

Chapter 5: Discussion

The qualitative data will be examined with regards to the literature on self efficacy and adult learning. Furthermore, there will be a summary of the personal learning gained through this piece of research with particular focus on the methodological issues.

Chapter 6: Conclusion

This section will readdress the findings from the study with regards to the four areas of the literature review; the TA context and developing roles and responsibilities of TAs in schools, the psychology of training, TA self efficacy and anger management interventions. Furthermore there will be suggestions for future research needed within each field.

Chapter 2: Literature Review

2.1: Systematic search strategy

To formulate the majority of the literature review a systematic strategy was employed to ensure the most sensitive and extensive possible search. This search strategy was an iterative process as it took many revisions before the final articles were chosen for inclusion in the literature review. The general process will be described in detail here.

First systematic search strategy

The systematic search was firstly based on a method described by Torgerson et al (2002), who suggested that key terms should be combined for each relevant search engine. The original working title contained four key terms:

- Teaching assistants
- Self efficacy
- Anger management
- Training

These four terms were then combined for all possibilities. Since this literature review focuses on psychological and school topics, the relevant psychology and education databases were used; Psych Info (1985-2008), Web of Science and British Education Index. Since some of the combinations of terms produced many articles, an exclusion criterion was developed:

1. If a search returned with over 400 hits, the search was viewed as being too broad and would need redefining.

2. From the searches that produced less than 400 hits, the author then went through the titles and discarded any that did not relate to schools or young people.
3. From the remaining articles, the author went through the abstracts and again discarded the articles that did not relate to the aims of the project.

It was soon obvious that this strategy was too broad and imprecise as it had produced some highly irrelevant material. Therefore, it was decided that each section would need its own systematic strategy to ensure more sensitivity to its particular focus. These are outlined in each section. However, for some sections of the literature review where it was necessary to gain an overview of an area of psychology, a less systematic approach was utilised.

2.2: History behind the rising number of TAs in the UK, their roles and general effectiveness

2.2.1: Aim of the section

This section of the literature review developed because the main aim of the study from the LA stakeholders' perspective was to evaluate EP training of TAs. Therefore this section aims to provide background information to help inform the reader about the rationale behind the LA's focus on developing the skills of TAs;

- The research into the historical rise of TAs
- The role of TAs
- General effectiveness of TAs

2.2.2: Systematic search strategy

The first search strategy produced many irrelevant articles and it was also felt that some articles might be missing from the search. To ensure the search was extensive and sensitive the following was considered:

1. Terms- All TA terms (teaching assistants, support assistants, teacher aides, classroom assistants) were used
2. Search engines- the inclusion of some additional search engines (DfES and TES) to gain some wider political information since the increase in the number of TAs in UK schools has been a political movement.

3. Hand searching the most relevant journals; Educational Psychology in Practice, Educational and Child Psychology and Support for Learning.
4. Only articles related to TAs working with school aged pupils (5-18) and in the UK were included in this section as this is the focus of the study.

This strategy ensured that all relevant articles were retrieved and any that were irrelevant could be excluded. For example, the search provided many articles relating to graduate teaching assistants in American universities, and criteria four allowed for these articles to be excluded.

2.2.3: Introduction

'Schools of the future would be rich in trained adults available to support learning to new higher standards' (Estelle Morris, Secretary of State for Education and Skills, 2001 p.19)

As Estelle Morris (2001) predicted British schools now have a high level of support staff. According to the latest Department for Children, Schools and Families statistics (DCSF, 2009), the number of support staff in mainstream nursery, primary and secondary provision in January 2009 was 303,700. Therefore, the number of support staff has more than doubled since 1997, when the total was 118,200. A particular group of support staff that the DCSF (2009) mention is TAs. Between 1997 and 2009 this group have more than tripled with an increase in numbers from 49,700 to 157,200. Teachernet (2007) defined a TA as a person whose primary role involves assisting a teacher in the classroom. There has been some debate in the literature about this title, with different researchers preferring to use different terms. Rhodes (2006) suggested that in the UK support staff who work with pupils have been known as 'classroom assistants', 'learning support assistants' and 'teaching assistants'. Hammett and Burton (2005) stated that 'teaching assistant' is now the preferred term by the Government. Therefore, this is the term that will be used throughout the literature review.

2.2.4: The historical and political developments that have led towards the increase of TAs

Overview: two political movements

Kerry (2005) argued that the use of TAs in schools was referred to as early as the Plowden report (1967). However, researchers proposed two main more recent government policies for the rise of TAs to the levels that are observed today. Numerous writers have suggested that the increase in number of TAs is due to the inclusive schools movement (Moran and Abbott, 2002, Farrell et al, 2000, Groom and Rose, 2005) whereas others suggested that it is due to the Workforce Remodelling Movement (Rhodes, 2006, Butt and Lance, 2005, Brookson, 2006). Both of these will be considered in turn.

Inclusive Schools Movement

Following the Warnock Report (1978), the 1981 Education Act (DES, 1981) proposed that all children with special needs are to be educated in mainstream schools where possible. Therefore the number of TAs has increased to cater for the needs of these children (Farrell et al, 2000). Furthermore, since inclusion has been viewed as the keystone of New Labour's educational policy, more TAs have been required to support the participation of children with widely different individual needs, including children with behavioural difficulties at risk of exclusion (Moran and Abbort, 2002). In addition, Groom and Rose (2005) stated that initiatives such as the Excellence for all Children (DfEE, 1997) and the Excellence

in Cities (1999) have focused on raising attainments and reducing exclusions of children with social, emotional and behavioural difficulties.

Workforce Remodelling Agreement

Butt and Lance (2006) argued that during the last 20 years there have been difficulties recruiting and retaining teaching staff, resulting in the Workforce Remodelling Agreement (DfES, 2003). Therefore increased numbers of support staff are deployed to reduce teacher workload. Brookson (2006) stated that the Workforce Remodelling Agreement proposed a hierarchy of TAs with three levels; Senior Higher Level TAs (SHLTA), who would manage all TAs, Higher Level TAs (HLTA), who would cover some lesson responsibilities from teachers and the finally all other TAs. Gunter et al (2005) stated that there could be some issues over the introduction of the different levels of TAs, since some HLTAs will be paid more than newly qualified teachers, which they proposed could be an issue within schools.

Conclusion: Funding

It seems that both the inclusion and workforce remodelling movements have had an influence on the increase of TAs and these have led the present Government to inject funding for specific aspects of TA support. DfEE (1998) Teachers Meeting the Challenge of Change stated that there would be an extra £20 million to recruit and train 2,000 literacy assistants and another 20,000 full time TAs by 2002. The DfES (2000a) report stated that the Government was implementing £350 million to improve

and increase the support of TAs, including more training, a clear definition of the role and pathway of qualifications. However, with two alternative perspectives influencing the Government policies, it is possible that there could be confusion over the focus of training and the TA role.

2.2.5: The Role of Teaching Assistants

Overview: the research into TAs

Kerry (2005) argued that before the current New Labour Government there has only been research and theoretical attention from a handful of researchers in the UK into the role and efficacy of TAs. Butt and Lance (2005) argued that "this under-researched group of staff *should be considered* of particular interest, not only in the context of remodelling, but also because of the increasing number of workers employed in such roles" (Butt and Lance, 2005, p.141). Farrell et al (2000) stated that there is now an increased amount of publications relating to TAs. However, most of the research into TAs tends to consider the role and to a lesser extent the impact of TAs. Therefore, the author will consider the role followed by the impact of TAs. The role TAs play with regards to reducing exclusions will also be considered.

Historically, TAs were only employed in special educational settings with their primary function relating to the physical care and welfare of pupils. It was not until the 1970s that they began teaching children (Farrell et al, 1999). In the early nineties, Clayton (1993) suggested that there was a stereotypical picture of TAs as older women with very few qualifications, training or experience of special needs. He further argued that ambiguity over the TA role does not allow for effective functioning. However, the TA role has continued to evolve (Farrell et al, 2000), and the Government (DfES, 2000b) defines the TA role in four categories:

1. Supporting pupils

2. Supporting teachers
3. Supporting the school
4. Supporting the curriculum

The majority of research prominently considers the TAs role with regards to supporting teachers and pupils. Therefore, the author will examine these two categories in more detail.

Supporting teachers or supporting pupils?

Researchers have used various methods to assess which is the predominant role of the TA. Groom's (2006) discussion paper stated that the majority of TAs are employed as general classroom assistants. However, there is a large group employed to work directly with children on the special needs register. He suggests that the former role has changed from a general helper to someone who helps the teacher with classroom organisation. This reflects the Workforce Remodelling Agreement (DfES, 2003) which states 24 administrative jobs that TAs rather than teachers should do.

Other researchers have used interviews with stakeholders in order to establish the primary TA role (Moran and Abbott, 2002, Farrell et al, 1999). In Moran and Abbott's (2002) small scale study, head teachers from five mainstream schools with special units and six special schools were interviewed. Their results suggested that although the role was multi-faceted, the majority of TAs' work is supporting individuals or

small groups of children. The main limitation of this study is that the interviews focused on the role of the TAs in a small number of segregated provisions and from head teacher reports which might not reflect the reality of the situation. Therefore, generalisation to mainstream classrooms is difficult. Farrell et al's (1999) study was more comprehensive as they interviewed all stakeholders (TAs, teachers, head teachers, SENCos, parents, governors, pupils and LEA officers) and it took place in four local authorities with six 'non-resourced mainstream schools', six 'resourced mainstream schools', three special schools and two voluntary maintained schools. In contrast their results suggested that the majority of the TAs' time is spent with whole classes rather than with the withdrawal of individual or groups of pupils.

Other researchers have used observational data to draw conclusions about the role of the TA. Tennant (2001) observed 85 lessons which included 73 additional adults. During some lessons he observed TAs working exclusively with one child. He did not use a structured observational schedule approach and did not specify the percentage or number of lessons. Therefore, it is difficult to draw conclusions from this research. Farrell et al (1999) also observed some of the TAs involved in their study and they concluded that although TAs may be employed to perform certain roles, in practice there can be deviation.

Large scale studies carried out by Blatchford et al (2007) and Russell et al (2005) have used questionnaires containing categories to assess the TA

role within Years 4-6. Their results indicated that TAs primarily work directly with children, with 50% attached to a specific pupil with a statement of special needs and 60% working with small groups in the classroom. They concluded that 'TAs work most often with the 'neediest' pupils, rather than with pupils across the whole range of attainment' (Russell et al, 2005 p.186). The main limitation of these studies is that although they received 340 TA questionnaires this was a low return rate from the total population of TAs in the 500 schools involved in the research. Therefore, there may be TAs within the schools that work in different capacities. Earlier research by Blatchford et al (2002) indicated that the role of TAs in classes was 45.1% general learning support and 13.1% supporting students with a statement of special needs. Their data was collected from open ended questionnaires given to Key Stage 1 and reception teachers. The issue of this data collection process is that the categorisations were made from the teachers' responses and therefore there could be some issues of potential bias introduced based on the interpretation from the researchers.

In conclusion, some of the research would therefore suggest that although many of the TAs were attached to an individual with a statement of special needs, they often work with small groups and whole classes.

Categorisation of TA roles

Other researchers have specifically categorised the different roles TAs play when supporting children. These are shown in the Table 2.1.

Table 2. 1: Categorisations of the role of the TA by different researchers

The different roles stated by the different researchers could be due to the changing nature of the role between the commentaries of Clayton (1993) and Kerry (2005). Alternatively, some researchers may be viewing only one aspect of the job. For example, Tennant (2001) specifically viewed the direct role the TA may have, when working with individuals whereas Kerry (2005) appears to be focusing on the many varied roles TAs perform including the administrative roles.

TAs' role in supporting children at risk of exclusion

TA support of pupils might include children who have a statement for behaviour (Hammett and Burton, 2005). Groom and Rose (2005) have specifically outlined how a TA can build up a pupil's social and personal development. They analysed 94 school questionnaires that they had sent to 247 schools and interviewed key stakeholders in 20 of these schools about effective practices of TAs when working with Key Stage 2 children with social, emotional and behavioural difficulties. Furthermore, they conducted more in depth semi-structured interviews with five of the schools. 30% of schools stated that TA support had allowed certain children to remain in mainstream provision, who would have otherwise been excluded. They stated that successful TA practices included:

1. 'Supervising individuals or small groups
2. Offering pastoral support to individual pupils
3. Teaching individuals in a withdrawal situation
4. Planning activities for small groups'

(Groom and Rose, 2005 p.25)

Groom and Rose's (2005) results also indicated that schools often found TAs' work on a one to one basis the most useful. Individual and group interventions identified by schools as useful included:

- Nurture groups
- Circle time
- Anger and conflict management
- Social and Emotional Aspects of Learning (SEAL)
- Emotional literacy Programme
- Lunchtime and play support
- Social skills and self esteem programmes
- Peer support programmes

The limitation with this article is that they suggested that the five schools they interviewed in-depth were representative of the diverse populations within county. However, with only five schools, are they truly representative and furthermore are they generalisable to the national population of schools?

Groom's (2006) discussion paper reviewed his previous research and argued that one way of supporting behaviour is through the relationships that TAs develop with children. He also stated that if TAs have the confidence in their ability, children will return the respect. He suggested that the new role of HLTAs involves more autonomy as they will not only supervise other TAs but also support pupil behaviour and implement individual and group work, such as the SEAL programme. He stated that

such initiatives are welcomed by TAs as they feel confident working with groups.

Conclusion about the role of TA

Although the current roles of TA have been seen to be very varied by different researchers, the primary roles can be classed as supporting the teacher, the child, the curriculum or the school. With the first two roles, researchers have suggested that direct work with children is more often how TAs work and this is normally done in a whole class situation. Furthermore, there is a role for TAs to work with individuals or small groups of children with social, emotional and behavioural difficulties to help reduce exclusions (Groom and Rose, 2005). However, Tennant (2001) argued that there is diversity within the TA role, school policies and TA responsibilities and therefore there is a need different skills and training to cater for this diversity (Kerry, 2005).

2.2.6: General effectiveness of TAs

Overview

This section will consider the research reviewing TA effectiveness in including children, reducing teachers' workload and working in whole classroom situations.

Little evidence or a flawed premise behind TA support?

In order to justify the deployment of TAs, Baskind and Thompson (1995) asserted that there should be research into the efficacy of TAs' work. Tennant (2001) argued that there has been very little theoretical or empirical evidence to suggest that adding TAs into schools enhances school effectiveness. He suggested that the use of TAs is based on the illogical argument;

> "Step 1: We must do something
>
> Step 2: This is something
>
> Step 3: Therefore we must do this" (Tennant, 2001 p.184)

"More support does not necessarily mean more effective support" (Blatchford et al, 2002, p55). Furthermore, research into TAs tends to be small scale and investigates their impact at a classroom level (Cremin et al, 2003). On the other hand, Groom (2006) stated that there is now a growing area of research looking at the impact of TAs.

The impact of TAs with the inclusion of children

Researchers appear to argue about whether TAs are effective in their role at promoting inclusion. Lacey (2001) selected 24 schools from 60 surveyed schools and observed lessons, interviewed teachers, TAs, parents and pupils and conducted group interviews in four of the schools. She asserted that many children who are now included within the mainstream education system would not have been effectively included without TAs. Other researchers stress the contradictory nature of using TAs to include children. Tennant (2001) argued that having a TA attached to a child can draw attention to the child's differences and he saw friction between a child and a TA in his anecdotal study. TAs can form an obstacle between the child and their peers (Groom, 2006). For "secondary aged pupils in particular did not want the *TA* to spend large parts of the lesson sitting next to them as this served to highlight their problem and could cause embarrassment" (Farrell et al, 1999 p. 18). Tennant (2001) concluded that effective and inclusive TA support should be aimed at reducing the amount of support needed by a pupil.

The impact of TAs on supporting teachers [the Workforce Remodelling Agreement (DFES, 2003)]

Ofsted (2003) stated that lessons were better when a TA was present. Blatchford et al (2002) investigated the impact of TAs over three years in nine LAs by interviewing and giving questionnaires to teachers. The results suggested that teachers felt that TAs increased teacher effectiveness, helped to reduce teachers' workload and many also felt

that they improved pupil outcomes. However, they emphasised the importance of consistent and reliable TA support, suggesting that unprepared support was often ineffective. Furthermore, they summarised that effective planning and training is necessary for effectiveness. Gunter et al (2005) investigated whether TAs employed, due to Workforce Remodelling Agreement (DFES, 2003), cut down the number of hours worked by teachers and improved their work-life balance. This investigation contained a large sample with 2077 pre and post questionnaires and 359 interviews of teachers. Their results suggested that there had been a fall in the hours teachers spent on some clerical tasks. However, there was a large difference in the amount of time reduced for different teachers. Furthermore, although their questionnaires were collected pre and post the workforce remodelling changes, there was no 'control' group to compare these results to.

The impact of TAs on pupil outcomes; attainment

Muijs and Reynolds (2003) argued that the majority of research in this area evaluates academic progress gained with regards to the pupil-adult ratio and not specifically the effectiveness of TAs on pupil progress. In their review of the limited research into TAs' impact on pupil progress, they suggested the evidence is inconclusive.

A large amount of the research that suggests TAs have a positive impact on children is based on reports from head teachers, teachers and parents (Blatchford et al, 2007). For example, Hammett and Burton (2005)

concluded that TAs are an important factor for improving educational standards. However, only one head teacher was interviewed and one of the researchers was a senior member of staff within that school, which might have affected the collection and interpretation of the data to support the researchers' aim. Woolfson and Truswell (2005) analysed the effect of TAs in three primary schools in Scotland on the quality of learning, any impact on children's personal and social development and any increase in parental involvement. They did not provide any extra training for the TAs but guidance was given regarding the three aims. Data was collected from questionnaires sent to parents, interviews of TAs, head teachers and class teachers, observations and pupil/ parent focus groups. The results suggested that all three aims had been met. Although this study used more schools and observational data, it was mainly based on perceptions of key people. Both studies re-echo Tennant's (2001) primary argument that people may illogically perceive that something is working because something has changed even though there is no sound evidence of success. Therefore any research that concludes the effectiveness of TAs from teacher and parent reports should be viewed sceptically (Blatchford et al, 2002).

Systematic research using statistical attainment data has produced inconclusive results with regards to the effectiveness of TAs. Blatchford et al (2007) analysed the impact of TAs in Years 4-6 attainment by statistically analysing attainment results from pupils supported and not supported by TAs. The results suggested that there was no evidence that

TAs' characteristics or the presence of them affected children's attainment. However, their statistical analysis was based on a range of different data sources (different questionnaires, attainments etc.) and there was a low response rate from some of the questionnaires. Therefore, their statistical analysis may not accurately reflect the situation. Similarly, Blatchford et al's (2002) systematic research had used the same methods, sources of data and statistical analysis as they did several years later in Blatchford et al (2007). However, they did not include TAs' questionnaires and investigated Key Stage 1 achievement. They also found that the presence of TAs did not affect children's attainment. Furthermore, Muijs and Reynolds (2003) investigated the effectiveness of TAs with a numeracy intervention. The design was a quasi-experimental design with 180 low achievers pupils matched with 180 control pupils. The pre-test post-test mathematical results suggested that TA support did not improve mathematical progress. They particularly concluded that the children's lack of progress cannot be due to TAs' lack of training or support, since they trained and supported the TAs in their study. A limitation of their study is that their matched control group might not have been matched on all variables and they argued that without qualitative data it is difficult to analyse this further.

The impact of TAs on supporting general classroom behaviour

Blatchford et al (2005) evaluated other pupil outcomes such as on task behaviour for pupils aged 10 and 11 years. They observed 42 classes and they concluded that TAs have a positive effect on individual attention

and active interaction of the children. A similar conclusion was reached by Blatchford et al (2007). Cremin et al (2003) argued that how TAs are managed in the classroom has an effect on children's behaviour. There were three different possible management models: zoning (both the teacher and TA organise the activities together), room management (one person is in charge of the class' overall activity and one is in charge of helping a group), reflective teamwork (teamwork during the planning stage). These were implemented in six different schools and evaluated through pre and post intervention video observations. All methods statistically improved children's engagement, with room management providing the best results. However, the baseline engagement data for the reflective team condition was much higher than the other two conditions. These classes may not have shown much improvement because they were already engaging almost as much as they could. Furthermore, since the different conditions were in different schools it could have been factors within the school rather than the classroom management conditions that improved engagement.

Conclusion about the general effectiveness of TA support

The research seems to suggest that TAs are often perceived as being effective by teachers and parents, but as Tennant (2001) proposed these perceptions could be based on flawed logic as TAs do not seem to improve attainments. However reports from teachers have suggested that TAs could help to include children who would have otherwise been excluded, although there is much debate about this conclusion. On the

other the hand, some studies suggest that TAs do improve general on task behaviour and reduce the workload of teachers, though research is limited in this area. The research does not give any specific insights into why TAs are effective in some situations but not in others and therefore these factors may need researching. Nevertheless, Muijs and Reynolds (2003) argued that it is not because of lack of training in their study that TAs were ineffective. Conversely, many of the researchers (e.g. Kerry, 2005) argue that it is training that is required in order for TAs to become effective. Therefore, in the next section the author proposes to consider what the research demonstrates regarding the psychology of training, the current training needs of TAs and what models of training educational psychologists can use to train them.

2.3: Level One: Evaluating EP training of TAs

2.3.1: Aim of the section

The following section of the literature review aims to answer the following question:

What methods of training could EPs use to develop TAs' skills at working with children displaying challenging behaviour?

In order to gather all of the relevant literature to help answer this question, this section has been divided into three main areas;

- The psychology of training
- The current training needs of TAs
- Different models of training used by EPs

For each section an individual systematic literature search was conducted and this is outlined at the start of the sections.

2.3.2: The Psychology of Training

Overview

The following section intends to give a brief overview of the psychological theories underpinning effective training. It is intended to inform the subsequent parts of this section rather than be a systematic search of the research into effective training. The sources quoted within this section were found using the terms 'training' and 'psychology' in the University of Nottingham Library catalogue.

Patrick (1992 p.1) defined training as "the systematic acquisition of skills, rules, concepts or attitudes that result in improved performance in another environment."

Quinones and Ehrenstein (1997) asserted that different areas of psychology hold different perspectives regarding training. The three main paradigms that they focused on are:

- Cognitive psychology- this focuses on adult learning and skill acquisition
- Organisational psychology- this focuses on individual differences and factors in an organisation
- Human factors psychology- this focuses on the design of training

After reading the collected sources, the author concluded that these different paradigms describe the different aspects of training and therefore considers how organisational psychology can produce a framework for analysing the other psychological paradigms.

2.3.3: Organisational Psychology

"Training in the real world will be a compromise between a psychological expedient design and the resources imposed or available for this purpose" (Patrick, 1992 p.113)

Patrick (1992) asserted that training can be seen as a subsystem, which interacts and affects other subsystems within an organisation. Instructional Systems Development (ISD) models have been produced by many theorists to design and explain effective training subsystems. There are many different ISD models however Dipboye (1997) argued that all of them follow the same basic framework (see figure 2.1).

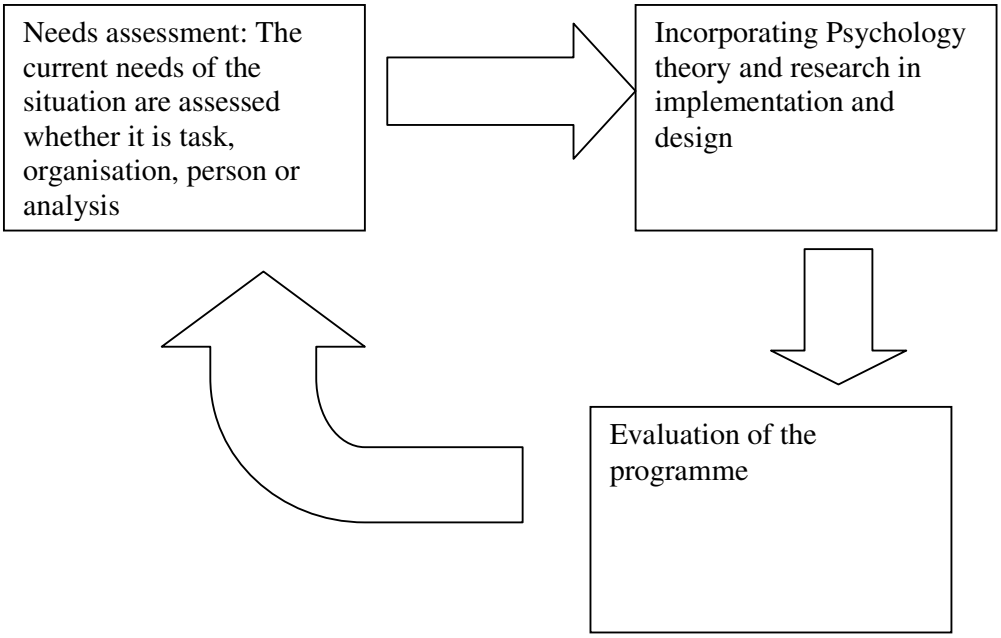

Figure 2.1: Dipboye's (1997) basic ISD model

An example of a more comprehensive ISD model was produced by Patrick (1980 see figure 2.2). This model indicates the complexity involved in training subsystems. Patrick (1992) argued that ISD models can be useful because they can:

+ Have psychological principles applied to them
+ Be helpful to large scale organisations
+ Indicate general areas in the development of training
+ Be useful to unfamiliar people
+ Be useful as a evaluation tool

However, Dipboye (1997) argued that these models are often not implemented in organisations because:

- They are seen as taking up too much time at the analysis stage
- They are viewed as too rational and not considering personal learning styles
- Politics within organisations are more important.

Furthermore, Patrick (1992) argued that ISD models tend to show 'what to do' rather than inform people about 'how to do it' and they are seen as an idealised top-down vision of the training process.

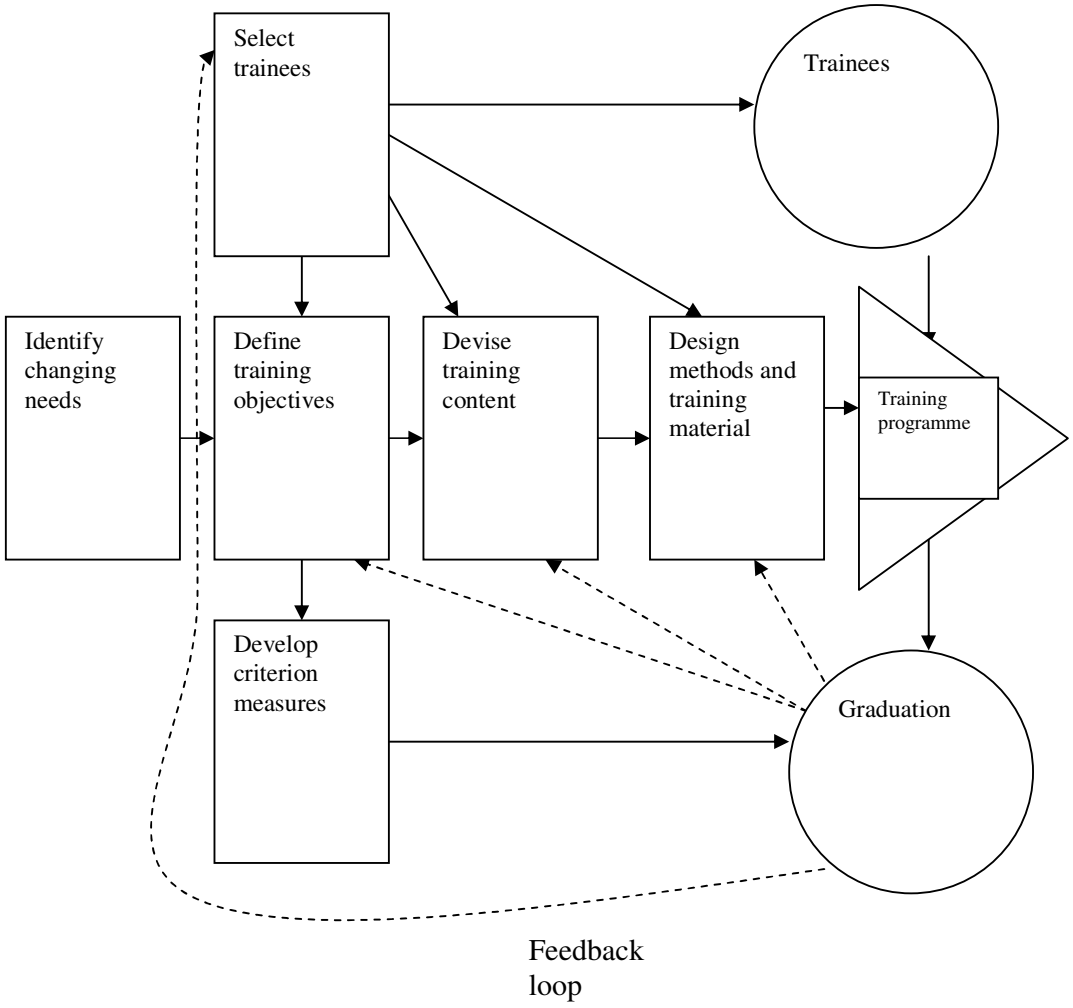

Figure 2.2: Patrick's (1980) ISD model

Since psychological theories can be applied to ISD models, the author will use the three elements of Dipboye's (1997) basic ISD model as an organisational psychology tool to map out other relevant psychological paradigms to explain effective training. Interwoven within this three stage model the relevant research regarding the current training needs of TAs, EPs training TAs and other school staff will also be considered.

2.3.4: Needs assessment

Patrick (1992) argued that analysing needs in an organisation may not only help to identify the training needs and objectives for the organisation, but also help to design the training programme and content. He suggested that a psychological approach to analysis can be task orientated or person orientated. Patrick (1992) suggested that psychological approaches to analyse the needs are known as 'taxonomies' of needs which aim to be exhaustive, mutually exclusive and produce different training implications. These taxonomies vary considerably in size and have been theorised to examine different dimensions within the organisation, such as task focused needs; content, levels of learning, task environment and task function or person focused needs; cognitive, affective and psychomotor. Patrick (1992) argued that taxonomies are a useful way of assessing needs because they are:

+ Based on comprehensive information processing terms
+ Theoretically based
+ Content independence of information processing terms

However, taxonomies also have weaknesses are because they have:

− No reference to higher order cognitive processes
− Out dated view of psychology
− No dynamic integration

2.3.5: Current training needs of TAs

Although Muijs and Reynolds (2003) argued that training had not improved the impact TAs had on children's numeracy attainments. Kerry (2005) argued that training in specific roles is very important. Within relate to a person focused needs assessment, a systematic review of the current TA training needs according to the research will now be reviewed. This will include research about TAs qualifications, as well as professional development and training needs.

Systematic Search

When analysing the training needs of TAs, what training and qualification TAs are expected to have and the training opportunities that are available to them is important. The first systematic search using the terms; 'TA' and 'training' produced many of the articles for this section. To ensure the search was extensive and sensitive the following was considered:

1. Terms- All TA terms (TAs, support assistants, teacher aides, classroom assistants) were used
2. Search engines- the inclusion of some additional search engines (DfES and TES) to gain some wider political information since the increase in the number of TAs in UK schools has been a political movement.

3. Hand searching the most relevant educational psychology journals; Educational Psychology in Practice, Educational and Child Psychology and Support for Learning.
4. Only articles related to school aged pupils (5-18) and in the UK were included in this section as this is the focus of my study.

This search strategy ensured that all of the relevant articles which outlined TAs qualifications and training needs were included and irrelevant articles were excluded.

Entry Level Qualifications

Although, the majority of senior managers would like TAs to have at least a C in GCSE English and Maths, research from the last twenty years has indicated that between 1/5 and 1/3 of TAs do not have qualifications. Approximately, 1/3 of TAs have 5 A-C GCSEs and approximately 1/3 have higher qualifications (See Clayton, 1990. Blatchford et al, 2002, Russell et al, 2005). Although these results are from relatively small scale surveys and therefore generalisability could be an issue, the results could suggest that entry qualifications of TAs has not changed significantly over the 15 years between the studies carried out by Clayton (1990) and Russell et al (2005).

Relevant professional development and continuous training

"Certainly, it would seem totally unreasonable to hand over responsibility for our most difficult and needy pupils to those adults least

equipped to deal with them. Yet this is often the reality" (Lorenz, 1993 p. 28).

Groom (2006 p. 202) stated that "professional development is essentially any activity that increases the skills, understanding, experience, knowledge and effectiveness of teachers and others working in schools." If there is no entry level qualification necessity, it could be argued that there needs to be some form of 'on the job' professional training instead. The Plowden Report (1967) suggested that TAs should have training through college courses covering child development and relevant educational material, with the majority of the training taking place on the job and taking approximately two years to complete. The Warnock report (1978) also recommended training for TAs.

Previous research into the amount of relevant professional development training gained by TAs suggested that it appears 'patchy' and not extensively taken up (Russell et al, 2005). Farrell et al (1999, p.44) recommended that there should be 'a nationally recognised framework of qualifications linked to salary scales and career progression." Furthermore, Moran and Abbott (2002) argued that a specific TA qualification needs to be developed which includes induction and continuous professional development. However, recently the Training and Development Agency TDA (2006) has developed a three year strategy for support staff in schools with three objectives:

- Help schools to develop with deployment and training of support staff
- To create a framework of qualifications
- To extend training opportunities

Furthermore, with the remodelling movement, Brookson (2006) stated that the Teacher Training Agency (TTA) has recently developed training and standards for HLTAs. TDA (2006) stated that there have been over 5000 TAs who have started the HLTA courses. They also suggested that over 15,000 TAs are working towards level 2 and level 3 qualifications. Much of the research into the training of TA was conducted before this strategy was developed. Therefore, it is not possible to state what effect this might have had on the training of TAs.

Gerschel (2005) suggested that it is the responsibility of both the LA and the school to train TAs. The training options available from both of these providers and from colleges will be considered.

Local Authority Training

During the early 1990s a few EPs investigated the training needs of TAs at a LA level (Clayton, 1990, Clayton et al 1993, and Lorenz, 1993). They emphasised that there are different levels of funding and induction courses given by different LAs. The Labour Government's Green paper (1997) stated the need for LA accredited courses and training courses within the NVQ framework. In 1999, training for TAs was offered by 72% of the LA (Farrell et al, 1999). From 2000 LAs were giving out

DfES Induction Course (DfES, 2000) materials and the QCA were developing a national framework for TA qualifications (Blatchford et al, 2002).

There are several limitations to these LA run courses. Firstly, the DfES have not communicated directly with TAs, relying solely on schools to pass this information on (Hammett and Burton, 2005). Secondly, 74% of the 340 surveyed by Russell et al (2005) had not attended this course with over half not knowing about the existence of the course. Furthermore, a prerequisite for attending a LA course is being employed as a TA in the LA (Farrell et al, 1999). Finally in 2000 the induction courses were primarily for primary school TAs (DfES, 2000a). Therefore, although there are LA run induction courses, it cannot be assumed that a TA particularly in a secondary school has attended it.

School based training- INSET

"School- based training seems vital for the pedagogical role of TAs" (Russell et al, 2005 p.187). Gerschel (2005) argued that imparting knowledge and understanding with TAs through induction and continuous professional development is a key part of the SENCo's role. However, in Moran and Abbott's (2002) study, all interviewed head teachers stated that they provide this. Although many schools induct their TA through shadowing and sharing of policies (Groom, 2006), Russell et al (1005) argued that including TAs in school based INSET could be a solution to them not accessing the LA induction courses. In their survey,

74% of TAs did attend school based INSET training. However, the limitations of school based INSET are that many schools will allow TAs to join in INSET but will not pay them for it or cannot include them because of conditions of service (Groom and Rose, 2005). Furthermore, "INSET for support staff should reflect the needs of the school, the pupils and the TAs themselves, with the ultimate goal of increasing and improving inclusive practices" (Moran and Abbott, 2002 p. 170). However, often the INSET materials are aimed at teachers rather than TAs (Farrell et al, 1999).

Further Education (FE) courses

The final induction and training option for TAs are FE courses. The majority of FE College / university TA courses are accredited whereas under half of LA courses are (Farrell et al, 1999). Furthermore, many of the accredited courses are prerequisites for more advanced qualifications. Farrell et al (2000) discovered that 20% of TAs attended college courses but found that some of the covered material was not relevant to their role. In Moran and Abbott's (2002) interviews of head teachers from 11 schools in Northern Ireland, most of the TAs held a NNEB qualification or an NVQ Level 3. However, they concluded that none of these TAs held 'an entirely appropriate qualification' for their role.

What TAs value in training and which type of training would be better for TAs?

Clayton (1990) surveyed 65 class teachers and 100 TAs; 66% of the TAs wanted training in specific skills and 45% wanted general induction course about the role. However, 14% of teachers did not think that TAs needed in-service training. Of the teachers that felt their TAs needed training, different topics such as behaviour management, specific knowledge of different conditions and information on classroom approaches were suggested. However, Clayton (1990) concluded that without knowledge of what training is lacking it is difficult to state what training is needed. Furthermore, this study is now almost 20 years out of date and therefore perceptions in schools may have changed.

In Farrell et al (2000) TA interviews, the TAs suggested that they would like both accredited and non-accredited courses to be a part of their career progression. Lorenz (1993) stated from her experience of training TAs that they often value training and in particular the opportunity to meet and be treated as professionals and they like to gain confidence and knowledge. Farrell et al (1999) discovered that TAs were positive about training that had been paid for by the LA and assignments that were related to their current work with children. Closely linked training to their role seemed to be a very important aspect of training. Therefore tailored courses through planning with TAs would be better.

Groom and Rose's (2005) survey of 94 head teachers about Key Stage 2 TAs indicated that school based training was the most available, followed by LA/ college courses, followed by mentoring by staff and finally monitoring by staff. Groom (2006 p.202) argued that the best training for TAs would consist of "short-focused training sessions that are rooted in practice and allow time for group discussion and reflection of the issues." They claimed that they "provide a format to build team collaboration." Furthermore, Groom and Rose (2005) results indicated that some schools expected TAs attending outside courses to give feedback to the rest of the TAs.

Conclusion about the current TA training needs

Currently, TAs in schools do not necessarily need any qualifications or previous training to obtain a TA position. The Government has pledged funding for training and the need for a national framework of qualifications and induction. However, research still seems to suggest that TAs might not be involved in LA run induction training or other courses. Furthermore, although some have the opportunity to be involved in school based INSET training, there is a worry about whether this is always suitable for them. A great deal of the research seems to quantify what training there is available for TAs and what there should be made available to them. However, little research concluded about the exact process of training that should be utilised when training TAs. Though, the research therefore appears to suggest that TAs may need suitable 'on the job' or INSET training which is linked to their role and the

development of their skills and confidence. Therefore a review of the psychology behind training and learning may help to suggest what processes of training could be applied to INSET delivered to TAs.

2.3.6: Incorporating Psychology theory and research in implementation and design

Dipboye's (1997) basic ISD model proposes that the second stage is to use psychological theory when implementing training. This obviously allows for considerable flexibility in the areas of psychology that are considered when training TAs. A comprehensive framework which considers areas of psychology involved in effective training was produced by Quinones (1997) model (see figure 2.3). It is this part of the model which has suggested the second level of the present study as the author wanted to investigate a concept that could link training and the implementation of an intervention. He proposed three different trainee factors; self efficacy, motivation to learn and fairness perceptions. It is the former concept that the author will consider in the next part of the literature review as he stated that there has been a large increase in studies investigating "the relationship between self efficacy and various aspects of training effectiveness" (Quinones, 1997 p.183). Furthermore, he emphasizes the relationship between the organisational factors and their influence on self efficacy.

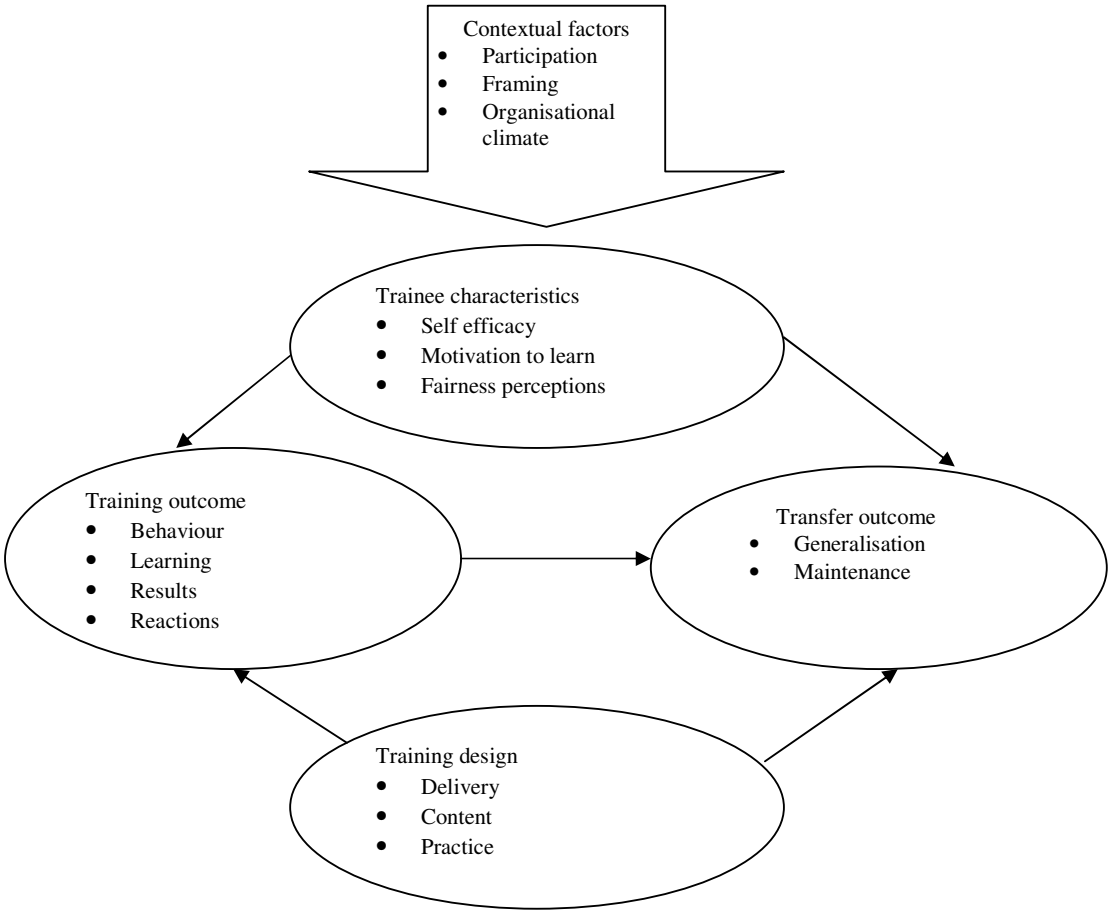

Figure 2.3: Quinones (1997) model of factors affecting training

2.3.7: The psychology of adult learning and training approaches

"Learning defies easy definition and simple theorising" (Merriam et al, 2007 p.273)

Patrick (1992) asserted that although learning is necessary within effective training it is not sufficient to ensure that training occurs. However, the psychology of adult learning is still an important aspect when considering implementation and design of training. Psychology of adult learning focuses on how an adult learns (Tennant, 1997). Tennant (1997) argued that within the adult learning field there is not only a lack of sound research, there is also a lack of critical psychological evaluation. Tennant (1997) and Merriam et al (2007) evaluated different psychological paradigms that relate to adult learning.

Humanistic psychology

Within the humanistic paradigm the learning process occurs due to the need to become self-actualised or autonomous (Tennant, 1997). The trainer aims to facilitate the development of the whole person through training methods such as self directed learning and andragogy. Merriam et al (2007) argued that andragogy has been the predominant model of adult learning during the last 40 years. It proposes that adult learning requires:

- Self direction
- Internal motivation

- Knowing why they are learning
- Experience
- Problem solving
- Relating learning to social roles

The positive aspect of the humanistic paradigm is that it highlights the importance of the relationship between an educator and learner. However, Merriam et al (2007) argued that self direction is seen as an idealised theory and andragogy is seen as a framework rather than a theory, with little empirical research and ignoring social contextual issues. Furthermore, Merriam et al (2007) argued whether all adults are self directed and therefore the self directed learning assumption may sometimes cause difficulties in a training context.

Psychoanalytic paradigm

Based on the Freudian tradition, learning takes place within a context of transference and unconscious emotional issues between the educator and learner and between the id, ego and superego during the learning process. The trainer aims to understand these unconscious issues of an individual. The positive aspect of this theory is that it outlines the possibilities of unconscious emotional issues that could help or hinder the learning process. The main limitation of this theory is that it could be argued that Freud developed his theory on individual clinical cases and therefore they are not relevant to adult learning situations (Tennant, 1997).

Another predominant theory developed originally from the psychoanalytical paradigm is Erikson's (1959) psychosocial stages of development. The assumption behind this theory is that there are three stages and three emotional crises that adults go through;

- Young adult: intimacy vs. isolation
- Adulthood: generativity vs. stagnation
- Maturity: ego integrity vs. despair

Within this theory the trainer aims to understand the different stage an individual might be facing and adapt their teaching accordingly. This has given rise to training methods such as social role acquisition or socialisation. The positive aspect of this theory is that it proposes the possible emotional differences that adults of different ages could bring into an adult learning situation. The theory has been criticised for focusing on the status quo and that psychological health relates to how a person deals with the needs of society (Tennant, 1997).

Cognitive Psychology Paradigm

There have been three generations of cognitive theories (Quinones and Ehrenstein, 1997):

a. Well organised storage of information
b. ACT theory- changing declarative knowledge to procedural knowledge
c. Adaptive expertise- developing knowledge structures (scripts, mental modes, schemas or cognitive maps), metacognition, problem solving and making predictions.

The underlying assumptions behind all cognitive theories is that learning occurs through changes in internal cognitive structures as new information is either assimilated or accommodated into existing understanding (Tennant, 1997). Within this paradigm the trainer aims to structure the learning so that this process can occur through training methods such as metacognition instruction (learning how to learn), guided discovery, intelligence learning, learning to memorise, advanced organisers (Merriam et al, 2007). Many of the cognitive theories of learning are based on Piaget's concepts and Piaget did not theorise past adolescence and some argue learning is not sequential (Tennant, 1997).

Another theory within the cognitive psychology paradigm is the theory of learning or cognitive styles. This is based on research from perceptual psychology that concludes that people view information differently and therefore learning occurs when there is a match between teaching and learning styles (Tennant, 1997). The trainer aims to diagnose individual learning styles and match teaching to these through training methods such as metacognitive instruction (learning how to learn) and adaptive training (macro and micro level). Tennant (1997) stated that learning styles should be on the agenda as a point of discussion in many adult learning situations. However, he debated whether teaching should be matched with a person's learning style. Firstly, he argued whether it is possible for a teacher to be able to diagnose a leaner's learning styles, and he also suggested that conflict helps people to develop; so matching might not always be the best idea.

From the above cognitive theories, the Functional Context Education approach developed for adult learning, in particular with regards to adult literacy. This approach emphases the importance of relating learning to the experience and the context of the adult. This is grounded in the three cognitive systems; long term memory as a knowledge base, processing skills (language, learning strategies and problem solving skills) and information displays given in the present information. Therefore training context need to consider these three cognitive concepts. Freire was one of the founders of this type of adult learning process (Sticht, 2005).

Socio Cognitive Paradigm

Within the socio cognitive paradigm learning occurs through the interaction of the person, the environment and through observations of the social context, with the aim of learning to develop social roles and behaviours (Merriam et al, 2007). Furthermore, self efficacy and locus of control are central constructs to whether people engage in learning. Within this paradigm the trainer aims to model the relevant roles and behaviours, to foster retention, attention, motivation and behavioural rehearsal through training methods such as self-directed learning, mentoring and the development of a person's locus of control. This paradigm emphasises the social setting and importance of modelling and mentoring processes.

Constructivist paradigm

With the constructivist paradigm learning is the construction of knowledge through individuals' constructing meaning from their experiences. The trainer aims to facilitate experiences and develop individuals' construction of meaning through training methods such as experiential learning, situated learning, scaffolding and reflective practice. Merriam et al (2007) asserted that much of adult learning theories are based on constructivism, since they emphasises individual mental activity with social interactions. However, they do not necessarily focus on the emotional aspects within this process.

Behavioural Paradigm

Within the behavioural paradigm learning is a change in behaviour through reinforcement from the external environment. The role of the training within this paradigm is to organise the environment to produce the reinforcements needed through training methods such as skill development (hierarchy of learning), elaboration theory (behavioural objectives/ pretraining), reinforcement (knowledge of results) and performance improvement. Merriam et al (2007) asserted that behaviourism has been the foundation of all educational practices including adult education. However, many people have argued that the behavioural approach is too technical and reductionist (Merriam et al, 2007). Conversely, Tennant (1997) argued that considering parts of this paradigm holistically with other paradigms can be useful in the development of curriculums in adult learning situations.

No one paradigm seems to entirely explain the psychology of adult learning and many of them seem to explain or highlight different parts of the process. For example the behaviourist paradigm seems to explain learning in relation to a task, whereas psychoanalytic highlights possible emotional issues that a learner might bring to the situation. Furthermore, Merriam et al (2007) argued at one point that the humanistic and constructivist paradigms are the most influential in the field of adult learning, yet later they propose that it is behaviourism that is mainly used within the adult learning classroom.

More recently, theories and models of adult learning tend to incorporate different theories from different paradigms. Merriam et al (2007) cited two models that incorporate and map out different paradigms and theories of psychology. Firstly, Illeris (2004) created a model which proposes three dimensions of adult learning and how these interact with each other (see figure 2.4)

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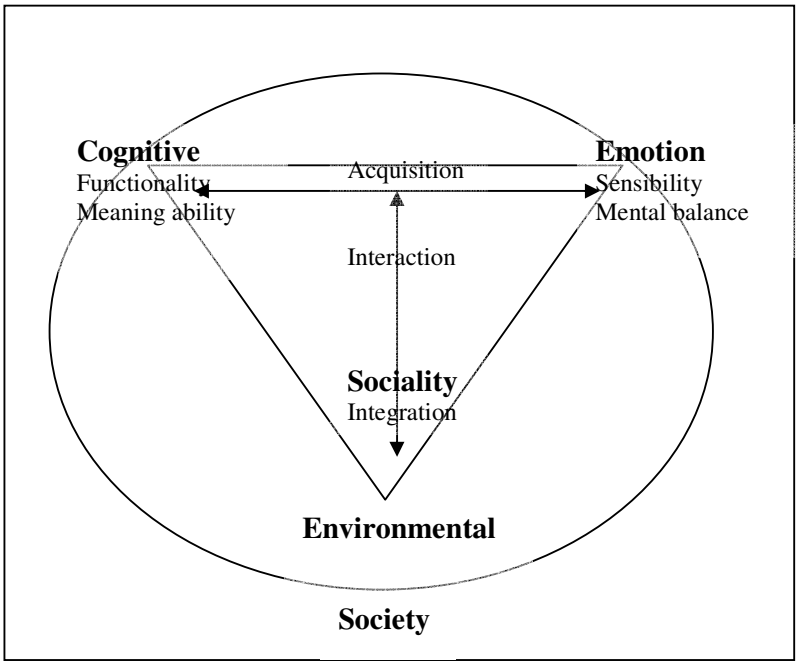

Figure 2.4: Illeris's (2004) model of adult learning cited in Merriam et al (2007)

It is possible to see from this model that factors from cognitive, psychoanalytical, socio cognitive and behavioural psychology have been incorporated to create an explanation of how an adult might learn. However, it does not lead neatly into how to train an adult or what would help them in a training situation but rather what factors should be

considered. Another model suggested by Merriam et al (2007) is Jarvis' (2006) model for human learning (see figure 2.5). This model outlines more of an iterative process of learning which cognitive, socio cognitive and constructivist paradigms propose. However, it included more factors and aspects from some of the other paradigms such as behavioural and psychoanalytical. Similarly, there would need to be some adaptation to the model to help transfer this concept to a model of how to train adults. Furthermore, since these models are relatively new there has been little research into either of them (Merriam et al, 2007).

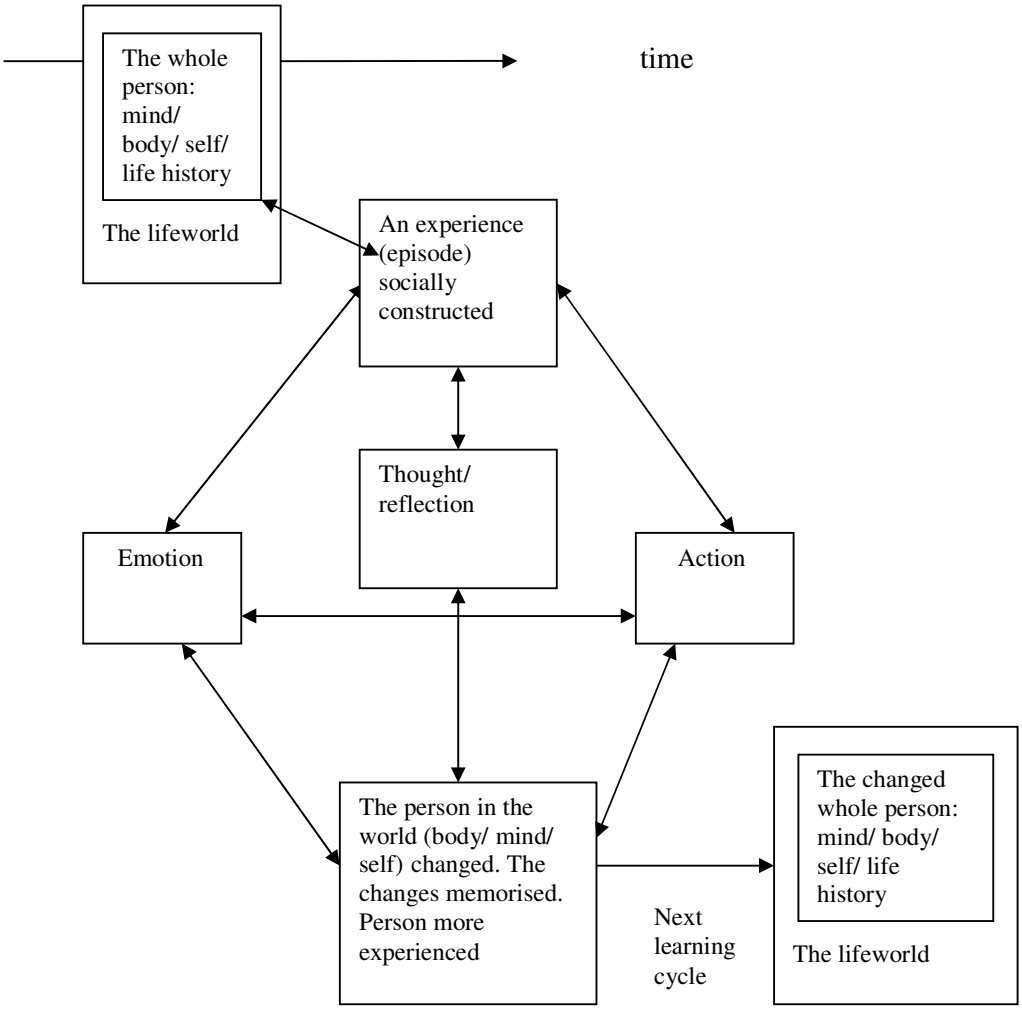

Figure 2.5: Jarvis (2006) model of adult learning cited in Merriam et al (2007)

2.3.8: Models of training by EPs

Overview

Since it has been suggested that TAs might not have the opportunity to be involved in the most relevant training courses, this section considers research on previous training for TAs and teachers carried out by EPs and relates this to the psychology of training reviewed in the previous section.

Systematic Search

To ensure an extensive and exhaustive search of the literature the following was considered;

1. Terms used within the different search engines; 'EP' and 'training'
2. A hand searching the most relevant educational psychology journals; Educational Psychology in Practice, Educational and Child Psychology and Support for Learning.
3. Articles were excluded related to the training of EPs rather than EPs training others.

EP training TAs

EPs have often been involved with training in schools (Counsell and Court, 2000). Farrell et al (2000) stated that EPs have a key role to play not only in helping TAs and teachers with planning and monitoring SEN programmes but also with their in service training. Furthermore, in

Hammett and Burton's (2005) survey, many TAs valued working with outside agencies such as EPs. In addition, many researchers suggest that training is a key and valuable role for EPs (Gersch, 2004, Ashton and Roberts, 2006, Baxter and Frederickson, 2005, Dessent, 1994 Miller and Leyden, 1999). For example, Cameron (2006) argued that one of the roles of EPs is to promote the big ideas from psychology to open people's minds and empower them. Although, most of these researchers have conducted training with teachers, Bettle et al (2001) suggested that there could be a role for EPs in the development of skills and knowledge of TAs. According to Farrell et al (1999) EPs were involved with 12.1% of FE courses, 43.2% of LA accredited courses and 21.3% of LA non-accredited courses for TAs. Furthermore, Baskind and Thompson (1995) argued that EPs have been involved in the induction training of TAs for many years. Their survey of five secondary school head teachers asserted that they would like EPs to train secondary school TAs in reading, mathematics, behaviour and social skills development of secondary school pupils. They also argued that there should be research into the different training models for TAs.

Models of training

"EPs should review their methods of delivering CPD to ensure maximum effectiveness." Balchin et al (2006 p.251)

There have been several researchers who have outlined different training models and methods used by EPs when training school personnel. These

papers are going to be considered critically with reference to the psychology of training. Some of the researchers make specific reference to the psychology that has guided not only the content of the training but also the training process and methods, whereas others make no reference to this latter part.

Aim of training

General effect: Organisational Change

Some of the educational psychology research aims at making organisation change within a school. Grant and Mindell's (1989) stated that the aim of their training course was to not only skill up staff but also to help staff in a school develop their own problem centred approach and to enable them to identify needs, implement change and evaluate the process. A more recent study conducted by Balchin et al (2006) proposed a model of training, the Coach Consult Method which had three objectives, the last one being aimed at organisational change;

1. direct effect- having an effect on the target children
2. Training effect- skilling up staff and sustainable change
3. General effect- whole school development.

Balchin et al (2006 p.240) concluded that training needs 'to be owned by the school rather than the EP, be embedded within the school context, and address the 'real' needs identified therein."

Training effect: Increase skills and change behaviour of staff

Although Balchin et al (2006) suggested a model that aimed to have the three effects outlined: direct, training and general, many EPs' training aims to have a training effect, to skill up staff within the school. During the 1980s and early 1990s training focused on training teachers in different aspects of behaviour and behaviour management, such as behaviour management techniques for children with behavioural difficulties (Crombie and Noakes, 1993), general behaviour workshops (Clayton, 1985), managing change INSET (Crown, 1989), adjustment problems (Presland and White, 1990), emotional and behavioural development in schools (Faupel, 1990). Recently, Downer (2007) has trained TAs in precision teaching which is based on the behaviourist principle of the learning hierarchy.

Direct effect: training that has a direct effect on children

There have been several articles where the aim was not only to skill up staff but also have a direct effect on children in schools. Several studies have aimed at improving children's literacy skills (Downer, 2007, Savage and Carless, 2005, Miller, 2003a and Logan and Feiler, 2006), others have aimed at improving children's play skills (Rogers and Evans, 2007, Balchin et al, 2006). Finally one study has aimed to develop the social skills of children with Autism Spectrum Disorder (Smith, 2001). No studies have been found that have specifically aimed to skills up TAs in order to improve the behaviour of children showing challenging behaviour.

Training methods

Collaborative and constructive/ social cognitive methods

Balchin et al's (2006) proposed coach consult method could be viewed more accurately as a set of principles rather than a set model of training. However, these principles included:

- The role of the EP as a consultant (in their research the EPs helped members of staff in schools develop their own project work around developing children's play skills).
- The training ethos was similar to an ISD model and they stated that they used soft systems methodology, problem solving and consultation. Furthermore, the EPs engaged in negotiation and analysis to identify the needs of the schools and the training developed around these needs
- The training takes place over time- in their project one teacher from each school attended 10 training sessions.
- They used training methods influenced by social cognitive and constructivist psychology such as modelling, coaching and scaffolding.

Balchin et al (2006) argued that effective training occurs when:

- It is planned and negotiated
- The needs of the school have been identified
- It is relevant to practice
- It involves the whole school

- It fosters independence of the staff
- Techniques are modelled, coached and scaffolded
- It involves feedback and support

However, very little published training research conducted by EPs has followed this model of training. Therefore, it is difficult to conclude that this is the most effective method of training staff within a school or whether this model could be adapted to improve organisations by developing TA skills at dealing with children displaying challenging behaviour.

Cognitive and behavioural approaches

Several of these EPs used 'expert' training with pre-planned presentations. Although Grant and Mindell (1989) aimed to influence organisational and cognitive change, the training method was focused on the learning hierarchy and positive feedback from tutors, suggesting that behaviourist psychology informed some of the training methods. However, other methods such as paraphrasing suggest that the training was also influenced by the constructivist paradigm. Several of the papers do not explicitly state the psychology which informed the methods of training used. However, it is possible that behaviourist psychology is part of this process as behavioural objectives were used in studies such as Crombie and Noakes (1993), Clayton (1985), Crown (1989), Presland and White (1990) and Faupel (1990). This reiterates the argument that Merriam et al (2007) proposed that many adult learning training courses are based on behaviourist principles.

Pyramid training

Farrell and Sugden (1984) outlined that use of the 'pyramid training' approach, where EPs were trained in behavioural skills (known as the Education of Developmentally Young (EDY) training) and then trained teachers and support staff in this technique. Pyramid training was used throughout the 1980s by EPs (Robson, 1988, and Stratford and Coyne, 1986). Recently, there have been a few researchers who have suggested the usefulness of such models within schools. For example, Macleod et al (2007) interviews with schools suggested that the training of TAs by psychologists could help them to cascade the psychological knowledge to other members of staff within the school. They conclude that working through TAs and 'giving psychology away' could be a good service-delivery model for EPs. However, Grant and Mindell (1989) argued that there is an issue when considering a pyramid type of training approach as they stated that training can often become diluted.

Workshops

Clayton (1985) argued for the benefit of using workshops for training since the number of trainees is normally less than 12 with two EPs. They argued that training is often more effective with small groups. However, there can often be a lack of 'experts' available to offer this type of small group training (Farrell and Sugden, 1984).

The main difficulty with pre-planned training methods is that sometimes they do not meet the needs of the trainees (Balchin et al, 2006). Furthermore, Crombie (1989) questions whether psychology can be 'given away' as trainees would need to have a sound grasp of the psychological concepts and this cannot be achieved through short training sessions.

Conclusion about EP training aims and methods

Research into the training used by EPs does not always state which paradigms of psychology have influenced their training methods. However, as Merriam et al (2007) proposed, where the training methods are stated, the majority of methods used seem to be influenced by behaviourist or cognitive psychology. In contrast Balchin et al (2006) based the principles of their model of training on socio cognitive, constructivist and organisational psychology. The research also indicates that EPs mainly aim either to skill up staff or produce a direct effect on children. However, some research suggests that training can also be aimed at organisational change. Nevertheless, there is very little research that has been aimed at all three levels except for Balchin et al (2006), but this research has not been used to skill up TAs for working with children displaying challenging behaviour. Therefore, it would be beneficial to investigate if this training approach could be used with this population and whether organisational change is possible. Furthermore, whether the cascading of knowledge through training could be a good service

delivery model for EPs or whether knowledge and therefore outcomes would simply becomes diluted through this approach.

2.3.9: The evaluation of training

Before concluding this section of the literature review, there is one last aspect of the ISD model that needs to be considered when conducting a project into training methods and that is how to evaluate the effectiveness of the training.

Overview: methods of evaluations

"It is an unfortunate fact that there is no consensus among experts about how to determine the effectiveness of training" (Kraiger and Jung, 1997 p. 152)

Kraiger and Jung (1997 p.170) argued that the evaluation of training is paradoxical. "If a new measure is to be used to evaluate training, it must first be validated, but the primary means of validation is to determine if it is sensitive to training." Different theorists have stated that there are different types of training evaluation. As stated Balchin et al (2006) asserted that training of school staff should have general, direct and training effects and therefore evaluation should be at each of these levels. Patrick (1992) outlined that training can be evaluated at a content, input, reaction, outcome, organisational and ultimate value level. Kraiger et al (1993) proposed that training can be evaluated at a cognitive, skill based or affect (motivation and self efficacy) level. Kraiger and Jung (1997) argued that training could be evaluated at a knowledge/ skills level,

transfer to the job, learning during training and return on investment. They also suggested that training can be evaluated at a:

a. Reaction
b. Learning
c. Behaviour
d. And results level.

The author has adapted these latter terms and used them to outline what methods of evaluation EPs have used to reflect on the effectiveness of their training.

a. Training reactions from the trainees

Many of the articles consider the responses of trainees after training. Presland and White (1990 p.233) evaluated their training course through response questionnaires including the following questions "learned anything from it, whether it was useful for their role and whether they had liked the presentation or supporting material or had wanted more on the topic." Additionally, Balchin et al (2006) used post session evaluation sheets about the presentations, delivery and content. However, many researchers who use evaluation forms do not state what questions they used (Smith, 2001; Clayton et al, 1990). Therefore it is difficult to conclude whether evaluation forms make effective evaluation tools.

b. Changes in learning: Evaluating the acquisition of skills

Different methods have been used to evaluate TAs' acquisition of skills. Farrell and Sudgen (1984) used questionnaires and quizzes to evaluate

the level of trainees' understanding and knowledge of the course. Clayton (1990) used short and long evaluations to check for acquisition and maintenance of skills, three months after the training and 2- 4 years after the training. Furthermore, other researchers such as Bond et al (2007) and Savage and Carless (2004) evaluated whether TAs could be trained to assess or screen children with regards to different special needs. The former research looked at using the Manchester Motor Skills Assessment (MMSA) and the latter looking at assessing literacy skills. The results indicated that TAs could be trained to use these assessment tools. Without full details of these evaluation tools it is difficult to conclude how effective they are.

c. Changes in behaviour: Observational Evaluation

Miller (2003a) trained TAs in reading assessment skills and an individual reading intervention; 'Partners-in-Reading'. He observed the TAs administering the assessments and intervention. His results suggested that TAs could be successful reading tutors. In Farrell and Sugden's (1984) study, the instructors observed and rated the trainees' practical skills following the intervention. However, there is not a great deal of information on what the observations entailed.

d. Results:

Organisational/ general effects

Balchin et al's (2006) results suggested that not only was there a direct improvement of children's play skills in the schools, the involved

members of staff's skills had also improved and furthermore head teachers felt that the skills of other staff involved in the project had also improved. Therefore this organisational outcome was based purely on self report data from head teachers and could lack validity (Tennant, 2001).

Direct effects on children

From the systematic search, in some articles where TAs were trained alongside other professionals, there was no specific distinction between overall effectiveness of the intervention and TA effectiveness with the intervention (Smith, 2001 and Rogers and Evans, 2007).

Some researchers have drawn conclusions about the effectiveness of an intervention from qualitative data. Logan and Feiler (2006) looked at whether TAs could be trained to work with children at home on literacy activities. Qualitative data was collected from interviews of the key people involved such as parents, head teachers, teachers and TAs. Parents stated that they felt that their children seemed to enjoy the visits. The head teachers saw an increase in TAs' confidence and communication skills and they seemed to conclude that the weekly meeting in particular was a good method for TAs to share their skills and solve problems. Since this data is based on self reports it could lack validity (Tennant, 2001).

Other researchers have drawn conclusions about the effectiveness of an intervention from quantitative data. Some studies used pre-test/post-test measures for evaluating literacy interventions (Savage and Carless, 2005, 2008; Bowyer-Crane et al, 2008; Hatcher et al, 2006). In all of these studies TAs were trained in an intervention and information is provided about this training. In all of the studies significant results were found and researchers concluded that TAs could improve children's literacy skills with a little amount of training. The main limitation of the Savage and Carless studies is that there was no true random allocation. In Bowyer-Crane et al's (2008) study there was random allocation, although there was no non-treatment control group. Furthermore, Savage and Carless (2005) cautioned that the differential effects in TAs' teaching style or approach can account for about 10% of their pre-test/ post-test results. Therefore design and implementation issues could limit conclusions.

Finally, some researchers have used both qualitative and quantitative data to evaluate the effectiveness of TA delivered literacy interventions (Downer, 2007, Macleod et al, 2007). Both studies found a statistically significant result from reading test scores and TA interviews indicated that their attitudes and confidence made a huge difference to pupils' outcomes. The limitation of Downer's (2007) study was that there was no control group for comparison and she did not specifically state how long it took to train the TAs and Macleod et al (2007) did not state how many TAs were trained in their project.

Conclusion of the evaluation of training

It is difficult to draw conclusions about the effectiveness of EPs training teachers and more specifically TAs as previous research data is collected from different sources of evaluations (reactions, learning, behaviour or results), and from different types of data (qualitative and quantitative). Furthermore there is often a lack of details about evaluation methods (Smith, 2001, Clayton et al, 1990) which hinders critique and conclusions about the most effective evaluation tools. In addition, in relation to the specific aim of this piece of research, there were no papers found investigating the effectiveness of TAs trained in specific interventions aimed at supporting children with social, emotional and behavioural difficulties.

General conclusions about the training of TAs

The literature review suggests that there are many different psychological paradigms that influence the psychology of training. Adult learning models are often influenced by humanistic, constructivist and behaviourist psychology (Merriam et al, 2007). However, it is also suggested that models which incorporate multiple psychological paradigms and frameworks of organisational psychology can be useful for understanding effective training (Patrick, 1992). The research suggests that TAs are in need of professional development training since there is no expectation of pre-service training. However, there is debate about the relevance of some of the different types of training, though collaborative and relevant on the job training is seen as preferable

(Farrell et al, 1999). EPs could help to develop appropriate INSET training for TAs. However, previous research about EPs training others does not often include information about training methods and many different evaluation methods are used. Therefore this study will consider the principles of the coach consult method (Balchin et al, 2006) as well cascading of knowledge (Macleod et al, 2007) to develop different training models for INSET training for TAs. In addition, evaluation methods will try to be as far reaching as possible and include some of the elements (reaction, learning, behaviour and results) outlined by Kraiger and Jung (1997) as well TAs' affects such as self efficacy (Kraiger et al, 1993).

2.4: Level Two: Teaching Assistant Self efficacy

2.4.1: Aim of the section

The following section of the literature review aims to answer the following question:

What factors can affect TA self efficacy when working with children displaying challenging behaviour?

In order to gather all of the relevant literature to help answer this question, this section has been divided into two main areas:

- The psychology of self efficacy
- TA self efficacy

Self efficacy has been chosen as a concept to investigate with regarding training TAs, since Quinones (1997) proposed that this was one of the three trainee characteristics that can affect the process and outcome of training and Kraiger et al (1993) argued that self efficacy is one factor in training that can be evaluated. Therefore, since the project aims to consider evaluating training and the intervention the TAs are trained in, this seems to be a useful additional concept to investigate (Kraiger et al, 1993; Quinones (1997).

2.4.2: The Psychology of self efficacy

Perceived self efficacy perspective

Self efficacy is a concept grounded in Bandura's (1977) socio-cognitive theory, which emphases that it is the interaction of the person's perceptions with the environment that influences behaviour. Bandura (1997 p.3) defined self efficacy as "beliefs in one's capabilities to organise and execute the course of action required to produce given attainment." He viewed it as a behavioural change based on a cognitive motivation construct. Furthermore, a person's perception of the interaction between personal factors and environmental conditions determines how much effort and persistence a person shows when faced with obstacles.

Most self efficacy theories refer to some extent to two factors; efficacy expectancy and outcome expectations. Outcome expectancy is the belief that if effort is applied an expected outcome will be achieved. Efficacy expectancy is the belief in one's capacity to influence an outcome (Tobin et al, 2006). The interaction of these two factors and the perceived self efficacy process is shown in figure 2.6.

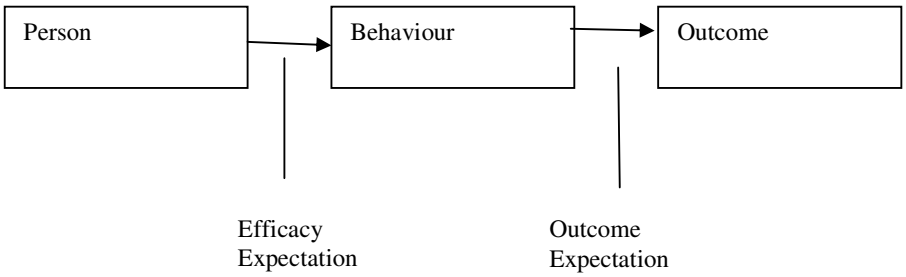

Figure 2.6: Bandura's (1977) model of perceived self efficacy as a process made of the factors; efficacy expectation and outcome expectation

Bandura's (1977) asserted that self efficacy beliefs are developed through four different sources of information and through twelve different mode of induction (see table 2.2).

Table 2. 2: The different sources and modes of induction of self efficacy (from Bandura, 1977)

Source	Mode of induction
enactive mastery experiences/ performance accomplishment- having a successful firsthand experience of the task	1. Participant Modelling 2. Performance Desensitisation 3. Performance Exposure 4. Self-instructed Performance
vicarious experiences- watching someone having success with a task	1. Live-modelling 2. Symbolic modelling
verbal persuasion- someone trying to verbally persuade a person to do a task	1. Suggestion 2. Exhortation 3. Self-instruction 4. Interpretative Treatments
physiological and affective states- emotional feelings about a task	1. Attribution 2. Relaxation, biofeedback 3. Symbolic Desensitisation 4. Symbolic Exposure

Bandura (1977) argued that performance accomplishment/ enactive mastery experience is the most influential on self efficacy. He further stated that perceived self efficacy is domain specific and situational and can therefore change over time and in different contexts. Furthermore, self efficacy can change in three different dimensions (Bandura, 1977):

- Strength (the degree to which efficacy could be modified)
- Generality (how it can be applied to various situations)
- Magnitude (the amount of effort put into the task)

Enderlin-Lampe (2002) captured Bandura's different sources of self efficacy and the different ways people could respond to a certain situation in the model below (figure 2.7).

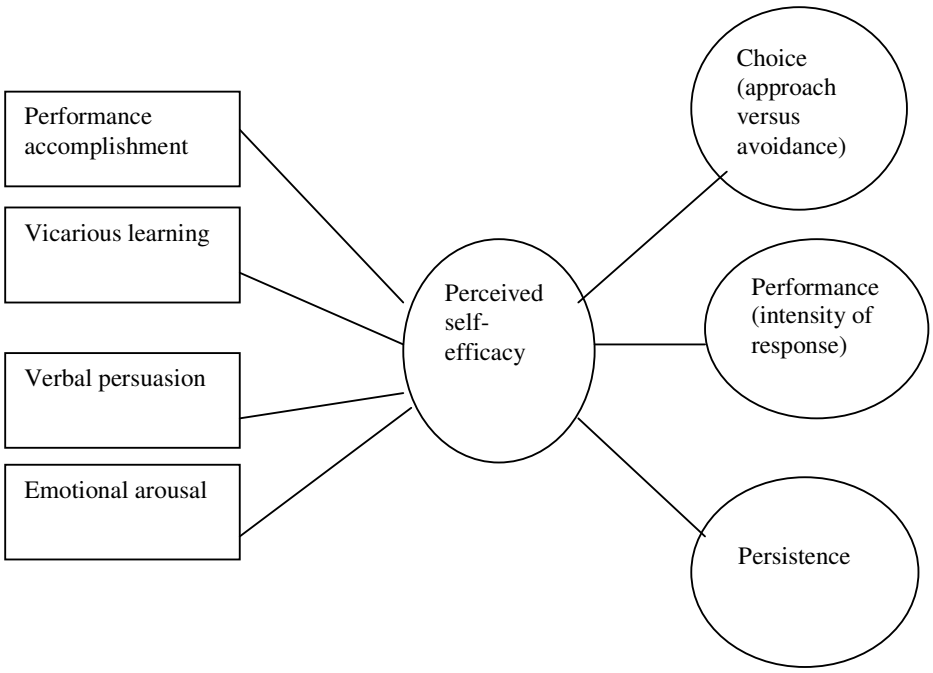

Figure 2.7: Model of perceived self efficacy by Enderlin-Lampe (2002)

Enderlin-Lampe's (2002) model is useful at explaining what a person might do if they have a high or low level of self efficacy. For example, if a person has a high level of self efficacy because they have had a previous success in a task (performance accomplishment) then they may choose to approach the task and may also persist with it if it becomes

difficult and may also put more effort into their performance of the task. On the other hand if a person has a low level of self efficacy, they may choose to avoid the task or not persist or put much effort into their performance especially if the task becomes difficult.

Conclusion and limitations of Bandura's (1977) self efficacy theory

"Self efficacy is the most researched of all self regulatory mechanisms. There is much supporting evidence for the concept of self efficacy" (Swartz et al, 2004).

The theory of self efficacy developed in the personality and motivation literature (Swartz et al, 2004). Therefore since self efficacy considers the interaction between the person's perceptions and the environment, it is a helpful theory for thinking about people's motivation and confidence when engaging and completing a task. Reeve (2009) suggested that enhancing self efficacy is the foundation of personal empowerment. When people feel empowered they can translate their skills and knowledge into successful performance even when threaten or they have intrusive negative thoughts.

However, Bandura's self efficacy theory is not the only theory of self efficacy. The earliest research focused on Rotter's (1966) locus of control theory. A person's level of self efficacy will be determined by whether they have an internal or external explanation for outcomes and responsibilities.

Other theories of motivation

Reeve (2009) suggested that motivation theories are influenced by most psychological paradigms. He argued that there are 'grand' theories which try to explain all aspects of motivation and then there are 'mini' theories, which aim to explain only limited aspects of motivation. He proposed that self efficacy is one of 24 'mini' theories aimed at explaining achievement motivation and therefore there is at least 23 other competing theories. Elliott et al (2000) outlined two of these competing theories. They argued that the Expectancy χ Value Theory (Vroom, 1964) is similar to Bandura's self efficacy theory. This states that there are four types of values that influence people; attainment, instinct, utility, cost and that people are motivated when they expect to gain these values. Therefore, if expectancy increases so does value. Another alternative perspective is goal orientation theory (Locke, 1968). This suggested that people are motivated by either mastery (personal development) or performance goals (competition with other).

Critique of self efficacy theory

Carlson et al (2000) argued that theories such as self efficacy that are based on the social learning approach focus mainly on the environment and therefore down play the importance of personality traits. They proposed that models of motivation should include equal emphasis on personal/ biological traits, early developmental history and the environment. Furthermore, Shapiro et al (1996) questioned whether

developing a people's self efficacy is a valuable endeavour. They argued that developing self efficacy when environments are controllable can be adaptive. However, when situations are uncontrollable, promoting self efficacy can lead to maladaptive responses and helplessness.

Measuring self efficacy

Eastman and Marzillier (1984) argued that Bandura's original scale to measure self efficacy did not adequately measure the concept and this is a running concern for measuring self efficacy in general (Dellinger et al, 2008). This argument will be considered later when reviewing the measurement of teacher self efficacy.

In conclusion, Bandura's theory of self efficacy is a widely useful theory when considering the motivation of people to perform an action. However, it is not the only theory and therefore all possible theories should be considered when analysing results in self efficacy studies.

2.4.3: Teaching Assistant self efficacy

Systematic Search

The preliminary systematic search produced no articles relating to self efficacy and TAs. Even with an expanded search using different possible terms for:

- TA (support assistants, classroom assistants)
- and self efficacy (self-esteem, self image, self perception)

and by expanding the search by hand searching of the most relevant educational psychology journals; Educational Psychology in Practice, Educational and Child Psychology and Support for Learning. The search still did not produce any articles that specifically related to school level TAs and their self efficacy. However, some of the UK research gathered during this part of the systematic search related to levels of job satisfaction, stress and motivation of TAs rather than self efficacy.

Job Satisfaction, stress and motivation

In Butt and Lance's (2005) study, questionnaires were sent out to TAs in 32 schools to assess primary school TAs' job satisfaction. Their results suggested there was a decline in TA satisfaction between 2002 and 2003. However the majority (65%) were still generally satisfied and motivated in their jobs. Areas of TA dissatisfaction included conditions of services; such as temporary contracts, low pay and lack of training opportunities alongside some issues of disorganisation and feeling unprepared (Russell et al, 2005, Clayton, 1993, Farrell et al, 2000). Hammett and Burton

(2005) surveyed TAs using a three level rating scale; motivator (something motivating), neutral (neither motivating nor stressful) or stressor (something stressful) to rate TAs on different aspects of the job. They discovered that a clear career progression and training would be seen as motivating factors for TAs. They also discovered that half of the TAs they surveyed would be motivated by a specialist role however a quarter saw this as a possible stressful option. Also, a third valued the behaviour management aspect of the job however half of that number described that role as stressful. The limitation of this study was that it was conducted in one school and therefore the results cannot be generalised to other schools. However, they concluded that schools should focus on activities that will increase TAs' self esteem and status, emphasising that "people who feel that they have very little influence over their work behaviour can experience a demotivating lack of involvement in their work" (p.300). Therefore, there needs to be further research into factors that could affect a person's motivation, such as self efficacy.

In their literature review of TAs' stress and motivation, Hammett and Burton (2005) reviewed empirical evidence and theories relating to teachers rather than TAs. They justified this partly because of the lack of research into TAs and partly because they stated that there is a blur between the teacher and TA boundary. Since, the author could not find any articles relating to TA self efficacy, a review of teachers' self efficacy research will be considered in relation to TAs' self efficacy.

Consequently, the systematic search process was rerun using the term 'teacher self efficacy'. Since there has been a large amount of research into teacher self efficacy, the author has decided to critically evaluate articles that relate more directly to the aim of study regarding self efficacy and training.

Teacher self efficacy

Teacher self efficacy is defined as "the extent to which teachers believe their efforts will have a positive effect on their students' abilities, in redirecting their students' behaviour and on their overall student achievement" (Tobin et al, 2006 p. 303).

Why are researchers interested in teachers' self efficacy?

Whereas there was no found literature on school level TA self efficacy, Brouwers and Tomic (2001) stated that there are over 100 books and articles about teacher self efficacy and many different elements of teacher self efficacy have been researched.

Lumpe et al (2000) stressed that Bandura saw self-efficacy as the most powerful mediator for motivating action. Research has concluded that there is a strong relationship between self efficacy and performance (Enderlin-Lampe, 2002). Penrose et al (2007) asserted that raising teacher self efficacy would have a better effect on pupil outcomes than improving school effectiveness. Equally, Enderin-Lampe (2002) argued that within a learning organisation framework reforms focus on

empowering staff and self efficacy. He believed that this is a key part of effective schools.

Theories behind teacher self efficacy

Teacher self efficacy research is a contentious area of research, since different researchers argue about the different theories behind the construct of teacher self efficacy and the validity of the numerous teacher self efficacy scales developed from these different perspectives. However, researchers seem to agree that self efficacy is grounded in prominently two theoretical perspectives; Bandura's self efficacy theory and Rotter's locus of control theory (Denzine et al, 2005, Skaalvik and Skaalvik, 2007).

Teacher self efficacy and training or experience

Since Quinones' (1997) model proposed a link between self efficacy and training, articles are considered that review the link between teacher self efficacy and training. There have been several dissertations that have concluded that training has a positive effect on teacher self efficacy. Locasle-Crouch (2008) argued that positive induction relationships and more time spent with mentors had a positive effect on new teachers' self efficacy. Soltys (2005) used the Teacher Sense of Efficacy Scale (TSES) to survey 109 teachers and concluded that teachers who had received pre-service training in working with parents had significantly higher self efficacy than those who had not. She also concluded that most of the teachers with high self efficacy that were surveyed had advanced degrees

and high levels of experience. Wade (2003) used the Ohio State Teachers' Sense of Efficacy Scale with 103 practicing teachers and 128 student teachers and concluded that teacher self efficacy and training predicted familiarity with behaviour interventions.

Giallo and Little (2003) investigated the effect of preparedness (previous training) and experience on teacher's self efficacy. They surveyed 54 primary teachers in Australia using The Teacher Self Efficacy in Behaviour Management and Discipline Scale (Emmer and Hickman, 1991). Their results suggested that perceived preparedness was linked to higher levels of self efficacy with many participants suggesting that they did not receive enough training in behaviour management. They also found that experience with challenging behaviour itself was not enough to affect self efficacy. Rather it was the nature of the experience that affected self efficacy, with positive experiences increasing self efficacy. The main limitation of this study is the size of the sample surveyed.

Nature of training

Tebbs (2001) surveyed 432 teachers and his results indicated that the nature of training and whether the training satisfied teachers' needs were factors that significantly affected self efficacy levels. Gibb (2007) also argued that teachers felt confident responding to children with special needs with prior successful experience, training and working collaboratively with others. He suggested that training is important for social learning as well as gaining knowledge and skills. He emphasised

that the nature of training is very important. Simple group training would not necessarily develop self efficacy and therefore training should be collaborative and supportive.

In USA, Sachs (1988) argued that a lack of pre-service training has a negative impact on teachers' self efficacy, especially when working with children with special educational needs. He asserted, in the USA, that there are some teaching routes that specialise in teaching children with special education needs. Therefore, teachers who do not specialise in special needs teaching do not develop the belief that they can teach children with special needs. He argued that training should prepare teachers for expectations of success, which would develop their self efficacy. He also asserted that teacher training programmes should consider what experience during training might develop self efficacy. He directly connects teacher training programmes with sources of information and modes of induction (see table 2.3). However, one proposed source of information that Bandura (1977) suggested, physiological/ affective states, is not considered by Sachs (1988). This could be because he does not view this as an important source of self efficacy or because using this as a source of information in teaching programmes could be too difficult.

Table 2. 3: Sources of information and modes of induction covered in teacher preparation programmes according to Sachs (1988, p.330)

Source of information	Mode of induction	Teacher preparation
enactive mastery experiences/ performance accomplishment	Participant Modelling	Special Education Student teacher
	Performance Desensitisation	Special field placement
	Performance Exposure	Special student teaching specific coursework
	Self-instructed Performance	Self paced modules
vicarious experiences	Live-modelling	Direct observation
	Symbolic modelling	Videotaping/ specific coursework
verbal persuasion	Suggestion	Teacher trainers
	Exhortation	Teacher trainer

Erdem and Demirel (2007) argued that often there is a 'sink or swim' approach to teacher training and this is very detrimental to self efficacy. Therefore, Sachs (1988) argued that self efficacy should be developed during pre-service training and not as damage control during INSET training. However, a stated in the training section TAs often do not have pre-service training. So this would not be possible for them. On the other

hand, Tobin et al (2006) argued that teacher self efficacy can be developed not only through individual training but also through organisation initiatives.

Measuring teacher self efficacy: Two factor scales

Penrose et al (2007) argued that the Teacher Efficacy Scale (TES) developed by Gibson and Dembo (1984) was designed for specifically the teaching profession. It is the most frequently used measure of teacher self efficacy (Dellinger et al, 2008). Prieto and Altmaier (1994) investigated university level teaching assistants' self efficacy and concluded that teacher self efficacy scales such as Gibson and Dembo (1984) could be used for this populations. Therefore it may be possible to use such scales for school level TAs. This scale is based on the two factor model of teacher efficacy involving teaching efficacy (TE) and personal teaching efficacy (PE). Tobin et al (2006) stated that TE is a teacher's belief that the general teaching role will have an effect on children's behaviour and attainment, whereas PE is a teacher's belief in their capability as a teacher. The two questions most common used questions in most two factor scales are;

1. "When it comes right down to it, a teacher really cannot do much because of a student's motivation and performance depends on his or her home environment" (TE)
2. If I try really hard, I can get through to even the most difficult or unmotivated students" (PE)

Dellinger et al (2008) argued that any scales based on these two statements are based on flawed theoretical and psychometric ground.

Three factor models

Some scales are based on three factors such as Woolfolk and Hoy's (1990) scale which is based on TE and positive and negative PE. This one is still very similar to Gibson and Dembo's (1984) scale and Friedman and Kass (2002) argued that there is now growing discontent with the narrow self efficacy definition that Gibson and Dembo (1984) proposed. They argued that the concept of teacher self efficacy should be multifaceted and researchers should develop scales that are domain and subject specific. Dellinger et al (2008) proposed that the Ohio State Teacher Efficacy Scale is a better scale, since it considers the multi-dimensional nature of teacher self efficacy. They suggested that the scale should measure self efficacy in the context of where the belief is formed. This premise has led many researchers to develop domain specific scales, for example Cherniss (1993) developed a three factor scale, the Teacher Interpersonal Self efficacy Scale, which specifically considered teacher self efficacy with regards to interpersonal skills;

1. Interpersonal Domain
2. Task domain
3. Organisation domain

Denzine et al (2005) questioned whether any of the two or three factor models really explain teacher self efficacy and they concluded that the concept of teacher self efficacy needs to be re-evaluated.

More factor models

Other researchers have produced scales which are made up of more factors such as Bandura (1997) who developed a multiple factor self efficacy scale;

- 'efficacy in influencing decision making
- Efficacy in influencing the acquisition
- Use of school resources
- Teacher efficacy
- Efficacy in disciplinary matters
- Efficacy in enlisting parent assistance
- Efficacy in involving the community
- Efficacy in generating an open school climate'

  Friedman and Kass (2002 p.677)

Conclusion about self efficacy scales

Skaalvik and Skaalvik (2007) argued that despite the use of different instruments, researchers have found a relationship between teachers' self efficacy and pupils' achievements and teachers' practices. Furthermore, at present with the contentious debate about which scale really can measure self efficacy, there is an issue for all researchers as to decide on which scale would be most valid. Since, the current research suggests

that self efficacy scales should be domain and context specific, scales and studies relating to teacher self efficacy and behaviour seem to be most relevant to the literature review.

Teacher self efficacy and behaviour management

There is little research into teacher self efficacy in specifically behaviour management (Giallo and Little, 2003). Emmer and Hickman (1991) adapted the TES (Gibson and Dembo, 1984) to specifically assess teachers' self efficacy in relation to behaviour management. This scale is known as Teacher Efficacy in Classroom Management and Discipline Scale (TECMDS). They believed that this was made of three factors; how much impact teachers can have on student behaviour, their belief in their behaviour management abilities and their belief in their teaching abilities. Brouwers and Tomic (2001) used Cherniss's (1993) Teacher Interpersonal Self efficacy Scale to assess behaviour management of student teachers in the Netherlands, to see if perceived behaviour management self efficacy was distinct from the 2 factor model suggested by Gibson and Dembo (1984). They concluded that Gibson and Dembo (1984) investigated general teacher self efficacy not specific factors such as behaviour management. Therefore they concluded that scales should be developed for specific domains and tasks.

Conclusion regarding TA self efficacy

Raising school staff's self efficacy could improve school effectiveness (Enderlin-Lampe, 2002). Although the author's literature search

suggested that there has been no research on TA self efficacy, the teacher self efficacy research seems to suggest that training and positive experience with regards to behaviour management of children are important ways to facilitate self efficacy. Furthermore, it is the nature of the training and experience that affects teacher self efficacy (Giallo and Little, 2003). Finally, although it seems possible that teacher self efficacy scales can be used with TAs (Prieto and Altmaier, 1994) the choice of which scale to use is highly debatable (Dellinger et al, 2008). This study aims to evaluate and explore TA self efficacy following different types of training.

2.5: Level Three: Efficacy of school based anger management interventions

2.5.1: Aim of the section

The following section of the literature review aims to answer the following question:

Can anger management techniques be used to help reduce challenging behaviour displayed by individual children?

In order to gather all of the relevant literature to help answer this question, this section has been divided into three main areas:

- The rationale behind focusing on anger management interventions
- The psychology of anger
- The research behind secondary mainstream anger management interventions.

2.5.2: Search strategy

The first search did not produce relevant articles relating to school based anger management interventions. Therefore the following terms were rerun through the different search engines:

- Anger management
- School
- Intervention

2.5.3: The rationale behind focusing on anger management interventions

Evans et al (2004) asserted that recent Government policy aims to reduce the exclusion of children from mainstream school due to behaviour. They suggested that a large number of children excluded have statements for emotional and behavioural difficulties (EBD). The majority of children excluded from schools are between 12 and 14 years old and there has continued to be a large number of children and young people excluded from schools over the last ten years.

There are twelve categories which the DfES (2007) suggested are the reasons for exclusions from mainstream schools;

- Physical assault against pupil
- Physical assault against adult
- Threatening behaviour / verbal abuse against pupil
- Threatening behaviour/ verbal abuse/ against adult
- Bullying
- Racist abuse
- Sexual misconduct
- Drug & Alcohol related
- Damage
- Theft
- Persistent disruptive behaviour
- Other (DfES, 2007)

After persistent disruptive behaviour, the most common reasons for exclusion were physical assault against either a pupil or adult (DfES, 2007). Evans et al (2004) argued that schools need to find ways to support children to prevent them from being excluded.

Interventions to reduce exclusions

There has been a great deal of research, especially in the USA, into ways of reducing violence that could lead to such exclusions. Some research has considered behavioural approaches. For example, Swinson et al (2003) argued that previous research has indicated that training of teachers in approaches in positive behaviour management has increased the inclusion of children with EBD in mainstream schools.

There are other researchers which consider cognitive-behavioural approaches (see Mytton et al, 2002). Mytton et al (2002) conducted a systematic review of all secondary prevention programmes aimed at reducing violence in schools. Their results indicated that many different types of interventions have been researched into this area, varying in the level of intervention; whole school versus group or individual; the focus of the intervention: anger management, conflict resolution, life skills training, social skills training, empathy training, attributional retraining, assertion training, the length of the intervention, and the outcome measure of the intervention. They concluded that it did not matter about

the focus of the intervention as the overall majority of the interventions had a modest effect on the reduction of violence.

However, since all of the interventions in Mytton et al's (2002) review varied in length, number of participants and outcome measures, it is still difficult to state what particular part any of the intervention was helping to moderately reduce the violence. Therefore, it could be argued that there needs to be a systematic approach to assessing the different interventions and the different parts of each intervention alongside a standard outcome measure. As such this study is part of the National Collaborative Research Project with a focus of evaluating factors that might reduce exclusions. Faupel et al (1998 p.20) argued that it is the "children who are angrily threatening the security of teachers and classmates *that* make up the vast proportion of the increasing number of pupils being excluded from school." Therefore, the author has decided to focus on anger management interventions to inform this part of the project.

2.5.4: The Psychology of Anger

Overview

Before considering a systematic review of mainstream secondary school anger management interventions, the author will review the different psychological perspectives that influence the different interventions. Berkowitz (1990) argued that anger can be understood in different ways as a feeling, physiological reaction or as a set of behaviours. As such this could be the reason why different psychological paradigms have explained anger differently (Berkowitz, 1990). Faupel et al (1998 p.15) defined anger as "an emotional reaction to our perceived needs not being met." They suggested that anger is a secondary emotion that arises instinctively from primary emotions such as disappointment, embarrassment, fear, envy and loss. Lown (2001) asserted that the people's expression of anger can be seen on a continuum between a maladaptive to productive response. It is often the expression of anger rather than the anger emotion that causes the problems for people.

Different psychology paradigms have different explanations of anger. Faupel et al (1998) argued that some of these different paradigms can be viewed within the interactive framework between the components of behaviour, feeling and thinking.

Behaviourist Paradigm

The behaviourist perspective suggested that anger is a behaviour that is learnt from previous rewards and punishments. It is this behaviour that

affects thoughts and feelings (Faupel et al. 1998 see figure 2.8). Lown (2001) argued that a child's learnt patterns of behaviour may form a 'blueprint' for future behaviour but it is not fixed and therefore can be changed. Henceforth, behaviourist interventions such as the ABC model propose that behaviours can be relearnt through the manipulation of antecedents and consequences.

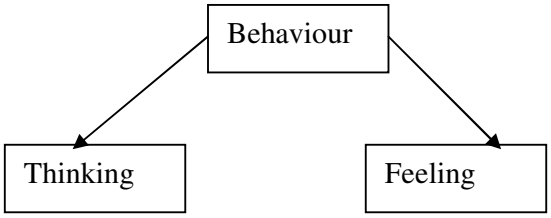

Figure 2.8: The behaviourist perspective

Psychodynamic Paradigm

The Psychodynamic paradigm suggests that anger is the manifestation of a defence mechanism to protect a person against anxiety that reaches consciousness (see figure 2.9). Due to unconscious elements people may displace their anger and transfer or project it from one person or situation to another. Faupel et al (1998) suggested that Attachment theory can be viewed within this paradigm because a child's anger could be an unconscious response to a threat to their security. The psychodynamic approach would suggest working with a person to understand their unconscious anxiety.

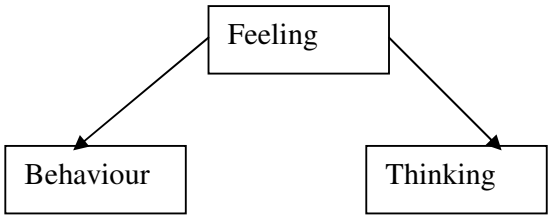

Figure 2.9: The psychodynamic perspective

Cognitive Paradigm

The cognitive approach suggests that it is the interpretation of an event as hostile by an individual that leads to anger (see figure 2.10). Many different psychologists have proposed different theories of this cognitive process. Beck (1988) classified misinterpretations of situations as 'distorted thinking', Ellis (1994) classified them as irrational beliefs and Dodge (1986) stated that it is the cognitive processing or problem solving skills that focus the individual to choose one particular alternative/ perspective. Lown (2001) stated that there are three types of cognitive perceptions that lead to anger:

1. Personal attack either to property or character
2. Incompetence of others or self
3. Injustice

Cognitive interventions aim at helping people reinterpret events.

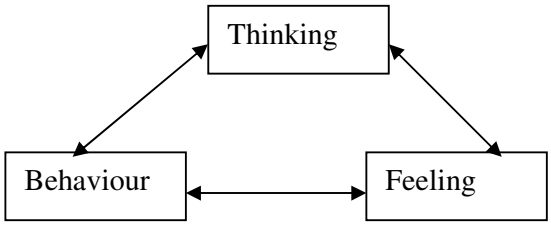

Figure 2.10: The cognitive perspective

Biological/ Evolutionary Paradigm

Lown (2001) argued that the emotional response of anger is a programmed response that has developed as a survival instinct, which gets the body ready for potential danger. She suggested that anxiety, self esteem and fear develop into anger when there is a feeling of endangerment or a person has unmet needs. When a person gets angry, adrenalin is released into the bloodstream, this triggers glucose to fuel the muscles and oxygen is required quickly, so blood is diverted from the digestion system and away from the face. Furthermore, pupils become dilated to ensure that vision is accurate and clear (Faupel et al, 1998). This develops into a fight or flight response.

Interactionist/ eco systematic perspective

Faupel et al (1998) proposed Bronfenbrenner's (1997) ecological framework to outline all of the environments and systems that can interact with the child in order to create or prevent anger within the child. In accordance, anger is the expression of an ecosystemic adaptation and therefore every aspect of the intertwined system can produce and perpetuate this anger. Therefore, Kurtines et al (2008) argued that interventions should be based on both bottom up individual programmes and top down contextual/ ecosystemic as both the individual and the system they exist in, need to be changed.

Social constructivist perspective

Averill (1983) suggested that the social constructivist perspective of anger would become the predominant paradigm to explain emotions. He suggested that anger is complex and therefore should be defined by the whole person not just their component parts (cognitive and physiological). Bowman-Edmondson and Cohen Conger (2000) argued that the socio cognitive perspective includes physiological, cognitive and emotional factors but it does not consider behavioural factors. However, Averill (1983) proposes that anger is mainly social in origin and serves a function for the person within the social system. Therefore, it is their construing of the social situation that develops the cognitive, physiological and emotional responses.

Storms and Fireworks

The present theories of anger seem to incorporate and combine elements of the different psychological paradigms. Therefore, Faupel et al (1998) used the metaphor of a storm when they envisage anger within the interactionist/ systems perspective. They also used the metaphor of a firework to describe the anger response of the person (see figure 2.11).

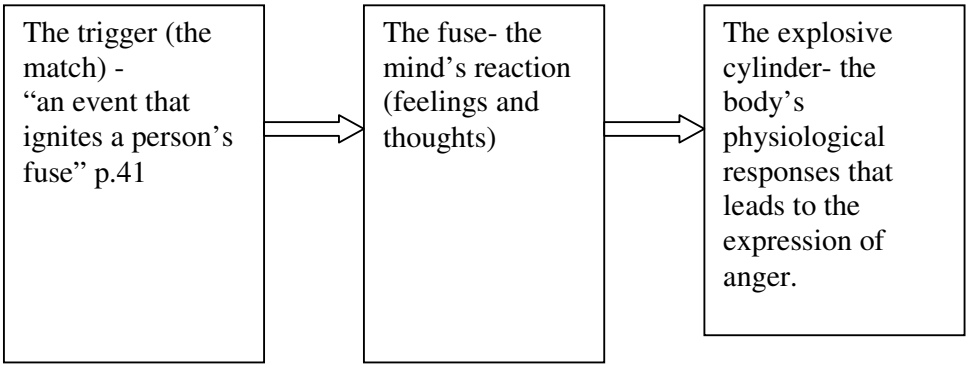

Figure 2.11: The firework model cited in Faupel et al (1988)

Furthermore, Faupel et al (1998) and Lown (2001) suggested that Breakwell's Assault Cycle (1997 see figure 2.12) is a model that can be used to describe the anger process over time.

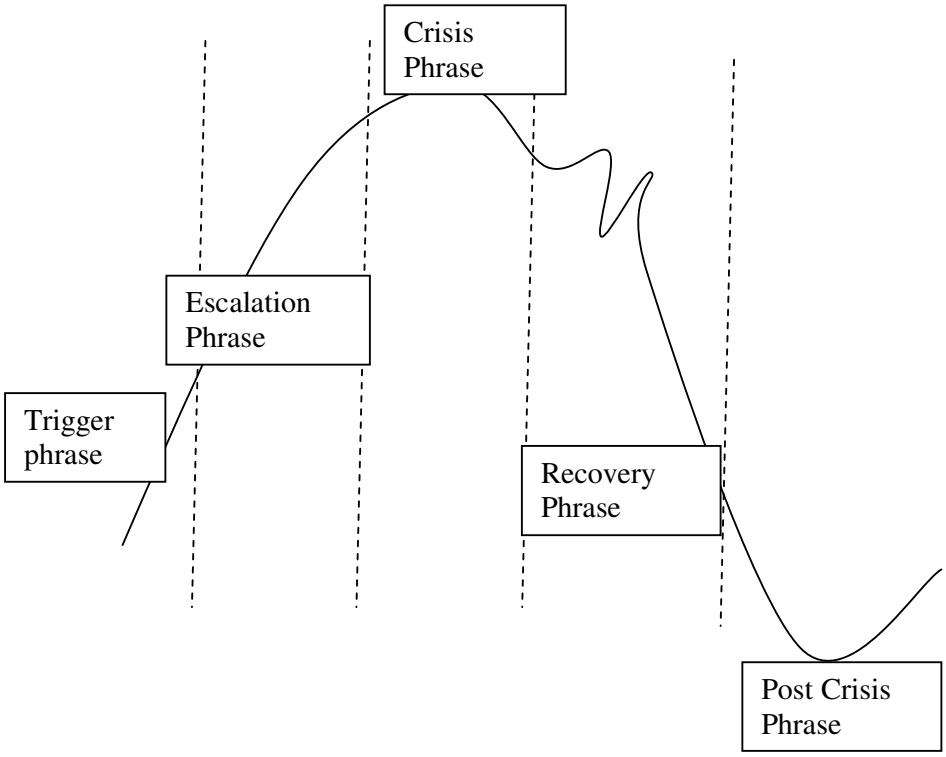

Figure 2.12: Breakwell's (1997) assault cycle

This model incorporates some of the different psychological paradigms as each stage contains physiological, cognitive and behavioural elements.

Trigger Phrase

This is the precipitating event where the person perceives a threat in the environment.

Escalation Phrase

The body starts to prepare for the threat and as the body becomes more prepared, cognitive functioning starts to reduce and the person becomes more sensitive to other environmental triggers.

Crisis Phrase

Control of behaviour and cognitive functioning has significantly reduced and the body is in a heightened state of arousal.

Recovery Phrase

Anger starts to subside, but cognitive functioning is still reduced and the person is still sensitive to triggers from the environment.

Post Crisis Phrase

The person needs rest and recovery as the adrenalin has significantly reduced. Cognitive functioning has increased and there is a possibility of remorse or unhappiness about the event.

Breakwell (1997)

Both Lown (2001) and Faupel et al (1998) argued that such models and metaphors can be useful in anger management interventions. With consideration of the different metaphors, models and psychological explanations of anger, the author considered the evidence base for different anger management interventions.

Before conducting a systematic literature search for the purpose of this project, previous systematic literature reviews focusing on anger management interventions were considered.

2.5.5: Previous systematic reviews of anger management interventions in schools

Overview

There has been one systematic review of school based anger management interventions conducted by Gansle (2005). She included studies from all different types of schools; mainstream, private, residential and special units. Only control group articles were included in the systematic search criteria. Out of 20 articles included, 15 took place in mainstream schools and 10 took place in secondary provision. She argued that there are two main types of anger management interventions: ones based on cognitive behavioural therapy such as stress inoculation training which aims to:

- Identify triggers
- Rehearse self- statements
- Teach relaxation training

Role plays, imaginary and practice are proposed by this type of intervention. The second main type of anger management intervention is social skills training. This type of intervention is based on the idea that people who display high levels of anger will need to learn the skills for social situations and includes:

- Promoting the acquisition of skills
- Enhancing performance of skills
- Reducing inappropriate behaviours
- Increasing generalisability

The overall effect size calculated from the systematic review was a moderate 0.31. Therefore, this suggests that anger management

interventions in general are only moderately effective. Furthermore, of the articles included many of them involved a multi range of activities including group discussions, role play, modelling, homework, practice etc. Therefore, it is difficult to state which specific elements of the different anger management techniques are helping to reduce anger. In addition, since only ten articles were included from secondary schools and special school articles were included, it could be argued that there is a limited amount of random control design experiments researching mainstream secondary level anger management interventions.

2.5.6: Present systematic literature review of anger management interventions

For the present systematic literature review, many articles were found relating to anger management interventions for children. To consider the efficacy of these anger management interventions, the author decided to establish a strict inclusion criterion for this part of the literature review. Since the project aims to establish which elements of 'anger management interventions' would work in a 'mainstream secondary school' (11-16 year olds) setting, this was the first inclusion criterion. Secondly, the article had to outline in detail the intervention, in order to help focus which elements might be helping to reduce the anger. Thirdly, all the articles had to contain a control group to ensure sound methodology. Finally, the articles had to be in a peer reviewed journal. All relevant articles are tabulated in Table 2.4. This has allowed for not only comparison of the different characteristics of the interventions (length of intervention, number of children involved, age of the children etc.) but also the different methodologies and results of each piece of research.

Table 2. 4: Different mainstream secondary school anger management interventions

It would appear that there have not been many anger management interventions carried out in mainstream secondary schools with control groups. Of the papers included, the majority of the interventions were based on cognitive behavioural interventions and involved group learning. Although each of the cognitive behavioural intervention involved different elements, there are some common themes. For example, all of the cognitive behavioural interventions involved:

- An explanation of anger
- Recognising triggers
- Recognising and understanding signs of anger (physiological)
- Strategies to deal with the anger (some including cognitive and some including physiological strategies)

Therefore, it could be suggested that a cognitive behavioural intervention should be based on these elements. Southam-Gerow and Kendall (2000) argued that cognitive behavioural interventions have supporting evidence for the reduction of anger with children in both individual and group sessions. However, they also argued that there is some evidence to suggest that this type of intervention is not always successful, mainly because of the larger societal context that might not provide the environment for a child to change in.

The author decided that none of the researched programmes in table 2.4 contained enough information about the intervention for complete replication. Consideration of the different non researched programmes and manuals available within the UK, based on cognitive behavioural

principles could be useful to guide the development of an anger management intervention. The author has considered several different interventions that include the four elements identified above.

2.5.7: Non-researched programmes which contain these four key elements

One programme that covers all four elements is produced by the South Eastern Education and Library Board, by Duffy (in press), which could be used with a class, group or individual. Their programme is based on helping a child to understand the different stages in Breakwell's (1997) Assault cycle. This programme contains many different lesson plans and ideas and could take several weeks to complete.

Lown (2001) developed a manual which suggests different techniques for individual and group interventions. This manual included:

1. Helping children to understand Breakwell's assault cycle (including the physiological changes that occur during the cycle)
2. Identifying own triggers
3. Strategies to reduce anger (such as rating anger levels using child's own language to inform self talk, relaxation strategies, squared breathing, visual imaginary etc.)

Faupel et al (1998) programme also includes many of the elements that Lown (2001) suggested. They argued that often techniques need over learning and therefore one session is often not enough. Furthermore, they

do not specifically focus on explaining Breakwell's Assault cycle to the child, but it is given as information to adults. In addition, Faupel et al (1998 p.62) asserted that "some of these techniques are complex and sophisticated and may be well beyond the current repertoire of many teachers and carers thereby necessitating support or training from other professionals such as EPs." Alexander et al (in press) outlined that knowledge of Breakwell's (1997) assault cycle could be a useful tool to share in INSET training alongside knowledge about understanding anger and the physiological signs of anger.

Conclusion about Secondary School Based Anger Management Interventions

Although, anger management is suggested to be one type of cognitive behavioural intervention that can help reduce violence and therefore possibly exclusions from schools, there has been very little RCT research into the use of this type of intervention with secondary mainstream school pupils. Furthermore, since all interventions vary to some degree, conclusions from the few articles obtained can be difficult. However, since most of the anger management interventions contain common elements, it is possible to pick out which elements seem to be key in all cognitive behavioural anger management interventions. The use of Breakwell's assault cycle (1997) is stated in many anger management manuals (Lown, 2001, Faupel et al, 1998) and could be used for INSET training. However, there has not been to date any RCT research into the effectiveness of this intervention with any children. Furthermore, most of

the research suggests that group interventions that take between 8 and 18 sessions are the most successful. The present study aims to investigate whether a short individual intervention using this approach can be successful for secondary mainstream pupils displaying challenging behaviour.

2.6: Research Questions

Aims and Summary of original contribution

1. The study aims to expand on the limited research into the effectiveness of TAs when trained in a specific intervention and to be the first study to evaluate the effectiveness of TAs using a short anger management intervention.
2. The study aims to expand the self efficacy literature and will be unique as the first study to consider TA self efficacy.
3. Finally, the study aims to expand the literature of effective training, uniquely considering the efficacy of EPs training TAs with the coach consult method in comparison to one-off INSET training.

These aims have led to the following research questions and hypotheses:

1. Fixed design research questions
   a. Can training change mainstream secondary school TA self efficacy?

      Hypothesis 1: Training will increase mainstream secondary school TA self efficacy levels.

      Hypothesis 2: The coach consult method of training will increase mainstream secondary school TA self efficacy more than one off INSET training.

b. Can a TA delivered anger management intervention effect students' (at School Action Plus and with a statement of special needs) behaviour?

Hypothesis 3: The TA delivered anger management intervention will decrease inappropriate behaviours (conduct problems, peer problems, hyperactivity and emotional systems) and increase appropriate behaviours (pro-social).

2. Flexible design research question

c. What factors affect mainstream secondary school TAs' learning, behaviour and self efficacy?

Chapter 3: Methodology

3. 1: The philosophical issues of methodology (Identifying worldview)

Researchers' "theoretical orientation has implications for every decision in the research process including the choice of method" (Mertens 1998, p.3). There are four areas of theoretical underpinning which influence each paradigm:

1. Ontology; the nature of reality
2. Epistemology; the nature of knowledge and how the researcher is involved with the participants in the study
3. *"Methodology* is the study and logic of research methods and refers to the principles governing the research activity" (Gelo et al 2008 p. 270). There are two possible types of methodology; *nomothetic methodology* states that there is a general law that govern all people whereas *idiographic methodology* describes the unique individual.
4. Research methods; the procedures and techniques that include the collection of data, data analysis and interpretation. They provide the steps that enable the answering of research questions (Gelo, 2008).

Mertens (1998) argued that there are three major paradigms; positivism/ post positivism, interpretive/ constructivist and emancipatory. These are shown with their different theoretical underpinnings in table 3.1.

Table 3. 1: Different paradigms and their philosophical underpinnings according to Mertens (1998)

	Ontology	Epistemology	Methodology	Research methods
Positivist/ post positivist	Objectivism (one true reality)	Researcher objectivity and standardisation	Mainly quantitative	Experimental/ quasi experimental
Interpretive/ constructivist	Constructivism (reality is constructed through the interaction between the social world and the individual)	Interactive process	Qualitative; interactive, hermeneutical, dialectical	Non-experimental
Emancipatory	Constructivism/ subjectivism (reality is what an individual believes)	Interactive and empowering	Pluralistic and evolving	Non-experimental

Quantitative or qualitative debate

Quantitative data is 'how much' of a phenomenon there is whereas qualitative data 'describes' the component properties of a phenomenon. The main issue that is debated is whether psychological variables can be assigned a quantitative value or whether qualitative data has validity (Gelo et al, 2008). Robson (2002) asserted that there are two main types of research designs; fixed and flexible. Fixed designs are experimental, quantitative and evaluative in nature whereas flexible are exploratory and

normally qualitative in nature. Gelo et al (2008) argued that issues of methodology should be seen as a continuum not a dichotomy. With that in mind the author considered the merits of using a mixed methods approach for this project.

3.1.2: Mixed Method Research

Johnson and Onwuegbuzie (2004 p.17) stated that mixed methods research "mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study." Although there is a debate about mixing methods there is some agreement that quantitative and qualitative paradigms can be combined (Gelo et al, 2008). Mertens (1998) argued that in the late 1990s, there was no set mixed methods paradigm. However, Johnson and Onwuegbuzie (2004) asserted it should be considered the third paradigm to maximise the strengths and minimise the weaknesses of the quantitative and qualitative paradigms. On the other hand, Sale et al (2002, p.50) argued that many researchers adopt mixed methods research uncritically which "diminishes the value of both *(quantitative and qualitative)* methods" as they do not study the same phenomenon. However, they categorically stated that the only sound argument for combining qualitative and quantitative approaches is if they are based on positivism.

Rationale behind a mixed methods approach

Some researchers have used the mixed methods approaches within social sciences research (for example, Burton, 2006). Robson (2002) suggested two possible reasons for this; that positivist and constructivist paradigms are compatible or more researchers are taking a pragmatic approach, using methodological and philosophical approaches that work specifically for their piece of research. Similarly, Greene and Caracelli (1997) outlined four reasons why qualitative and quantitative methods can be combined:

1. thinking dialectically when combining paradigms
2. using as a new paradigm
3. being pragmatic
4. substantive understanding

The first two underline the importance of the paradigm whereas the last two suggest that the paradigm is not necessary to guide the research.

Types of mixed methods designs

Gelo et al (2008) stated that there are three main types of mixed methods design; *triangulation*; qualitative and quantitative approaches are used to strengthen each other, *embedded;* one type of data provides secondary support for the primary source of data and *explorative* design, qualitative data is used to explore a concept and produce hypotheses before quantitative data is used to test them. A mixed methods approach can be used within multi levels as different methods can also be used to assess different levels within a system and then the data is merged together to

produce an overall interpretation. Mixed methods research can be used in one phase, where the quantitative and qualitative methods are used simultaneously or in two phases, where one method is used after the other method (Gelo et al, 2008).

Advantages of mixed methods designs

Greene et al. (1989) argued that a mixed methods design enhances an evaluation in five ways:

- ***Triangulation;*** different instruments can show the consistency of findings.
- ***Complementarity;*** one method can illustrate and clarify the results from another method.
- ***Development;*** results from one method can shape the next steps in the research
- ***Initiation;*** the results from one method can stimulate new research questions
- ***Expansion;*** the different methods can provide rich detail into specific features of the investigation.

Johnson and Onwuegbuzie (2004) also outlined that a mixed methods design can allow a study to include induction (initiating and producing hypotheses) through qualitative methods and deduction (hypothesis testing) through quantitative statistical methods.

3.1.3: Summary

The mixed method approach has started to be used more widely (Johnson and Onwuegbuzie, 2004). However, it is debated whether this approach reflects a shift within the qualitative/ quantitative paradigm debate or whether it is used as a method without any regard to this debate. Therefore, understanding these issues around mixed methods needs to be considered critically before designing a study. The author does not have a definitive guiding ontology. Furthermore, it could be argued that the author has taken a pragmatic approach in adopting a mixed methods design due not only to the different demands of the stakeholders but also because there seems to be many advantages to gathering different sources of data.

3.2: Part 2- Intended methodology and focus of the study

3.2.1: Overall design of the project (Problem sensing)

As stated at the start of the literature review the project developed due to the differing demands and priorities from the different stakeholders; the National Collaborative Research Project and the LA/ Educational Psychology Service (EPS) where the author was employed. The former wanted to evaluate a direct intervention with children. The latter stakeholders wanted to evaluate if the TAs could be trained to work with children that EPs normally work directly with and also what factors affect the TAs' learning and behaviour. These demands led to a multi level study based on reducing exclusions:

Level 1: Exploration of the effects of training of TAs by EPs (priority of LA)

Level 2: The self efficacy of TAs [intermediate level decided upon due to Quinones (1997) model and Kraiger et al (1993) concept of evaluating training]

Level 3: Evaluation of an anger management intervention (priority of National Collaborative Research Project)

The author had intended to produce a mixed methods two phase triangulation design which could link the three levels together. However,

this proved to be too complex and therefore for the sake of simplicity, the research will be divided into two studies:

Study 1: The fixed designs used to evaluate changes in TA self efficacy following different training conditions (Level 2) and the changes in pupil behaviour following a TA delivered anger management intervention (Level 3). This part of the methodology will also include the obstacles and issues that occurred during the design and implementation of these parts of the project as well as the results and discussion of these investigations.

Study 2: The flexible design used to explore factors affecting the TAs' learning, behaviour and self efficacy following training (Level 1).

3.2.2: Study 1: Fixed designs (evaluating changes in TA self efficacy and pupil behaviour)

A fixed design is based on the positivist epistemological stance which proposes that in order to prove an intervention a researcher should be able to show linear causation (Cohen et al, 2007). This is achieved through changing one or more independent variables (X_n) in the experiment to establish a change in a dependent variable (O_n). The 'gold standard' within fixed designs is the randomised controlled trial, where participants are randomly allocated to an intervention or a control group. Robson (2002) argued that this 'true' type of design is viewed highly by positivists as it can establish controllability, generalisability and causation. Thus it provides the most trustworthy data and gives the best type of evidence of intervention effectiveness. However, both Robson (2002) and Cohen et al (2007) argued about whether it is possible to carry out this type of design in social sciences research. Schools are not antiseptic or reductionalist and therefore linear causation is not likely to be possible (Cohen et al, 2007). Robson (2002) proposed that 'true' randomised controlled trials are difficult to carry out because:

- True randomisation is problematic in a social setting
- Often there is insufficient sample sizes
- Controllability of design and implementation can be difficult.

In social sciences quasi experimental designs are often utilised instead. A quasi experimental design is "a research design involving an experimental approach but where random assignment to treatment and

comparison groups has not been used" (Robson, 2002 p.133). Due to no randomisation in these types of design, there can be threats to internal validity. Researchers should consider which threats to validity may be present in their studies and to what extent these threats can be justifiably discounted (Robson, 2002).

Fixed designs in this project

Two fixed designs were used in this study. The first one was used at level 2 to evaluate TA self efficacy following training and the second one was used at level 3 to evaluate changes in pupils behaviours following the TA delivered anger management intervention. Due to issues that arose during the project the intended designs had to be moderated. Both the intended and final designs as well as the issues that affected these changes will be summarised.

a. **Intended design for evaluating TA self efficacy**

It was not possible to randomly allocate TAs to different training conditions as this was not practical for the TAs or the schools. Therefore a quasi experimental design was used. The design was a pre-test post-test non-equivalent group design with two experimental groups:

School A: Cascade training from the Coach Consult Method

School B: Coach Consult Method only

And one control group:

School C: One off INSET training

The independent variable (X_1) was the three different training conditions and the dependent variable (O_1) was the change in TA self efficacy.

X_1=three different training conditions (Cascade training from the Coach Consult Method, Coach Consult Method only, One off INSET training)

O_1=Change in TA self efficacy

As with any quasi experimental designs there can be several different threats to internal validity (Robson, 2002). Some threats to internal validity are within the control of the researcher. For example, the same *instrumentation* was used for all participants and for pre and post testing. Furthermore, with the TAs working in different schools it is unlikely that *diffusion of treatment* (TAs learning about the different training conditions from each other) will have occurred. However, there are many threats to internal validity that the author could not have any control over. One of the main threats to internal validity in this design is the threat of *history*. Since the groups of TAs are in different schools, changes in their respective schools e.g. change of staffing; critical incidents etc. could affect the results of the study. Since the author was aware of any major changes in the schools it is hoped that this could be discounted. However, since she is not part of the school systems and schools are complex systems, it is difficult to know what changes may affect the TAs and the results. Another key issue in this study is *mortality of participants*, since

it is a voluntary piece of research, participants may drop out. There is only a limited number of TAs in each condition and if a certain number drop out this will affect the possibility of statistical analysis. *Maturation* may also affect the study as the TAs' self efficacy may change the longer they are in their role. Finally, the pre *testing* of self efficacy may also contaminate TAs' perceptions and views and therefore affect the post testing data.

b. **Intended design for evaluating student behaviour following TA delivered intervention**

The intended design for Level 3 was a fixed design with some randomisation. The aim of this part of the project was to evaluate changes in the pupils' behaviour following a TA delivered anger management intervention compared to no intervention and depending on which TA training method was used. Therefore there were two independent variables (X_n) in this design and one dependent variable (O_n):

X_1=three different training conditions (Cascade training from the Coach Consult Method, Coach Consult Method only, One off INSET training)

X_2=anger management intervention condition or control condition

O_2=changes in pupil behaviour (conduct problems, peer problems, hyperactivity, emotional systems and pro-social behaviours)

The dependent variable was chosen because of the necessity to use the Strengths and Difficulties Questionnaire (SDQ) to measure pupil behaviour.

Therefore the intended design was a pre test/ post test three by two randomised control trial, with three conditions of training (Cascade training from the Coach Consult Method, Coach Consult Method only, One off INSET training) and two types of groups (intervention and control).

Due to the students being in different schools there is an issue about whether true randomisation could be achieved in this situation. Therefore, threats to internal validity may involve the students in the different school being exposed to external factors that may influence their behaviour. Thus the *history* within each school may affect the results. Similarly, because it is under the control of the TAs rather than the author to undertake the implementation of the intervention, *mortality of participants* could be a real issue. Furthermore, the results may be affected by the natural *maturation* of pupils who over a period of time may change their behaviour due to hormonal changes during the adolescent years rather than the intervention.

3.2.3: Sampling and participants

Cohen et al (2007) argued that there are four key questions that need to be taken into consideration when choosing a sample:

1. Is the sample representative of the population?
2. Is the sample large enough?
3. What sampling strategy should be used?
4. What access and practicality issues may affect the sampling process?

If there is a problem with any of these, sampling errors can occur. This is where there is a large difference between the sample mean and the population mean. Issues of sampling will influence the validity of the study (Cohen et al, 2007).

1. Representation to the population

"Within both qualitative and quantitative data, the essential requirement is that the sample is representative of the population from which it is drawn" (Cohen et al, 2007 p.105). The sample needs to be representative of the population in order for the data to be generalisable. For example, if the data suggests that an intervention is effective and the sample is not representative of the population it cannot be concluded that the intervention would be effective for the whole population.

2. Sample size

For an experimental study and for statistical testing there should be no fewer than 15 cases. Furthermore, the researcher should build in a

redundancy of at least double this required number due to respondent mortality (drop out of participants), attrition (non-usable data) and non responsiveness (Cohen et al, 2007).

3. Sampling strategies

Cohen et al (2007) recommended that probability sampling should be used in experimental designs as this allows equal chance of all members of a population to be included in the sample. However, they stated that in many areas of research, non-probability sampling is used. This is where certain members of the population are excluded.

4. Access and practicalities

Finally, the sample frame and process may be affected by practical and access restrictions and if this is the case then the sample may not end up as a representative or large enough sample.

a. Intended TA participants and sampling process

Population

The population of this part of the study would be all TAs working in mainstream secondary schools.

Sample frame

The sample frame of TAs was drawn from three schools from the same geographical area of the country. All three schools were secondary schools, whose intake consists of a large proportion of students who have

not passed their 11+ exam. Therefore each school had approximately 30% of students on the SEN register. All three schools were in small rural market towns and therefore they consisted of staff and students from similar demographics. Since the sample was drawn from 3 mainstream schools it may be assumed that the TAs are representative of the population. However, it could also be argued that any sample taken from these three schools may be very specific to the local area and not representative of the whole population of secondary school TAs.

Sampling process

The author did not have any control over the sampling process of TAs as the SENCos in each school chose how many TAs they wanted to be involved in the project. As Cohen et al (2007) stated this type of sampling process is non probability sampling and therefore there are issues of validity when this is applied to an experimental design. The SENCos could have excluded some TAs for certain reasons. However at the start of the project the majority of TAs in each school were involved and the number of participants in each school were as follows:

- School A: 15 TAs trained by 3 HLTAs who had been trained by EPs
- School B: 20 TAs trained by EP
- School C: 20 TAs trained by EP

b. Intended student participants and sampling process

Population

One of the aims of the local authority was to see if TAs could be trained to work on an intervention with some of the children that EPs typically work directly with, for example students at School Action Plus or students who have a statement of special needs. Since the focus of the National Collaborative Research Project was to reduce exclusions and Evans et al (2004) stated that a large number of children who have a statement of special needs for behaviour are at risk of exclusion. The author decided that the population should be students who are on the SEN register (at School Action Plus or who have a statement of special needs) due to behaviour issues. However, ethical concerns could be raised about focusing solely on this population. It could be argued that not all students at this level are at risk of being excluded and that there are other children who are at risk of exclusion that are not on the special needs register. In addition, secondary school students in this population may have been given their 'label' in primary school or in specific contexts and although there are review processes of their special needs, this does not necessarily mean that they still demonstrate severe behavioural difficulties. Furthermore, this population of pupils contained a very varied group of individuals from children with a diagnosis of Autism Spectrum Disorder, to children with moderate learning difficulties and children of very high academic ability and so on. Conversely, the focus of the intervention is anger management and therefore there are ethical issues of using such a specific intervention

with such a broad population and excluding some populations who may need the intervention. Consequently, there could be repercussions for students if they are given an anger management intervention especially if they are not 'angry' children. Furthermore, lack of homogenous within this population could have an effect on the results.

Sample frame

To address the ethical issue raised, it may have been prudent to use some form of pre test to establish which pupils have 'anger management' issues. However, the sample frame was taken from the same three secondary schools and since there were a limited number of students on the SEN register at School Action Plus and with a statement of special needs for behaviour, using a pre test would have limited the number of available participants further. In addition, due to the same demographical and geographical issues stated in the TAs section, it may be argued that the sample frame from these schools may not be representative of the chosen population.

Sampling process

It was intended to have 15 intervention and 15 control participants in each school condition. So a total of 45 participants would be in the intervention group and 45 participants in the control group. To establish probability sampling from the chosen sample frame, the SENCos were trained in simple random sampling and they randomly assigned the students into the intervention or control group conditions. However, as

stated in the TA section, it was not possible to randomly assign TAs into different training conditions, so the random sampling overall is limited.

Summary of sampling issues

Relating back to Cohen et al (2007) key sampling issues, it would appear that there were issues with the sampling processes and sample frames for both the TAs and the students and therefore this will have an effect on the results of the study. The key sampling issues that seem to affect the validity in these parts of the study are:

- Whether after possible mortality of participants, non responses and attrition, there will be a large enough sample size for an experimental design.
- The sample frame for both the TAs and students are representative of the chosen populations and in particular whether the student sample frame is specific enough for the specific anger management intervention.
- The ethical issue of chosen student sample.
- Whether the non-probability sampling of TAs to the training conditions will affect the internal validity of the self efficacy and pupil behaviour results.

3.2.4: Issues arising: Changes to design and participants

Apart from the sampling and design issues of the intended study, as the research proceeded several issues and obstacles occurred which meant the final design, the number of participants and some aspects of the data collection process had to be changed.

a. Changes affecting TA numbers

Issue 1: Negotiation of research

The 2 EPs that organised the coach consult training in two of the schools negotiated this part of the project with the head teachers and the researcher negotiated the other parts of the research with these two schools and also with the other schools involved. Furthermore, with changes of staffing and responsibilities and several people involved in the negotiated process, there may have been confusion in the schools. Therefore the possible lack of ownership by the author could have influenced the subsequent issues. This will be further reflected upon in the ethical section of the methodology.

Issue 2: School B- dropout rate

As the initial coach consult training commenced, the number of TAs began to drop out. With an initial number of 20 TAs, by the time they were trained in the anger management intervention, only 8 TAs remained. This change meant that there was a constant change in the group dynamics. Furthermore, towards the end of the training moving towards implementing the intervention only 5 TAs remained. This issue also put in jeopardy the number of students that might be able to have the intervention.

Issue 3: School A- not being able to measure the cascade of training

In School A, it was intended that the 15 TAs (trained by the three HLTAs) would implement the intervention. However, with a change of staffing over the summer holidays and staff shortages, this became impossible. Furthermore, the HLTAs were given more responsibilities within the school and they also did not have enough timetabled time themselves to work with more than one student each on the intervention.

Issue 4: School C pulled out

In November 2008, the original School C pulled out of the project. They cited that they did not realise how much work was going to be involved in taking part in the project. This issue highlighted the negotiation and lack of understanding issue, because more time at negotiation level and more explanation may have prevented this issue. Therefore a new INSET trained only school had to be found at the last moment.

Final number of TA participants and participant information

After dropout rates from School B, change of schools from School C to School D and with only the HLTAs involved in School A, the number of TAs involved in the whole study was 14. There were three HLTAs in School A, 5 TAs in School B and 6 TAs in School D. All of the participants filled in a survey to gain demographic information (Appendix A). The survey results indicated that all of the participants were white females with English as their primary language. Table 3.2

shows the age ranges and mean age range of the TAs involved from all three schools.

Table 3. 2: Age ranges of the TAs in the three schools

Age	School A	School B	School D
18-24			1
25-29		11	11
30-34			
35-39	1		1
40-44	1	1	11
45-49	1	1	
50-54		1	
Average age range	40-44	35-39	30-34

Experience and qualifications

Five of the TAs from school D had less than three years experience with the sixth TA having over ten years experience. However in school B all five TAs had over nine years experience and two of the HLTAs in School A had over 10 years experience with the other TA having had between four and five years experience. Furthermore, the qualification levels were so diverse in the overall group of TAs. Two TAs in school D and two TAs in school B had university degrees and also the HLTAs and one or two of the other TAs had higher level qualification. However, some of the TAs did not have any relevant qualifications for their TA role.

Final design

Since the TAs in School A (trained by the HLTAs) were no longer included, the independent variable changed to compare two instead of three types of training:

X_1=two types of training (Coach Consult Method training and one off INSET training)

Furthermore, although the author had allowed for over 15 TAs in two of the conditions, the end number of TAs in both of these conditions was well below the number of participants needed for an experimental design and therefore there would not be enough data from each condition to consider the statistical significance between the different training conditions.

By combing all 14 TAs' scores, the design could be viewed as a pre-test post-test single group design. This would mean that the independent variable would be training in general and the dependent variable would be changes in TA self efficacy.

X_1=training

O_1=changes in TA self efficacy

However, Robson (2002) argued that this type of design should be avoided because there are more chances of there being threats to internal validity. The conclusions about changes in TA self efficacy between pre and post test data could be due to maturation and experience of TAs rather than the training.

b. Changes affecting student numbers

Issue 1: Student numbers in school D

The replacement of School C with School D meant that there was not only a shortage of time for the TAs to implement the intervention in School D but also because this was a much smaller school there were less students in the sample frame to take part in the intervention.

Issue 2: TA follow up

Even with the low number of TAs in the final study, the level of follow up and implementation of the intervention was exceptionally low. Overall 10 out of 14 (71.4%) TAs implemented the intervention. The percentage was higher in School A and School B (coach consult method), 100% and 80%, respectively than in School D (INSET), 50%. Furthermore, all of the TAs who implemented the intervention only implemented it once, even though there had been an expectation that they would implement the intervention at least twice. Therefore only 22.2% of expected interventions were completed.

Issue 3: Random Allocation

The SENCos of each school may not have randomly allocated the students to the intervention and control conditions since the participants in the intervention condition seemed to be of a higher priority to the school than the students in the control condition. This was shown when

the data about the student was collected from the schools (see Appendix B) as most of the anger management intervention group had extra support from another outside agency. The SENCos may have not used random allocation because of the lack of homogenous in the sample frame and the ethical issue of giving an intervention to someone who does not need it. This would have meant that they decided which of the children were 'angry' and involved only those in the anger management group.

Issue 4: ethics of observations

The author had intended to observe at least three of the TAs in each training condition to evaluate the fidelity of the intervention. However, two schools raised ethical issues about watching an individual intervention with vulnerable children discussing their feelings and emotions. This will be discussed in more detail in the ethics section of the methodology.

Student Participants' demographic information

To gain students demographic information, the TAs filled in a student information sheet (Appendix B). All of the students involved in the intervention were on the Special Needs register at school action plus or had a statement of special needs for behaviour. All of the participants were white except for one girl who was mixed race (Asian- white). All participants had English as their primary language. There were eight boys and two girls in the intervention condition and seven boys and three girls in the control condition. The ages of the intervention condition ranged

from 12 years and three months to 15 years and four months with an average age of 13 years and seven months and the ages of the control group ranged from 12 years nine months to 16 years and three months with an average age of 14 years and two months. Most of children had failed their eleven plus and several of the children had difficulties with learning as well as behaviour. This was particularly true in the intervention rather than control group.

Current exposure: All of the students in the intervention group were also seeing on a weekly or fortnightly basis, a specialist behaviour and emotional support teacher. However, only two of the participants in the control group were seeing this same teacher. This was the reason why the author believed that the control and intervention groups were not randomly selected by the SENCos. This would of course be a threat to internal validity since it could be the support received by the specialist behaviour and emotional support teacher rather than the intervention under evaluation that could affect students' behaviour.

Prior exposure: The specialist behaviour and emotional support teacher did not share records of what types of interventions he conducted with the students, therefore it was difficult for the TAs to state what prior exposure the participants have had.

This demographic information highlighted that there is a lack of homogenous within the sample, therefore making analysis difficult.

Final Design

The number of participants was significantly less than projected, resulting in the fact that it was not possible to evaluate two independent variables. The first independent variable (X_1): comparing training conditions was no longer feasible. Due to the possible lack of random allocation, the design changed into a quasi experimental design; pre test/ post test non-equivalent groups design with one independent variable.

> X_2=anger management intervention condition or control condition
>
> O_2=changes in pupil behaviour (conduct problems, peer problems, hyperactivity, emotional systems and pro-social behaviours)

The number of participants involved overall in the three schools, was ten in the anger management intervention and ten in the control condition. This number of participants is somewhat below Cohen's et al (2007) recommended lowest number of participants for an experimental design and sample issues that were discussed earlier still remain a concern.

3.2.5: Ethical Considerations

"Ethical considerations pervade the whole process of research" (Cohen et al 2007 p.57)

Several ethical issues have already been stated in the previous sections. These issues alongside other ethical concerns will now be reviewed. Cohen et al (2007) suggested that there are several ethical issues that should be considered when conducting research in an educational setting:

1. Access and acceptance into the school setting
2. Informed consent of participants
3. Privacy and rights of participants
4. Anonymity and confidentiality
5. Deception
6. Ethical issues inherent in some research methods/ measures

When addressing each of these ethical issues the author utilised the following sources:

- The British Psychological Society's (2006) *Code of Ethics and Conduct*
- The British Psychological Society's (2002) *Professional Practice Guidelines: Division of Educational and Child Psychology*
- Robson (2002)
- Cohen et al (2007)

1. Access and acceptance into the school setting

Cohen et al (2007) argued that there are many ethical considerations when starting a piece of research in an organisation such as a school. The conduct of the researcher should include respect and professionalism (BPS, 2006). Furthermore when negotiating access into the school, the researcher should be clear about the aims, nature and processes of the research with the head teacher and should obtain official permission from them to conduct the research in their school. As stated above there could have been some issue about the clarity of the project within the schools.

2. Informed consent

Cohen et al (2007) stated that informed consent relates to the participants being informed of all of the necessary facts that are likely to influence their decision to be involved in a piece of research. When a researcher seeks informed consent they should ensure that the participants are:

- Aware of the *voluntarism* element of being involved, it being their decision to be involved or to withdraw from the research
- *Competent* enough to make the correct decision about involvement with the information provided
- Given all the *relevant information* (procedure, risks, benefits, alternative procedures) to make their decision
- Given opportunities to ask about concerns and fully *comprehend* the nature of the project.

Cohen et al (2007) argued that when working with vulnerable groups such as children under the legal age of responsibility, the consent should be sort from parents/ guardian and then from children as well. They proposed that this consent should be in the form of a signed contract. On the other hand, Robson (2002) argued that this type of signed contract is only required from the parents. Children should also be asked directly in addition to their parents. The researcher decided to follow Robson's (2002) recommendations and only gained verbal consent from the pupils. An information sheet and consent form was given to the TAs and to the parents of the students involved in the project (for an example of an information sheet see Appendix C and for an example of a consent form see Appendix D). These informed them about the aim of the study, confidentiality and the right to withdrawal from the study at any point. Although, the EPs involved emphasised that the TAs' involvement in the whole project including the training was voluntary, their involvement however was also decided upon by the SENCos. Therefore some TAs might have been involved in this part of the project as a compulsory element of their role. However, the author emphasised the fact that they could withdraw from the other parts of the project at any point.

3. Privacy and rights of the participants

Cohen et al (2007) also suggested that privacy is a right and there are three areas of privacy that should be considered by the researcher:

- Sensitivity of information given
- Setting of observations

- Dissemination of information

Some of the information, for example, the qualification levels of TAs may be sensitive. The TAs were therefore informed during the data collection process that they did not have to fill in every question. Only information relevant to the study has been included in this thesis and all information cannot be assigned to one particular person.

Cohen et al (2007 p.59) argued that rights and 'welfare of the subjects should be kept in mind, even if it involves compromising the impact of the research." The BPS (2006) asserted that no participants should be left feeling any worse than when they started the research. Although this project did not involve anyone being physically harmed or injured, there were possible privacy and mental harm issues that needed to be considered especially around the observations of the intervention. For example, some of the TAs did not want to be observed and they quoted ethical reasons relating to observing a vulnerable child. However, there is a possibility that they did not want to be observed because they were worried about possible negative judgements from the researcher which could have affected their self esteem or possibly their job. Therefore, many of the observations were not carried out. However, the former objection to the observations could also be valid. Therefore, the author talked to the children prior to the observations to let them know that it was the TAs who were being observed rather than the children. They were also told that they did not have to be observed if they did not want to.

4. Anonymity and confidentiality

Some of the data was not wholly anonymous due to the necessity to match pre and post data. However, the data was kept confidential in all reports and in line with the Data Protection Act 1998, it was also kept secure. All participants were made aware of the confidentiality of the data they provided.

5. Deception

Cohen et al (2007) argued that in many social science studies there is a certain level of deception, otherwise results could be affected. There is a debate as to whether any form of deception should be ethical. Within this study, the TAs, parents and students were informed of the overall process as well as some of the underlying theories behind the research. For example with the TAs the concept of self efficacy was not discussed in detail but discussions were held about implementation and confidence to implement. Likewise with the parents the exact details of the anger management intervention were not shared. There was however, an opportunity for all participants involved to contact the researcher following the project.

6. Ethical issues inherent in some research methods/ measures

As stated earlier there are issues about research methods such as observations. Furthermore as stated in the student sampling section, there is an issue about giving a child an anger management intervention if they

do not have ‘anger issues’. Since this may do more harm than good for this student. Furthermore, the Cohen et al (2007) stated that research should not interfere with a person right of self determination and it could be argued that research methods such as evaluating interventions may be interfering with this right. Similarly, research measures such as the Strengths and Difficulties Questionnaire (SDQ) which will be discussed later, can be used to classify children as ‘abnormal’ or ‘normal’ and therefore it could be argued that this type of classification could damage a child and therefore be unethical.

3.2.6: Measures

a. To evaluate changes in TA self efficacy: A self efficacy scale

The author's literature search revealed no scales for teaching assistants' self efficacy. Therefore it was necessary to create a scale. This was achieved through several piloting stages.

First piloting stage

The twelve items that children are excluded for (DfES, 2007) and different aspects that can affect self efficacy (experience, confidence, training, knowledge, skills and emotional response) were combined to produce a scale. This was given to five TAs in a primary school. Feedback given by these TAs suggested that the scale was not only too long but the items seemed to need a qualitative answer rather than a rating.

Second piloting stage

The teacher self efficacy scale literature was reviewed to help develop a more relevant scale.

The validity of measuring self efficacy

Erdem and Demirel (2007) argued that self efficacy scales have validity when they have face, content and construct validity. They suggested that a scale with face validity should measure what it seems to measure. Skaalvik and Skaalvik (2007) argued that self efficacy scales have

content validity when they are based on Bandura's (1997) recommendations;

1. *I* should be the object of each statement to assess subjectivity of self efficacy
2. *Can or be able* should be the verbs used in the statements to assess mastery expectations
3. Each item should contain some form of barrier e.g. *'the most difficult pupil'* to help establish the ease at which a person perceives their ability to overcome the barrier.

Erdem and Demirel (2007) suggested that a scale achieves construct validity through a factor analysis. Factor analysis of previous scales has produced mainly two or three factors (Denzine et al, 2005).

The author decided to examine several available published teacher self efficacy scales with already established face, content and construct validity. These were;

1. Teachers' Sense of Efficacy scale (Hoy and Woolfolk, 1993)
2. Teacher Opinion Survey (Geller and Lynch, 1999).
3. Teachers' Sense of Efficacy Scale (Tschannen-Moran and Woolfolk Hoy, 2001)

To ensure that these scales were domain specific as recommended (Brouwers and Tomic, 2001), all scales were adapted by only including items that related to behaviour management and by substituting 'teacher' with 'teaching assistant' (Appendix E).

Piloting these scales

The three scales were then piloted with eight secondary TAs and the discriminating power of these scales was calculated.

Discriminating power of the scale

When producing a scale, Robson (2002) suggested that a good scale should discriminate between the highest scorers and the lowest scorers. Therefore it is important to work out the discriminative power of each item in each scale. When all item scores were worked out for each TA's scale, the total scores were added up. From this the top 25% and bottom 25% TAs' scales were identified and the average item scores for the top 25% and bottom 25% were calculated and then these were compared. The difference between these scores was the discriminative power of the item. The larger the item discriminative power, the better the item is for a scale for identifying the higher and lower scorers. The discriminative power of each scale is shown in tables 3.3-3.5.

Table 3. 3: The discriminative power of the adapted Teacher Sense of Efficacy Scale from Hoy and Woolfolk (1993)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Low score 1	1	1	2	1	1	2	5	4	4	5	3	3	4	3
Low score 2	2	1	5	1	1	1	5	4	5	5	3	3	6	3
Average low score	1.5	1	3.5	1	1	1.5	5	4	4.5	5	3	3	5	3
High score 1	6	3	3	5	4	4	4	5	4	5	3	5	4	3
High score 2	4	2	6	3	3	4	6	4	6	5	5	6	5	5
Average high score	5	2.5	4.5	4	3.5	4	5	4.5	5	5	4.5	5.5	4.5	4
Discriminative power	**3.5**	**1.5**	**1**	**3**	**2.5**	**2.5**	**0**	**0.5**	**0.5**	**0**	**1.5**	**2.5**	**0.5**	**1**

Table 3. 4: Discriminative power of the adapted Teacher Opinion Survey from Geller and Lynch (1999)

	1	2	3	4	5	6	7	8	9	10	11	12
Low score 1	1	2	1	2	2	4	1	1	2	3	2	2
Low score 2	2	2	1	3	4	2	2	2	2	3	2	2
Average low score	1.5	2	1	2.5	3	3	1.5	1.5	2	3	2	2
High score 1	4	4	5	3	3	2	0	4	3	6	3	1
High score 2	2	4	3	6	3	2	2	3	3	4	6	2
Average high score	3	4	4	4.5	3	2	1	3.5	3	5	4.5	1.5
Discriminative power	**1.5**	**2**	**3**	**2**	**0**	**1**	**1.5**	**2**	**1**	**2**	**2.5**	**0.5**

Table 3. 5: Discriminative power of the Teacher Sense of Efficacy Scale adapted from Tschannen-Moran and Woolfolk Hoy (2001)

	1	2	3	4	5	6	7	8	9	10	11	12	13
Low score 1	7	5	7	7	6	6	6	7	7	6	4	6	5
Low score 2	5	3	7	5	7	7	5	5	5	5	3	5	3
Average low score	6	4	7	6	6.5	6.5	5.5	6	6	5.5	3.5	5.5	4
High score 1	8	5	7	8	6	8	5	8	8	6	5	8	8
High score 2	8	7	5	8	8	5	7	7	9	7	8	8	8
Average high score	8	6.5	6.5	8	7	6.5	6	7.5	8.5	6.5	6.5	8	8
Discriminative power	**2**	**1.5**	**0.5**	**2**	**0.5**	**0**	**0.5**	**1.5**	**2.5**	**1**	**3**	**2.5**	**4**

All three scales seem to have some scale items that have very good discriminative powers and others which do not have very good discriminative powers. The TAs stated that they found the third scale confusing to fill in, so this was discarded. In order to decide between the first two scales, the amount of studies that have used the original versions of the scales was therefore considered. According to Google Scholar, the second scale has only been cited in five articles and these have not necessarily featured in peer reviewed journals. However, the Hoy and Woolfolk (1993) scale has been cited in 176 articles. So this was the scale chosen to be used in this study.

b. To evaluate changes in pupil behaviour: the Strengths and Difficulties Questionnaire (SDQ)

Although the intervention was anger management focused, the National Collaborative Research Project outlined that all of the studies should use the Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997). Therefore a more general change in pupil behaviour following this cognitive behavioural intervention was the focus of the dependent variable (changes in pupil behaviour; conduct problems, peer problems, hyperactivity, emotional systems and pro-social behaviours). Time restrictions and sampling issues that arose in the study did not allow for a secondary measure to be used to evaluate 'angry' behaviour more specifically.

Several researchers have reviewed the SDQ questionnaire (see Halket et al, 2003 and Gardner et al, 2004). The SDQ consists of 25 questions. It is a long established and widely used behavioural and psychiatric disorders screening questionnaire. The SDQ is split into five sections; conduct problems, peer problems, hyperactivity, emotional systems and pro-social behaviours. There are five questions for each section. Each item is scores as 'not true', 'somewhat true' or 'certainly true'. Scores of between 0 and 2 are given for each item depending on the answer given by the person filling in the questionnaire. The first four sections are combined to give a 'total deviance' score and the last section gives the child's strength.

Validity of the SDQ

The SDQ is not only brief. It is also seen to have good validity and good standardisation. It has been compared with the longer Child Behaviour Checklist and has shown good correlation (0.87, $p<0.001$) (Gardner et al, 2004). It also has good internal consistency and cross-information correlation with good Cronbach's alphas (hyperactivity 0.74, emotional symptoms 0.70, conduct problems 0.63, peer problems 0.60, pro-social 0.74) (Flouri, 2007). Furthermore the SDQ has shown stability when used with over 10,000 adolescents and children in the UK. It has also been translated into over 50 languages and used in many different countries (Gardner et al, 2004).

Studies using the SDQ and secondary mainstream students

A literature search of the terms; 'mainstream secondary school' and 'SDQ' produced many studies. However, the SDQ has been used differently in these papers. A small sample of papers have used the SDQ as a psychiatric screening tool in different populations; different races and genders (Stansfeld et al, 2004), Irish adolescents (Lynch et al, 2004) and children with low IQ scores (Simonoff et al, 2006). Other papers have used the SDQ to profile strengths and difficulties of a certain population; adolescents (Klineberg et al, 2006); children with HIV (Melvin et al, 2007); and students with Tourette syndrome (Hornsey et al, 2001). Several papers have used the SDQ to compare certain populations' behavioural and emotional profiles with a control group. These have included populations such as; teenagers who had meningitis

in infancy (Halket et al, 2003); adolescents who were born at 29 weeks (Gardner et al, 2004); adolescents with asthma (Calam et al, 2005); mainstream secondary students who were excluded (Ripley and Yuill, 2005); adolescents in pain (Adamson et al, 2007). Other papers have used the SDQ to compare two or more different groups; refugee and migrant adolescents (Leavey et al, 2004); children with different parental involvement levels (Flouri, 2007); and children with high and low physical activity levels (Ussher et al, 2007). In addition, Wood and White (2005) have used the SDQ to compare bullying behaviour with behaviour problems and arousal levels. Finally, two papers have used the SDQ to compare the behaviour of students before and after an intervention. Phillips et al (2008) used the SDQ as a pre-test, post-test measure of behavioural change following group work. Anderson et al (2005) used the SDQ for a pre- test, post-test and three year follow up to evaluate the severity of children's emotional, behavioural and relationship difficulties from two different family support services.

Limitations of SDQ data

From reviewing the above articles, there seems to be some debate about the cut off point for different categories determined by the scale. Halket et al (2003) suggested that a score between 0 and 13 is considered 'normal'; a score between 14 and 40 is considered as 'no normal'. However, Philips et al (2008) outlined that a score between 10 and 15 is normal, between 16 and 19 is 'borderline' and between 20 and 40 is 'abnormal'. On the other hand, Lynch et al (2004) suggested that 17 was

a cut off point for being clinically 'at risk'. These different cut off points could be problematic for data interpretation. Furthermore, it could be questioned whether the SDQ thoroughly captures the concept of anger. There are some categories within the SDQ that may not directly relate to anger issues and therefore an individual may significantly reduced their anger but their overall score may not have changed significantly and therefore they would not be seen as changing.

c. Observations to establish fidelity of the anger management intervention

To ensure which elements of the intervention had been learnt and implemented, the author devised a checklist structured observational schedule (Appendix F). Robson (2002) argued that observations are very directive but can complement data that collects opinions. He stated that although checklists are a type of structured observation, they are not as robust as a coding scheme approach. As they only show the presence or absence of a behaviour, this he argued can be blurred. However, for the purpose of establishing which parts of the intervention the TAs had used, a checklist seemed like the most appropriate measure. Hart (2005) asserted that observations should have inter-rater reliability. It was intended at the start of the project that a colleague would also observe the intervention but as stated earlier only three observations in total occurred and inter-rater reliability was not possible. However, due to the small number of observations completed, inter rater reliability was not sort and TAs filled in a self report measure instead (see Appendix G).

Nevertheless Robson (2002) does caution against the validity of such self report measures.

3.2.7: Procedure

The training was negotiated between the head teacher and SENCo of the schools and the EPs/author involved. Further to the ethical issues around access each head teacher was sent a letter describing the details of the project (see Appendix H).

Training intervention

School A and School B both took part in six sessions of training using the coach consult method spread over two terms. As highlighted in the literature review, there was no precise explanation of the coach consult method but rather principles to follow in Balchin's et al (2006) article. Therefore the implementation of this model in the project is the EPs and author's interpretation of these principles:

1. Needs assessment

   Through EP consultations with the TAs, training needs around behaviour management skills were identified and session timetables were set up. Therefore the training schedule was unique to the two schools but with some sessions overlapping.

2. Training methods

   The training methods used in the sessions emphasised practical application and were based on constructive methods such as coaching and mentoring. Sessions involved modelling and scaffolding of skills, role play as well as time to practice these skills.

3. Implementation

The emphasis in this training approach was for the TAs to develop their skills and knowledge, in order to empower themselves and the students they work with. Therefore between sessions there was an expectation that TAs would try the new skills.

4. Recap and reflection

   Each subsequent session started with a recap of the previous session and a reflection on the TAs' implementation of these skills, focusing on what went well and what they would do differently next time.

5. Adaptive curriculum

   Consultations and needs assessments continued during the sessions to adapt the curriculum to fit the changing needs of the TAs. The topics covered by each school are shown in Appendix I.

Anger management training focus

Both schools chose to cover the Breakwell (1997) Assault Cycle. A script and resources were developed by the author for this part of the training (Appendix J) and it was this part of the training that was chosen to be developed as an INSET with no negotiation or recapping for School C and then School D.

Administration of measures

The self efficacy scale was administrated, as a pre measure, to the TAs before they were trained and as a post measure, two months after the training when they had implemented the intervention. Students' and teachers' versions of the SDQ were given out before the intervention and

one month after the intervention. The TAs used the anger management intervention as outlined in the training session (see Appendix J). Only three of the anger management intervention sessions from one of the schools were observed due to the ethical issues discussed above. All of the TAs including the ones who had been observed filled in a self checklist.

3.2.8: Results and discussion of the fixed design studies

Analysis of data

Descriptive statistics and t tests for quantitative data

Due to the limited sample size mainly descriptive statistics were used to analyse the data. Although Cohen et al (2007) argued that sample sizes smaller than 15 are problematic for experimental designs. Moore (1995) argued that sample sizes less than 15 can be used for t tests but the data should be normally distributed. Therefore, for some of this data t tests were used. However, it is debatable about whether the specific populations are normally distributed and with the design and implementation issues, the data produced by t tests may not be valid.

3.2.9: TA self efficacy data

The average difference self efficacy scores between the pre and post measures in different training conditions

To indicate the differences between pre and post self efficacy measures for the two training conditions a box and whisker plot has been produced (see figure 3.1). This data would seem to indicate that the self efficacy scores in the coach consult condition increased more than in the INSET condition. However, the sample in each group was not large enough to carry out a statistical test in order to statistically compare conditions.

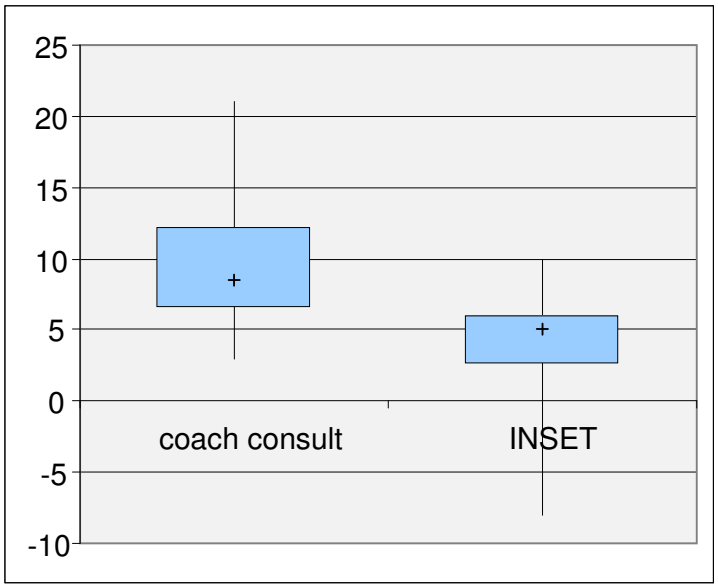

Figure 3. 1: A box and whisker diagram to show the differences between pre and post self efficacy scores for the coach consult method (n=8) and the INSET (n=6) training conditions.

The average self efficacy scores pre and post measures for training for all TAs

Figure 3.2 shows the pre and post test self efficacy scores for the whole sample of TAs. The post test self efficacy score data from the box and whisker plot is generally higher than the pre test data. This would appear to indicate that there was an increase in self efficacy scores following training.

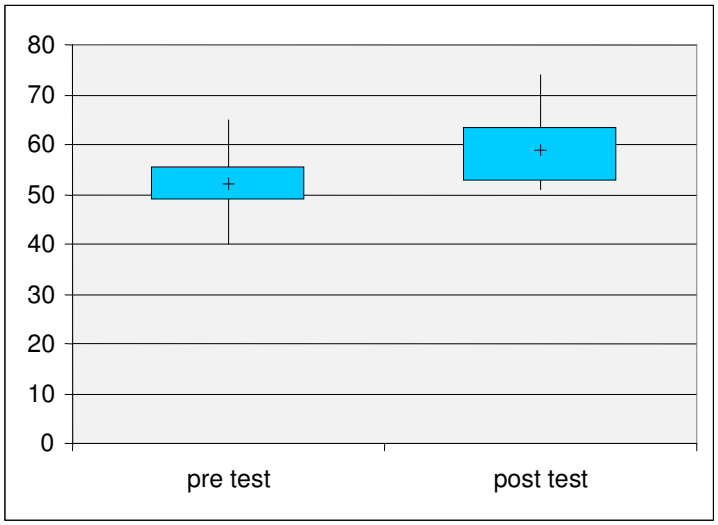

Figure 3. 2: A box and whisker diagram to show the pre and post self efficacy scores for all trained TAs (n=14)

The overall sample of TAs was of an adequate size (according to Moore, 1995) to statistically test the hypothesis that self efficacy increased after training for the whole data set. Therefore a paired t test was carried out for the pre and post test self efficacy scores for all of the TAs. The results showed that there is a significant difference between the pre and post results ($t=-4.044$, $n=14$, $df=13$, $p<0.05$). This would suggest that self efficacy significantly improved after training.

Average self efficacy scores for the TAs who implemented the intervention and those who did not implement the intervention

Since some of the TAs did not implement the intervention it was possible to compare the differences between the pre and post self efficacy scores for the ten TAs who implemented the intervention compared to the four TAs who did not implement the intervention. These are shown in figure 3.3. This indicates that self efficacy increased slightly more in the group of TAs who did implement the intervention. However, the sample sizes were too small to statistically assess this data.

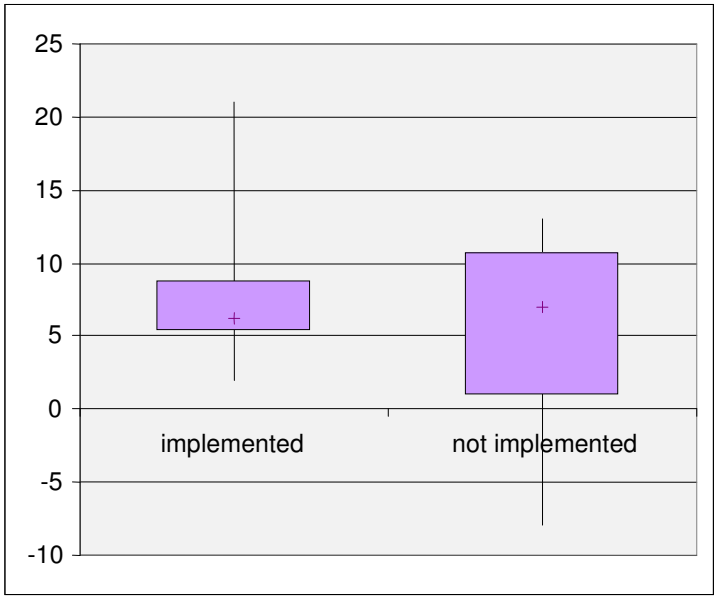

Figure 3. 3: A box and whisker diagram to show the differences between pre and post self efficacy scores for the TAs who implemented the intervention (n=10) and the TAs who did not implement the intervention (n=4)

Discussion

The descriptive statistics would seem to suggest that the training and in particular the Coach Consult Method increased TA self efficacy.

Furthermore, the descriptive statistical for the TAs who had and had not implemented the intervention also suggested that implementation increased self efficacy more than non implementation.

Limitation of self efficacy scale

The self efficacy scale used in this study was based on a two factor model of teacher self efficacy. Firstly, as reviewed in the methodology section, self efficacy is a difficult concept to quantify, since there are competing theories about self efficacy and there is no consensus on how it should be measured (Dellinger et al, 2008). Although the author justified her choice due to the level of papers that had used this scale, more recent theorists such as Denzine et al (2005) questioned whether any of the two or three factor models really explain teacher self efficacy and they concluded that this concept needs to be re-evaluated. Secondly, the scale was adapted with several statements, relating more specifically to teaching students, being taken out. Therefore, without conducting a factor analysis on the adapted scale it might be difficult to state that the scale remained a two factor model or whether the adapted scale violated the creators' concept of teacher self efficacy. Thus whether this scale has construct validity.

Hammett and Burton (2005) argued that teacher research is relevant to TAs research because they have similar roles, and this logic guided the author to create the TA self efficacy scale by adapting a teacher self efficacy scale. However, as outlined in the literature review TAs have

very different qualifications (Russell et al, 2005) and roles to teachers (Kerry, 2005) and therefore it might be necessary to create a unique TA self efficacy scale. A specific limitation of the scale used in this project is that, one of the two factors in Hoy and Woolfolk's (1993) scale is related to teaching efficacy and this may be very role specific, so although the author edited the scale for TAs, it may still be more relevant for teachers rather than TAs. Measuring TA self efficacy will be covered further in the discussion and conclusion chapters.

In conclusion, the limited data and validity issues of this data alongside the limitations of the TA self efficacy scale means that it is not possible to establish where the hypotheses that training and specific types of training increases self efficacy levels. Therefore, it is not possible to state that this data supports the teacher self efficacy research which suggests that training increases self efficacy (Giallo and Little, 2003, Soltys, 2003, Wade, 2003) or the TA research which suggested that training increases the motivation of TAs (Hammett and Burton, 2005). In addition, it is not possible to state that the data supports Bandura's (1977) argument that performance accomplishment was the most powerful source of information for increasing self efficacy.

3.2.10: Evaluating changes in student behaviour

Comparing the pre test data for the anger management and control groups

The overall SDQ scores were compared for the anger management and control conditions to assess whether they were randomly allocated. The pre test self report data is shown in figure 3.4 and the teacher report data is shown in figure 3.5.

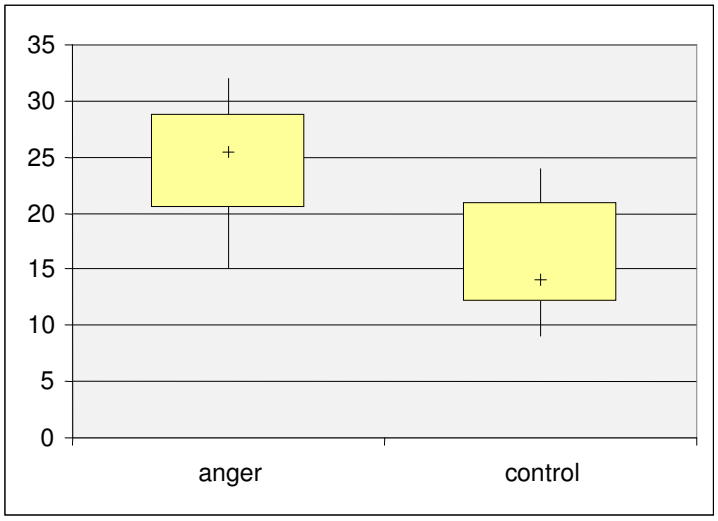

Figure 3. 4: A box and whisker diagram to show the differences between pre test self report overall SDQ scores for the anger management (n=10) and the control (n=10) conditions

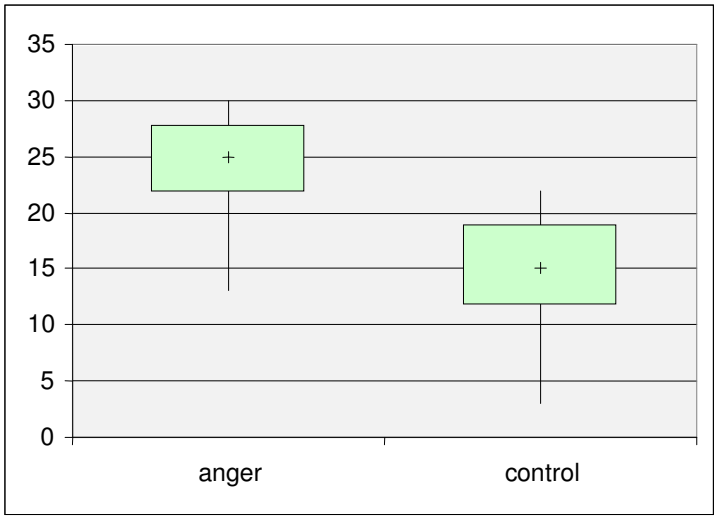

Figure 3. 5: A box and whisker diagram to show the differences between pre test teacher report overall SDQ scores for the anger management (n=10) and the control (n=10) conditions

Both box and whisker graphs would seem to show that the participants in the anger and control conditions were quite different before the intervention. Therefore, to evaluate whether this difference between the groups at the start of the project is statistically significant, independent t tests were carried out on the SDQ data from the pre test self report and teacher data (see table 3.6).

Table 3. 6: Pre test descriptive statistics for the self report and teacher SDQ data

	Self report		Teacher report	
	Anger N=10 Mean (SD)	Control N=10 Mean (SD)	Anger N=10 Mean (SD)	Control N=10 Mean (SD)
emotional symptoms	**4.7 (2.1)***	**2.3 (1.3)***	3.6 (2.4)	2.5 (2.1)
conduct problems	6.6 (1.4)	4.7(2.7)	6.3 (2.3)	4.8 (2.1)
hyperactivity/inattention	8.0 (2.1)	6.2 (2.8)	**9.7 (0.7)***	**6.1 (3.0)***
peer problems	**4.6 (3.1)***	**1.4 (1.4)***	**5.0 (2.6)***	**2.4 (1.8)***
Pro-social	4.5 (3.0)	5.4 (2.3)	3.5 (2.9)	4.6 (2.4)
total difficulties	**23.9 (5.7)***	**14.6 (5.8)***	**24.6 (4.7)***	**15.8 (5.3)***

*significant differences ($p<0.05$) between groups

Self measures

There was a significant difference between the anger intervention group and the control group in the pre test measures for overall scores on the SDQs ($t=3.604$, $df=18$, $p<0.05$). All of the categories of the SDQ were also statistically analysed and a significant difference was found between the anger intervention and the control group for the emotional symptoms ($t=2.984$, $df=18$, $p<0.05$) and peer problems ($t=2.965$, $df=18$, $p<0.05$).

There was no significant difference between the anger intervention and control group for conduct problems (t=2.009, df=18, p>0.05), hyperactivity/inattention (t=1.646, df=18, p>0.05) and pro-social (p=-0.746, df=18, p>0.05).

Teacher measures

There was a significant difference between the anger intervention group and the control group in the pre test measures for overall scores on the SDQs (t=3.566, df=18, p<0.05). All of the categories of the SDQ were also statistically analysed and there was a significant difference between the anger intervention and the control group for the hyperactivity (t=3.749, df=18, p<0.05) and peer problems (t=2.623, df=18, p<0.05). There was no significant difference between the anger intervention and control group for emotional symptoms (t=1.095, df=18, p>0.05), conduct problems (t=1.537, df=18, p>0.05) and pro-social (t=-0.919, df=18, p>0.05).

Discussion

Since there was a statistically significant difference between these groups for the pre test data for both the self report and teacher data, with the anger intervention group having significantly higher scores on the SDQ, it would suggest that the SENCos had generally picked students with more significant difficulties to receive the intervention and therefore random allocation had not occurred. The self report data for the control group was an average of 14.6 on the pre test SDQ measure. Relating back

to the debate about the different cut off points for the SDQ outlined in different articles, some of these cut off points would classify the control group students as 'normal' whereas in others they would classify them as abnormal. Therefore it could be argued that they did not need any behavioural intervention including anger management interventions. Thus since there was an issue about the sample size in regards to using statistical test and the t tests that were used showed a significant difference between the two conditions before the experiment, it was decided that any subsequent statistical analysis would be invalid.

Fidelity of interventions

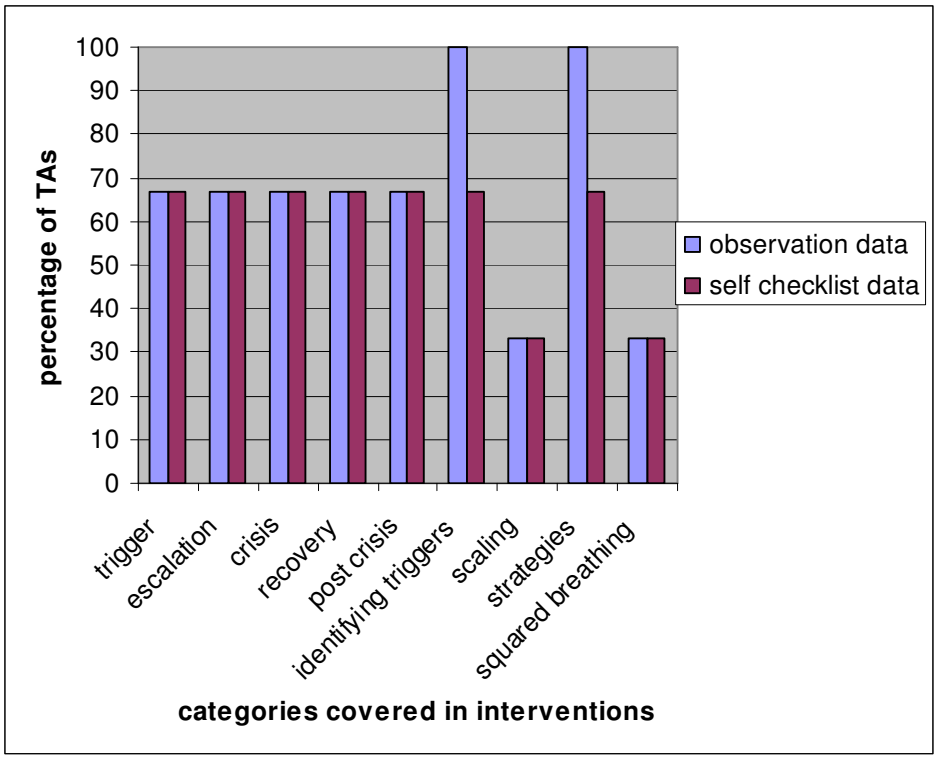

Figure 3. 6: Observational and self report checklist data from TAs (n=3) in School B

The observational data collected from School B was compared with their self report checklists see figure 3.6. This indicated that there was correspondence between the observed and self reported checklists for all parts of the intervention except for identifying triggers and strategies. However, this was a very small sample and therefore generalising that all self checklists are almost representative of behaviour is not possible.

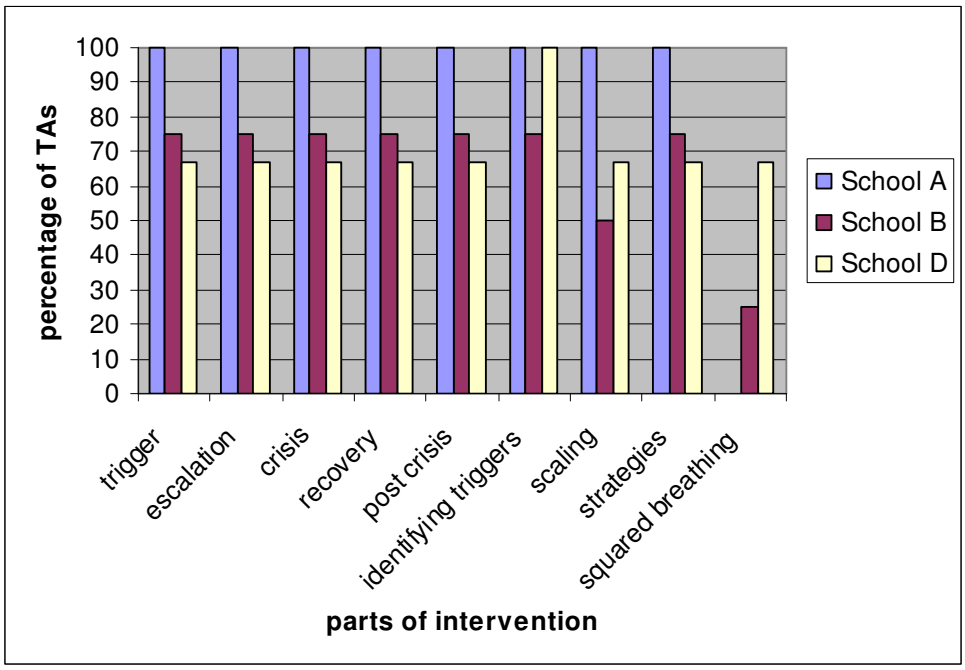

Figure 3. 7: Self checklist data from the TAs (N=10) in the three schools who implemented the intervention

However, since there was no further observational data, the self reported data from the ten TAs who implemented the intervention was compared from the three different schools and this is shown in figure 3.7. From the self report data, the TAs in School A rated that they all did every part of the intervention except for the squared breathing whereas some of the TAs in School B and D used some of the intervention and others did not use all aspects of the intervention.

Discussion

Even if there had not been issues with the random allocation of two group conditions and lack of homogenous of the sample, there would have been issues with the fidelity of the interventions. In the project only 2 TAs stated that they followed all steps of interventions, so even in a

small sample of 10 interventions there was a great deal of variation. One reason for this variation could be that some the anger management intervention material can be sophisticated and therefore TAs would need some support to understand them (Faupel et al, 1998). Therefore, there is also a risk that the TAs did not have a sound understanding of the material they tried to implement. On the other hand, there was an emphasis in the coach consult method to adapt the materials to suit the situation. Therefore, they may have been adapting the intervention to suit the individual student. Furthermore, with the use of 10 different TAs, even if they had used the same exact process, according to Savage and Carless (2005) TAs' style and approach can have a 10% effect on pre and post test results.

In conclusion, it is not possible to state that the data supports the hypothesis that the anger management interventions improve pupil behaviour as previous research has suggested (Sharp and McCallum, 2005, Lochman and Lenhart, 1993).

Due to limited data produced in these two fixed designs, the author will now focus on the remaining part of the project, the flexible, exploratory study. The methodology for this study will be outlined, followed by the result and discussion relating to this.

3.3: Study 2: Flexible design: exploring factors that affect TAs' learning, behaviour and self efficacy

3.3.1: Flexible designs

Robson (2002) stated that an alternative approach to the fixed design in social sciences is the flexible design. He argued that qualitative designs could be planned from the start of the investigation or could be adopted as "ideas for changing your approach may arise from your involvement and early data collection" (Robson, 2002 p.165). In flexible designs the researcher is the key instrument in the process and needs to be open and responsive to data. Generalisation to the population is often not possible from qualitative data but analytic or theoretical generalisability is possible as the data may give insight to possible theories (Robson, 2002). Without standardised methods, Robson (2002) argued that it may not be possible to prove the data is trustworthy or that it can be replicated.

3.3.2: Design

The main aim of this part of the study was to understand the individual and group experience of training and what factors influenced their implementation or non implementation of the intervention and self efficacy.

3.3.3: Participants and sampling

The 14 TA participants from the three remaining schools in the first study took part in this part of the study. Since the remaining TAs were

mainly involved out of choice (though this cannot be known for sure due to the socio political nature of schools), the final sample was a volunteer non-probability sample. Cohen et al (2007) proposed that this type of sampling method is adequate in flexible designs provided that there is no intention to generalise to the population from the data and therefore sample sizes can be smaller.

3.3.4: Validity

Flexible designs have several threats to their validity but these are different types of threats than in a fixed design (Robson, 2002). Many of the threats are due to researcher mistakes or biases. These include:

- Description- incompleteness or inaccuracy of data
- Interpretation- imposing a framework on the data rather than allowing theory to emerge from the data
- Theory- not considering the alternative theories that could explain the data including respondent and researcher biases.

Many of these threats to validity are under the control of the researcher and if he/she is reactivity and reflective it is possible to reduce them.

3.3.5: Measures: Reaction to training

Since the EPS wanted to find out not only if the TAs could be trained to work with children that EP normally work directly with but also what factors affect TAs' learning and behaviour. Measures were chosen to explore TA perceptions relating to these aspects.

a. Immediate reactions to training

The first type of data collected to gauge reactions to the training was a county developed training evaluation sheet (see Appendix K). This contained both quantitative and qualitative data and had been piloted on other training courses to establish what worked well and how training could be improved. However, the two quantitative questions were not included due to the difficulties of analysis outlined in the fixed design section. The aim of this evaluation form was to inform improvement of training in the future. Therefore, it was formative rather than summative and for the purpose of this piece of research a more summative evaluation form might be more relevant (Robson, 2002). However, the evaluation of training has been a priority for the county and they are currently developing new evaluation tools. Therefore, the evaluation form used in this project may not have had the most appropriate questions for exploring the research question.

b. Reactions to training after implementing the intervention: Focus group interviews

"Interview research provides an opportunity to question the separation between individual and context, to ground accounts of experience in social relations" (Parker, 2005 p.53).

Interviews can be viewed as being on a continuum from the very structured quantitative focused interview which does not allow for any deviation from the set questions and categories to an informal conversational interview which is not guided by a set questioning sequence (Cohen et al, 2007).

A focus group is "a form of group interview that capitalises on communication between research participants in order to generate data" (Kitzinger, 1995 p.299). It is a process which elicits why people think, act and feel about a theme (Vaughn et al (1996). Focus groups are a type of structured interview as there is a set script to follow. However, they are more flexible than survey interviews as the questions are open ended and prompts may be used to aid discussion (Robson, 2002).

Advantages of focus groups

Vaughn et al (1996) argued that focus groups produce richer qualitative data than other types of interviews. Since they argued that group interviews often focus on consensus of opinion or problem solving and in individual interviews participants can sometimes feel pressured to answer all questions. However, in focus groups there is no pressure on participants as it focuses on obtaining all different perspectives. In addition, "focus groups are particularly useful when there is a lack of reliable and valid measures for obtaining information on a selected topic" (Vaughn et al, 1996, p.20). For example there is still debate about the reliability and validity of self efficacy scales (Dellinger et al, 2008).

Therefore, a focus group could be a useful tool to examine TA self efficacy following the different training methods and implementations of an intervention. Furthermore, Cohen et al (2007) suggested that the advantages of focus groups are that they:

- Can generate hypotheses and themes
- Are quick and low costing
- Can be orientated to a specific focus
- Can explore attitudes, values and opinions as well as group dynamics
- Utilise group dynamics to produce data

Disadvantages of focus groups

However, Hart (2005) argued that as with all interview data focus groups can be obtrusive and group think can develop. Furthermore, he suggested that the interactions in such groups are very artificial. In addition, Cohen et al (2007) asserted that the disadvantages of focus groups are that:

- Group size and the dynamic of the group can hinder the possible data that could be gathered
- Dominant members can over take quieter members
- Conflicts may arise
- The data may lack reliability and generalisability
- The moderator needs to be experienced
- They work better with relative strangers in the group

Furthermore, since focus groups have a specific focus it could be suggested that interpretation and theories that emerged from the data may

be affected by researcher bias. However, steps were taken to try and reduce this problem and these will be explained later.

The focus group interview was chosen because it allowed all participants to be interviewed and since they all shared the same experience it allowed for group reflection. Furthermore, since there is little research about TA self efficacy and training responses it allowed for possible theme and hypotheses generation.

Limitations of focus groups in the study

Vaughan et al (1996) argued that moderators of focus groups need experience to ensure everyone is involved and majority/ minority opinions are not over powering. Although the author has had experience of chairing meetings and dealing with group dynamics, it may have been necessary to gain more experience of moderating focus groups. Furthermore, the ideal size of a focus group is between six and eight participants, although they can be made up of between 4 and 12 participants (Krueger and Casey, 2000, Vaughn et al, 1996). However, there were only three TAs in the focus group interview in School A. Therefore, since this is considered too small for a focus group, this could have affected the data collected. Finally, the TAs were colleagues rather than relative strangers and this could have affected the dynamics of the group and the data that emerged.

3.3.6: Procedure

The TAs were given evaluation sheets to fill in immediately after the training and the focus group interviews were set up approximately two months after the training. The author utilised the methods discussed in Vaughn et al (1996), Krueger and Casey (2000) and Kitzinger (1995) alongside the research relating to training and self efficacy to produce a script for the focus group interview (see Appendix L). Within these focus groups the researcher set the ground rules for the group in advantage. This was due to the time constraints that were imposed by the school and the researcher was only allowed one 45 minute session in each school. The focus groups were recorded and this was transcribed (See example of the transcript in Appendix M). This should help discard the validity issue of description. Each TA was assigned a number to ensure anonymity and confidentiality of the data and the audio tapes were erased after requirement.

3.3.7: Analysis of data: Thematic analysis

To analyse qualitative data in this project a thematic analysis was to be carried out on the transcriptions. Braun and Clarke (2006) proposed that there are many different techniques of thematic analysis. They have argued that because of this, researchers have debated the validity of this type of analysis. Therefore, to reduce validity issues of interpretation and theory and therefore to ensure a robust analysis, the author followed the

steps outlined by Vaughan et al (1996) on how to analyse focus group interviews. The follow steps were used:

a) Coding data
b) Deciding on categories and inclusion criteria for these categories and placing quotes into envelopes
c) Reviewing these categories in an iterative process
d) Developing themes from these categories
e) A colleague completing these steps and the themes compared
f) Final themes developed

Chapter 4: Results Section

Before reviewing the results it may be helpful to restate the research question:

> What factors affect mainstream secondary school TAs' learning, behaviour and self efficacy?

4.1: Structure of results

To elaborate on the key concepts and foci that the TAs explicitly and implicitly alluded to from the four questions on the evaluation forms (EF), and during the focus group (FG) interviews, a thematic analysis was conducted. A concept map will demonstrate the relationship between all of the themes and subthemes that emerged. Following each theme will be a table of quotes to illustrate the theme. Furthermore, to demonstrate majority and minority views and which schools repeated these views, each subtheme will be followed by brackets indicating the number of TAs in each school that alluded to the subtheme. For example, the total number of TAs involved in the focus group (FG) and evaluation form (EF) in each school (School A=3, School B=5, School D=6).

These results will be divided into four sections:

- What learning occurred during the training
- Confidence of TAs
- Factors in the training that influenced learning and behaviour
- Factors affecting TA self efficacy

4.2: What learning occurred from training

To assess the learning gained by the TAs from the training, the comments made by the TAs from the evaluation forms and focus groups were evaluated. A thematic analysis was used to assess if there were any common themes. The three main themes and subthemes of the latter two themes are shown in figure 4.1. These themes and subthemes are then shown in tables 4.1 to 4.3.

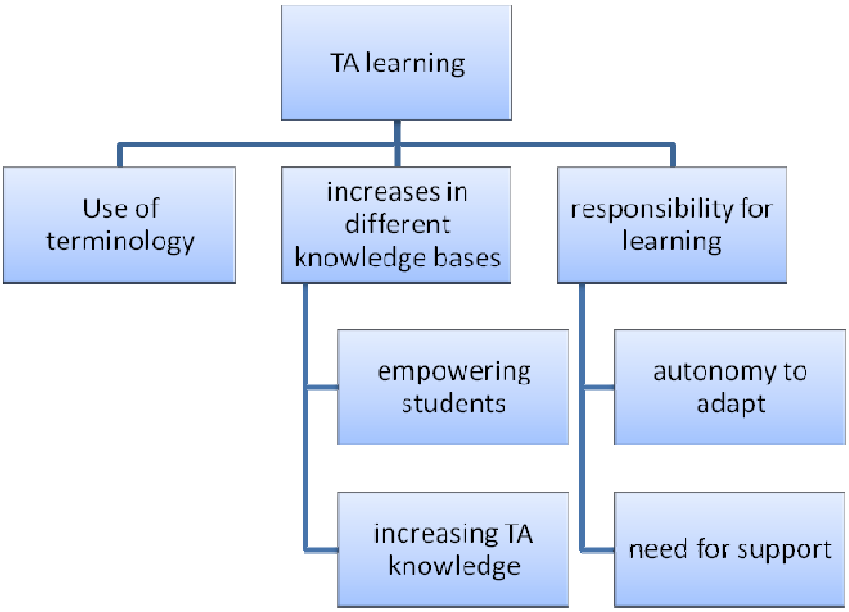

Figure 4. 1: Concept map of the themes and subthemes of learning

Table 4. 1: Use of terminology

Subtheme	Quote
Use of terminology	TA 3: *"did the assault cycle"* (FG) TA 2 : *"yes I've used the* ***assault cycle****… the* ***scales,*** *get an idea of the pupils' feelings"* (FG) TA 4: *"it has helped us to understand how* ***anger*** *works the* ***scale*** *because now when I see a child going off like that I consciously probably consciously think where are they in the* ***scale****"* (FG) TA 8: *"the* ***anger cycle****, knowing more about that is what helped a lot…you need to know what* ***stage*** *they are at"* (FG) TA 5: *"discuss with them to find out their* ***triggers****"* (FG) TA 10: *"The explanation of* ***Breakwell's Assault cycle****"* (EF) TA 14: *"The* ***anger curve*** *was very informative"* (EF)
Understand process but no terminology used	TA 12: *"I suppose understanding how they feel and the things build up and what you could do to help them take their mind off it and stop them reaching the peak point where they are and stop them reaching. So some understanding of that process a little bit more"* (FG)

Terminology was used within two of the three focus groups (A=2, B=4 see table 4.1). There was one occasion in the focus group in School D, where one of the TAs described the process but did not use any of the correct terminology used in the training. *Terminology* was used in some of the evaluation forms (A=1, B=5, D=5). To illustrate this theme further, figure 4.2 demonstrates how many times the TAs in each school used the

main terms and phrases that the trainer had used throughout the training session in the evaluation forms (EF) and in the focus groups (FG).

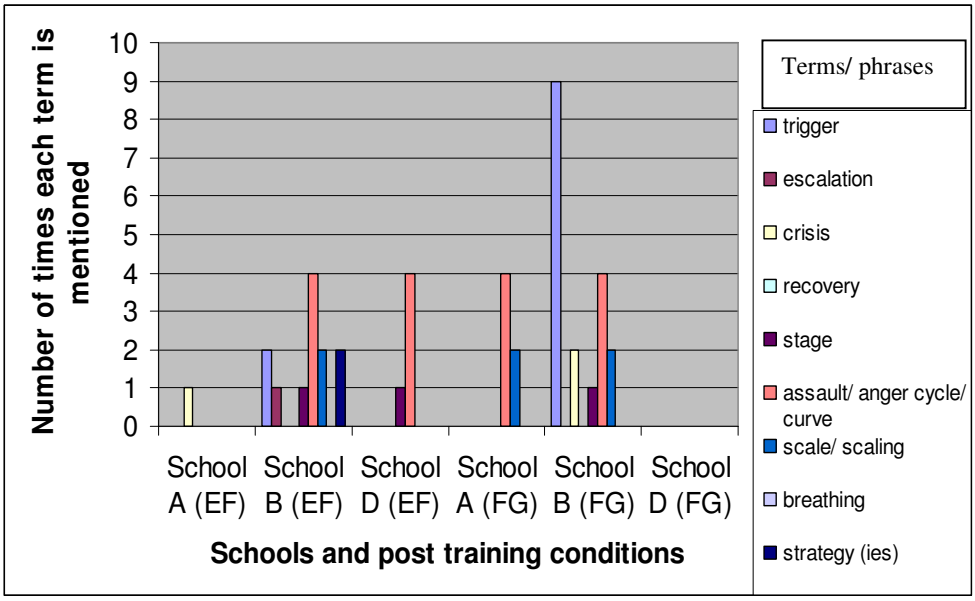

Figure 4. 2: A graph to show the frequency of the different terms used in the three schools in the evaluation forms (EF) and the focus group interviews (FG)

Figure 4.2 demonstrates that the TAs in School B used terminology to illustrate their answers in both the evaluation forms and in the focus group more than the other two schools. School D used some terminology in the evaluation forms that followed straight after the training, but they did not use any terminology in the focus group which took place two months after the training, whereas School A used more terminology to illustrate their answers during the focus group than they did in the evaluation forms.

Table 4. 2: Increasing different knowledge bases: Empowering students or increasing knowledge

Subtheme	Comment
Empowering students	*TA 2: "giving them the equipment for making their life easier (FG)* TA 3*: "Using these techniques we are empowering them to take responsibility for themselves, now even if it is in tiny little pieces or one particular lesson or aspect of their life or whatever but it's giving them choices, to know their choices… and the path that they're following"*(FG) *TA 6: "I enjoyed going over the anger cycle and look forward to going through this with the behavioural student that I work with"* (EF) TA 7: *"Ideas for working with students to identify themselves the triggers for anger and how to overcome them"* (EF) TA 4: *"I have more idea about how they can help themselves or whether they can help themselves"* (FG) TA 10: *"in retrospect… you could… repeat with them after the event when they are more calm and say analyse it then and go through that sort of process… that would be a good starting point to start them having some self awareness "* (FG)
Increasing TA knowledge	TA 8: "*New strategies to help with students who present anger issues"* (EF) *TA 10: "The explanation of Breakwell's Assault cycle"* (EF) TA 12: "*helpful pointers for dealing with young people with anger issues and helped me to understand better the stages" (EF)*TA 12: *"and what you could do to help them take their mind off it and stop them reaching the peak point where they are and stop them reaching… you haven't always got the chance or the opportunity to go over and start trying to being the person who is trying to calm them down"* (FG) TA 14: "*The anger curve was very informative giving you a better idea of what the child is going through so you can help them deal with it constructively" (EF)*

The second theme to develop relating to learning was increases to TAs' ***different knowledge bases*** (see table 4.2), whether the TAs had learnt strategies to ***empower students*** [FG (A=2, B=1, D=1) EF (B=2)] or whether they had ***increasing TA knowledge*** due to the training [FG (A=2, B=4, D=4), EF (B=1, D=2).

Table 4. 3: Responsibility for learning: Autonomy to adapt or the need for support

Subtheme	Quote
Autonomy to adapt	TA 1: *"we were able to build on it and change things*" (FG) TA 1: *"it just equips us better to work with different children because children have got ever changing need haven't they so we can get it out of our little tool bag kit"* (FG) TA 2: *"Fine tune it a little bit"* (FG) TA 2: *"if you feel you need to go that way, go that way if you're led that way follow it" (FG)* TA 3: *"It's almost like there's not particular right or wrong and I feel whatever we do, we are doing in the interests of the pupils and helping*" (FG) TA 5: *"it gives you foundations to carry on working on. It has given us the base work and then we can go off and do our own thing after that really"* (FG) TA 8: *"if you have two different children you were working with you would probably adapt it for them. It allows you that space that training programme because it is a matter of wording things as well."* (FG)
The need for support	TA 3: *"More scenarios presented for working"* (EF) TA 5: *"More detailed handouts"* (EF) TA 6: *"Would be good to have more handouts"* (EF) TA 10: *"Time to ask questions i.e. what do we do if….."* (EF) TA 13: "*Perhaps some case studies or examples with detail of students that have had an angry incident and how it was dealt with and more info on techniques"* (EF) TA 13: *"a more structured programmer rather than just the initial thing"* (FG) TA 10 *"to make sure that we're still doing it right so we haven't added because that can be easily be done adding bits on ourselves or forgotten to do parts, parts of it as well"* (FG)

The third theme that emerged from the data that related to learning was whether the TAs took *responsibility for their learning* (see table 4.3). Whether they had developed *autonomy to adapt* (FG: A=3, B=2, D=0) the material given or whether they felt *the need for support* [FG (D=2), EF (A=1, B=2, D=2).

4.3: Confidence of TAs

During the data analysis several TAs mentioned the confidence they had during their role as a TA. This theme is shown in table 4.4

Table 4. 4: Confidence of TAs

Theme	Quote
Confidence of TAs	TA 3: *"it is knowing that you can do it, you know and we sit down and have meeting and say we need someone to work with some student and you'll say I'll do that whereas maybe before, a year or eighteen months ago we would have waited to be told will you do that maybe"* TA 2: *"I'd be quite confident to pick up that pack have a quick flit through and then go and pull a student out and deliver it"* TA 8: *"I think you gave us the confidence to do it, more to intervene more because in the past it tended to be one or two people that intervened with children like C, you would think you can go deal with that, bless her she got all the work, whereas now you would think don't let her deal with that on her own more of us would go and help"* TA 9: *"putting into implementation was difficult, it was quite a false situation with some of the students you were talking they might be angry but they had not been for a while"* TA 10: *"the training was great and the training was valuable and interesting and again it is the implementation of it"*

Therefore, some of the TAs suggested that they had the *confidence in TA role* or to implement the intervention (A=2, B=1) and some TAs suggested that they did not have the confidence to specifically implement the intervention (D=2).

4.4: Factors in the training that influenced learning and behaviour

The four main themes and several subthemes emerged relating to factors in training that influenced the TAs' learning and behaviour. These themes are shown in a concept map in figure 4.3. They are also illustrated in tables 4.5 to 4.8.

Figure 4. 3: Concept map for the TAs' responses to the training

Table 4. 5: Confirmation/ reassurance from others

Subtheme	Quote
Group support	***Sharing ideas*** TA 1: *"because it was a small group… we were able to have discussions"(FG)* TA 1: *"yeah and we learn from each other all of the time, well I do" (FG)* TA 5: *"talking to people about their own experiences and what has/hasn't worked for them"* (EF) TA 4: *"well for me I couldn't have done it without C's worksheet thing today, I wouldn't have been able to it" (FG)* TA 11: *"I love the way there was discussion"* (EF) TA 10: *"you can talk to other people about things if have got a problem with a particular student you know you can resolve it by talking to someone who might have a different approach"* (FG) ***Emotional reassurance from colleagues*** TA 7: *"we were all thinking along the same lines, the same ideas and that, similar, I think that helped because sometimes you feel a bit isolated"* (FG) TA 7: *"in a room full of strangers …. you are worried about coming across stupid whereas when you are with your colleagues you all know one another"* (FG)
'Expert' information	***Reassurance from trainer*** TA 3: *"it kind of reinforced the strategies that we were already doing"* (FG) TA 8: *"you can see it goes in a cycle but you need the confirmation it does"* (FG) ***Visual information*** TA 3: *"we have examples put up on the wall"* (FG)

	TA 2: *"but it was visual as well"* (FG) TA 5: *"used the board things like that because I'm a visual learner, that helped me, I remembered more things"* (FG) ***Verbal information*** *TA 2: "this is what I do, this is why I do it, it helps it really does" (FG)* TA 10: *"The explanation of Breakwell's Assault cycle"* (EF) TA 14: *"The anger curve was very informative giving you a better idea of what the child is going through so you can help them deal with it constructively"* (EF) ***Practical information*** TA 11: *"practical such as the cup and the straw and worksheets"* (EF)

Within this main theme the TAs referred to different sources of ***confirmation/ reassurance from others*** (see table 4.5): their peers and from the trainer, this led to the subthemes, ***group support*** [FG (A=2, B= 4, D=1), EF (B=1, D=1)] and ***'expert' information*** [FG (A=2, B=2, D=2) EF (A=2, D=4)], respectively. Furthermore, ***group support*** was subdivided further into repeated ideas about ***sharing ideas*** [FG (A=2, B=4, D=1), EF (B=1 D=1)] and ***emotional reassurance from colleagues*** [FG (A=1, B= 2)]. ***Expert information*** was subdivided into repeated ideas of ***reassurance from the trainer*** [FG (A=3, B=1, D=1)], ***visual information*** [FG (A=2, B=1 D=1), EF (A=2, D=1)], ***verbal information*** [FG (A=1, B=3, D=4), EF (A=1, B=4, D=5)], and ***practical information*** [FG (A=1) EF (B=1, D=1)].

Table 4. 6: Iterative process of training

Subtheme	Quote
Time to try	*TA 3: "and also there was a long stretch between each session not like when you go to college for training, you feel like you have to have something done next week, yeah you know what I mean, you don't give it your best shot" (FG)* TA 1: *"the actual going off and doing it as I said I was terrified the first time"* (FG) TA 5: *"I remember coming out of the room and wanting to do some of the things with my student I came out really thinking oh I can't wait to try that with my student because I think that will work for him"* (FG)
Recap	TA 3: *"we started on change and we did that for a few weeks and then we had a break from it and did the assault cycle and then we came back to it, going back to it I understood it more"* (FG) TA 8: *"because that was the formulate that you did to carry on doing what we were doing to improve what we were doing without that we would have carried on with to the best of our abilities because no one else knew what we needed to do."* (FG) TA 10: *"but over a period of time it wouldn't be a bad idea to have just a quick little refresher just to remind you… to know… exactly you want us to get out of it and what exactly we were supposed to do it's not a bad idea to have a refresher every now and again"* (FG)
Making it personal	TA 2: *"and it was done over a period of time…. it's a bit more personal than one delivered to a hundred"* (FG)
Developing supportive relationships	TA 1: *"it has brought us closer together"* (FG) TA 3: *"and the mixture on that first day of C being very professional with big words and very calm and I can't explain it N being quite bubbly and loud between the two of them we were like, what have got into. that was just me"* (FG) TA 2: *"and it was done over a period of time, so we build relationships with you"* (FG)

	TA 5: *"I think the fact that we were comfortable with you doing it anyway and I felt that I could approach you and ask you anything."* (FG)

The second theme to emerge from the data referred to the ***iterative process of training*** (see table 4.6). This was divided into subthemes; ***time to try*** (A=2, B=1), ***recapping*** (A=1, B=1, D=1), ***making it personal*** (A=1) and ***developing relationships*** (A=3, B=1).

Table 4. 7: Involvement in the training process

Subtheme	Quote
Active involvement	TA 3: *"when you have a pupil in mind you can think, I can work with them"* (FG) TA 2: *"if you are open minded and you sort of take things down"* (FG)
Being prepared for training	TA 1: *"apart from the first one, I never forget the first one"*…..TA2 *"well we did not know about this. I don't know you were here"*… TA3: *"I'd been told, not said when though but because it had been said you, H and K are going to do some training, so like I knew that but I think it was the afternoon before and it was sort of like passing in the corridor"* (FG) TA 5: *"there were other times when we wasn't aware that we were coming in to do the training and we were given the last minute we'd be leaving at quarter to 4 and told you were coming in the next day for me personally I felt a bit oh ok. I'm not ready really but when it actually came down to it the training was fine but the fact that we wasn't sure about when you were coming in. It was a problem for me personally."* (FG) TA 7: *"and also there were some of the times that you could not make it because it was last minute and depending on the student that you were working with"*

The third theme to emerge from the data referred to the TAs ***involvement in the training process*** (see table 4.7) and this could be subdivided into two subthemes ***active involvement*** (A=2), ***being prepared for training*** (A=3, B=2).

Table 4. 8: Parameters of training

Subtheme	Quote
Timing	TA 1: *"time again, time always come up doesn't it"* (FG) TA 3: *"More time on delivery"* (EF) TA 8: *"More time for the course to be presented"* (EF) TA 10 *"Time to ask questions i.e. what do we do if….."* (EF) TA 12: *"the amount of time it wasn't one of those things that goes on for ages and you only get a certain amount of information. We got all of the information in over a short amount of time. I think we all took it in we all understood it"* (FG)
Venue	TA 2: "*the room"* (FG) TA 3: "*yeah it was good in a way that you came to us but sometimes if you have to go out of school, you get that area that you can't be contacted in. Because we were interrupted a few time well I wasn't particularly but you two were, weren't you"* (FG)

The final theme to emerge from the data referred to the *parameters of training* (see table 4.8) *a*nd this can be divided into; ***timing*** [FG (A=3, D=2), EF (A=2, B=1, D=1) and ***venue*** FG (A=2). Within the time subtheme, TAs referred to the amount of time spent on the training and also the time of day that the training took place.

4.5: Factors influencing TA self efficacy

Several themes relating to TA self efficacy emerged through the thematic analysis of the focus group. Figure 4.4 shows the concept map that developed. The themes and subthemes are also illustrated in tables 4.9-4.12

Figure 4. 4: concept map of TA self efficacy

Table 4. 9: Bandura's sources of information: previous experience

Subtheme	Quote
With the intervention	TA 1: "*the actual going off and doing it*" (FG) TA 2: "*I think doing it made a big difference to me"* (FG) TA 3: "*I can just pick somebody and just go and do it, it's just I don't know it's maybe the after the first one I don't know it just fills you with a bit more confidence"* (FG) TA 8: *"the second time I did think about it and get it right eventually"* (FG) TA 9: *"putting into implementation was difficult, it was quite a false situation"* (FG)
Relationship and knowledge of child	TA 2: *"they need continuity…. you can't be the person who has just an argument with some 11 year old about school uniform…. it's about putting on, it's an act"* (FG) TA 3: *"I've tried to stop talking to that particular young man because every time I do, I only ever see him on a negative and I've tried to stop that because really I should be his point of call if he needs any help you know what I mean"* (FG) TA 1: *"a TA is the one person in the school that could brighten that kid's day basically, they could build up a good relationship and they would enjoy coming to school and trying to please them"* (FG) TA 5: *"knowing what will work with them"* (FG) TA 8: *"you've got to try and get the child to trust you as they trust at home"* (FG) TA 12: *"it's just knowing that they can talk to you… it comes down to the rapport"* (FG) TA 13: *"you have to be a little bit careful about who you are working with"* (FG) TA 10: "*sometimes students dislike you don't get on with you let's say for the strangest*

	of reasons" (FG) TA 9: "*sometimes they don't rub off well on one teaching assistant… so it depends on the teaching assistant as well"* (FG) TA 13: *"it sort of lose your confidence when it's a very difficult students ... you start to think should I be doing this"* TA 13: *"you have maybe two or three situations maybe when you start and it is only after them that you think oh well I can do it"*
Helping other TAs	TA 1: *"going and showing the others how to do it….TA3: doing it as an INSET helped…. reinforced what we learnt"* TA 8: *"it does boost your confidence to think that you've helped somebody else"*

Figure 4.9(Continued): Bandura's sources of information: other influences

Subtheme	Quote
Learning from others experiences	TA 1: *"yeah and we learn them from each other all of the time, well I do"* TA 3: "*yeah it was really and we have examples put up on the wall and then you could sort of see and they were slightly varied they weren't the same and you could see and work out how you would do it"* TA 5: *"used the board, things like that because I'm a visual learner, that helped me, I remembered more things, like when you did the cycle on the board that helped me"* TA 4: *"well for me I couldn't have done it without C's worksheet thing today"* TA 8: *"I think it is because you'd seen how someone else works doing it, and everybody learns from everyone else"*
Verbal persuasion	TA 2: *"this is what I do this is why I do it, it helps it really does"* TA 8: *"the training programme itself and the anger cycle, knowing more about that is what helped a lot"* TA 5: *"working in the small group situation as well… you can hear different points of view… someone might have done something else that you have not thought about and you can think hang on a minute that could work for my student"*
Emotional and physiological state	TA 3: *"it depends on how many (rubbish) days you have… you kind of think why am I putting myself through all this stress"* TA 2: *"yeah it depends on how drained you are… you could have had a bad day and you wouldn't have been in there quite as long or a rough day when you just need a break and walked past the toilet"* TA 1: *"because I knew I did not have to rush off… I could give my time… if I had been timetabled in a lesson then that wouldn't have happened"* TA 1: *"I was terrified the first time"* TA 8: *"It makes you feel a little bit more able to deal with it"*

The first theme to develop relating to self efficacy related to ***Bandura's sources of information*** (see table 4.9). This could be subdivided into subthemes: ***previous experiences; with the intervention*** (A=3, B=3, D=2), ***previous experiences; relationship knowledge of students*** (A=3, B=4, D=5), ***helping other TAs*** (A=3, B=2), ***watching others*** (A=3, B=1), ***verbal persuasion*** (A=3, B=2, D=3), ***emotional and physiological state*** (A=3, B=3). TAs from all three schools referred to the importance of experience on their confidence. TAs from Schools A and B also referred to watching others, verbal persuasion and emotional and physiological state.

Table 4. 10: Outcome expectations

Subtheme	Quote
Make a difference	***Later*** TA 4: *"it will rub off, hopefully they will take it on into their adult life"* TA 10: *"sometimes maybe it won't happen now, it maybe later on in life they remember something you have said"* ***a little difference*** TA 1: *"yeah I agree but you have to try hard, I was in the boys toilets for twenty five minutes the other day trying to get a student out and I did it I was chuffed"* TA 5: *"it is going to have some kind of input into their life even if they think it is a negative or a positive"* TA 4: *"we might not make a huge difference but you are showing them the other side of things"* TA 8: *"I think you can get through to them you can't necessarily change them but you can get through to them"*
Contextual	***Age of child*** TA 13: *"I think the older ones understand that but some of the younger ones don't sort of always see where they're gone wrong"* ***Depending on home support*** TA 10 *"I think you can contain behaviour in school to a point but you don't, can't always change someone's core values because they are given by the parents"* TA 12*: "yeah I think you can at school definitely but then it they go home and their parents are saying what a load of rubbish or you don't have to listen to them"* ***Depends on child's needs*** TA 4: *"I think the kid with autism, it's a lot more difficult than when their problems are more environmental"*

Making no difference	TA 4: *"there are some with autism that… you can never get through to"* TA 7: *"you can't win unless they want to I mean if the student is not going to change… no matter what you do or how much you bend over backwards for them"* TA 12: *"there are some students that no matter how hard you try, if they don't want to, they're to be in the right place haven't they"* TA 10: *"I think you have to actually be mentally ready for it. To accept you know help as a student and I don't think sometimes students are in the right place in their heads to accept however you try"* TA 13: *"you feel like you are getting nowhere and it can make you lose your confidence"*

The second theme to emerge relating to self efficacy related to the TA's ***outcome expectations*** of the children (see table 4.10). Whether they thought their involvement would ***making a difference*** (A=1, B=5, D=3), make a difference depending on ***contextual*** factors (B=2, D=4) or ***making no difference*** (B=2, D=3).

Table 4. 11: Whole school support and norms: organisational factors

Subtheme	Quote
Developing whole school norms	TA 2: "*This generation of children are going to be different from children twenty years ago and twenty years in the further forward"* TA 3: "*just keeping up to speed with it and putting on training… yes because we had the knowledge before it started in school"* TA 5: *"I think looking at the behaviour in school I think the school need to look at having people doing this kind of work with students"* TA 9: *"everyone could benefit from this not just teaching assistants, teachers or other members of staff so we are all on the same wave length"* TA 12: *"if it is an anger issue it should be rather than they just focus on the SEN children"*
Resources and support	TA 3: "*but that's staffing isn't it, that we need to sit down and sort that out"* TA 8: *"when there is just one person to deal with it, then it is just no good. The behaviour is just going to get worse"* TA 12: *"a room… you don't want to sit in the canteen and talk with people coming in and out. You can't do it in the corridors obviously; the LSU is often full, so where do you go?"* TA 13: *"when I did the intervention I had to just grab a classroom"*
Time pressures	TA 2: *"the student's timetable, you know, their gaps or the lessons you could pull them out of and with your frees, sometimes you're taking them out of the same subject, that's a negative really"* TA 3: *"last year… we were a bit more flexible… I was I had a bit more time personally being able to do it, well this year with change of staff and such like and more responsibilities, I haven't done any"*

	TA 1: *"it is building and building at the minute"* TA 7: *"we did not have enough time"* TA 5: "*yeah we have a full timetable, so it would be nice to have sometime maybe an hour a week just to sit down and go through this work and actually get time to sit down with the student and not having to squeeze it in here and there but other than that it would have been a lot better"* TA 8: *"you've that feeling that you should be in a lesson come on move it we shouldn't be here, it's part of the job but unfortunately it stops you working"*

The next theme to develop relating to self efficacy related to whole school support and norms ***developing whole school norms*** (A=3, B=3, D=3 see 4.11), ***resources and support*** (A=3, B=3, D=3), ***time pressures*** (A=3, B=4, D=2).

Table 4.11 (continued): Whole school support and norms: value of TAs

Valued by teachers	TA 3: *"once they have sent someone out of their lesson and their lesson goes well they will sent them out again and you kind of make a rod for your own back because if you have got work out of them then you take that back, they think I've had a lovely lesson, they have got some work done, why not do that again"* TA 8: *"unless someone listens to us and we say… we're not going to actually achieve anything from this even though we feel we are doing well"* TA 7: *"that's the problem we can say something and then sometimes it doesn't make a difference we are undermined on a regular basis"*
Valuing self within organisation	TA 1: *"(pay) doesn't affect how I do my job but it is beginning to affect how I feel…. TA2: I think it does particular"* TA 1: *"I think it is just because you are on a continual learning curve that you feel you come across something different"* TA 2: *"the staff that earn a lot of money come and work in our this building here don't interact with the children at all … do they need to go on a course that which encourages them to work with you know the kids with the challenging behaviour"* TA 2: *"it's an open book really isn't it and its evolving, it's up to the individual what they want to do how far they would want to take it"* TA 3: "*but if you were teaching a lesson you would go and do your lesson, wouldn't you. Maybe we (should) do that it is what we are doing and we will do it. Allocate that hour"* TA 5: *"I've heard so much of them (student) in the staffroom… I'm not going to listen to anything people told me it's up to me I'm going to make my own mind up."* TA 5: *"being able to stand up to those higher above you… personally I've found that I've said my part and I've done my bit I've done what I can do… we should then have some of the responsibility as to how their punishment is dealt with… we should be more in the frame"* TA 10: *"what we are capable of and have the experience and qualification to actual to deal with some students need so much more than we can offer in a school situation"*

The within this last theme was the subthemes relating to valued to the perceived value of TAs: ***valued by teachers*** (A=2, B=3) and ***valuing self within the organisation*** (A=3, B=2, D=3).

Chapter 5: Discussion section

This section will consider the themes outlined in the results section from the evaluation forms and focus groups and how these reflect the literature review. This will be followed by methodological issues regarding the evaluation forms and focus group and person learning outcomes from the project.

5.1: Learning achieved through training

The themes that emerged from the evaluation forms and focus group interviews indicated different levels of learning demonstrated by the TAs. Three main themes emerged; *use of terminology, responsibility for learning* and *increase of different knowledge bases*.

Use of terminology

This theme emerged specifically related to the anger management input, since a number of TAs in all of the schools used terminology that the trainer had used in this training session. With terminology used straight after the training in the evaluation forms

TA 10: *"The explanation of* ***Breakwell's Assault cycle.****"*

and two months after the training in the focus groups

TA 8: *"the **anger cycle**, knowing more about that is what helped a lot…you need to know what **stage** they are at."*

TA 5: *"discuss with them to find out their **triggers.**"*

It could be argued that the one off INSET and the coach consult method contained sufficient information to ensure acquisition of information and there was also some maintenance of this information by some of the TAs. The maintenance of information may only have occurred in the Coach Consult Method as terminology was only used by some TAs in School A and School B. However, one TA in School D seemed to have some understanding of the process but without using terminology.

TA 12: *"I suppose understanding how they feel and the things build up and what you could do to help them take their mind off it and stop them reaching the peak point."*

Therefore this theme could reflect adult learning theories such as the hierarchy of learning from behavioural psychology (Tennant, 1997). As some of the TAs have acquired and maintained the knowledge from the training. It should be noted that not all of the TAs in all three training conditions used terminology in their evaluation forms or the focus groups. With such a small sample size, it is not possible to conclude that different models of training ensure different outcomes on the hierarchy of learning.

Increase to different knowledge bases

The second theme that emerged from the data related to which knowledge base the TAs were drawing from. Some of the TAs referred to specific knowledge that they had gained to *increase their own knowledge* of the students' behaviour when they are angry.

> TA 14: "*The anger curve was very informative giving you a better idea of what the child is going through so you can help them deal with it constructively."*

> TA 12: *"and what you could do to help them take their mind off it … you haven't always got the chance or the opportunity to go over and start trying to being the person who is trying to calm them down."*

However, some of the TAs referred to *empowering the students* to help themselves to deal with their own anger.

> TA 3*: "Using these techniques we are empowering them to take responsibility for themselves, now even if it is in tiny little pieces or one particular lesson or aspect of their life or whatever but it's giving them choices, to know their choices… and the path that they're following."*

> TA 10: *"in retrospect… you could… repeat with them after the event when they are more calm and say analyse it then and go*

through that sort of process… that would be a good starting point to start them having some self awareness."

This theme seems to relate to what Miller (2003b) stated as Knowledge Base I and Knowledge Base II skills. Knowledge Base I (KBI) is a flexible knowledge of interpersonal relationships and the mutual exchange of dialogue to open up the avenues of conceptual change, whereas Knowledge Base II (KBII) is the expertise of strategies and child psychology. Therefore the *empowering the students* subtheme would reflect the KBI skills and the *increase their own knowledge* subtheme would reflect KBII skills.

Responsibility for learning

A theme that emerged during the evaluation forms and the focus groups related to TAs' perceived responsibility for their learning. Some TAs referred to *needing more support* from the trainer.

TA 3: *"More scenarios presented for working."*

TA 6: *"Would be good to have more handouts."*

TA 10 *"to make sure that we're still doing it right so we haven't added because that can be easily be done adding bits on ourselves or forgotten to do parts."*

However, some of the TAs referred to having the *autonomy to adapt* the materials for the students.

> TA 1: *"we were able to build on it and change things.*"

> TA 3: *"It's almost like there's not particular right or wrong and I feel whatever we do, we are doing in the interests of the pupils and helping.*"

> TA 8: *"if you have two different children you were working with, you would probably adapt it for them. It allows you that space that training programme because it is a matter of wording things as well."*

This would support Merriam et al's (2007) argument, that self direction and humanistic psychology are important influences in adult learning. However as the subtheme the *autonomy to adapt* was only suggested by some of the TAs, then self direction may only be possible for adults in particular training conditions (Merriam et al, 2007). Therefore for some of the adults in the research, the context of the training may not have been right for self direction.

The different perspectives from the themes may have been influenced by different aspects of the different training models e.g. the coach consult

method aimed to develop KBI skills and help TAs adapt their skills for different individuals.

The three learning subthemes may indicate what learning may help TAs in their role:

- Developing their own knowledge of child psychology and interventions (KBII) including their understanding of the anger process and the necessary psychological terminology.
- Learning should be acquired and maintained.
- Developing their interpersonal skills to work with students (KBI).
- Empowering TAs to develop their sense of responsibility and power in schools.

However, the learning that was achieved may be due to other factors. Before considering what factors may have affected the TAs' learning a theme relating to TAs' confidence emerged.

5.2: Confidence of TAs

Some TAs referred to feeling confident to implement the intervention. This seemed to depend on whether they had control over the choice of students and when they could do the intervention

> TA 2: *"I'd be quite confident to pick up that pack have a quick flit through and then go and pull a student out and deliver it."*

Or not

> TA 9: *"putting into implementation was difficult, it was quite a false situation with some of the students you were talking they might be angry but they had not been for a while."*

Other TAs suggested that their confidence had been influenced by the training/ trainer

> TA 8: *"I think you gave us the confidence to do it"*

This theme may indicate that TAs require more independence in their role and appropriate training to help them feel more confident.

Differences in learning and confidence levels may be due to the different training conditions or individual differences. Some of the subthemes such as maintenance of *terminology, empowering the student* and *autonomy to adapt* seemed to be implied by more TAs in the coach consult method condition. Although it is not possible to conclude that this method improved learning in TAs. By exploring the themes regarding training, it

may be possible to state what factors may help to develop learning. Therefore themes that related to the factors of training that helped developed learning will be reviewed followed by factors relating to TA self efficacy.

5.3: Factors in training that influence learning and behaviour

Training and adult learning

The themes from this project support the previous literature that indicated how different paradigms of psychology can be involved in adult learning. In particular, the responses from the TAs support the literature that the psychology of adult learning is influenced by multiple psychological paradigms (Merriam et al, 2007, Tennant, 1997). From the thematic analysis of the evaluation forms and the focus groups interviews, four main themes were implied by the TAs that related to the training methods used which helped to develop their learning; *confirmation from others, iterative process of training, involvement in the process* and *parameters of training.*

Confirmation from others

Some of the TAs stated that *group support* for *sharing ideas* was helpful.

> TA 1: *"because it was a small group… we were able to have discussions."*

> TA 5: *"talking to people about their own experiences and what has/hasn't worked for them."*

This subtheme could reflect the socio cognitive theory that learning developed within a social context. Alternatively it could reflect the

constructivist perspective that learning occurs when it is scaffolded by others.

Some of the TAs also made reference to having *group support* for *emotional reassurance*.

> TA 7: *"in a room full of strangers …. you are worried about coming across stupid whereas when you are with your colleagues you all know one another."*

This *emotional reassurance from colleagues* subtheme could refer to the psychoanalytical or socio cognitive theories. Merriam et al (2007) asserted the importance of emotions in acquisition of knowledge.

TAs from all schools suggested that confirmation from *expert information* was present in all training conditions, with TAs making reference to both *visual information*

> TA 3: *"we have examples put up on the wall."*

> TA 2: *"but it was visual as well."*

and *verbal information* available in the training.

> *TA 2: "this is what I do, this is why I do it, it helps it really does."*

> TA 10: *"The explanation of Breakwell's Assault cycle."*

Furthermore, some TAs made reference to *practical information* in the training conditions

> TA 11: *"practical such as the cup and the straw and worksheets."*

The TAs' reference to different types of expert information; *visual, verbal* and *practical* could reflect theories of cognitive and learning styles and supports Tennant's (1997) argument that cognitive styles should be a consideration in all adult training. The TAs seemed to actively refer to the styles that match their learning styles and how these helped them to learn.

In addition some of the TAs made reference to *reassurance from the trainer.*

> TA 3: *"it kind of reinforced the strategies that we were already doing."*

> TA 8: *"you can see it goes in a cycle but you need the confirmation it does."*

This subtheme may reflect theories such as scaffolding by others as well as behavioural psychology theories such as reinforcement (knowledge of results) and in this overall theme of ***confirmation by others*** could reflect social reinforcement from others referred to in the behaviourism paradigm. TAs may need a social training environment to aid their learning. Therefore training environments should involve chances for interactions with their colleagues and group discussions.

The second theme, the ***iterative process of training,*** was only indicated by some of the TAs in School A and School B. They cited four main subthemes within the iterative process which were present in the coach consult model, these were:

- *time to try,*

  TA 3: "and also there was a long stretch between each session not like when you go to college for training, you feel like you have to have something done next week, yeah you know what I mean, you don't give it your best shot."

  TA 1: *"the actual going off and doing it as I said I was terrified the first time."*

This subtheme reflects 'experiential learning' from the constructivist paradigm as TAs develop their understanding from their practice and practical experiences.

- *recapping*

  TA 3: *"we started on change and we did that for a few weeks and then we had a break from it and did the assault cycle and then we came back to it, going back to it I understood it more."*

  TA 8: *"because that was the formulate that you did to carry on doing what we were doing to improve what we were doing*

without that we would have carried on with to the best of our abilities because no one else knew what we needed to do."

This subtheme may reflect the reflective learning concept referred to in constructivist psychology.

- *making it personal*

  TA 2: *"and it was done over a period of time…. it's a bit more personal than one delivered to a hundred."*

This subtheme also reflects concepts in constructivist psychology as it could reflect the concept of scaffolding as the trainer develops the training to the needs of the individual.

- and *developing relationships*.

  TA 2: *"and it was done over a period of time, so we build relationships with you."*

  TA 5: *"I think the fact that we were comfortable with you doing it anyway and I felt that I could approach you and ask you anything."*

This subtheme as well as the making it personal subtheme could reflect the socio cognitive or psychoanalytical theories as it is restating the importance of the social and emotional contexts of learning.

The overall theme may indicate that TAs' learning could be supported with a spiral curriculum which can be developed through developing a relationship between the trainer and trainee and understanding TAs' individual needs.

Contextual issues affecting training and learning

The responses from the TAs also referred to other elements of training that can affect their learning. The third theme to emerge from the data referred to TAs *involvement in the process*. Some TAs referred to their *active involvement* in the training as helping them to learn

> TA 3: *"when you have a pupil in mind you can think, I can work with them."*

> TA 2: *"if you are open minded and you sort of take things down."*

This subtheme could again refer to the constructivist theory and in particular reflective learning.

Some other TAs referred to *being prepared for training* by having enough notice from their SENCo.

> TA 1: *"apart from the first one, I never forget the first one"*…..TA2 *"well we did not know about this. I don't know you were here"*… TA3: *"I'd been told, not said when though but because it had been said you, H and K are going to do some*

training, so like I knew that but I think it was the afternoon before and it was sort of like passing in the corridor."

TA 5: *"there were other times when we wasn't aware that we were coming in to do the training and we were given the last minute we'd be leaving at quarter to 4 and told you were coming in the next day for me personally I felt a bit oh ok. I'm not ready really but when it actually came down to it the training was fine but the fact that we wasn't sure about when you were coming in. It was a problem for me personally."*

Finally, the last theme to emerge was *parameters of training*, such as *timing* and *venue*. TAs from all three schools referred to there not being enough *time* for the training, although one TA in School D referred to there being the right amount of *time* for the training. In addition, some of the TAs from School A also stated that the *time* of day that the training took place affected their learning and concentration.

TA 1: *"time again, time always come up doesn't it."*

TA 3: *"More time on delivery."*

Furthermore, all of the TAs in School A referred to the *venue* and how they would have liked at least one session to have taken place away from the school.

> TA 3: "*yeah it was good in a way that you came to us but sometimes if you have to go out of school, you get that area that you can't be contacted in. Because we were interrupted a few time well I wasn't particularly but you two were, weren't you."*

Being prepared for training and the final theme seem to reflect organisational psychology theories such as those stated in Quinones' (1997) model. Participation and framing are contextual factors important for successful training (Quinones, 1997). The TAs who implied the need to *be prepared for training*, referred to others in the organisation not informing them about having the training. This may not have allowed the training to be 'framed' correctly to the TAs which could have influenced how they felt in the training sessions. Furthermore, this could indicate the level of participation the TAs have in the school organisation. In addition, TAs in all schools implicated that the *parameters of training,* such as *timing* and *venue*, can affect their learning. Some of these parameters may reflect how physiological aspects such as their body clock/ bloody sugar levels may affect their concentration where as others aspects such as not given a nice venue or given enough time may reflect how valued they feel within the school and therefore affecting their emotional levels when trying to learning. Therefore these last two themes draw attention to the importance of biological psychology and organisational psychology theories in adult education literature and training.

Models of adult learning supported by the research

The general theme of the *iterative process of training*, in particular supports Jarvis's (2006) model of human learning, as this suggests that learning takes place in an iterative process. The subthemes could also reflect the elements of this model, as *time to try* is an 'action' and *recapping* involves 'thought/ reflection'. Furthermore other subthemes could be incorporated in this model as *emotional reassurance from the colleagues* and *developing relationships* could reflect 'emotion' and *active involvement* could reflect 'thought/ reflection'. Merriam et al (2007) argued that this is a relatively new model of adult learning and therefore more research should be conducted to evaluate this model. However, the results from this project seem to support the concept that learning occurs in an iterative process and the different psychological concepts that are part of this process. The data could also draw the focus of researchers and trainers to training methods that may support learning through constructivist methods such as experiential learning, reflective practice etc. Furthermore, it is important to keep in mind other theories of psychology such as cognitive styles, reinforcement, socio cognitive and psychoanalytical theories.

5.4: What factors following training affect TA self efficacy

From the focus group data factors that may help to increase TA self efficacy have been explored. The thematic analysis supported three main influences on self efficacy; *Bandura's (1977) theory of sources of information, outcome expectations* and *organisational norms and support.*

Some aspects of ***Bandura's (1977) sources of information*** theme relates to a certain extent to the features of the training that affected self efficacy, which supports Sachs' (1988) argument that Bandura's (1977) sources of information can be adopted in teacher training. As Bandura (1997) argued that performance accomplishment has the biggest effect on self efficacy. The majority of TAs referred at some point to *previous experience with children* as affecting their behaviour. The most common response in this category related to the relationship they have developed with children, with many stating that if they or others had a positive relationship with children, they were more likely to be successful. They also stated that knowledge of the child helped them to be successful.

TA 3: *"I should be his point of call if he needs any help."*

TA 5: *"knowing what will work with them."*

TA 12: *"it's just knowing that they can talk to you… it comes down to the rapport."*

TA 13: *"you have to be a little bit careful about who you are working with."*

Some of the TAs also stated that the *experience they had in this specific intervention* effected their behaviour.

TA 8: *"the second time I did think about it and get it right eventually."*

Whereas one TA in School D stated that she found the situation false.

TA 9: *"putting into implementation was difficult, it was quite a false situation."*

Additionally, TAs referred to *helping others* with the intervention as increasing their confidence. The TAs in School A all referred to the cascade training they provided to other TAs.

TA 1: *"going and showing the others how to do it….TA3: doing it as an INSET helped…. reinforced what we learnt."*

and two TAs in school B mentioned how helping others made them feel more confident.

TA 8: *"it does boost your confidence to think that you've helped somebody else."*

Several of the TAs also referred to how *learning from others,* vicarious learning made them feel more confident to do the intervention and the TA role in general.

> TA 1: *"yeah and we learn them from each other all of the time, well I do."*

> TA 4: *"well for me I couldn't have done it without C's worksheet thing today."*

> TA 8: *"I think it is because you'd seen how someone else works doing it, and everybody learns from everyone else."*

Many of the TAs mentioned how *verbal persuasion* from the trainer or the other TAs had affected their confidence.

> TA 2: *"this is what I do this is why I do it, it helps it really does."*

> TA 5: *"working in the small group situation as well… you can hear different points of view… someone might have done something else that you have not thought about and you can think hang on a minute that could work for my student."*

and several also mentioned how their *emotions or physiological state* affected their confidence with the intervention and with the job in general.

> TA 1: *"I was terrified the first time."*

TA 2: *"yeah it depends on how drained you are… you could have had a bad day and you wouldn't have been in there quite as long or a rough day when you just need a break."*

This theme did not state specifically which source of information was most powerful for the TAs or whether all of the TAs were influenced by all four areas. However, since there was a reference to all four sources of information it can be assumed that they had some effect on the TAs confidence, behaviour and self efficacy. These subthemes could be explored further to reflect not only the sources of information but also the modes of induction referred to by Bandura (1977). However, some modes of induction have been implied in the training factors subthemes.

The ***outcome expectations*** referred to what difference the TAs believed that the TA role could have on students. This varied between the TAs and for some of the TAs they contradicted themselves. For example, some of the TAs stated that they could make a difference but that this depended on the context. Different TAs referred to different *contextual* factors that effected whether they could make a difference or not.

One TA stated that the age of the student meant that she could not have an effect.

> TA 13: *"I think the older ones understand that but some of the younger ones don't sort of always see where they're gone wrong."*

Whereas another TA stated that she could make a difference if the problem was due to the home environment, but she might not be able to make a difference if the student had autism.

> TA 4: *"I think the kid with autism, it's a lot more difficult than when their problems are more environmental."*

Some TAs stated they could make a difference if they had home support.

> TA 10 *"I think you can contain behaviour in school to a point but you... can't always change someone's core values because they are given by the parents."*

> TA 12*: "yeah I think you can at school definitely but then it they go home and their parents are saying what a load of rubbish or you don't have to listen to them."*

However, other TAs stated that they could make a difference. Though, the difference might be quite small or only happen when the student grows up.

> TA 4: *"it will rub off, hopefully they will take it on into their adult life."*
>
> TA 5: *"it is going to have some kind of input into their life even if they think it is a negative or a positive."*

Finally there were some TAs who referred to making no difference.

> TA 7: *"you can't win unless they want to I mean if the student is not going to change… no matter what you do or how much you bend over backwards for them."*
>
> TA 12: *"there are some students that no matter how hard you try, if they don't want to, they're to be in the right place haven't they."*

This theme supported the literature on teacher self efficacy (Denzine et al, 2005, Skaalvik and Skaalvik, 2007) and Bandura's (1977) original theory, which suggested that self efficacy is partly influenced by outcome expectations. Although some of TAs' outcome expectations seem to have some similarities, specific details of these outcome expectations are very individual. Therefore TA self efficacy appears to be influenced by what outcome expectations they believe they can achieve but there is no one set TA outcome expectation for all TAs. These outcome expectations

seem to be influenced by different factors as well. Firstly, they seemed to be influenced by how much they themselves can influence a change. For example, whether the TA role itself can make a difference.

TA 12*: "yeah I think you can at school."*

Or whether it is luck or determination/ effort that could make a difference

TA 4: *"it will rub off."*

TA 7: *"you can't win."*

Similarly, they seem to be influenced by their values or concepts about how children change. Whether children change due to their age, maturation, home background or genetic composition or whether change is possible at all. These values and beliefs could highlight TAs' attributions regarding children's behaviour and seems similar to the teacher attribution theory suggested by Miller (2003b).

This data would seem to indicate that there are individualise perceptions and values that the TAs are bringing to the role. Each TA employed in a school may have a very different view of how much influence they can have with the children. One TA may think they can make no different and others may think they can only make a difference in certain contexts. It may be necessary for schools to explore these values and challenge unhelpful beliefs. Furthermore, TAs outcome expectancies may change depending on their experiences in their role as implied earlier as TAs' confidence may be affected by their sense of control and this will depend on the school environment. This concept leads to the last subtheme.

Whole school support and norms referred to the organisational factors that affected the TAs self efficacy. Many of these factors can be seen in the contextual factors referred to in Quinones's (1997) model, since they refer to the organisational climate and the value of the TAs within that climate. There were several subthemes which referred to organisational issues that would hinder TAs' confidence and self efficacy. Although there were common themes, the whole school support needs and focuses of the different schools seemed to be quite individual and reflected the individual nature of each school organisation. TAs in all schools implied that their self efficacy would increase if whole school norms were developed through whole school training and development of practices.

> TA 3: "*just keeping up to speed with it and putting on training… yes because we had the knowledge before it started in school."*

> TA 5: *"I think looking at the behaviour in school I think the school need to look at having people doing this kind of work with students."*

This subtheme may highlight the importance for a school to develop as a learning organisation and for the TAs to be part of this.

Some of the TAs did not feel that there were enough *resources* in the school for them to successfully do their job.

> TA 3: "*but that's staffing isn't it, that we need to sit down and sort that out."*

TA 12: *"a room… you don't want to sit in the canteen and talk with people coming in and out. You can't do it in the corridors obviously, the LSU is often full, so where do you go?"*

Finally, TAs from all three focus groups referred to the *time pressures* that they have within the school and how this possibly impaired their performance.

TA 3: *"last year… we were a bit more flexible… I was I had a bit more time personally being able to do it, well this year with change of staff and such like and more responsibilities, I haven't done any."*

TA 1: *"it is building and building at the minute."*

TA 7: *"we did not have enough time."*

These subthemes may relate to Shapiro et al (1996) conclusion about whether developing self efficacy is always valuable in uncontrollable situations. All of the aspects referred to above, the TAs have little or no control over. As implied in the confidence section when TAs have control over a situation they feel confident. Therefore when TAs feel that the organisation has the same norms and a large amount of resources available then they may feel that they can make a difference and their self efficacy will be high. However, when there are conflicting values within the school and limitations of time and resources then they will feel less

able to control the situation and make a difference which would result in low self efficacy.

Other whole school support and norms subtheme reflected how they were valued by themselves and others in the school. Some TAs from School A and School B referred to *valuing themselves within the organisation* helped them to feel confident. Several of the TAs in School A felt that they did not get *paid* comparatively well for the good job they were doing.

> TA 1: *"(pay) doesn't affect how I do my job but it is beginning to affect how I feel…. TA2: I think it does particular."*

> TA 2: *"the staff that earn a lot of money come and work in our this building here don't interact with the children at all … do they need to go on a course that which encourages them to work with you know the kids with the challenging behaviour."*

This second quote could indicate that the TA values the 'hands on' role of working with children and possibly believes that higher paid staff do not value this role. Furthermore, some aspects of this theme support Russell et al (2005) data that suggested that TAs' job satisfaction was influenced by factors such as low pay.

In addition, within this subtheme, some TAs referred to valuing their own skills and learning as well as their own opinion.

TA 3: "*but if you were teaching a lesson you would go and do your lesson, wouldn't you. Maybe we (should) do that, it is what we are doing and we will do it. Allocate that hour."*

TA 2: *"it's an open book really isn't it and its evolving, it's up to the individual what they want to do how far they would want to take it."*

Many of the TAs in School B did not feel *valued by the some of the teachers*

TA 8: *"unless someone listens to us and we say… we're not going to actually achieve anything from this even though we feel we are doing well."*

TA 7: *"that's the problem we can say something and then sometimes it doesn't make a difference we are undermined on a regular basis."*

Whereas some of the TAs in School A referred to feeling valued and supported by teachers and how this helped them to feel confident in their role.

TA 3: *"once they have sent someone out of their lesson and their lesson goes well they will sent them out again and you kind of make a rod for your own back because if you have got work out of them then you take that back, they think I've had a lovely lesson, they have got some work done, why not do that again."*

As Quinones (1997) points out that when a person feels that they are not part of or valued within an organisation, the outcome of any training will be affected. However, TAs valuing themselves and their own opinions may not be completely influenced by others within the school or other organisational factors, but by previous experiences and personality traits. Therefore this may reflect Carlson et al (2000) argument that self efficacy models such include more emphasis on personality traits and early developmental history.

The subthemes about self efficacy that emerged may interact with each and could be depicted as shown in figure 5.1.

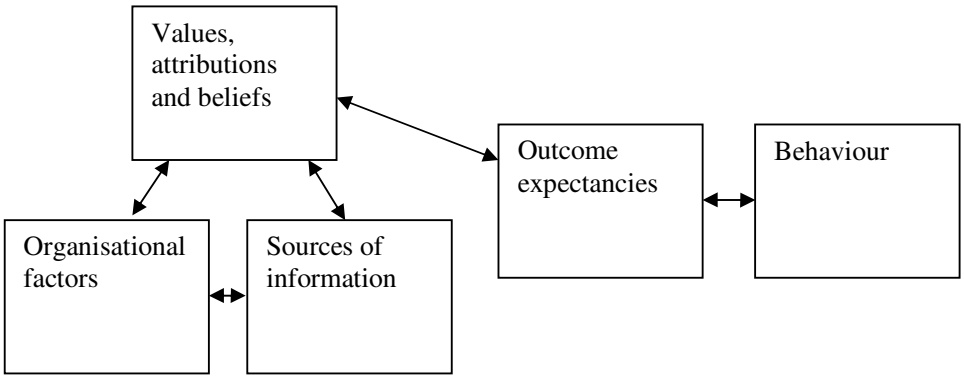

Figure 5. 1: Possible model for combining factors influencing TA self efficacy

5.5: Methodological issues for focus groups and evaluation forms

Before summarising and making conclusions about the data in the conclusion chapter, there are several methodological issues and personal learning outcomes to consider.

Quinones (1997) argued that learning from training should be maintained and generalised. In this study, the focus groups and evaluation forms were not specifically aiming at evaluating learning and there was no expectation during them to use terminology. The difference in the use of terminology between the TAs could be because of this lack of expectation rather than the differences in training and learning. However, Clayton (1990) used evaluation forms to check for acquisition and maintenance. Consequently, to strengthen the use of evaluation forms in this project, they could have been given as a follow up to try and establish maintenance. The focus group data did seem to establish maintenance of terminology to a certain extent, but the use of the same method would allow for easier analysis and comparison. Farrell and Sudgen (1984) used quizzes and questionnaires to establish learning. To further strengthen the data in this study, quizzes could have been used pre, post and follow up to establish acquisition and maintenance of knowledge.

The learning themes that emerged from the focus groups might not have been due to the training. The average level of experience in School A and School B was higher than the average level of experience in school D. Therefore skills in Knowledge Base I could be due to greater levels of experience or from previous training. Therefore baseline measures might have been helpful to discount this issue. However, since the sample size was too small it was not possible to compare training conditions.

EPs in previous research have also used various methods to establish learning and behaviour. The author would have liked to follow the example from Miller (2003a) and Farrell and Sudgen (1984) who established learning and behaviour by observing trained staff. Observations of the interventions opposed to the self report data that was collected to assess the fidelity of the interventions may have helped to establish whether the TAs knowledge Base I or II had been developed. Furthermore, observations pre and post training would help to evaluate whether TAs' behaviour had been affected by the different training methods. To establish generalisation of some of these skills, observations could be carried out in different conditions not just in the intervention.

As stated in the literature review, most of the researchers who have used evaluation forms have not specified what questions they asked and what type of data was gained from them (Balchin et al, 2006, Clayton et al, 1990 and Smith, 2001). Only Presland and White (1990) stated the questions they asked, and these were very similar to the questions used

on the evaluation form used in this project. Therefore, there has not been a great deal of research by EPs into what to include on evaluation forms and this could be an area for future development.

As stated in the methodology section, there are issues with using focus groups for this piece of research. Although focus groups aim to gain all perspectives from the whole group, with groups situations minority and majority opinions can dominate and not everyone's voice can be heard (Cohen et al, 2007). However, focus group researchers suggest that it is possible to prevent such issues by ensuring a suitable size of the group (between 4 and 12), the group should be relative strangers and the moderator should be experienced. However, in this project all TAs knew each other very well and the moderator was inexperienced. Additionally, one of the focus groups was only made up of three TAs. All of these factors could have affected the data gathered. For example, one TA in School B and School D did not contribute at all during the focus groups and there were dominant voices in both of these groups. The moderator gave everyone the opportunity to contribute but it is difficult to know whether they did not contribute because they had nothing to say or that they did not feel comfortable contributing with the dominant voices. However, time limits prevented further work on developing more productive group dynamics through working on group ground rules etc. Therefore for future focus groups, the author would not only want to gain more experience as a moderator but also ensure that group dynamics are productively developed. Alternatively, with more time individual

interviews could provide more in depth information about each TA's perspectives and reduce some of the issues with the data that the group dynamics may have caused.

Validity of the qualitative data in this project

Robson (2002) argued that there are three main ways in which qualitative data can be invalid. As stated in the methodology section the descriptive validity was ensured through audio taping and transcribing of the focus group data. Interpretation validity was also considered in the methodology section as the data coding was carried out by the author and a colleague. However, as the focus groups had a specific focus (the questions were influenced by the self efficacy framework), interpretation validity issues may not be completely discounted in this project. Likewise with theory validity, the author has considered different theories of motivation such as Expectancy χ (Vroom, 1964) and therefore the TAs may not have implemented the interventions due to the large *cost* of their time rather than a lack of self efficacy. Alternatively, some of the TAs may have been influenced by mastery (personal development) when they were involved in the training and therefore they implemented the intervention (Locke, 1968). However, as Reeve (2009) points out there are at least 24 mini theories of achievement motivation and therefore considering each theory with regards to the data can be very difficult.

Sample size, generalisability and developing self efficacy scales

Cohen et al (2007) stated that a small sample size is adequate when there is no intention to generalise to a larger population. However, qualitative data can have analytical generalisability. Therefore, the qualitative data gathered in this project could provide some insights into factors that help and hinder TAs' learning and develop their self efficacy. However, these factors cannot be generalisable to the whole TA population and to establish this generalisability a fixed design could be carried out.

One way to produce a fixed design and generalisability could be to develop a more specific TA self efficacy scale. Brouwers and Tomic (2001) stated that self efficacy scales should be domain specific and as argued it is debatable whether the scale used in this study was specific enough for evaluating TA self efficacy. Therefore, one future outcome from this research could be to use the themes that emerged from the focus groups to create a more TA specific self efficacy scale. There was a great deal of emphasis from TAs with regards to their relationships and knowledge of students and the organisational factors and norms that impinged on their feelings of self efficacy. Therefore, the results of this project support developing a TA scale based on a similar model to Cherniss (1993) three factor scale, the Teacher Interpersonal Self efficacy Scale, which specifically considered teacher self efficacy with regards to:

1. Interpersonal domain
2. Task domain

3. Organisation domain

However, much more research is necessary on the issue of TA self efficacy and teacher self efficacy before a robust TA self efficacy scale can be produced.

5.6: Personal Learning

As outlined in the methodology section, there were many issues with the design and implementation of the fixed designs. The author does not intend to repeat these issues in great deal but will summarise these along with the personal learning gained.

1. *Mixed methods approach*

This investigation aimed to build on the growing use of mixed methods within educational research. However, in practice the mixed methods design in this project became very complex and therefore for simplicity fixed and flexible designs were viewed separately. On the other hand if the project had produced enough valid quantitative data then it may have been possible to triangulate the data and this may have strengthened the project.

2. *Ethics*

Although the author was fully aware of the ethical procedures outlined by the BPS (2006) before implementation, she was not quite aware of how much "ethical considerations pervade the whole process of research" (Cohen et al 2007 p.57). Some ethical issues that became apparent through implementation led the researcher to conclude that these ethical issues were more important than the impact of the end research. Therefore the ethical issues seemed to have affected the data collection process and in turn any conclusions that could be made in the project.

3. Negotiation and ownership

The next important learning outcome from the research project regards the ownership and negotiation of the research within a school system. Balchin et al (2006) argued that training needs to be owned by the school and not the EP. However, a researcher should have some form of control over their data collection process. In this project too much ownership of the training was given to the schools and therefore control by the researcher was diminished. Ownership was further affected by the large number of EPs and interested parties in the schools involved in the project. It became confusing and the author may have lacked ownership of some aspects of the project. Therefore more time needed to be spent on the negotiation of the project than was given. Furthermore, clarification and re-clarification was needed when the new academic year started and new members of staff took over and this may have prevented some of the issues that arose.

4. Sampling

There were many important learning outcomes from this piece of research regarding the sampling process. Firstly, the author did not allow for redundancy within the sample for the pupils or TAs in one of the schools. Therefore when there was drop out of TAs and problems within the project the number within the sample became too small. Secondly, there was an ethical issue with the sample frame chosen for the pupil sample as there was an issue about whether some of the pupils actually needed an anger management intervention. With a larger sample it would

be possible to use a measuring tool to screen students who may need an intervention. However, this may still leave the ethical issue that children who are involved in an intervention such as anger management may be labelled as angry and this may create future problems for them in school. Finally, although random allocation was attempted with the pupil sample, leaving this with the SENCos to implement was problematic and therefore more control over the sampling strategy by the researcher may have been more effective. Furthermore, since only three schools were involved there is an issue about whether true random allocation is possible.

5. *Schools as organisations*

Another key learning point relates to the complexity of schools. Cohen et al (2007) argued that within such settings linear fixed designs may not ever be truly possible as linear causation and generalisation is not possible with so many variables involved in school systems. They proposed that complexity theory and non linear dynamics should be used to produce research designs.

6. *Training as a service delivery model*

Macleod et al (2007) suggested that pyramid style training could be an EP service delivery model. This was part of the reasoning behind the project due to limited numbers of EPs in the area. This project has not enabled evaluation of this premise. However it does suggest possible factors that would need to be considered such as ownership and the

difficulty of follow up levels. Furthermore, the data may also highlight the issues of dilation that Grant and Mindell (1989) argued was the difficulty with such a service delivery model. Since there was a possibility that not all of the TAs involved had maintained all of the knowledge they had learnt.

Chapter 6: Conclusion

This final chapter will review this study within the context of the literature review and suggest possible future research required for each section.

6.1: Anger management interventions

Evans et al (2004) stated that many children with a statement of special needs for emotional and behavioural difficulties are at risk of exclusion and violence is a common reason for exclusion. Therefore exploring anger management for this population of students could be helpful. However, it was not possible to evaluate the anger management intervention influenced by Lown (2001) due to the design and implementation issues. Therefore future research could be conducted with a larger more representative sample and with random allocation to evaluate this intervention. This intervention was based on the cognitive behavioural interventions and Gansle (2005) research showed that such 'within' child interventions only have a moderate effect. It has been suggested by the author that such moderate effects could be due to the differing aspects of the interventions meaning that it is not possible to adequately compare such interventions. However, as Southam-Gerow and Kendall (2000) argued 'within' child interventions are only going to be effective in limited situations because of the environmental context around the child. This context is referred to the 'storm' by Faupel et al

(1999) and can be viewed as Bronfenbrenner's (1997) ecological framework. In conclusion, as Kurtines et al (2008) suggested there should be more interventions focused on the top down systems and environmental cause of maladapted angry behaviour as well as the bottom up 'within' child interventions. Perhaps working more closely with TAs and teachers' self efficacy some of the school system and environmental cause of maladapted angry behaviour could be reduced.

Furthermore, as stated in the literature review anger can be an appropriate reaction to a threat and can be a useful means of communicating in some situations (Lown, 2001). Therefore work may need to be carried out in schools on understanding what children are trying to communicate. This may also lead to environmental rather than within child changes. In addition, other approaches such as motivational interviewing, solution focused therapy and person focused therapy may be more effective than cognitive behavioural anger management interventions. For example, motivational interviewing assumes that a person may not realise that they have a problem. Some of the TAs stated that some of the children they work with do not appear to think that they have a problem. Therefore evaluating other types of interventions may be helpful.

6.2: The psychology of training

The data in the project suggested relevant theories of psychology that can inform training methods. TAs in this study valued training based on:

- The constructivist model:
  - Experiential learning
  - Reflective learning
- Principles of the coach consult method
- Cognitive/ learning styles
- Emotional and social aspects of learning

The project also emphasised the importance of ensuring follow up after training of staff within schools and the development of TAs' knowledge based I and knowledge base II skills and their self direction skill through relevant training.

When originally contemplating the design of this project, the author had intended to develop a design which could explore and evaluate all outcomes of training as stated by Kraiger and Jung (1997). However as the project developed the complexity of such a design became apparent and therefore adaptation was necessary. In the end, it was only possible to explore TAs' reactions to the training, some learning gained and self efficacy. Holistic evaluation and exploration of training is essential. Training others to do a task can be like pouring red dye into an underground stream, after it has been through subsidiary channels. Often the original concept can become too diluted (metaphor by Miller, 2008). Therefore, the evaluation of training must ensure that knowledge and skills are not diluted as well as whether the training has improved the outcomes of children. Research which considers multi aspects such as these are very limited. Nevertheless, it is hoped that in the future it will

be possible to develop a research design that can be implemented that can evaluate all outcomes of training.

6.3: TA self efficacy

Kraiger et al (1993) argued that evaluating self efficacy can be important when evaluating training. Furthermore, Hammett and Burton (2005) stated the importance of increasing TAs' self esteem. Therefore, exploring the self efficacy of TAs is important. The project uniquely considered mainstream secondary school TA self efficacy and what factors could contribute to the development of their self efficacy. These factors included:

- Creating conditions in training such as: positive experiences, vicarious learning, verbal persuasion and positive physiological conditions
- Developing positive relationships with staff and child
- Developing whole school practices which include TAs
- Have the right amount of resources
- Perceived controllable outcomes for students

Several of these factors that could be used to develop a TA specific self efficacy scale. This scale could use the three themes that emerged in this project; Bandura's sources of information, outcome expectations and developing whole school norms and support.

6.4: The role, context and effectiveness of TAs in schools

The number of TAs in mainstream schools in the county continues to grow (DCFS, 2009). Research indicates that their roles are diverse and sometimes unclear due to the reasons behind the increased number of TAs; the inclusion and workforce remodelling movements (see Kerry, 2005; Moran and Abbort, 2002; Butt and Lance, 2006). Furthermore, with the latter movement a large number of TAs now have more responsibilities within schools (Brookson, 2006). Therefore with this increase it is imperative that research evaluates the effectiveness of TAs at improving outcomes for children and if effectiveness is shown it can contradict Tennant's (2001) 'illogical' argument for the employment of TAs in schools. The project also aimed to evaluate how effective TAs could be in the specific role of working with children with behavioural difficulties and at risk of exclusion (Rose and Groom, 2005) and build on previous research that has demonstrated that TAs can have an effect when using a specific intervention (Savage and Carless, 2005). However, due to design and implementation issues discussed earlier this was not possible. Therefore future research could be carried out to evaluate this role fully.

However, the data from this project may indicate what factors could help TAs to be effective in their role and what factors may help them to feel more empowered:

1. Develop a learning organisation/ whole school ethos
    - As Enderlin-Lampe (2002) suggests learning organisations that empower staff and promote self efficacy produce effective schools. The TAs in this study emphasised the importance of the school system on their effectiveness. Therefore, to help develop TAs' skills it may be necessary to develop a school into a learning organisation ensuring that TAs are fully part of this system.
    - EPs could help schools to develop whole school norms which include an ethos of equality and the valuing TAs.
    - EPs could help to develop a climate of group support within a school to help TAs share ideas and feel reassured. As Logan and Feiler (2006) suggested TAs could benefit from weekly group support and problem solving meetings.
    - To help TAs to feel valued in schools pay levels could be improved. This reflects Russell et al (2005) argument that conditions of service affect TAs' motivation and self esteem in schools.
    - The TAs in this study emphasised their need for control within their role and therefore schools should involve them in decisions about children they work with.

- EPs and schools should promote training and experiences that will develop TA self efficacy.

2. Challenge staff ideas about TAs
    - Challenge negative views of some teachers regarding TA roles and responsibilities.

3. Explore and challenge TAs' perceptions
    - Schools may need to explore TAs' primary values, beliefs and attributions about the children they are working with.
    - The TAs themselves may require some challenging of their values and views about how schools and the TA role can help children change.
    - Challenge TAs' perception of senior managers' role with children or ensure all staff work appropriately with children in schools.

In conclusion, there is still relatively little research into the ever increasing population of TAs and since they are becoming a fundamental part of school organisations, it is imperative that research exploring aspects relating to TAs and into their efficacy is carried out.

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Appendix A: TA Demographic Information Survey

1. Name

   _____

2. Position/ Job title

   _____

3. How long have worked in schools (this one and pervious schools) in your current role and any other previous supporting roles? (please circle)

   Less than a year 1-2 years 2-3 years 3-4 years

   4- 5 years 5-6 years 6-7 years 8-9 years 9- 10 years over 10 years

4. What is your current age? (please circle)

18-24 25-29 30-34 35-39 40-44 45-49 50-54 55-60 60 +

5. Please circle your gender

   Female/ Male

6. Please circle your ethnicity

White British White Irish White Other	Black African Any other Black background Black Caribbean
Mixed White & Black Caribbean Mixed White & Black African Mixed White & Asian Any other mixed background	Other
Indian Pakistani Bangladeshi Chinese Any other Asian background	

7. What is your first/ primary language?

   a) English

   b) Other (please state)

8. What qualifications do you currently have which you feel are relevant to your current job? (please state)

_____

_____

_____

9. Do you have any other qualifications which are not relevant for your job?

YES/ NO

a) If YES please state

_____

_____

_____

10. Are you currently working towards a qualification?

YES/ NO

a) If YES please state

_____

_____

_____

11. Have you been on the Local Authority run induction training?

YES/ NO

12. Have you had any other training related to behaviour management? YES/ NO

    a) If YES please state

_____

_____

_____

13. Have you had any other training related to anger management interventions?

YES/ NO

    a) If YES please state

_____

_____

Appendix B: Student Information Sheet

1. Name of student

   _____

2. School Action Plus or has a Statement for behaviour? (please circle)

   SCHOOL ACTION PLUS/ HAS A STATEMENT OF SPECIAL NEEDS

3. Date of referral _____

4. Date parental consent form was returned to school

   _____

5. Date when the Strengths and difficulties questionnaire was filled in by the student

   _____

6. Date when the Strengths and difficulties questionnaire was filled in by key worker/ teacher

   _____

7. Name of key worker/ teacher who filled in questionnaire

_____

8. Is the student going to be involved in the anger intervention this term or next term? (please circle)

THIS TERM/ NEXT TERM

9. Date of anger intervention

_____

10. Name of TA who is implementing anger intervention

_____

11. Any follow up sessions/ reinforcement given by TA involve? (please circle)

YES/ NO

If so what was covered?

_____

_____

12. Date follow up Strengths and Difficulties Questionnaire was give to student

_____

13. Date follow up Strengths and Difficulties Questionnaire was give to key worker/ teacher

_____

Inappropriate behaviour indicators

In the full week before the intervention was given what were the amount of indicators (referral, behaviour slips/ purple slips etc.) that this student was given.

_____

In the full week after the intervention what were the amount of indicators (referral, behaviour slips/ purple slips etc.) that this student was given.

_____

A month after the intervention what were the amount of indicators (referral, behaviour slips/ purple slips etc.) that this student was given in a full week.

_____

Appendix C: Example Information Sheet

****

Trainee Educational Psychologist

Doctorate in Applied Educational Psychology

School of Psychology, The University of Nottingham, University Park, Nottingham, NG7 2RD.

Outcomes of training teaching assistants in different approaches for pupils displaying emotional and behavioural difficulties.

******* of The University of Nottingham invites you to take part in her research study.

Before participating please read the following information which you are free to discuss with others. If you have any questions or require further information, please do not hesitate to speak with me.

In the light of recent national interest in the pupils displaying challenging behaviour, my current research is aimed at investigating the outcomes of training Learning Support Assistants/ Teaching Assistants different approaches for pupils displaying emotional and behavioural difficulties.

Participation will involve taking part in the training delivered by a trainee educational psychologist and trying an intervention for some of pupils who are displaying emotional and behavioural difficulties. Data collected by the researcher/trainee educational psychologist will include rating scales, questionnaires and some interviews. Participants in the research will also be observed using the approaches on a few occasions to ensured that all Teaching Assistants are using the approaches consistantly.

Participation in this research is entirely voluntary. You do not have to take part and you may withdraw at any time without giving a reason. All data collected will be confidential.

Thank you for taking the time to read this information sheet. If you wish to participate, please sign the Consent Form provided. If you have any questions or wish to know the results of the study, please contact me on **********.

Appendix D: Example Consent Form

****

Trainee Educational Psychologist

Doctorate in Applied Educational Psychology

School of Psychology, The University of Nottingham, University Park, Nottingham, NG7 2RD

Please read the information sheet provided before completing this Consent Form.

I give my consent for I/ my child to participate in this study on 'Outcomes of different 1:1 behaviour strategies for pupils displaying challenging behaviour in schools.' The purpose of the study has been explained to me and I am aware that I and my child may withdraw their participation at any time without giving a reason.

I understand that any data collected during their participation (questionnaire and observations) and the consent forms are confidential. For the purpose of the research, I understand that they will only be viewed by those conducting the study and will be collated separately so that my child's participation shall remain anonymous. I also understand that a wholly anonymous form of the data collected from the study will be used by the Researcher within a study for The University of Nottingham as part of their Doctorate in Applied Educational Psychology. I understand that the anonymous data collected may also be used in future publication. However, the school may be given an overall

view of the data and confidential about the outcome of the intervention for your child may be kept in individual confidential school and psychology files (if your child is known to the psychology service) to help your child in the future.

CHILD'S NAME: _____

PARENT'S NAME: _____

DATE: _____

SIGNATURE: _____

Appendix E: Teaching Assistants Efficacy Scale (adapted from Hoy and Woolfolk, 1993)

A number of statements are presented below. The purpose is to gather information regarding the actual attitudes of teaching assistants concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

INSTRUCTIONS: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

KEY: 1=Strongly Agree 2=Moderately Agree 3=Agree slightly more than disagree 4=Disagree slightly more than agree 5=Moderately Disagree 6=Strongly Disagree

1. The amount a student can learn is primarily related to family background	1.	2.	3.	4.	5.	6.
2. If students aren't disciplined at home, they aren't likely to accept any discipline	1.	2.	3.	4.	5.	6.
3. When I really try, I can get through to most difficult students	1.	2.	3.	4.	5.	6.
4. A teaching assistant is very limited in what he/she can achieve because a student's home environment is a large influence on his/her achievement.	1.	2.	3.	4.	5.	6.
5. If parents would do more for their children, I could do more	1.	2.	3.	4.	5.	6.
6. When a student does better than usual, many times it is because I exert	1.	2.	3.	4.	5.	6.

a little extra effort.						
7. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.	1.	2.	3.	4.	5.	6.
8. I have enough training to deal with almost any behaviour problems	1.	2.	3.	4.	5.	6.
9. If I really try hard, I can get through to even the most difficult or unmotivated students.	1.	2.	3.	4.	5.	6.
1O. When it comes right down to it, a teaching assistant really can't do much because most of a student's motivation and performance depends on his or her home environment.	1.	2.	3.	4.	5.	6.
11. Teaching assistants are not a very powerful influence on student's behaviour when all factors are considered.	1.	2.	3.	4.	5.	6.
12. Even a teaching assistant with good skills may not reach many students.	1.	2.	3.	4.	5.	6.
13. My teaching assistant training and/ or experience has given me the necessary skills to be an effective teaching assistant.	1.	2.	3.	4.	5.	6.
14. The hours I spend with a child has little influence on students compared to the influence of their home environment	1.	2.	3.	4.	5.	6.

Appendix F: Checklist of the Anger Management Intervention

1. The TA explains the different parts of the anger curve with the student.

	information	*example*	*extra comment*
Trigger phrase	☐	☐	_____
Escalation Phrase	☐	☐	_____
Crisis Phrase	☐	☐	_____
Recovery Phrase	☐	☐	_____
Post Crisis Phrase	☐	☐	_____

2. The TA helps student to identify their own triggers ☐

_____

_____

3. The TA helps the student to scale and label different levels of anger with their own words ☐

_____

_____

4. The TA helps the student to identify their own strategies to reduce anger during the escalation/ recovery phrase ☐

5. The TA also suggests an extra physiological strategy known as 'square breathing' or 'milkshake breathing' and the student practices that strategy. ☐

Appendix G: Self- checklist of the Anger Management Intervention

1. Tick which parts of the anger curve that you explained to the students.

	information	*example*	*extra comment*
Trigger phrase	☐	☐	_____
Escalation Phrase	☐	☐	_____
Crisis Phrase	☐	☐	_____
Recovery Phrase	☐	☐	_____
Post Crisis Phrase	☐	☐	_____

2. I helped student to identify their own triggers ☐

Identify what triggers where identified:

_____

_____

3. I helped the student to scale and label different levels of anger with their own words ☐

Example of words:

_____

_____

4. I helped the student to identify their own strategies to reduce anger during the escalation/ recovery phrase ☐

Identify student strategies:

_____

_____

5. I suggested an extra physiological strategy known as 'square breathing' or 'milkshake breathing' and the student practices that strategy. ☐

_____

_____

Appendix H: Example Letter to a Head teacher

****

5th March 2008

Dear ******

My name is **** and I am a Trainee Educational Psychologist undertaking a Doctorate in Applied Educational Psychology at the University of Nottingham and working for ****** County Psychology Service under the supervision of *****(Senior Educational Psychologist). As a crucial element of the professional training we are required to carry out research which will have beneficial implications for educational practice.

In the light of national interest regarding pupils displaying challenging behaviour, my current research is aimed at investigating the outcomes of teaching assistants and higher level taeaching assistants training other teaching assistants in different approaches for pupils displaying emotional and behavioural difficulties.

As part of a project developed by the educational psychology service and ***** (SENCo), three teaching assistants are currently taking part in the training package delivered mainly by two educational psychologists. These teaching assistants have expressed an interest in training other

teaching assistants who will then try different approaches for some of pupils who are displaying emotional and behavioural difficulties. My research project is aimed at evaulating this approach and the outcomes for some of the pupils involved. Data collected by myself will include rating scales, diary data and some interviews from the teaching assistants. Follow up data of pupil outcomes will also be collected.

All data collected will be anonymised – no identifying features will be recorded e.g. teaching assistant, pupil, school name. Feedback of the collated data from the participating school will be provided verbally at the end of the data collection. A copy of the written research, together with any practical implications, will be available on request. This written research may also be published in the future.

I am aware of the increasing demands on teaching assistants' and teachers' time and would like to reassure you that the data collection will not take up a large amount of time and staff and pupils may withdraw their involvement from the research at any point in time. I would be most grateful if your school would be willing to participate in this relevant research.

Yours Sincerely,

Trainee name: *****

University Supervisor: ******

Appendix I: Topics Covered in Coach Consult Method

Coach consult principled used are marked in bold and italic

Date of contact	Nature of contact in school A	Nature of contact in School B
12/12/07	***Needs assessment*** of the school Negotiate project with the school	***Needs assessment*** of the school Negotiate project with the school
16/01/08	First session with the TAs • ***Needs assessment*** of the TAs through consultation and group discussions: Negotiating what training should be covered over the next week=developing an ***adaptive curriculum*** • Brief introduction to solution focused and consultative approaches: ***training methods: modelling techniques/ scaffording, group discussions***	First session with the TAs • ***Needs assessment*** of the TAs through consultation and group discussion: Negotiating what training should be covered over the next week=developing an ***adaptive curriculum*** • Brief introduction to solution focused and consultative approaches: ***training methods: modelling techniques/ scaffording, group discussions***
Between 16/01/08 and 23/01/08	***Time to try and implement*** the strategies discussed	***Time to try and implement*** the strategies discussed
23/01/08	• ***Reflection and recap*** of implementations and previous session. Further group discussions about what material should be covered=***needs assessment and adaptive curriculum***	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Questioning skills activities-solution focused. ***Training methods: modelling, role play and group discussion***

Between 23/01/08 and 13/02/08	***Time to try and implement*** the strategies discussed	***Time to try and implement*** the strategies discussed
13/02/08	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Presentation of the anger curve. ***Training methods: modelling strategies, group discussions.*** • Solution circle (***curriculum adapted*** to help develop relationships between staff and TAs' problem solving skills.	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Presentation of the anger curve. ***Training methods: modelling strategies, group discussions.*** • Pen portraits. ***Training methods: modelling strategies, group discussions.***
Between 13/02/08 and 20/02/08	***Time to try and implement*** the strategies discussed	***Time to try and implement*** the strategies discussed
20/02/08	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Solution focused questioning. ***Training methods: role play, group discussions and modelling of techniques*** • Solution circle	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Principles of motivational interviewing- the change cycle. ***Training methods: role play, group discussions and modelling of techniques***
Between 20/02/08 and 19/03/08	***Time to try and implement*** the strategies discussed	***Time to try and implement*** the strategies discussed

19/03/08	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Motivational Interviewing- an introduction. ***Training methods: modelling, role play*** • Solution circle	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • ***Training methods: Experiential learning=Practising some of the skills of motivational interviewing, selective active listening***
Between 19/03/08 and 23/04/08	***Time to try and implement*** the strategies discussed	***Time to try and implement*** the strategies discussed
23/04/08	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Small group of four- motivational interviewing. ***Training methods: experiential learning=practising some of the skills e.g. selective listening***	• ***Reflection and recap*** of implementations and previous session=***needs assessment and adaptive curriculum*** • Recap of the skills of motivational interviewing • PATH. ***Training methods: modelling technique and group discussions.***

Appendix J: Anger Management Training of TAs (adapted from Lown's (2001) book; Anger and its management)

Section 1: About anger (five minutes explaining about anger)

1. Anger is a normal emotion e.g. when threaten or in danger and it is sometimes appropriate to show anger.

2. About anger; ways anger is shown

    - Effective expression- opportunity to learn and change
    - Ineffective expression- negative effects- damaged relationships
    - Repression- unconscious- not aware of it
    - Displacement- express anger to a different person not the person you to be angry with
    - Suppression- conscious of it but don't want to show it- can leak out

3. Anger expression can be affected by:
    - What we have learnt from significant adults
    - What we have learnt from other children
    - How other react to us when angry
    - Temperament

4. A combination of these factors will determine if anger is expressed in a productive or maladaptive way.

5. This 'blueprint' of anger expression is not fixed in children

6. Physiological responds to anger
    - muscles become tense (ready for action)
    - heart beat speeds up to get more blood flowing round the body
    - breathing increasing to get more oxygen to the body
    - sweating increases (the body need to cool down)
    - Dry mouth
    - Mind becomes confused

Section 2: Breakwell (1997) Assault cycle

The trainer draws Breakwell's Assault cycle on a flip chart

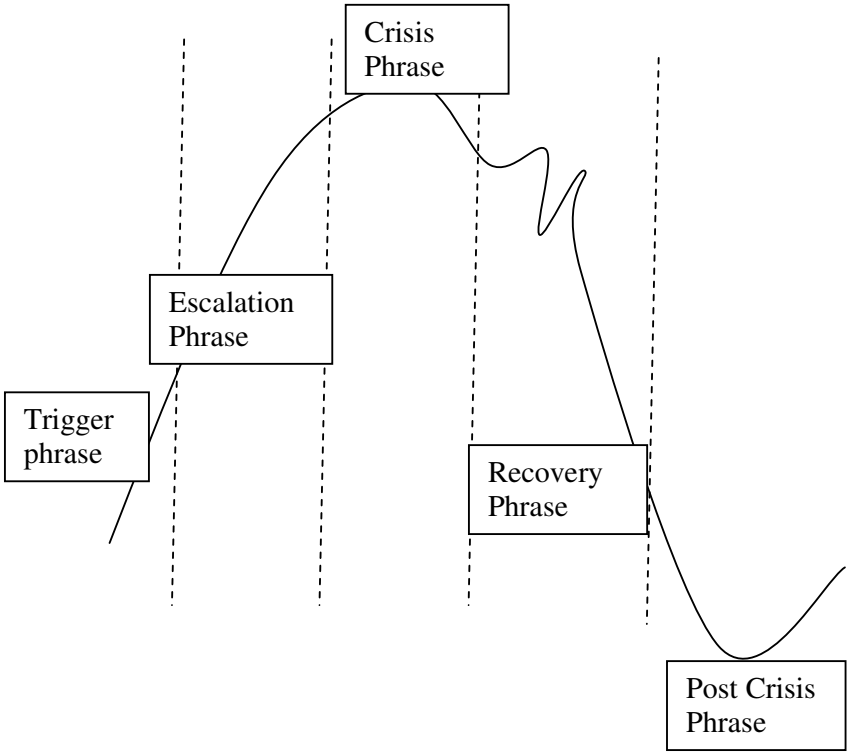
The Breakwell assault cycle is useful when thinking about anger in children and ourselves, particularly with children who are displaying inappropriate anger.

The trainer discusses each stage of the cycle

a. Trigger phrase
b. Escalation Phrase
c. Crisis Phrase

d. Recovery Phrase

e. Post Crisis Phrase



Trigger phrase

- An event is perceived by the person as a treat
- The person has feelings of anxiety or fear which changes their behaviour
- Physiological arousal starts

Trainer tells TAs that triggers can be very different for each person, one thing that annoys one person will not annoy the next person.

Escalation Phrase

- Physiological arousal continues, the body is preparing itself for flight or fight
- Rational responses and listening reduce
- Rises in other levels such as talking, energy etc
- Focusing on issue
- Over-interpretation of others' behaviour (seen as more threatening)

The trainer tells the TAs that the escalation time can be very different for different person, some people move more or less straight to crisis phrase in seconds whereas other are slowly getting there.

Crisis Phrase

- High physiological arousal
- This is when the reptilian part of the brain takes over. Fight or flight survival instinct takes over and therefore it is often the case that a child will either hurt someone or run away.
- Their processing skills are affected- no longer making rational judgements
- Control over aggressive impulses have decreased
- Violence
- They are focusing solely on the incident and asking questions will not help them
- Confusion
- Egocentric frame of mind

Plateau/Recovery Phrase

- Possibility of re-escalation as still high levels of arousal=sensitive to triggers and the behaviour of others
- Vulnerability and confusion
- Anger slowing calming down- some signs of guilt might be starting

Trainer tells TAs that on many occasions secondary school students are excluded from school not because of the anger outburst in the crisis phrase but for the secondary behaviour such as swearing at the head teacher during the plateau/ recovery phrase.

Post Crisis Phrase

- Need for rest
- Rational thoughts are coming back
- Unhappy about what has just happened?
- Possible feelings of guilt
- Self esteem could be an issue

Trainer shares with TAs that this whole cycle could last for up to 90 minutes and therefore this can have huge implication for a child in school. A previous event at home, at break time or in the last lesson could mean that they have already started the cycle.

Section 3: Discuss a case(s) when EP has worked with a child talking through the Assault Cycle.

The trainer talks through how they have worked with a child with the Assault cycle, giving them information about each part and help the child to identify a time that they had got very angry.

Section 4: Scaling and developing words that describe different levels of anger for the child

- It is emphasised that the child develops their own words to describe anger using case study examples to help explain this
- TAs think about words to describe their own anger
- A thermometer scale can be used to scale these words into an order.
- A demonstration of scaling anger words is then given

Section 5: Strategies

- The trainer emphasises that there are different strategies for each stage
- The trainer then goes through some of the strategies that are on the training handout also some strategies that the case study children developed for themselves.
- The trainer emphases that the TAs can help the child to develop their own strategies for the different stages

- The trainer shares a squared breathing strategy that the TA could teach the child and emphases that this would reduce some of the physiological responses and can be a good distraction technique.

Appendix K: Evaluation Form

Course: Anger Management Intervention

Venue:

Date:

Please spend a little time telling us what you think of the course.

Please circle a number

Poorly presented	1	2	3	4	5	6	Well presented
Not at all relevant to me	1	2	3	4	5	6	Very relevant to me

What did you particularly like?

What could be improved?

What information/ strategies from today will you use in your situation?

Any further comments

Thank you

Appendix L: Focus Group Interview Script

Thank you for meeting with me today to talk about the training you received and the anger management intervention. The aim of the piece of research is to investigate aspects of training that help teaching assistants to implement interventions. You have all experienced a training programme and implemented an intervention; therefore your comments will be very valuable in gaining a complete picture.

I will ask you some open ended questions and I would like you to respond and discuss these questions. I hope you feel free to say whatever you think and feel. If you have something critical to say, please say it.

First let's go over a few ground rules;

- Your participation in this is voluntary and you can stop at any time.
- I will not be associating any answers with your names and therefore could you also ensure you do not discuss what someone else has said today with people outside of this room.
- There are no wrong answers. Please let everyone speak and respect everyone's opinion, even if it is different from your own.

Here we go

1. The aim of the training programme was to develop aspects of your skills when working with young people displaying challenging behaviour. What do you think about this statement?
2. What aspects of the training programme affected your implementation of the intervention?

Prompts for training questions
- Positive and negative aspects?

Other self efficacy factors
- Performance accomplishment
- Vicarious Experience
- Verbal persuasion
- Physiological/ affective

- Strength/ performance
- Generality
- Magnitude/ persistence
- choice

3. What other factors/ issues affected your implementation of the intervention?

Prompts for other factors
- Personal/ within factors
- Organisational/ school factors
- Task factors

Other self efficacy factors
- Performance accomplishment
- Vicarious Experience
- Verbal persuasion
- Physiological/ affective

- Strength/ performance
- Generality
- Magnitude/ persistence
- Choice

4. Thinking about training in general, what aspects of the training process would enhance yours and others performance when working with young people displaying challenging behaviour?

Prompts for other factors
- Personal/ within factors
- Organisational/ school factors
- Task factors

Other self efficacy factors
- Performance accomplishment
- Vicarious Experience
- Verbal persuasion
- Physiological/ affective

- Strength/ performance
- Generality
- Magnitude/ persistence
- Choice

5. Thinking about yourself and/ or other TAs who work well with young people displaying challenging behaviour. What helps you/ them be successful in your/ their performance?

Prompts for other factors
- Personal/ within factors
- Organisational/ school factors
- Task factors

Other self efficacy factors
- Performance accomplishment
- Vicarious Experience
- Verbal persuasion
- Physiological/ affective

- Strength/ performance
- Generality
- Magnitude/ persistence
- Choice

6. There are two statements on the board/ flip chart. The first statement reads: “When it comes right down to it, a TA really can’t do much because a student’s behaviour depends on his or her home environment.” What do you think about this statement?
7. The second statement reads: “If I try really hard, I can get through to even the most difficult students” What do you think about this statement?
8. Finally, you now have an opportunity to make any other comments regarding working with children displaying challenging behaviour, training, being a skilful teaching assistant or anything else you feel is relevant for today’s discussion.

Appendix M: Example Transcript Extract from One of the Focus Groups

Interviewer: What aspects of the training programme affected your implementation of the intervention?

TA 2: reflecting

TA 3: we recapped as well didn't we

TA1: yeah we were able to have discussions weren't we

TA3: yeah like we had the first session didn't we and I remember trying it, using it and then recapping and we came back and produced all those words didn't we, feeling words like vocabulary of other people. It wasn't sort of just delivered and then you had to just get on with it

TA1: we were able to build on it and change things

TA2: Fine tune it a little bit

TA3: because it wouldn't have worked if we were just left to do it, because we wouldn't have done it would we and also doing it as an INSET helped

TA2: yeah we reinforced what we learnt haven't we

TA3: what telling to others?

TA2: yeah

TA1: yeah that did help quite a lot

INTERVIEWER: was there anything you could telling me about your feelings during the training after the training that might have affected your implementation

TA1: my feeling to start with were horrified really to start with when you came in with all of those big words and but like we've said by doing it and coming back and discussing it you know

TA2: it builds your confidence

TA1: you know what you have to do a bit more

TA2: you're more aware that there are different strategies to offer every child every student

TA1: every individual