An evaluation of The Rochdale Autism Initiative (TRAIn); a training initiative for primary school staff, partially based on the Inclusion and Development Plan resources for autism.

A thesis submitted to the University of Manchester for the degree of Doctorate in Educational Psychology in the Faculty Humanities.

2013

Claire Cooper-Jones

School of Education
## CONTENTS

### CHAPTER ONE – INTRODUCTION
1.1 Background and Rationale ................................................................. 8  
1.2 Overview of the methodology.......................................................... 13  
1.3 Layout of the Thesis........................................................................ 13

### CHAPTER TWO – LITERATURE REVIEW ........................................... 15
2.1 Autistic Spectrum Condition (ASC)...................................................... 17  
  2.1 (a) What is ASC ........................................................................ 17  
  2.1 (b) Interventions for ASC ............................................................ 18  
  2.1 (c) Staff training for adults working with individuals with ASC ....... 20  
  2.1 (d) The IDP for autism ................................................................. 25  
2.2 Theories of Learning ....................................................................... 34  
2.3 Professional Development for school-based staff ............................. 42  
  2.3 (a) Teacher Change .................................................................... 42  
  2.3 (b) Collaborative learning in PD training in schools ...................... 47  
  2.3 (c) The use of ICT in PD training in schools .................................. 52  
  2.3 (d) Training and professional development for TAs....................... 58  
2.4 Summary ....................................................................................... 66

### CHAPTER THREE – METHODOLOGY ................................................. 69
3.1 Introduction to the Research Design .................................................. 69  
3.2 Participants ................................................................................... 69  
3.3 Data collection ................................................................................ 71  
3.4 Procedure ...................................................................................... 73  
3.5 Data analysis .................................................................................. 78  
3.6 Justification of methodology ............................................................ 82  
  3.6 (a) Mixed Methods .................................................................... 82  
  3.6 (b) Insider versus Outsider Research .......................................... 84  
  3.6 (c) Data collection ..................................................................... 86  
  3.6 (d) Data Analysis ..................................................................... 90  
3.7 Real World Research ..................................................................... 93  
3.8 Ethical considerations ................................................................... 94  
3.9 Limitations of the study .................................................................. 95
CHAPTER FOUR – RESULTS ................................................................. 97
4.1 Results of Statistical Analyses .................................................. 97
  4.1 (a) Knowledge Assessment .................................................. 98
  4.1 (b) Self Evaluations ............................................................ 98
4.2 Results of Thematic Analysis .................................................. 99

CHAPTER FIVE – CONCLUSIONS AND DISCUSSION ..................... 126
5.1 Discussion of Research Questions ............................................ 126
  5.1 (a) The views of staff regarding the effect of this training initiative on;
       (i) their knowledge and understanding of ASC? .................... 127
       (ii) changes to their own practice? ...................................... 128
       (ii) outcomes for pupils with ASC? .................................... 128
  5.1 (b) What actual impact has the introduction of this training initiative had
       on staff's knowledge of ASC, as defined by the content of the IDP
       training package? ............................................................. 129
  5.1 (c) What are the views of staff regarding the content and the style of
       this training initiative and the implications for future professional
       development in schools? ..................................................... 129
5.2 The success of the Rivertown training initiative and the IDP ........... 132
5.3 What are the implications for future practice .............................. 125
  5.3 (a) for the employment and training of TAs and Sencos ............ 125
  5.3 (b) for the design of future training initiatives? ....................... 138
  5.3 (c) for the role of educational psychologists and educational
       psychology services? ......................................................... 141
  5.3 (d) for the future of the IDP resources and TRAIn.................... 143
5.4 What do these results mean in terms of existing research? ............ 144
5.5 Limitations of this study ........................................................ 148
5.6 Summary and final reflections ............................................... 150

REFERENCES ................................................................................ 154
APPENDICES ............................................................................... 167

Word count: 40,326 excluding abstract, references, appendices.
List of figures

Figure 1 – Photograph taken from the online IDP resource ......................... 27
Figure 2 – Kolb’s model of experiential learning (i) .................................. 35
Figure 3 – Kolb’s model of experiential learning (ii) ................................. 37
Figure 4 – Boud’s model of experiential learning ..................................... 39
Figure 5 – Clarke & Hollingsworth’s model of teacher change ............... 42
Figure 6 – Guskey’s model of teacher change ......................................... 43
Figure 7 – Interconnected model of teacher growth ............................... 44
Figure 8 – Summary of thematic analysis ............................................. 102
Figure 9 – ‘Experiences’ theme of thematic analysis ............................... 103
Figure 10 – ‘Thoughts’ theme of thematic analysis .................................. 109
Figure 11 – ‘Actions’ theme of thematic analysis ................................... 123
Figure 12 – Clarke & Hollingsworth’s model of teacher change .......... 145
Figure 13 – Model of processes described in current research (i) ............ 145
Figure 14 – Model of processes described in current research (ii) ........... 146
Figure 15 – The interconnected model of professional growth .............. 146
Figure 16 – Revised interconnected model of professional growth ......... 147
List of Tables

Table one – Summary of participant information ........................................... 71
Table two – Overview of methodology linked to research questions .......... 81
Table three – Results of statistical analyses .................................................. 97
ABSTRACT

An increasing number of pupils with autistic spectrum condition (ASC) are placed in mainstream schools. Accordingly, there is a need for staff in schools to be trained in how to educate and include this group of children. This was particularly apparent in the Local Authority in which this research took place, as no specialist provision for autism existed. The Service Manager for pupils with SEN in this Local Authority wished to promote the Inclusion and Development Plan (IDP) resources for autism as a tool for training staff in schools in supporting pupils with ASC, and asked the Educational Psychology Service to evaluate the effectiveness of the IDP initiative. Although the EP-researcher role was not initially envisaged to include a mentoring role, it was deemed necessary in order to ensure the engagement with and the sustainability of the training package. The resulting initiative, the IDP resources with the addition of a facilitator-mentor and the opportunity for group discussions, was given the title ‘The Rivertown Autism Initiative’ (TRAIn). The aim of this research was therefore to evaluate the implementation of TRAIn over a one-year period, particularly focussing on the views of those involved, with some more objective measures of impact on knowledge and understanding also included.

Data collection involved the use of questionnaires, focus groups, assessments of knowledge and understanding of autism, and self-evaluations of knowledge of autism and adjustment to practice. Participants were 22 teaching assistants and 2 special educational needs co-ordinators. Twenty four participants completed the pre-training assessments and self evaluations, commenced the training initiative and attended a total of 12 monthly support/focus groups over approximately 6 months. The number completing the whole initiative including completing the post-training assessment and self-evaluations was reduced to 14. The assessments and self-evaluations were subjected to non-parametric testing to give a more objective measure of the impact of the training on participants’ knowledge of autism. Thematic analysis was carried out on the qualitative data, using Kolb’s theory of experiential learning as a basis on which to explore and illustrate the experiences of the participants.

Results suggested that the training initiative was successful in that significant improvements were shown post-training in terms of the knowledge assessments and self-evaluations. The thematic analysis suggested that Kolb’s theory of experiential learning can be closely linked with Clarke and Hollingsworth’s model of teacher change and the interconnected model of teacher growth, with the addition of a more explicit link between ‘experiences’ of learners, and the ‘outcomes’ in terms of their own continuing professional development. Additionally, the analysis provided a list of suggestions for the planning of future training events, including flexibility around timing, employers allowing dedicated work time for CPD, opportunities for learners to come together, the provision of a mentor, practical and easy to use resources, varied teaching and learning styles, and an ethos of safety and security.
DECLARATION
No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification

COPYRIGHT STATEMENT
i. The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the “Copyright”) and s/he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

ii. Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

iii. The ownership of certain Copyright, patents, designs, trademarks and other intellectual property (the “Intellectual Property”) and any reproductions of copyright works in the thesis, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

iv. Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=487), in any relevant Thesis restriction declarations deposited in the University Library, The University Library’s regulations (see http://www.manchester.ac.uk/library/aboutus/regulations) and in The University’s policy on Presentation of Theses
CHAPTER ONE – INTRODUCTION

1.1 Background and Rationale

The work of educational psychologists is closely associated with exploring how schools and school staff might support children with Special Educational Needs (SEN). A significant portion of this work may involve working with children and young people on the autistic spectrum. Over the years, many training and support packages have been developed for working with children and young people with autistic spectrum conditions (ASC), such as Applied Behavioural Analysis (ABA) (Lovaas, 1987), TEACCH (Mesibov, 1997) and the Early Bird programme developed by the National Autistic Society in 1997 (Shields, 1999a 1999b).

However, many teachers in school may not access such relatively intensive training unless they have a specialist role within a mainstream school, or are employed within a specialist setting. Therefore those teachers who work in mainstream schools and who only may directly teach children with autism for a percentage of their time may rely upon training provided within the school via inset or local authority training events. Given the increasing emphasis on inclusion in recent years, this may have resulted in some teachers having gaps in the necessary skills, knowledge and understanding to effectively teach pupils with autistic spectrum conditions. In an attempt to redress this imbalance, in 2007 the Department for Education and Skills (DfES) announced plans for 'The Inclusion and Development Plan' (IDP), a package of web-based resources that was part of the 'National Strategies' (the body responsible for taking forward the commitment made in the previous Government’s "Removing Barriers to Achievement" agenda for children with Special Educational Needs). The IDP provided a programme of continuing professional development for school staff, designed to

"narrow the gap between those who have special educational needs (SEN) and the overall schools population, and focus on "attainment and
Completion of the IDP was designed to support schools in 5 key areas:

- Increasing the confidence and expertise of mainstream practitioners in meeting high incidence of SEN in mainstream settings and schools”.
- Strengthening whole-school leadership support for ASC.
- Raising the awareness of school staff regarding signs of ASC.
- Supporting teachers, other school staff and trainee teachers across all phases, in developing effective strategies for learning and teaching for pupils with ASC.
- Providing guidance about inclusive pedagogy.

(Taken from DfES 2007)

In 2009, the Department for Children, Schools and Families (DCSF) expanded the IDP resources to include advice on Autistic Spectrum Conditions. This resource aimed to support schools through on-line and DVD materials, which included teaching and learning resources, training materials, guidance on effective classroom strategies, models of good practice for multi-disciplinary teams and information about sources of more specialist advice. The content is divided into eight units of learning:

1. What is the autism spectrum?
2. Social and emotional understanding
3. Communication and language
4. Flexibility of thought and behaviour
5. Sensory perception and responses
6. Know the pupil
7. Curriculum priorities and inclusive practice
8. Sources of support

(Taken from DCSF, 2009, pg 4)
The web-based resources were designed to allow the intended audience to complete the training at their own pace. Learners were invited to navigate through the web-site, dipping in and out of each unit as appropriate, and being able to repeat units as they felt necessary. The resources were presented in a variety of forms, including video clips, text, photographs, and audio recordings.

Little is known about the effect of these packages on outcomes for staff professional development or indeed, outcomes for the children and young people, although Lindsay et al (2010, 2011) carried out a national review of the dissemination of the IDP. Their report cited the Teacher Voice survey (November 2010) in which it was stated that 58% of teachers were aware of the IDP resources, but that "one in five of all of teachers in the sample were aware of the materials but had not used any of them". (Lindsay et al, 2011, pg.46)

Additionally, although some schools reported reasons for positive engagement with the IDP, such as "a desire to improve practice" (Lindsay et al, 2011, pg.53), others reported specific barriers to engagement with the resources, including technical difficulties and "a lack of clarity about who would lead on the IDP in school". (Lindsay et al, 2010, pg.38)

**Development of this study**

Within my employing Local Authority (which for the purposes of anonymity is referred to as ‘Rivertown’ within this thesis) a small scale, informal investigation was carried out in September 2009 to explore the numbers of schools who were actively using IDP resources. Results suggested that despite an initial roll out of the package; hardly any schools in the Authority were actively using the IDP. As a result, the Local Authority Team Leader for SEN requested the Educational Psychology Service to review the IDP resource for ASC, in order to help schools instigate the resource as a training package and to explore the justification of continuing to implement the IDP resources in the future. As an educational psychologist with Senior Practitioner responsibility for work in the field of autism and autistic spectrum conditions (ASC) I was asked to carry out the research.
Considering the local findings and the wider context of the Teacher Voice Survey, it appeared that a large proportion of school staff both locally and nationally were not aware of the IDP resources. Of those that were aware of them, not all were actively using them. Within the Local Authority in which this research took place, it appeared that there was an even smaller proportion of school staff using the resources than the results of the Teacher Voice survey had suggested.

In addition to the low numbers taking up the initiative, the Lindsay et al report suggested that there were difficulties in engaging those staff who were at least aware of the IDP in actually using it. It was suggested that these difficulties were attributed in part to a lack of support or skill within schools. Therefore in the present study, it seemed pertinent that some degree of awareness raising and support might be necessary before any meaningful research could take place. This is described in the section below.

**Adjustments made to the IDP in designing the Rivertown Training Initiative**

As initial implementation of the IDP resources in my Local Authority had been limited, the Team Leader for SEN agreed that in evaluating the IDP, some support to schools undertaking the training might be necessary. Therefore a package of training was designed which allowed for learners to partake in the IDP as originally designed, but with initial practical support to register for and to begin the on-line resources, coupled with some ongoing facilitation to review progress throughout the units within the IDP.

Therefore, in addition to carrying out the evaluation side of this research, my role was also to facilitate the implementation of the training package, thus meaning my role was very much that of an ‘insider’ researcher. The role of facilitator involved meeting with participants on a regular basis as they progressed through the resources. As participants made this progression at different rates, it was necessary to vary the timings of the support meetings in accordance with their needs. Some participants were alone in undertaking the training within their schools, and therefore facilitation meetings occurred on a one to one basis. In other schools, where larger numbers of staff were
undertaking the training, it was possible to meet with a group of participants at any one time. During the facilitation meetings, any problems could be raised, including technical glitches, and there was the opportunity to discuss the recent experiences of participants, both in school and during the training. Quite naturally, some of these facilitation meetings turned into discussion groups, whereby the participants reflected upon their recent learning, and shared information with myself, and in the group meetings, with colleagues. The group facilitation meetings were also used as ongoing focus groups to evaluate the training package.

In light of the fact that the training initiative was no longer based solely on the IDP resources, it was pertinent to acknowledge that the research would explore and evaluate the IDP ‘plus’ some additional resources, most prominently myself as a facilitator, and the group discussion meetings. This initiative was therefore renamed ‘The Rivertown Autism Initiative’ or ‘TRAIn’.

**Research Questions**

In light of the rationale and background to this study, the research questions were therefore defined as follows:

1. What are the views of staff regarding the effect of TRAIn on;
   
   (i) their knowledge and understanding of ASC?
   
   (ii) changes to their own practice?
   
   (iii) outcomes for pupils with ASC?

2. What actual impact has the introduction of TRAIn had on staff’s knowledge of ASC, as defined by the assessment based upon the content of the IDP training package?

3. What are the views of staff regarding the content and the style of TRAIn and the implications for professional development in schools?
1.2 Overview of methodology

Data collection

The principal data collection methods included:

- Assessment results pertaining to staff’s knowledge of ASC, pre- and post-training, using an assessment specifically created for the research, and heavily grounded in the content of the IDP training programme.

- Self-evaluations for school staff (which were a discreet item within the IDP resource itself) to measure participants’ perceptions of their knowledge of and attitude towards ASC pre- and post-training.

- Ongoing, informal focus groups during the initiative period, structured around the key elements of the learning cycle described by Kolb (1984).

- Final, more structured focus groups which involved the discussion of staff’s views on the training package.

Data Analysis

The results of the assessments and self-evaluations produced scores for each participant, which were subjected to statistical analysis. Data from the focus groups was analysed using Thematic Analysis, based upon theories of learning.

1.3 Layout of the Thesis

The next section of the Thesis is a three-part literature review. Firstly, there is a brief review of literature surrounding autism, the interventions that have previously been used in school, and the development of the IDP resources. The second part of the literature review discusses learning theories, and what implications these have for adult learning for school staff. This develops into the third part of the literature review, which discusses more specifically professional development for school staff, and models of teacher change.
Following the literature review, the methodology of the present study is described in detail, followed by the results of the quantitative and qualitative aspects of this research.

Finally, the results are discussed with regards to the existing literature and in terms of the research questions cited above.
CHAPTER TWO – LITERATURE REVIEW

This chapter of the thesis is in three parts. The first part explores the background to ASC, and describes some interventions and training packages for ASC that have developed during the last three decades. It then goes on to discuss training in ASC for teaching assistants in particular, before finally describing the limited research into the IDP resources specifically.

The second part of the literature review explores general theories of learning, in particular experiential learning, and discusses how these theories might be applicable to adult learning which of course underpins continuing professional development and/or training initiatives in schools.

The final part explores more specifically professional development in school staff and links to theories of ‘teacher’ change. In addition, the use of ICT and the use of collaborative learning techniques in training and CPD activities are discussed, before finally reflecting on opportunities for professional development for teaching assistants in particular. The layout of this Chapter is therefore as thus:

2.1 - AUTISTIC SPECTRUM CONDITION (ASC)

2.1 (a) What is ASC
2.1 (b) Interventions for ASC
2.1 (c) Staff training for adults working with individuals with ASC
2.1 (d) The IDP for autism

2.2 – THEORIES OF LEARNING AND KNOWLEDGE TRANSFER

2.3 - PROFESSIONAL DEVELOPMENT AND TEACHER CHANGE

2.3 (a) Professional Development and Teacher Change
2.3 (b) Collaborative Learning in professional development training in schools
2.3 (c) The use of ICT in professional development training in schools
2.3 (d) Training and professional development for support staff and teaching assistants in schools
In terms of search strategies used, a number of databases were explored, namely PsychInfo, the Educational Resource Information Centre, Google Scholar, Ingenta Connect, Science Direct, and Springer Link.

**Search terms were as follows:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult learning (styles)</td>
<td>Intervention(s)</td>
</tr>
<tr>
<td>Autism</td>
<td>Knowledge transfer</td>
</tr>
<tr>
<td>Autistic Spectrum Disorder(s)</td>
<td>Learning theory</td>
</tr>
<tr>
<td>Autistic Spectrum Condition(s)</td>
<td>On-line learning</td>
</tr>
<tr>
<td>Autism Interventions</td>
<td>On-line training</td>
</tr>
<tr>
<td>Collaborative learning</td>
<td>School(s)</td>
</tr>
<tr>
<td>Continuing Professional Development / CPD</td>
<td>Teachers</td>
</tr>
<tr>
<td>Teaching Assistant / TAs</td>
<td>Theories of learning</td>
</tr>
<tr>
<td>Experiential learning</td>
<td>Training</td>
</tr>
<tr>
<td>ICT</td>
<td>Web-based learning</td>
</tr>
<tr>
<td>Inclusion development plan / IDP</td>
<td></td>
</tr>
<tr>
<td>Inservice training / INSET</td>
<td></td>
</tr>
</tbody>
</table>

The literature search was narrowed by selecting articles that discussed the impact of training/interventions on staff’s knowledge or practice rather than on direct outcomes for pupils. Articles discussing on-line learning were limited to adult learning. Similarly, articles on theories of learning and experiential learning were limited to articles on general learning principles and adult learning rather than learning in children.
2.1 AUTISTIC SPECTRUM CONDITION (ASC)

2.1 (a) What is ASC?

In 1943, Leo Kanner published his article entitled “Autistic Disturbances of Affective Contact” in the Journal *Nervous Child* (Kanner 1943). In this article, he described a condition in which the children he studied displayed behaviours that are today associated with Autistic Spectrum Conditions*. Describing one of the children, he remarked:

“He seems to be self-satisfied. He has no apparent affection when petted. He does not observe the fact that anyone comes or goes, and never seems glad to see father or mother or any playmate. He seems almost to draw into his shell and live within himself.” (Kanner, 1943).

13 years later, Eisenberg and Kanner (1956) suggested five key features of individuals that they considered to be indicative of autism: (i) a lack of affective contact with other people, (ii) an anxiously obsessive desire for the preservation of sameness in routines and environment (iii) a fascination for object (iv) mutism or a kind of language that does not seem intended for inter-personal communication and (v) good cognitive potential.

In 1979, Wing and Gould studied children with difficulties in reciprocal social interaction. The authors suggested that these difficulties were closely associated with impairments of communication and imagination, the latter resulting in repetitive patterns of activity. This ‘pattern’ of difficulties was to become widely known as ‘the triad of impairments’

In 1980, the American Psychiatric Association published the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III). Within the definition of ‘pervasive developmental disorders’ was a subgroup labelled ‘infantile autism’, defined by;

1. lack of responsiveness to others;
2. language absence or abnormalities;
3. resistance to change or attachment to objects;
4. the absence of schizophrenic features;
5. onset before 30 months.

In 1991, the work of Hans Asperger, written in 1944, (Asperger, 1944) was translated into English. In it, he described individuals who possessed similar traits to those described as 'autistic', but with a distinct difference – they did not have any apparent difficulties with speaking fluently, and some even had seemingly advanced language skills. However, the superficially advanced language skills belied underlying difficulties with social interactions, such as talking excessively about special interests. In the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM IV), Asperger’s syndrome was listed as a distinct diagnosis. However, over 2 decades later, this label has been reconsidered in the publication of DSM V, as Asperger’s syndrome now comes under the umbrella term of autistic spectrum conditions, rather than a distinct diagnosis in itself.

Throughout this thesis the term ‘autistic spectrum condition’ is used to refer to all conditions which fall under this umbrella term, e.g. autism, autistic spectrum disorder, Asperger’s syndrome. This terminology is selected as it incorporates a wide range of children with associated strengths and needs without labelling individuals as ‘disordered’. However, when quoting and discussing other authors and articles, I have used the terms used by the authors of those documents.

### 2.1 (b) Interventions for Autistic Spectrum Conditions

In 2003, the National Autism Plan for Children was published. This report suggested that “Autistic Spectrum Disorder …affects at least 60 per 10,000 children under 8 years, of whom 10 to 30 have narrowly-defined autism”. Two years later, a survey by the Office of National Statistics of the mental health of children and young people in Great Britain suggested that the prevalence rate for autism spectrum conditions was around 90 in 10,000 (Green et al, 2005).

Perhaps not surprisingly, given the extent of the suggested prevalence, an extensive list of interventions developed over a number of years. Cooper-
Jones (2010, unpublished) quoted from the website of the National Autistic Society, which defined interventions in the following ways:

- ‘behavioural’ interventions, such as Applied Behavioural Analysis (ABA) and Lovaas;
- ‘physiological’ interventions, such as Auditory Integration Training (AIT);
- ‘relationship-based’ interventions, such as the Son-Rise programme from the Options Institute;
- diets and supplements, such as a gluten and/or casein free diet, or Vitamin B6/magnesium supplements;
- standard therapies, such as Speech and Language Therapy or Music therapy;
- skills-based interventions, such as Picture Exchange Communication System (PECS) or Facilitated Communication (FC);
- service-based interventions, such as Treatment and Education of Autistic and related Communication handicapped CHildren (TEACCH), Daily Life Therapy (DLT), SPELL, from the National Autistic Society, or the Early-Bird programme, also from the National Autistic Society.

Over the last 15 years, there have been several attempts to review educational interventions for ASC, both in the UK and internationally. The Department for Educational and Employment commissioned Jordan et al (Jordan et al 1998) to carry out such a review. Their report described various interventions and gave a critical review of research studies into the interventions they described. Jordan et al suggested that the interventions had at least “some evidence of their effectiveness” and that “approaches that relied on integration as part of the approach showed promising results”.

However, the Jordan et al report is now 15 years old, and more recent information is therefore likely to be more relevant. Francis (2006) reported a
“critical update” regarding interventions for autism, but only two interventions are discussed in any detail (TEACCH and Lovaas). A review by Humphrey and Parkinson (2006) provides details about “the most commonly used comprehensive programmes in the UK” (Early Intensive Behavioural Intervention EIBI and TEACCH).

Certain intervention programmes, especially as the TEACCH approach (Mesibov, 1997) and the Lovaas approach (Lovaas, 1987) have been specifically studied and evaluated by researchers for several years. For example, TEACCH has been reviewed by Panerai, Ferrante and Zingale (2002), Ozonoff and Cathcart (1998), Mesibov (1997), Short (1984), and Marcus, Lansing, Andrews and Schopler (1978). Applied Behaviour Analysis techniques have been evaluated by Eikeseth, Smith, Jahr and Eldevik (2007, 2002), Cohen, Amerine-Dickens and Smith (2006), Sallows and Graupner (2005), and McEachin, Smith and Lovaas (1993).

However, although the interventions cited above have been studied on numerous occasions, there appears to be less research carried out into staff training in autism. There is a hazy but important distinction between what might constitute ‘staff being trained in an intervention package designed to be used with people with autism’, and ‘staff receiving a training package designed to inform them about autism’, especially as the latter inevitably includes training on how to intervene and interact with children and young people with autism. The section below therefore aims to describe the second of these two distinctions.

2.1 (c) Staff training for adults working with individual with ASC

Medhurst and Beresford (2007) reported on ‘The Hampshire Outline for Meeting the needs of under fives on the Autistic Spectrum’ (‘Thomas’ Training, Medhurst and Beresford, 2007). Although the Thomas Training is described as an ‘intervention’, it is also described as a “four day training course... with the view that practitioners... will want to ‘go away and have a
try’ before the next workshop” (Medhurst and Beresford, 2007). The training is aimed at both parents and practitioners.

As suggested above, there is a lack of clarity around what constitutes ‘training’ versus ‘intervention’. Nevertheless, the research highlights useful information that it pertinent to the present study. For example, the first research question was “What aspects of THOMAS have been considered most useful and influential in supporting the child?” Participants were asked to select which of nine suggested aspects of the training they had found the most useful, such as practical ideas and strategies’, ‘learning about parental support available’, and ‘the need for planning and preparation’. The top three responses from participants (after one month and after one year) were (i) ‘practical ideas/strategies and activities’, (ii) sharing experiences/parents and teachers, and (iii) theory underlying ASC and behaviour. Interestingly, although the training was aimed at parents as well as practitioners, of the twenty seven participants only two were parents, suggesting that the results of the 2007 study might be more relevant to the present research than might be presumed. One criticism of the Medhurst and Beresford study is that 12 of the participants had attended previous training such as ‘early intervention training’. It is possible therefore that this previous training had influenced some of the responses to the questionnaires. However, it seems doubtful that any previous training could have influenced a question that specifically asked about the useful aspects of the THOMAS training itself, and therefore there seems no reason to question the findings cited above.

Probst and Leppert (2008) studied the results of a “training program for special education teachers of children with Autistic Spectrum Disorders”. One of the research questions again has similarities to the present study: “What was the effect of training as reported by teachers in terms of child behavioural symptoms in the classroom?” (Probst and Leppert, 2008) might correspond to research question 1(iii) of the present study, i.e. “What are the views of staff regarding the effect of this training initiative on outcomes for pupils with ASC?”
Probst and Leppert suggested that “... the effect of training as reported by teachers in terms of child behavioural symptoms in the classroom” showed a measurable effect in terms of ratings on the ‘Classroom Child Behavioural Symptom Scale’. \( t = 2.37, p < .05 \) with a “medium” effect size \( (d = 0.66) \). However, there are two potential flaws in this aspect of the study. First, the ‘Classroom Child Behavioural Symptom Scale’ was developed by the authors themselves “on the basis of clinical expertise extracted from interviews with special education teachers as well as from own clinical experience with children with ASC”. (Probst and Leppert, 2008, pg. 1792). Subsequently, there is seeming potential for bias as a result developing a scale in this way, a point that is not addressed by the authors in the article. Second, it seems as if the scale involves taking qualitative judgements (e.g. “remains withdrawn in class”) and attempts to assign a quantitative rating to something which could be quite subjective.

Another research question cited by the Probst and Leppert study, “What was the effect of training as reported by teachers in terms of implementation of structured teaching strategies in the classroom?” (Probst and Leppert, 2008) shares at least some common ground with research question 1(ii) of the present study; “What are the views of staff regarding the effect of this training initiative on changes to their own practice?” Probst and Leppert used a semi-structured questionnaire, whereby “teachers reported on their implementation of one or more of the structured teaching strategies in the classroom.” (Probst and Leppert, 2008, pg. 1791). Results suggested that “nine of the ten teachers applied at least one structured learning strategy in class. On average the teachers applied \( M = 1.8 \) strategies...” (Probst and Leppert, 2008, pg. 1794). Again, numerical data is supplied and is purported to support the effectiveness of the study. However, one might argue that qualitative data would have provided a richer picture and more useful information for future practice, and one wonders if quantitative data was used for ‘political’ reasons, such as providing ‘evidence’ for the value of continuing intervention and/or research.
Leblanc, Richardson and Burns (2009) looked more directly at participants’ knowledge of autism as a result of training, akin to research questions 1(i) and 2 of the present study, “What are the views of staff regarding the effect of this training initiative on their knowledge and understanding of ASC?” and “What actual impact has the introduction of this training initiative had on staff's knowledge of ASC, as defined by the assessment based upon the content of the IDP training package?” The training being evaluated in the Leblanc et al study was the “School Support Program – Autistic Spectrum Disorder” (SSP-ASD), launched by the Ministry of Children and Youth Services in Ontario, Canada. In this aspect, the SSP-ASD is not unlike the IDP for Autism, in that it is a Government training initiative aimed at “enhancing educators’ ability to meet the needs of students identified with ASD” (Leblanc et al, 2009, pg. 168) However, unlike the IDP resources, the SSP-ASD involves more direct contact with trained consultants who offer services including ‘promoting the efficient use of resources’, ‘consultation services’, ‘training services’ and ‘resource development’.

The authors used an “ASD Inventory... developed by Algonquin Child and Family Services... as a means of evaluating the dissemination and acquisition of knowledge as it related to ASD” (Leblanc, Richardson and Burns, 2009, pg. 170). The Inventory was essentially designed by the authors themselves (who were employees at Algonquin Child and Family Services) using the SSP-ASD training modules as a basis for designing the questions.

Results of the assessment of knowledge of autism showed an increase from a mean score on the pre-training assessment of 3.85, to a mean score post-training of 6.36. The authors claim that their statistical analysis yielded “a positive, significant difference” between pre-training and post-training scores, but no numerical data is quoted to justify this claim. The authors also admit that the overall post-training scores were “low for all experimental groups... because some of the questions are potentially too clinically focussed” (Leblanc, Richardson and Burns, 2009, pg. 174). It could also be suggested
that a limit of 13 questions to judge significant progress was insufficient to obtain meaningful, statistical results.

Grey et al (2010) carried out an evaluation study of 11 teachers undergoing comprehensive training based on Applied Behaviour Analysis (ABA). Although quantitative data is also used in this instance, the study does at least attempt to describe and justify the reasons for using such data, and observations of the children involved were used to obtain frequency data, rather than relying on subjective judgements of the participants. This part of the study was two-fold. One set of behaviours (such as “attention to task”) was hypothesized to increase as a result of the intervention, whereas a second set (such as “hitting”) was hypothesized to decrease. Results showed that behaviours targeted to increase averaged 5.8 at baseline, increasing to 13.6 post-training. Statistical analysis suggested that this increase was statistically significant ($z = -2.521$, $p < 0.05$) but no effect size was reported. Behaviours targeted to decrease averaged 23.5 at baseline, decreasing to 7.2 post-training. However, the authors reported that “Owing to the small number in the increase programme group it was not possible to conduct any statistical tests.” (Grey et al, 2010, pg. 216) However, this point is not expanded on by the authors and it is unclear what they mean by this. Nonetheless, the results ostensibly support the suggestion that the training had had a positive affect on children’s behaviour.

Another quantitative aspect of the Grey et al (2010) study was the analysis of responses to a teacher questionnaire which evaluated the quality of the training, the perceived effect on participants’ own future practice.

Furthermore, qualitative data is also used in the Grey et al (2010) study, which gives detailed information on what teachers felt they had learned from the training. Some form of thematic analysis was used, although this is not defined specifically. Three relevant themes emerged. The first was around learning about ABA itself, including how to carry out a functional assessment, and understanding of the terminology used. The second was around the value of applying ABA, such as exploring the function of a child’s behaviour, with the result of “empowering teachers to face challenging behaviours”.


The third theme was an evaluation of aspects of the training, including how much time participants had available to complete the training, and the notion that more frequent and prolonged supervision would have been beneficial. This theme has relevance to the third and final research question in the present study, “What are the views of staff regarding the content and the style of this training initiative and the implications for professional development in schools?”

More recently, the Autism Education Trust (AET) developed a training package for school staff, which was rolled out in seven training hubs across the country from 2011. A set of materials was developed to train experienced staff in schools. The resources were designed to work at three levels; (i) a 90 minute awareness raising session, (ii) a one-day training course, and (iii) a two day course aimed at staff with previous experience of working with pupils with autism, and staff with a leadership role in schools. Additionally, a ‘competency framework’ and a set of ‘national standards’ were also produced. At the time of the initial submission of this thesis, there was no published review of the effectiveness of the AET initiative. However, Cullen, Cullen, Lindsay and Arweck (2013) published the final report of the evaluation of the AET training hubs programme some months afterwards, and this is discussed in the relevant chapter of this thesis. (Chapter 5, Conclusions and Discussion).

2.1 (d) The Inclusion Development Programme for Autism

In May 2003, the then Secretary for State for Education published the Primary National Strategy as a result of criticism of the existing National Literacy and Numeracy Strategies. In the publication “The National Strategies: a review of impact” (Ofsted, 2010) three of the key criticisms were:

- “In over half the secondary schools and a third of the primary schools visited, despite their engagement with the National Strategies, the survey found weaknesses in basic teaching
skills. Responsibility for eradicating these weaknesses lies with the schools’ leadership”.

- “Evaluation of the impact of the National Strategies’ many programmes was a serious weakness at national and local level. It was often difficult for the schools and local authorities visited to assess which initiatives worked and which did not”.

- “The frequent introduction of new initiatives, materials and guidance led to overload and diminished the potential effectiveness of each individual initiative. Local authorities were learning how to manage this by tailoring the National Strategies to the requirements of individual schools”.

(Taken from Ofsted, 2010, pg.5)

In 2007, the Department for Education and Skills (DfES) announced plans for ‘The Inclusion and Development Programme’ (IDP), which was one strand of an investment by the Department of Education (DfE) to improve teacher workforce skills in relation to special educational needs and disabilities (SEND). The other main strand of the investment included an increased focus on SEND in initial teacher training programmes. The IDP strand was designed to increase experienced teachers’ knowledge and understanding of SEN in four key areas, specifically speech, language and communication needs, dyslexia, autism and behavioural, emotional and social difficulties. As part of the investment, the DfE funded ‘regional hubs’ in order to support dissemination and the embedding of the IDP at Local Authority and therefore ultimately school level. Emphasis was also placed on strengthening whole-school leadership support for SEN and disabilities.

As stated in the introduction section of this thesis, the aim of the IDP was to provide a programme of continuing professional development for school staff, designed to;

"narrow the gap between those who have special educational needs (SEN) and the overall schools population, and focus on "attainment
and progress across all five outcomes of the Every Child Matters (ECM) Change for Children agenda”. (DfES 2007).

The IDP programme for Autistic Spectrum Conditions was developed in 2009. Web-based resource were designed to support school staff working with children with ASC through on-line and DVD materials, including teaching and learning resources, training materials, guidance on effective classroom strategies, models of good practice for multi-disciplinary teams, and information about sources of more specialist advice. The resources, presented in a variety of forms, including video clips, text, photographs, and audio recordings, enabled practitioners to complete the training as and when they were able, either within designated time in school or out of school in their own time if they so wished.

The picture below is from a video segment in which a teaching assistant, primary SENCo, secondary SENCo and an autism outreach teacher discuss the plans for transition for a Year 6 pupil with Autism.

Figure 1: Photograph taken from the online IDP resource

Other clips include a mother talking about the work the school has done to support her daughter’s social inclusion and describing the benefits of working closely with staff, an educational psychologist explaining her role in relation to pupils on the autism spectrum within schools, and an adult with autism who was not diagnosed until adulthood, describing how he deliberately under-performed at school so as not to stand out, and found social times very difficult.

The resources include detailed information on key aspects of autistic spectrum conditions, including social and emotional understanding,
communication and language, flexibility of thought and behaviour, and sensory perceptions and responses. In more practical terms, advice given includes how to make reasonable adjustments in the classroom, getting to know individual pupils, and where staff might find further advice, support or information.

The IDP draws upon many ideas and strategies that might be considered ‘best practice’ for students with ASD. Cooper-Jones (2010) reported on ‘effective pedagogy’ used with students with ASD in three special schools. Questionnaires were administered to 78 participants, and the questions was posed, “What strategies might you use for students with ASD?” The most frequently mentioned responses were implementing a set routine or schedule, use of visual symbols, use of a picture exchange system, and visual timetables. Many of these ideas are mirrored in the advice from the National Autistic Society (NAS), which advocates “setting clear classroom rules”, “trying visual symbols along with words”, and “use visual timetables”. (Perepa, 2011). The IDP recommends several other ideas and strategies advocated by the NAS, such as creating individual workstations, wearing earplugs, reducing the amount of words used, and the use of alternative communication such as the picture exchange communication system (PECS).

Before commencing the on-line training, participants complete a self-evaluation of their own knowledge and practice, which they are asked to repeat at the end of the training in order to highlight progress made. The self-evaluations were comprised of two parts; a scale for the self-evaluation of ‘knowledge’, and a scale for the self-evaluation of ‘adjustment to practice’. These scales could also be combined to give an overall score for general purposes.

Examples of questions contained in the self-evaluation included the following:

- "I know the main areas affected in pupils on the autistic spectrum" (knowledge)
• "I know why social interaction with peers and adults is hard for a pupil on the spectrum" (knowledge)

• "I adjust my communication style to facilitate interactions with pupils on the autism spectrum" (adjustment to practice)

• "I use strategies to facilitate the social inclusion of pupils on the autistic spectrum" (adjustment to practice)

Although the IDP for Autism was published in 2009, just one year later in May 2010, the new Government came into office, and the Department for Children, Schools and Families (DCSF) was replaced by the Department for Education (DfE). The DfE suggested that the National Strategies and therefore the IDP programme did not necessarily reflect the policies of the new coalition Government, and the web-based IDP resources were accessible, but classed as archived content. Therefore, as the IDP was in a sense ‘decommissioned’, limited research was carried out into its effectiveness. Interestingly, although the new Government archived the IDP resources, they were made available by the charitable organisation Nasen. Lindsay et al (2010, 2011) had been commissioned by the previous Government to “evaluate the impact by the Department for Education to improve teacher workforce skills in relation to special educational needs and disabilities” (Lindsay et al, 2011, pg. 1). There were two main strands to the resulting research, firstly an evaluation of the ‘Training Toolkit’ developed by the Training and Development Agency for Schools, and secondly an evaluation of the IDP programme, including the programmes for Dyslexia and Speech and Language rolled out in Phase One in 2007, as well as the ASC programme rolled out in Phase Two in 2009. The research involved interviews with IDP ‘leads’ in 28 Local Authorities in 2009, and 30 further interviews in 2010, interviews with a cross-section of school staff in 2009 and 2010, and on-line surveys of newly-qualified teachers in 2009 and 2010.

Lindsay et al’s research provided comprehensive insight into the uptake of the resources, as well as their effectiveness and the opinions of practitioners using them, first in an interim report published in November 2010, followed
by a final report published May 2011. Amongst other findings, the interim
document reported the following:

- “Views about the Phase 2 materials (autistic spectrum) were more
  positive” (than the Phase 1 materials for dyslexia and speech and
  language) (Lindsay et al, 2010, pg.3)

- “There were... accessibility difficulties resulting from a mismatch
  between the more advanced technology used and the IT system in
  many schools” (Lindsay et al, 2010, pg.3)

- “The requirement for each LA to have a lead person responsible for
  the delivery of the IDP has facilitated dissemination” (Lindsay et al,
  2010, pg.4)

- “The lack of funding allocated to free time to undertake the role... (of
  ‘lead person’) is a significant limitation” (Lindsay et al, 2010, pg.4)

- “By May/June 2009, many of the IDP leads in our sample were
  reporting high numbers of schools having attended an event about
  IDP, but relatively low numbers of schools that had actively
  engaged with the IDP” (Lindsay et al, 2010, pg.4)

- “Impact was greatest when the CDP had used active learning
  techniques – opportunities to discuss, reflect, plan, try out and
  review were key to subsequent impact on practice” (Lindsay et al,
  2010, pg.5)

Factors which had been found to limit the implementation of the IDP were
also reported. These included:

- Relation to the school’s development/improvement plan
- Nature of LA support
- Nature and level of support from other agencies
- Accessibility of the IDP resources
- Quality of the CPD delivered to school
- Extent of CPD follow through, review and monitoring of practice
- School climate around inclusion
- Individual teachers’ views/beliefs about inclusive education
- Level of support for implementation of IDP, including specialist staff
- Staff factors, e.g. turnover

(Taken from Lindsay et al, 2010, pgs. 4-5)

In terms of the IDP, the 2010 report also made some key recommendations:

- “Consideration should be given to interactive models of IDP dissemination longer term”
- “Consideration should be given to the LA role as a facilitator for sharing learning and practice among professionals, including high quality CPD such as the IDP resources for teachers of pupils with SEN”

(Taken from Lindsay et al, 2010, pg. 5)

Lindsay et al also highlighted key factors which acted as motivators and barriers in engagement and impact of the IDP. A ‘desire to improve practice’, a ‘desire to gain external recognition for inclusive practice’ and ‘a desire to refresh and reinvigorate existing inclusive practice’ were listed as the three main motivating factors for schools to engage with the IDP. ‘Time allocated’ to a key person to look at the materials, ‘leadership support to book slots in the CPD timetable’, and ‘support to make Phase 1 materials more accessible’ were listed as enabling factors in delivering IDP CPD in schools. (Taken from Lindsay et al, 2010, pg. 38)

In terms of barriers, the main themes were listed as; ‘lack of clarity about who would lead on the IDP in school’; ‘lead person not given time to plan’; ‘staff absence’; ‘leadership changes’; other initiatives given priority’; ‘information and training from the LA perceived as insufficient; and ‘technical difficulties related to the autism materials’. (Taken from Lindsay et al, 2010, pg. 38)

Finally, the report also stated some other key points regarding CPD in schools which have particular relevance to the present study. Firstly, that
“practice of CPD was stronger when... there was a whole school approach (and) review sessions were planned in, for example, at staff meetings or with individual teachers”.

The Lindsay et al research was updated in the 2011 report. In addition to further interview data, supplementary data was gleaned from on-line surveys, the autumn 2010 Teacher Voice survey, and the pre-and post training self assessments from the IDP. It was reported that “awareness of and engagement with the IDP” has increased since the interim review.

Percentage information was reported in terms of participants’ views of ‘improved teacher knowledge’, ‘improved teacher empathy’, and ‘promotion of discussion of pupils’ teaching and learning needs’, and each of these aspects were rated positively by at least 89% of respondents. 90% of SENCOs reported that pupil learning had improved as a result of the IDP training, and newly qualified teachers “felt more confident to support pupils with SEND if they had received IDP training”. (Lindsay et al, 2011, pg. 11) These figures referred to the whole of the IDP initiative, not just the AS module.

Although many of the findings were reported as general statements about all modules of the IDP (i.e. the dyslexia and speech and language modules as well as the ASC module) Lindsay et al also made more specific comments regarding the ASC module alone. It was suggested that the ASC modules were regarded positively due to it “manageable size”, and because the materials were “easy to use”. A quote from one of the LA leads for the IDP also suggested that the ASC module was popular because of seemingly increasing prevalence rates nationally; “there is an explosion of children causing concerns across the country, with autistic type behaviours” (Quote taken from Lindsay et al, 2011, pg. 52)

In terms or more quantitative results for the ASC module specifically, the 2011 document reported that 75% rated their increase of knowledge of ASC ‘a fair amount’ or ‘a great deal’. 73% of teachers rated the increase in their understanding of how to teach pupils with autism ‘a fair amount’ or ‘a great deal’. (Lindsay et al, 2011, pg. 62). Improvements in confidence with
teaching pupils with AS was rated ‘a fair amount’ or ‘a great deal’ by a lower figure, 68%. (Lindsay et al, 2011, pg. 63).

There was some use of the self-evaluations within the IDP modules, but the report only provides examples from one local authority. In the example quoted, 60% of respondents rated their confidence in supporting pupils on the autistic spectrum pre-training at level 1 or 2 (from a range of level one, least confident, to level 4, most confident). Post training, only 21% of respondents rated their confidence at level 1 or 2, 55% at level 3, and 24% at level 4.

The 2011 document reported 5 main features of CPD around the IDP that were effective in changing practice. These were:

- CPD “tailored to the school context”, e.g. a whole school aim.
- CPD including all teachers and ideally all teaching assistants.
- CPD was an “ongoing process rather than a one-off event”
- CPD had “a clear focus on immediate relevance to improved practice”.
- CPD “provided information resources to which reference could be made at a later date”.

(Lindsay et al, 2011, pg. 60).

Although there is a lack of other research into the IDP resources, the findings of the Lindsay et al research will be discussed in terms of the results of the present study in Chapter 5, the Discussion.
2.2 THEORIES OF LEARNING AND KNOWLEDGE TRANSFER

Theories of learning have long been researched, studied and documented in various paradigms, including behaviourist theories such as Pavlov’s classical conditioning (Pavlov, 1928) and Bandura’s social learning theory (Bandura, 1971, 1986); cognitivist theories such as Weiner’s attribution theory (Weiner, 1992), or Tolman’s Gestalt Psychology (Tolman, 1938); and constructivist theories such as Piaget’s stage theory of cognitive development (Piaget, 1926), and Vygotsky’s Social Development Theory (Vygotsky, 1978). Some theories of knowledge transfer (such as Dissanayake, 1986) seem to suggest that knowledge can be thought of as an ‘object’ that could be passed on from creator to the user, via an interpreter or teacher. During the teaching and learning activity, the user was seen as “a passive actor or receptacle of knowledge, and the context within which the transfer occurred was typically ignored”. (Parent, Roy and St. Jacques, 2007). However, models of knowledge transfer such as these have been criticised for not considering the reality of which the knowledge has been created, or the reality in which it will be used. (E.g. Frambach, 1993).

Dewey (1938) was one of the early pioneers of experiential learning theories. He “showed how individuals create new knowledge and transform themselves through a process of learning by performing new roles” (Fenwick, 2001, pg.3). Fenwick (2001) carried out a detailed critique of experiential learning, including a review of its role in 20th century education. She describes how Dewey suggested that in order to learn, experiences must include two key dimensions:

“First is continuity: the learner needs to be able to connect aspects of the new experience to what he or she already knows, in ways that modify this knowledge. The second is interaction: the learner needs to be actively interacting with his or her environment, testing out lessons developed in that environment. Dewey believed the educator should help link disparate experiences into a coherent whole”.

(Fenwick, 2001, pg.3)
In the 1970s and 1980s models which emphasised the experiences of the learner came to the fore, including Kolb’s model of experiential learning (Kolb and Fry 1975, Kolb 1984); and Honey and Mumford’s typology of learners (Honey and Mumford 1982). These theories focussed on the experiential process of transferring theoretical knowledge to practical knowledge by using knowledge in a real-life setting. Kolb defined experiential learning as

"the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (Kolb 1984, pg. 41).

Kolb's learning theory sets out a 'cycle of learning' as a central principle of his experiential learning theory. Kolb suggests that 'immediate or concrete experiences' provide a basis for 'observations and reflections'. These 'observations and reflections' are assimilated and refined into 'abstract concepts', producing new implications for action which can be 'actively tested' in turn creating new experiences. This can be represented by the figure below:

**Figure 2 – Kolb’s model of experiential learning (i)**

Kolb also suggest that individuals tend towards one of four main learning styles, each representing the combination of two of the stages of the cycle.
These are described in a review article by Kolb, Boyatzis and Mainemelis, 1999:

1. Diverging (Concrete Experience – Reflective Observation)

“People with this learning style are best at viewing concrete situations from many different points of view. It is labelled “Diverging” because a person with it performs better in situations that call for generation of ideas, such as a “brainstorming” session... In formal learning situations, people with the Diverging style prefer to work in groups, listening with an open mind and receiving personalized feedback”.

2. Assimilating (Reflective Observation - Abstract Conceptualisation)

“People with this learning style are best at understanding a wide range of information and putting into concise, logical form. Individuals with an Assimilating style are less focused on people and more interested in ideas and abstract concepts... In formal learning situations, people with this style prefer readings, lectures, exploring analytical models, and having time to think things through”.

3. Converging (Abstract Conceptualisation – Active Experimentation)

“People with this learning style are best at finding practical uses for ideas and theories. They have the ability to solve problems and make decisions based on finding solutions to questions or problems. Individuals with a Converging learning style prefer to deal with technical tasks and problems rather than with social issues and interpersonal issues... In formal learning situations, people with this style prefer to experiment with new ideas, simulations, laboratory assignments, and practical applications”.

4. Accommodating (Active Experimentation - Concrete Experience)

“People with this learning style have the ability to learn from primarily “hand-on” experience. They enjoy carrying out plans and involving themselves in new and challenging experiences. Their tendency may be to act on “gut” feelings rather than on logical analysis. In solving problems, individuals with an Accommodating learning style rely
more heavily on people for information than on their own technical analysis... In formal learning situations, people with the Accommodating learning style prefer to work with others to get assignments done, to set goals, to do field work, and to test out different approaches to completing a project”.

Taken from Kolb, Boyatzis and Mainemelis, 1999, pgs. 5-7

The four stages of the cycle plus the four styles of learning can therefore be represented as per figure 2 below:

**Figure 3 - Kolb’s model of experiential learning (ii)**

Honey and Mumford (1982) built a typology of Learning Styles as a variation on the Kolb’s model, (Kolb and Fry, 1975) identifying individual preferences for each stage. The four stages are described as follows:

1. 'Having an Experience' – for example being ‘Activists’ - 'here and now', gregarious, seek challenge and immediate experience, open-minded, bored with implementation.
2. ‘Reviewing the Experience’ for example being ‘Reflectors’ - 'stand back', gather data, ponder and analyse, delay reaching conclusions, listen before speaking, thoughtful.

3. ‘Concluding from the Experience’ for example being ‘Theorists’ - think things through in logical steps, assimilate disparate facts into coherent theories, rationally objective, reject subjectivity and flippancy.

4. ‘Planning the next steps’ for example being ‘Pragmatists’ - seek and try out new ideas, practical, down-to-earth, enjoy problem solving and decision-making quickly, bored with long discussions.

Boud and Walker (1991) and Boud, Cohen and Walker (1993) also expanded Kolb’s model of experiential learning, adding two further aspects that they suggest are key parts of the process. The first of these is the assumption that a learner’s experience is shaped by their specific context, including their personal history, their emotional state, and their preferred learning strategies. Boud (1994) refers to this as the “personal foundation of experience (Boud, 1994, pg.2). The second aspect is the “learning milieu, i.e. the social, psychological and material environment in which the learner is situated.” (Boud, 1994, pg.2).

Boud (1994) describes the process of experiential learning in a sequential manner, with three distinct parts – ‘prior’ to the event (of learning), ‘during’ the event, and ‘following’ the event. ‘Prior’ to the event, Boud suggests that three considerations should be taken into account; a focus on the learner, a focus on learning skills and strategies, and a focus on the milieu.

‘During’ the event, learners may be engaged in ‘noticing’, ‘intervening’ and/or ‘reflection in action’. Boud also stresses the importance of experiences ‘after’ the event, including ‘return to experience’, ‘attending to feelings’ and ‘re-evaluation of experience’. This is summarised in the following figure:
“Experience can be seen as a continuing, complex series of interactions between learners and the learning milieu, unified by a reflective process which assimilates and processes the learning potential of the environment, and can move learners to take appropriate action within the experience”. (Boud and Walker 1991, pg.18)

Some authors (e.g. Miettinen 2000, Fenwick 2001 and Seaman 2008) have criticised the work of Kolb, for example suggesting it is out-dated or over-emphasises a sequential nature of learning. Miettinen’s discussion of experiential learning heavily explores the background to the development of Kolb’s experiential learning theory, including a comparison to the early work of Dewey (e.g. Dewey 1938) and discussion of Kolb’s reference to the work of Lewin (e.g. Lewin 1957). Miettinen argues that Kolb’s theory was an eclectic mix of procedures, methods and historical theories and was designed to add weight to the use of the learning style inventory:

“One cannot help concluding that Kolb’s motive is not critical evaluation or interdisciplinary, but an attempt to construct an ‘attractive’ collection of ideas that can be advocated as a solution to the social problems of our time and to substantiate the usefulness of his learning style inventory” (Miettinen, 2000, pg. 56)
Miettinen also argues that Kolb did not base his early work on Lewin, but instead on a book by Lippet (1949). Miettinen suggests that whilst Lippet’s work is:

“one of the finest and most careful reports ever written about educational enterprise... Kolb uses it very selectively” (Miettinen, 2000 pg. 57).

A third criticism Miettinen has of Kolb is that the phases of the learning cycle are separate and that Kolb “does not present any concept that would connect the phases together”. (Miettinen, 2000, pg.61).

Fenwick (2001) argues that in Kolb’s model of experiential learning;

“context is given little consideration. ‘Experience’ and ‘reflection on experience’ are portrayed as if this ‘learning’ exists in what Jarvis (1987) called ‘splendid isolation’.” (Fenwick 2001, pg.20)

Although Fenwick acknowledges that the work of Boud and his colleagues, specifically Boud, Keogh, and Walker 1996) addresses the issues of ‘context’, she argues that;

“context here is portrayed problematically as a static space separate from the individual. The learner is still viewed as fundamentally autonomous from his or her surroundings”. (Fenwick, 2001, pg.21)

Ord and Leather (2011) are somewhat more forgiving of Kolb’s theory, and suggest that his work is commonly misunderstood and misrepresented, especially in terms of being a rigid, sequential process:

“Thus he appears to see these aspects of the cycle as separate, difficult to integrate and one must presumably pass from one to another distinctly and sequentially. However importantly at other times Kolb, on the contrary, suggests that learning is not a sequential process of passing through separate phases or functions but a holistic process. This process is what he refers to as a dialectic integration of opposing functions”. (Ord and Leather 2011 pg. 6)
Moon (2004) goes as far to suggest that the Kolb model is not a model of learning at all, but is in fact a teaching model. She also supports the notion that ‘experience’ is distinct from ‘learning from experience’, and suggests that the term ‘experience’ quoted in experiential learning theories is “generally not mediated experience” (Moon, 2004, pg. 83-84, my italics). However, she suggests that experiences can be mediated by ‘educational orientation’ or ‘engineering’ by a facilitator.

Seaman (2008) appears to agree with this idea, suggesting that;

“the pattern of “experience-reflect-learn” might be considered an ideology of experiential learning rather than a philosophy or a theory of experiential learning. In its time, this framework served a useful purpose. However, given changes in knowledge, research methods, participant populations, societal trends, and educational goals, it might now be influencing research and practice in unhelpful ways."

(Seaman, 2008, pg.15)

The implications of the results of the current research will be discussed in terms of previous models of learning theory and the criticism cited above in Chapter 5, the discussion.
2.3 PROFESSIONAL DEVELOPMENT FOR SCHOOL-BASED STAFF

2.3 (a) Professional development and teacher change

Although the section immediately preceding this one discussed the literature surrounding learning, and adult learning in particular, there is somewhat of a different slant taken in educational literature surrounding theories of what is often termed ‘teacher change’ or ‘professional development’. Guskey (2002) defines professional development as,

“systematic efforts to bring about change in the classroom practices of teachers, in their attitudes and beliefs, and in the learning outcomes of their students”. (Guskey (2002 pg. 381).

Historically, much of the professional development for teaching staff has been what one might call an ‘injection’ method, i.e. where staff attend an initial training event, where a so-called ‘expert’ aims to pass on direct knowledge of the subject matter in question, and the staff are seen as passive recipients. This draws similarities with theories of knowledge transfer, which were cited in the section above, e.g. Dissanayake (1986). Clarke and Hollingsworth (2002) described traditional models of teacher professional development as a causal chain, beginning with some in-service training, which leads sequentially to a change in knowledge and beliefs, a change in teacher’s classroom practices, and eventually a change in student learning outcomes. This might be represented by the figure below:

*Figure 5 – Traditional model of teacher change as described by Clarke and Hollingsworth, 2002*
However, researchers such as Clarke and Hollingsworth (2002) and Guskey (2002) argue that this method rarely results in anything more than a surface level of improved awareness, knowledge and understanding. Instead, more recent models of professional development have focused on the ‘recipients’ of the training as reflective practitioners who are given opportunities to share practice and expertise in a supportive environment.

Guskey (1986) developed an alternative model of teacher change describing a sequence among three major outcomes of professional development; a change in classroom practice (as a result of new learning) leading to increased understanding of pupils' learning, and then to a change in the teacher's beliefs and attitudes. This is represented in the figure below:

**Figure 6 – Guskey’s model of teacher change**

![Diagram of Guskey's model of teacher change](image)

Guskey stresses the point that the most crucial factor in the model is not the initial professional development (i.e. the training initiative given to teachers) but rather the "experience of successful implementation that changes teachers’ attitudes and beliefs".

Clarke and Hollingsworth (2002) described the ‘Interconnected Model of Teacher Professional Growth’, which was based on a model by Clarke and Peter (1993) and later “revised” by the Teacher Professional Growth Consortium, 1994. This model is explicitly linked to theories of learning, and the authors emphasise the fact that this model is not linear, but represents a complex and fluid process. Within this model, Clarke and Hollingsworth highlight two significant processes which mediate and facilitate change. The first is ‘enaction’, described as “the putting into action of a new idea or a new belief or a newly encountered practice from simply acting” (Clarke and
Hollingsworth, pg. 953). Second is ‘reflection’, defined as “active, persistent and careful consideration” (Clarke and Hollingsworth, pg. 954).

The interconnected model of professional growth is represented by the figure below:

**Figure 7 – The interconnected model of professional growth**

![Interconnected model of professional growth diagram]

Key:
- **Enactment**
- **Reflection**

Clarke and Hollingsworth’s model shares some obvious illustrative similarities with Kolb’s model of experiential learning, and indeed some of the ideas and terminologies used appear related. For example, ‘external source of stimulation’ and ‘professional experimentation’ might be considered akin to Kolb’s ‘concrete experience’ and ‘active experimentation’ correspondingly.

Mushayikwa and Lubben (2009) reiterate that more recent models of teacher professional development have progressed from a ‘deficit’ model, whereby external ‘expertise’ is used to fill in missing information, to ‘empowerment’ models, whereby teachers are encouraged “to take the initiative in identifying and acting on their own individual needs” (Mushayikwa and Lubben, 2009,
However, these authors point out that such models “do not explain why some teachers easily integrate what they learn during the planned professional development process, whilst others soon go back to their prior practice without any signs of having gained from the experience” (Mushayikwa and Lubben, 2009, pg. 375). What Mushayikwa and Lubben suggest is that there are other factors not described in previous models, that can explain these differences, especially what they term ‘the will to learn’, or willingness to engage in self-directed professional development activities. Again, it is possible to draw comparison with experiential learning theories: The criticism quoted above, regarding the differences in outcome for teachers undertaking the same professional development activity, bears at least some resemblance to Boud’s criticisms of Kolb’s learning theory (Boud, 1994) - more specifically to the need to consider context such as personal experiences and the learning milieu.

Mushayikwa and Lubben (2009) interviewed 55 teachers and carried out a thematic analysis of the interview transcriptions to explore the main concerns that teachers had regarding professional development. The authors suggested that teachers were “driven by seven main concerns when engaging in self-directed professional development” (Mushayikwa and Lubben, 2009, pg. 378). These can be summarised as follows:

- Professional identity – including professional well-being such as self-esteem and self-confidence, and professional recognition such as having trust and respect from colleagues and students.
- Career development – i.e. keeping abreast with developments and getting support for life-long learning.
- Subject content knowledge – e.g. to keep up with curriculum changes.
- Practical knowledge and professional skills – e.g. developing new skills and teaching approaches, and improving classroom interactions.
- Pedagogical content knowledge – i.e. adapting content to the syllabus depth required, to the local context, and to different student abilities
- Professional networking – the practice of comparing and sharing experiences and skills.
- Benefits to teachers and students - i.e. improvements in students’ performance and being more critical and reflective of their own teaching resources.

Adapted from Mushayikwa and Lubben, 2009, pg. 378).

The authors grouped these themes further into two main themes (professional efficacy and classroom efficacy) and used the umbrella term 'teacher efficacy' to define and describe the “underlying organising force that powers self-directed professional development”. (Mushayikwa and Lubben, 2009, pg. 382). If this is so, it might therefore be possible to surmise that teaching staff place different amount of value to each of these seven themes, and this might also explain differences in outcomes for individuals undergoing the same training.

Nir and Bogler (2008) carried out research into teacher satisfaction with professional development programme. The authors administered a questionnaire to 841 participants, all of whom had at least three years of teaching experience. Their findings suggested that teachers rated professional development programmes more favourably when:

- They took place in a “warm, familiar environment such as the school site”;
- When “no additional members are involved in the supervisory process, including the school principal”;
- When “participation of groups of people from the same school is related to coherence and active learning opportunities, which are in turn related to improvements in teacher knowledge and skill and changes in classroom practice”;
• when “process are designed to serve teachers’ actual needs rather than to meet procedural requirements”;

• when teachers are “able to decide for themselves whether to participate in a particular professional development process or not”;

• when instructional processes were “shaped in accordance with their needs and expectations”.

(Adapted from Nir and Bogler 2008, pgs 383-384)

In terms of the current research and of many examples of in-service training, the majority of the factors defined by Nir and Bogler might be the same for each participant (e.g. where the training took place) with the exception of the last factor, ‘instructional processes shaped in accordance with needs and expectations’. Obviously ‘needs and expectations’ would vary between each individual, and might be dependent on previous experiences and context (e.g. whether or not the participant has a child with autism in their current cohort) and so again the need to consider experience and context seems an important consideration in the planning of any professional development activity.

2.3 (b). Collaborative learning in professional development training in schools

Garet, Porter, Desimone, Burman and Yoon (2001) explored the views of teachers in the United States regarding what makes Professional Development activities effective. Perhaps unsurprisingly, what Garet et al describe as ‘workshop’ i.e. a traditional injection method of one-off training outside of school time was criticised as being ineffective. Instead, Garet et al (2001) suggested that “reform types of professional development, such as study groups or mentoring and coaching” (Garet et al pg. 920) are more likely to “make connections with classroom teaching” and “may be more responsive to how teachers learn”. The authors also proposed that groups of teachers (ideally from the same school) are more likely to benefit from working in a group, as they would naturally discuss concepts, skills and
problems, would be able to share resources and materials, and could discuss the needs of students within school.

The concept of collaborative work has been discussed in terms of the education of students for decades, but the use of collaboration in teacher professional development has also been the subject of research. Burbank and Kauchack (2002) explored the idea of collaborative professional development after suggesting that historically

"one of the major limitations of traditional models of professional development is the passive role imposed on teachers, who find it difficult to implement ideas that are often conceptually and practically far removed from their classrooms". (Burbank and Kauchack, 2002, pg. 500).

The authors also acknowledged that the role of collaboration in teaching had traditionally been restricted, and "too often limited to an exchange of daily anecdotes or discussion of tricks of the trade" (Burbank and Kauchack, 2002, pg. 500) In their 2002 study, Burbank and Kauchack used qualitative and quantitative methods to investigate the role of collaboration in action research amongst 20 teachers. The authors proposed that the findings of the study indicated that there might be potential for the effective use of collaboration amongst professional development in teachers, and that collaboration was perceived positively by the participants of the study, particularly by more experienced teachers. However, despite the apparent effectiveness and positive regard, it was reported that 'timing' was a major problem for most participants, with one interviewee suggesting that trying to fit in action research on top of the demands of teaching was "overwhelming".

Of course, this would not necessarily be limited to collaborative work – it is possible or even likely that any relatively intensive training or additional workload would add to the stresses and strains of teaching.

Butler, Lauuscher, Jarvis-Selinger and Beckingham (2004) also discussed collaboration and self-regulation in teachers' professional development in their 2004 paper (Butler, Lauuscher, Jarvis-Selinger and Beckingham, 2004). Butler et al criticised traditional models of teacher professional development
for being "shallow" and formulaic. Interestingly these authors (like Burbank and Kauchack, 2002) also touched upon the issue of timing and the difficulties of fitting in professional development activities alongside direct teaching. They point out that:

"it is difficult to make meaningful shifts in practice without stepping away from the immediate demands or having time to reflect on teaching".
(Butler, Lauuscher, Jarvis-Selinger and Beckingham, 2004, pg. 438).

Butler et al (2004) also suggested that collaborative working might sustain momentum, but also that:

"self-regulated learning by students can be enhanced by engaging them in interactive discussions in which they reflect on the learning process".
(Butler, Lauuscher, Jarvis-Selinger and Beckingham, 2004, pg. 439).

During their research, Butler et al used data from interviews, observations and "document collection" to investigate teacher learning during professional development activities including workshops, collaborative planning, problem-solving, co-teaching and debriefing. The results suggested that there were positive effects as a result of the implementation of the professional development activities, although there was some acknowledgment that there was a risk of participant being somewhat over-dependent on the researchers for "maintaining instructional changes", and Butler et al therefore suggest that avoiding such dependence might be a key challenge for future practice and research.

More recently, Kaasila and Lauriala (2010) commented on the apparent benefits of having an individual in the role of mentor or leader throughout professional development activities. Through their research into an "interactionist, collaborative model of change", the authors found that benefits of a mentor role included the finding that:

"a mentor and a novice generated shared understandings, through which the novice internalizes new ways to think" and that "the role of leader seems important factor for changes to take place" (Kaasila and Lauriala, 2010, pg. 861)
However, these authors did not go as far as exploring the possibility of dependency, as mentioned by Butler et al in 2004, which would have been an interesting follow up to the study.

Despite earlier warnings of the issues of timing and the importance of school staff being released from direct teaching in order to engage in professional development (and collaborative professional development in particular) these concerns seem to continue to exist into more recent years. Maloney and Konza (2011) carried out an investigation into a "professional learning" project designed to support "critical reflection" amongst teaching staff. Again, these authors make similar comments to Burbank and Kauchack (2002) and Butler et al (2004) in that they argue that

"Opportunities for teachers to interact either within or outside school have mostly been sporadic and random" and that "teachers have traditionally worked within the confines of their own classrooms, with little time to engage in collegial or structured conversations about practice" (Maloney and Konza, 2011, pg. 76 - 77).

Furthermore, they suggest that

"the development of professional learning communities relies on teachers having the desire to participate in practitioner research in order to extend their knowledge and skills, and to improve their practice" (Maloney and Konza, 2011, pg. 76).

The authors used interview, focus group and survey data from twelve teachers and eight teaching assistants to explore (i) "What processes are used to develop an effective professional learning community" and (ii) "what factors impact on the development of an effective professional learning community". Participants were remunerated for their attendance at the initial sessions, and "energy and optimism" appeared high at this stage. However, the researchers reported that this initial positivity and "sense of cohesion" eventually waned, with only five of the twenty participants attending every one of the arranged sessions. It was also suggested that some participants may have been intimidated by stronger personalities in the group, in that they
were "reluctant to continue sharing beliefs that conflicted with those of the strongest voices in the group" (Maloney and Konza, 2011, pg. 81) resulting in the quieter participants leaving the groups, or becoming overly passive in them.

Once again, timing was a crucial factor and "impacted upon teachers willingness to attend and on their level of participation and interaction" (Maloney and Konza, 2011, pg. 81). As in the studies cited in the paragraphs above, timing issues relating to conflicts between time for professional development and time for direct teaching were reported. However, 'timing' in this case also referred to the timing of the sessions conflicting with personal needs, such as being too tired at the end of a teaching day to engage in professional development activities.

The role of the researcher was again highlighted in the Maloney and Konza (2011) study. However, unlike the Butler et al (2004), where the role of the researcher benefited the involvement of the participants to the extent of over-dependency, Maloney and Konza suggested that the presence of the researchers may have

"suppressed participants' confidence to voice differing opinions and thereby affected teachers' general willingness to participate". (Maloney and Konza, 2011, pg. 85).

Finally, Maloney and Konza (2011) also reported the effect of the "school executive" (which is likely to be the role of a Head teacher in the UK). It was suggested that despite offering financial compensation for attendance out of school time, release time from teaching, and the offer of "other resources", some staff were still reluctant to engage in professional development activities. It appears to be suggested that the PD activities were seen as a 'top-down' initiative perhaps more concerned with pupil outcome, than a self-directed initiative designed to promote personal learning, and this ultimately discouraged some participants from fully engaging.
2.3 (c). The use of ICT in professional development and learning

With the advances in information communication technology (ICT), professional development has in recent years started to incorporate more diverse methods of training delivery. As stated by Yang and Liu (2004)

“Web-based PD provides opportunities for traditional PD that would otherwise be prevented by geographic and professional isolation, time, (and) financial resources” (Yang and Liu, 2004, pg 734).

ICT-based training, especially training available on the internet, offers a wide range of features and designs that have the potential to match different ways of learning. Greenhow, Dexter and Riedel (2006) listed some of the key features and designs currently available. These included:

- Data in graphical, text-based and/or multi-media forms (acknowledging diverse learning styles)
- Interactive design tools with electronic prompts to scaffold thinking
- Electronic note-books
- Tools for self assessment
- Interactive survey instruments
- Hyper-links to other useful resources and websites
- Tools that encourage peer exchange, constructive critique and networking
- Searchable on-line data-bases.

(Adapted from Greenhow, Dexter and Riedel, 2006, pg. 7)

Yang and Liu (2004) explored the value of on-line workshops using data from questionnaires and brief interviews with 128 participants. The authors suggested that participants generally reported the on-line workshops to be “positive, rewarding, constructive, empowering, exciting and challenging” (Yang and Liu, 2004, pg 734). More specifically, learners reported benefits such as clarification and deeper understanding of key concepts, opportunities to learn new things, a natural tendency to discuss teaching with colleagues,
and an increase in self-reflection. There was also an incidental benefit of increases in technological competence, due to the nature of accessing the workshop online. The ability to access the training at their own convenience acted as a facilitator in that the on-line workshop “provided valuable opportunities that otherwise would have been unavailable” (Yang and Liu, 2004, pg 753).

However, despite the positivity cited above, there appear to have been some drawbacks with web-based learning. Participants suggested that there should have been more face-to-face seminars and more of a mentoring role. This might imply that wholly online learning may lack a social element that some learners may require. Although a shared forum was accessible, the researchers found that learners tended to post brief messages, and rarely, but such message lacked a depth of interaction. Moreover, it was also found that the role of forum moderator was important in how often the forum was used, with the perceived helpfulness of the moderators correlating with increased participation. Technical difficulties were a barrier to some participants, but specific difficulties are not reported by the authors except that some learners were unable to access the “necessary equipment” and “the internet itself”. Finally, despite the autonomy in deciding when and where to engage in the on-line workshop, there were issues with some learners managing time to do so. In summary, the authors recommended that any future on-line training should be

“sensitive to the demands placed on others” and that “care must be taken in preparing and providing essential assistance and guidance”. (Yang and Liu, 2004, pg 754).

In a similar vein Koc, Pecker and Osmanoglu (2009) evaluated the use of an online video case discussion. They used content analysis of 26 participants’ responses to a video case presented by an experienced teacher, which included online discussions of the case. Despite some limitations of the study, such as there was a relatively small sample size, and only a single video case used, the authors argued that the results showed that “the video case was an effective tool” because students were able to revisit the video as
and when needed, because it “allowed the participants to see the complexity of classroom teaching in greater detail than a written case possibly allows” and it enabled participants to “see how the written standards of mathematics teaching were enacted in the pedagogy of a veteran teacher”. (Koc, Pecker and Osmanoglu, 2009, pg. 1166)

Palmer and Holt (2009) asked 761 participants about their satisfaction levels regarding an on-line learning course. Participants engaged in different online courses, and a survey was administered including measures of student demographics, study time, evaluations of the structure and content of the courses, and student performance. Interestingly, the authors reported that students appeared to spend less time studying; 4 hours per week or less, as opposed to the “expected” 8 to 10 hours. Additionally, when participants were asked to rate the importance of different aspects of the on-line course, the aspects that might be thought of as basic requirements for on-line learning, such as ‘being able to learn without face-to-face contact’, were given the lowest importance ratings. A less surprising finding was that increased satisfaction with on-line learning was connected to confidence in ICT skills, leading the authors to suggest that in the future, “students need to be equipped to be competent and confident in operating in the wholly on-line mode, either before and/or as part of taking a wholly on-line unit”. (Palmer and Holt, 2009, pg. 110).

Dey, Burn and Gerdes (2009) researched somewhat deeper into the effects of using ICT in teaching and learning in adults. A total of 195 students took part in the study, and students were randomly assigned to one of three groups. (The authors do not give exact numbers of participants in each group). Participants all watched the same 20-minute multi-media presentation on physics. One group watched an on-line video presentation by a lecturer in which the lecturer’s image was visible, corresponding to the power-point slides presented (the ‘personalized’ group). The second group watched the same on-line power-point presentation, but the only lecturer’s voice was shown, not his video image (the ‘neutral’ group). The third, control group consisted of a ‘live’ presentation (i.e. not on-line) of the same power-
point slides (the ‘live’ group). All participants were given three follow up questions. Two of the questions were designed to test the direct transfer of knowledge (the ‘retention’ questions). A third question was designed to test the students’ ability to generalise or apply the learning from the presentation (the ‘transfer’ question). Students rated the ‘live’ presentation as being higher quality than either of the video groups, and also reported that the lecturer’s instructions made more sense. In terms of the questions regarding the transfer of and generalisability of knowledge, there were no significant differences between the three groups on the retention question, but students fared better on the transfer questions in the ‘personalized’ video group than those in the ‘neutral’ video group and than those in the ‘live’ group. Given that students rated the ‘live’ presentation more highly, the latter finding might seem somewhat incongruous. However, the authors’ suggestion is that “the live groups tended to focus more on what the professor was saying rather than on the information contained in the slides” and that as the information in the power-point presentation was used as the basis for the transfer question, this information “might have been more salient” and therefore would explain “the higher achievement by the personalized video group and the neutral video group”. (Dey, Burn and Gerdes, 2009, pg. 391). Importantly, the authors do not necessarily suggest that this would work for every aspect of on-line teaching, but worked in this case as the topic was “equation heavy” and required a good understanding of equations. It is not suggested or implied that such a factor would be present in other online learning courses.

Shinkavera and Benson (2007) explored the relationships between ICT skill and ‘self-directed learning ability’, during on-line learning. ‘IT competency’ was defined as

“the minimum level of computer skill and knowledge which a student needs to learn with IT” (Shinkavera and Benson, 2007. Pg 420).

‘Self-directed learning (SDL) ability’ was defined as

“a person’s ability to be autonomous and self-regulated in learning and to be a self-directed continuing learner” (Shinkavera and Benson, 2007. Pg 420).
A single group of 198 students was used in a pre/post test design to assess the relationship between students’ IT competency and SDL ability at the beginning and end of the online course. It was reported that students’ levels of IT competency had “slightly increased” by the end of the online course (though no effect size is reported), but that SDL ability did not change.

The researchers found no overall correlation between students’ IT competency and SDL ability, but did find that students with higher SDL ability tended to have greater IT competency. It was therefore suggested that learners require good SDL ability in order to fully benefit from online learning.

A useful metaphor given by the authors is thus:

“One can compare SDL ability in the learning process with language and literacy in the reading process. Only students who possess a high level of language literacy can enjoy and fully benefit from the reading process. While, students with low literacy usually struggle with this process and consequently, could not equally benefit from it”. (Shinkavera and Benson, 2007. Pg 430).

Falowo (2007) acknowledges that web-based learning has several important advantages, such as control over time, pace and the place of learning, and the ability to exchange information and to communicate “without constraints”. However, his literature review (Falowo 2007) warns of several factors that can serve to impede learning in this manner, which he categorises into three areas; (i) student barriers, (ii) staff barriers and (iii) institutional organisation barriers.

Student barriers included ‘insecurities about learning’, and were defined as

“personal and school related issues such as financial costs of study, disruption of family life, perceived irrelevance of their studies and lack of support from employers”. (Falowo 2007, pg. 323)

‘Perceived lack of feedback or contact with the teacher’ was also included in the ‘student barriers’ heading, as it was suggested that learners may feel ‘abandoned’ or have trouble with self-evaluation. Other concerns in this area
were cited as ‘lack of support and services’, ‘lack of technical assistance’, and difficulties with ‘accessibility to materials’.

As in the Yang and Lui (2004) study, it was suggested that the lack of direct social interaction with tutors was also an issue – if learners are unable to pick upon non-verbal signals to judge their tutor’s perceptions of their work, it can lead to frustration and ultimately impedes learning. Perhaps more obviously, Fallowo suggested that learners’ level of IT experience correlated directly with whether or not it was a barrier to their online learning.

Staff barriers were listed as legal questions about copyright, the burden on teachers in planning and preparing additional online resources when traditional resources were already in place, the burden on teachers again regarding time for online communication with students, especially if students expected fairly rapid responses to email questions, and lack of teachers’ basic IT skills.

Organizational institutional barriers included technological issues, lack of administrative support, and lack of commitment from institutional leaders. Fallowo suggests that technical issues are the most easily resolved, e.g. by financing new technologies and telecommunications, but acknowledges that availability of funds is a major concern for learning institutions and students alike.

Finally, Fallowo comments upon the perception of the quality of on-line courses, suggesting that “many believe distance courses are inferior to traditional courses” and that “it is a commonly held belief that distance students perform more poorly in assessment than do internal students”, (Fallowo, 2007, pg. 333) though no studies are cited to support this viewpoint. He suggests that the material presented in online courses should be carefully considered and that they should be planned and prepared jointly by teachers and technology experts.
**2.3 (d) Training and professional development for support staff and teaching assistants in schools.**

In 2007, the Government published “Raising standards and tackling workload: a national agreement” (colloquially known as the Workforce Agreement) (DfES, 2003) to relieve pressure on teachers by reducing bureaucratic tasks by using support staff to instead carry out relevant duties. Butt and Lance (2005) noted:

> “This re-definition of jobs [support staff] is rapidly becoming a cornerstone to the modernization and remodelling of the teaching profession.” (Butt and Lance, 2005, p.139)

As part of the Agreement, teachers were no longer required to undertake certain duties, including collecting money from pupils and parents, photocopying, preparing, setting up and taking down classroom displays and setting up and maintaining ICT equipment and software. As a result, since 2007 there has been a vast increase in the number of adults employed in school to support and assist teachers and pupils. Interestingly, in the current economic climate, this appears under threat once again, as suggested by accounts in the press in 2013 (Stevens, 2013).

Swann and Loxley (1998) quoted the DfEE in suggesting that there were 46,300 full-time equivalent support staff in schools in 1995. Blatchford, Bassett, Brown and Martin (2005) quoted the DfES in suggesting that there was a 99% increase in the numbers of teaching assistants in school during the period of January 1997 to January 2003. (Blatchford, Bassett, Brown and Martin, 2005. pg.6.) More recently Farrell, Alborz, Howes and Pearson (2010) suggested that in the previous six years, there had been a "continued expansion" in the numbers of teaching assistants. (Farrell, Alborz, Howes and Pearson, 2010, pg. 436). Butt and Lance (2009) described the previous (Labour) Government's financial investments in teaching assistants, suggesting that between 1999 and 2002, approximately £350 million was spent on recruiting and training for teaching assistants, and that between 2001 and 2004 "a further £200 million was made available annually by the Government to sustain the recruitment and training of TAs, who now
compromise around 25% of the education workforce." (Butt and Lance, 2009, pg. 220)

Given the increasing number of adults employed to take on supportive roles within the classroom, along with substantial financial investment, one could expect that there might be a plethora of training available for teaching assistants, and accordingly a good amount of research into the effectiveness of the teaching assistant role. Certainly in 1998 this was not the case. Swann and Loxley (1998) stated

"one of the most striking features of the work of classroom assistants is how little attention has been paid to it by researchers, practitioners and policy-makers" (Swann and Loxley, 1998, pg. 142.)

In their evaluation study of a school-based training programme for teaching assistants, the authors found that the majority of teaching assistants claimed that their knowledge, skills adaptability and confidence had increased as a result of the training. However, less positively, less than half reported that the training had "increased their participation in the teaching and learning process" (Swann and Loxley, 1998, pg. 155.) So although there was a positive impact upon some aspects of professional development (e.g. the acquisition of new knowledge and skills) there seems to have been much less impact in terms of the practical aspects of the job. Perhaps equally unsettling is the findings of the study by Moran and Abbott (2002) in which Headteachers were interviewed about the role of the teaching assistants. Although all participants reported that teaching assistants in their schools received "ongoing guidance and direction and in-house professional development", there was a distinct absence of in-service training for TAs from the local education authorities or any other agencies. (Moran and Abbott, 2002, pg. 167.)

Hancock, Swann, Marr, Turner and Cable (2002) explored the employment and deployment of teaching assistants, and suggested that by 2002 "a considerable amount of training was on offer to assistants" but that the "range and availability varied between LEAs and schools". (H Hancock, Swann, Marr, Turner and Cable, 2002, pg. 4) Some teaching assistants who had
participated in the research even reported that they had paid for their own training themselves. Several other barriers to training were also reported, including transport costs and family commitments. Although 79% of respondents reported that they were invited to staff training, only half of them were paid for doing so.

By 2005, the situation regarding training for teaching assistants was somewhat improved. Groom and Rose (2005) suggested that the role teaching assistants was perceived as more ‘professional’ following the introduction of “new accredited training initiatives and qualifications such as the Professional Standards for Higher Level Teaching Assistants” (Groom and Rose, 2005, pg. 20) (Workforce Agreement Monitoring Group, 2006) In their 2005 study, Groom and Rose administered questionnaires to Headteachers and line-managers of TAs, and conducted semi-structured interviews with TAs, line-managers, teachers, governors, parents and pupils. In contrast to the Moran and Abbott study (Moran and Abbott, 2002), TAs in the Groom and Rose study reported that specific courses delivered by the LEA or other outside providers was the most common form of training they received, followed by “mentoring support from other staff”, and “modelling by class teacher or other teaching assistants or support services personnel” (Groom and Rose, 2005, pg. 24, table 11). Line-managers of teaching assistants also reported that “professional development, induction and training for TAs were significant priorities” (Groom and Rose, 2005, pg. 25).

However, although some TAs were released from their classroom duties to attend day courses, the issues of ‘terms of employment’ and the ‘hourly paid basis of their contracts’ appear to have been barriers to TAs engaging other training, especially during after-school or evening sessions.

Butt and Lance (2005) reported on the pathfinder project “Transforming the School Workforce”, initially commissioned by the DfES in 2002. (DfES 2002). This report primarily focussed on the changing role of teaching assistants. Using questionnaire and interview data, as well some case studies, the researchers aimed to report on teachers’ views of teaching assistants, including exploring any change in their views between 2002 and 2003. In
2003, 78% of primary school teachers agreed at least to some extent that teaching assistants needed more training – and the authors reported that this was around a 60% increase in the results of the previous year, indicating “a much stronger view that more training is needed” (Butt and Lance, 2005 pg. 144) over the intervening year. In terms of the opinions of TAs themselves, 78% reported that they felt at least ‘satisfied’ with the degree to which they felt they could “personally develop or grow” in their job in 2003, which was a decrease from the previous year of around 14%.

Some of the figures appear to have been given somewhat of a positive slant by the authors. They describe the 14% decrease as “very small”, which seems somewhat questionable, and the point is not expanded upon or explained. The authors also make the sweeping statement that;

“all support staff in primary schools, including teaching and classroom assistants, show a positive response to the statements in Table 2”. (Butt and Lance, 2005 pg. 144)

However, in the said table, it appears that 22% of respondents reported feeling ‘dissatisfied’ (14%), ‘strongly dissatisfied (5%) or ‘very strongly dissatisfied’ (3%) at the question relating to personal development and growth, with similar figures for “the degree to which your job taps into the range of skills which you feel you possess” and “The degree to which you feel extended in your job”. (Butt and Lance, 2005 pg. 145, table 2). In light of the figures quoted above, the authors’ interpretations of the results may be somewhat questionable. More doubt is cast when looking at a 2009 paper by the same authors, which also describes the Pathfinder project (Butt and Lance 2009). In this article, the authors suggest that number of teachers indicating a desire for more TA training decreased from 85% to 77% between 2002 and 2003 of the project. The authors even go on to suggest that “this slight reduction may have been a result of their school receiving additional resources for funding the training of TAs during the life of the project”. (Butt and Lance, 2009, pg. 224) However, despite these doubts, it is apparent that the majority of teachers do indicate a desire for additional training for teaching assistants.
Pugh (2006/2007) explored the “management and motivation of teaching assistants”. His review of previous literature indicated that TAs engaging in professional development, especially the HLTA qualification, had significant increases in their confidence and esteem, and that even if the given training did not meet professional requirements, “personal motivation” nevertheless increased as a beneficial side-effect. (Pugh, 2007, pg. 7) However, once again “cover payments” and “family commitments” were cited as barriers to TAs accessing appropriate training (Smith et al 2004, cited in Pugh, 2007, pg. 7)

Pugh’s own research (Pugh, 2007), involving case studies in primary schools including questionnaires and interviews, suggested that all the schools in the study invited their teaching assistants to in-service training events. However, there is some discrepancy in Pugh’s interpretation of the next results. Pugh initially suggests that “TAs valued their CPD higher than their managers” (Pugh, 2007, pg. 18) which might lead one to believe that TAs valued their own CPD, when their managers did not. However, a closer look at Pugh’s wording; “32% of TAs place ‘very high value’ on their CPD, whereas no managers thought TAs rated CPD this highly” (Pugh, 2007, pg. 18, my italics) a more accurate interpretation of these results could be that although 32% of teaching assistants rated their CPD as ‘very high value’, none of the managers involved thought that the TAs would rate their own CPD this highly. It does not necessarily imply that managers did not value the CPD of their staff.

Burgess and Mayes (2007) researched the mentoring role that teachers play in the professional development of teaching assistants, using questionnaire and interview data from primary school teachers who had been mentoring teaching assistants for their professional development. Burgess and Mayes acknowledged some key issues arising from professional development for teaching assistants. Firstly, the conflict between the teaching assistant and being both a “learner and a worker” was often an issue in that “the context of the workplace limits the time for and quality of reflection on experience with the mentor” (Burgess and Mayes, 2007, pg. 401) One issue was that the
teacher-mentors reported difficulties in finding time to carry out their mentoring role. However, there were also issues arising from the roles the mentors and teaching assistants had in relation to each other – the power difference was reported to be a significant factor that influenced the mentoring of teaching assistants. Secondly, teachers in the above study also highlighted the need for teaching assistants to gain experience in some form of study skills, as a lack of these was deemed as a barrier to engaging in professional development. In the words of one mentor quoted in the study, teaching assistants often needed “help with setting targets and doing assignments” and specifically tended to need the most help in the areas of confidence and organisational skills. (Burgess and Mayes, 2007, pg. 399) Both of these issues have interesting implications for the current research, and it would have been an interesting development if Burgess and Mayes had gone on to explore these factors with the teaching assistants as well as the teacher-mentors.

Wilson and Bedford (2008) also investigated the issues surrounding teachers and teaching assistants working together in schools. Again, questionnaire and interview data was used, but again only with teachers, and not teaching assistants. Although participants suggested that there was commitment in schools to providing teaching assistants with training, and that whole-school training was thought to be good practice, in reality “most responses focussed on issues surrounding High Level Teaching Assistant (HLTA) status” (Wilson and Bedford, 2008, pg. 142) Clearly, HLTA training does not equate to ‘whole school training’ and therefore one might questions the general assumption from teachers regarding true “commitment” from schools regarding the professional development of their teaching assistants, especially in the light of the fact that 47% of respondents reported that no teaching assistants in their school were applying for HLTA status. Therefore this might leave one wondering what professional development these schools actually provided for their teaching assistants. Despite these questions, two interesting points were raised by the authors as specific examples of good practice. Firstly, a case where teaching assistants were “given the opportunity to visit parallel class or schools” and secondly “a conference, led by educational
psychologists, organised for teaching assistants, who then reported back to
teaching staff” (Wilson & Bedford, 2008, pg. 144) Again, it would have been
interesting for purposes of this study, to have more detail regarding these
factors and the thoughts of the teaching assistants themselves on the impact
of them on their own professional development.

Farrell et al (2010) looked more closely at the role of teaching assistants, in
particular to the effect of teaching assistants on pupil outcomes, by reviewing
relevant literature on the role of support staff. Selected papers were classed
into one of two group; studies that looked at targeted interventions (“targeted
intervention studies”) and studies that looked at the “presence” of teaching
assistants in the classroom (“non-targeted intervention studies”). Whereas
the targeted support and intervention was found to positively impact
academic attainments for pupils with identified difficulties (particularly in
literacy), the more general support was not found to have such a positive
impact. However, as the ‘non-targeted intervention studies’ measured pupil
outcome in terms of academic attainment, and not other measures of pupil
outcome such as behaviour, attention to task, or social development, the
relevance of these results for the current study in limited, especially in light of
the fact that the study did not include pupils with identified special
educational needs such as autism.

In contrast, the role of teaching assistants supporting pupils with ASC
specifically was investigated by Symes and Humphrey (2011). The authors
state their concerns not only regarding the lack of training available for
teaching assistants in general, and particularly those supporting children with
ASC, but also at the “lack of systematic research into the area”. (Symes &
Humphrey, 2011, pg. 58). Additionally, as alluded to in previous paragraphs
of this section, Symes and Humphrey express concerns with the fact that;

“the majority of the research focuses on the views of teachers, and less
is known about the experiences of the teaching assistants themselves”.
(Symes and Humphrey, 2011, pg. 59).

Symes and Humphrey used semi-structured interviews to collect the opinions
of fifteen teaching assistants who were working with students with ASC.
Many of the respondents reported that they had had no relevant experience prior to being employed in their roles. The amount of training they received varied, with one respondent recounting that they merely received “a sheet off the internet… about autism to read through”, and another stating that they had only had “a brief chat about the kids I’d be looking after”. One respondent reported that “a psychologist... gave me strategies but they don’t work”, whilst another insightfully noted that for autistic children in particular, “no-one is the same” (Symes and Humphrey, 2011, pg. 61). Another interesting point was that in general the teaching assistants “felt that generic training about ASD was not helpful” and instead suggested that “they learnt best through practical experience” (Symes and Humphrey, 2011, pg. 59). The authors concluded by suggesting that;

“simply providing teaching assistants for pupils with ASD is not enough to ensure they are receiving the support they need in order to achieve their educational potential”. (Symes and Humphrey, 2011, pg. 63).
2.4 SUMMARY

Autistic spectrum Conditions were identified several decades ago, with Kanner (1943) being amongst the early pioneers of the term ‘autism’. Since then, a proliferation of research in autism has developed, but there is a slight yet important distinction to be made between research into the effectiveness of specific intervention-training for adults working with individuals with ASC, and research into the value of professional development type training given to adults, such as that reported by Medhurst and Beresford (2007), Probst and Leppart (2008) and Leblanc et al (2009).

Perhaps due to the increasing numbers of pupils with SEN, including those with autism, being educated in mainstream schools, and a possible gap in the skills and training of mainstream staff, the then Government introduced the initial phase of the IDP resources in 2007. This first phase of IDP was targeted at speech, language and communication difficulties, followed by the dyslexia resources, and the addition of the autism version in 2009. However, perhaps due to the change of Government in the following year, little research has been carried out into the effectiveness of the resources save for the commissioned report by Lindsay et al (2010, 2011). Amongst the findings of the research were issues pertaining to low numbers of schools/individuals engaging in the training, accessibility to the online resources, lack of leadership in the training initiative, lack of time, and staff changes. In contrast, a whole school approach to training, CPD as an ongoing process, and tailoring CPD to a ‘whole school aim’ were reported to be more beneficial with respect to the effectiveness of staff training.

Positively, the ASC resources in particular were rated by participants to be of higher quality, with 75% of respondents rating the increase in their knowledge of ASC at least ‘a fair amount’, and 73% rating their increase in understanding of how to teach pupils on the spectrum also at least ‘a fair amount’. However, the reportedly small uptake of the IDP initiative begs the question of why the use of the IDP resources was not as wide-spread as might have been hoped, and whether the IDP is effective enough for
professionals in the field to continue to use, despite the resources being ‘archived’ by the current Government.

Research into theories of learning goes back decades or perhaps even centuries, but the research into ‘experiential learning’ was brought to the fore in the 1970s and 1980s by authors such as Kolb (Kolb and Fry 1975, Kolb 1984), and Honey and Mumford (1982). These early theories of experiential learning have been criticised for the distinct phases being too sequential and unconnected, (e.g. Boud and Walker 1991, Boud 1994, and Miettinen, 2000) and for the lack of acknowledgement of the impact of contextual issues such as previous experiences, the ‘learning milieu’ and the ‘will to learn’ (e.g. Fenwick 2001, Moon 2004 and Seaman, 2008). Resources such as the IDP, especially with the additional factors included in the TRAIn project, inevitably require the participating adults to engage in some form of learning, and heavily draw upon the ‘experiences’ that staff have when in the classroom. It is therefore of interest as to whether existing theories of experiential learning apply to adult learners in the form of school staff, and whether the specific role brings any additional factors not covered in existing research.

Opportunities for learning and training for staff working in a school environment has often been referred to as ‘professional development'. Historically, training for teachers has been an ‘injection method’ of workshops, designed for teachers to glean knowledge and implement this back in their classroom. However, during recent years the focus on professional development for teachers has transformed to an ethos of ‘teacher change’, as described by authors such as Guskey (1986) and Clarke and Hollingsworth (2002). Again, we do not know whether theories of ‘teacher change’ apply to other staff within schools, and this is particularly pertinent given the rapid increase in the number of teaching assistants currently employed in schools.

More recently still, the issue of collaborative professional development has been described as a method of ‘sustaining momentum’ in terms of continued development, as described by Butler et al (2004), and as noted by Kaasila and Lauriala (2010) such an approach often relies on a mentor or facilitator.
Neither of these aspects of professional development in schools specifically have had much attention from researchers, despite the fact that Lindsay et al (2010, 2011) highlighted the issue of a lack of a leadership role within the IDP in their research, and these areas are therefore worthy of further exploration.

Other issues have also been apparent in the consideration of professional development opportunities more generally. Timing has often been cited as a barrier to engaging in professional development (e.g. Burbank and Kauchack 2002, Maloney and Konza, 2011), along with a lack of study skills (Burgess and Mayes, 2007). Given that participants in this research were based within learning institutions, it is possible that the results might give an added dimension to existing research in terms of barriers in professional development.

More specifically, IT competency has been a barrier to some individuals undertaking web-based or on-line training (e.g. Shinkavera and Benson 2007). Again, given that teaching assistants might be required to aid teachers in the instruction of ICT skills to pupils, the current research might explore whether such a barrier exists amongst school staff. Despite IT skills being a barrier to some adults engaging in professional development activities, Falowo (2007) lists a number of advantages in the use of IT in professional development, such as control over time, place and pace of learning. Given that the use of IT is rapidly expanding in all areas including training and learning, it is of interest as to whether the suggestions of researchers such as Fallowo continue to be relevant.

Finally, the literature uncovers a distinct lack of research into the role of teaching assistants in the UK, particularly those employed to work with students on the autistic spectrum, along with a reported lack of training available for those staff (e.g. Swann and Loxley 1998, and more recently Symes and Humphrey, 2011). Therefore, the results of this research may add to the seemingly scant existing knowledge regarding how schools might optimise the training and deployment of this important group of employees.
CHAPTER THREE – METHODOLOGY

This chapter is set out in two parts, with descriptive information first, followed by the justification of the methodology in section 3.6

3.1 Introduction to the Research Design

This evaluation research project used a mixed methods design and employed a variety of data collection strategies, namely focus groups, research diary notes, 'learning logs' completed by participants, self-evaluations of the IDP and informal assessments of knowledge. Participants were teachers and teaching assistants at four primary schools in the Local Authority. Analysis was carried out via parametric statistical analysis of the self-evaluation and assessment data, and by thematic analysis of the focus group, learning logs and research diary data.

3.2 Participants

All schools within a specific area of Rivertown were invited to participate in the research. Initial contact was made with Headteachers in the schools, and their agreement was sought in order for me to approach all teachers and teaching assistants directly. Meetings were held in each school to which all these members of staff were invited, and during which the research project was described. Following this meeting, staff were asked to choose to participate in the study by contacting me via email, telephone or post within the following month, with no obligation to do so from either myself or the Headteacher, thereby reducing the possibility of undue pressure to participate.

Thirty one members of staff contacted me and agreed to participate in the research, the majority of whom were teaching assistants, but the groups also included three qualified teachers, two of whom were also the Special needs Co-coordinators (SENCo) within their schools. As the study progressed, the number of participants reduced for a number of reasons. Two teaching assistants and one teacher left their employment during the period of
research. Four participants chose to withdraw from the research due to other commitments, either in their employment or their personal lives. A further ten participants engaged in the majority of the research (namely the pre-training assessments and self evaluations, the IDP work itself, and the focus groups) but either declined to take part or were not available to take part in the post-training assessments and self-evaluations.

Initially, 24 participants from 5 different schools completed the pre-training assessments and self-evaluations, commenced the training and attended at least some focus groups. Due to various reasons as cited above, only 14 participants went on to complete the post-training assessments and self-evaluation. (One post-training self-evaluation was not used in the analysis as the participant did not wish to fully complete the form, and therefore these particular results were not used in the analysis of the self-evaluations).

In one school, only one member of staff chose to participate, as it was reportedly made clear to staff by the School’s Senior Management that participation would have to be strictly outside of work time. In contrast, two of the schools had the majority of their teaching assistants choosing to participate, and staff were told that they would be able to use work time both to complete the IDP training, and to engage in regular focus groups. In the remaining two schools, senior management staff allowed participants to complete the training, and allowed participants time out of class to meet with me, but did not allow work time to be used for the actual training. This is summarised in the table below:
Table One: Summary of participant information

<table>
<thead>
<tr>
<th>School</th>
<th>No. of participants who commenced the research</th>
<th>No. of participants completing all aspects of research</th>
<th>Participants allowed time out to meet researcher</th>
<th>Participants allowed time out of class for training</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>5</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>1</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>3</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
<td>1</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

3.3 Data collection methods:

The data collection fell into four key areas:

(i) Measurement of staff’s perceptions of their ‘knowledge’ and ‘adjustment to practice’, using the self-evaluation questionnaires incorporated into the IDP (see appendix 3)

(ii) The use of a specifically designed informal assessment to measure staff's knowledge of autism (see appendix 4)

(iii) Ongoing, informal focus groups with staff during regular support sessions, recorded by the use of a research diary and written notes by the participants themselves, in the form of 'learning logs' (see appendices 5 and 6) to record key points of the conversations.

(iv) Final, more structured focus groups to discuss the impact of the training in terms of staff development, pupil outcome, as its design as a method CPD. (See appendices 7 and 8).
3.3 (a) Self-evaluations (see appendix 3)

The self-evaluations were an integral part of the IDP resources. Before completing the training, learners were encouraged to complete 16 questions pertaining to their current levels of 'knowledge' and of 'adjustment to practice'. Questions included items such as "I know the main areas affected in pupils on the autistic spectrum" (a 'knowledge' item) and "I adjust my communication style to facilitate interactions with pupils on the autistic spectrum" (an 'adjustment' item). (For the complete list see appendix 3).

Learners were asked to respond to each question by rating their current level of confidence in their skill/knowledge between 1 and 4, 1 being 'not very confident' and 4 'very confident'. The numbers from each item could then be added together to give a total score, as well as individual scores for the two separate scales of 'knowledge' and 'adjustment to practice'.

3.3 (b) Assessment of knowledge (see appendix 4)

In order to take a more objective measure participants' knowledge of autism, it was necessary to design an assessment tool specifically for the purpose of this research. Although using other pre-existing assessment tools might have given information on the generalisability of participants' learning, the decision was taken to use information directly from the IDP resources in the design of a specific assessment tool, as this would be a more accurate measure of knowledge gained directly from the IDP.

The assessment tool was piloted on a small number of teachers (who did not subsequently take part in the research) and adjustment made in light of their feedback before a final version was written. (For more details of the pilot, please see section 3.4 (d) Piloting of the knowledge assessment).

Questions in the assessment were written to directly correspond to aspects of the IDP. For example, when the IDP stated, "There are two main dimensions that lead to difference - intellect of the pupil and the severity of their autism", the corresponding question on the assessment tool was, "What two important dimensions might account for differences in pupils with
Similarly, the statement "Special interests are excellent motivators for pupils on the autism spectrum" in the IDP was converted to "Can you name an advantage (of a pupil with autism) having a special interest or interests?"

In total, the knowledge assessment contained 35 questions, and covered each of the eight units contained in the IDP resource. As some questions required (or could be answered correctly with) more than one response, the maximum possible number of marks awarded was 118. The assessment tool was designed in this way to reduce the likelihood of a ceiling effect, especially in the post-training version.

3.3 (c) Ongoing focus groups

After the initial introduction to the IDP, regular sessions were held in each of the schools to discuss progression through the IDP as a form of ongoing support. Staff were asked to form a small focus group to feedback thoughts about the IDP units they had recently covered, and to address any technical difficulties and other questions about the IDP resources. The timing and number of these sessions depended on individual schools, and was dictated by the needs of staff and their availability within the school day. A total of twelve sessions were held over a period of six months.

3.3 (d) Research diary

Over the six months in which the support sessions and ongoing focus groups took place, a research diary was kept to record comments directly from the participants, and my own observations and thoughts as a researcher. Notes from the research diary were transcribed and can be found in appendix 6.

3.3 e) Learning logs (see appendix 5)

In addition to the research diary, participants were also asked to complete their own written records of their thoughts about their own learning during
each focus group. As the discussions were centred around Kolb’s learning cycle, the proformas used for this (which were called 'learning logs') were divided into four sections to represent each of the four key areas of the learning cycle. (Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation).

In practice, participants found it difficult to distinguish between the four key areas, often reporting that they felt to be writing similar ideas in different sections, usually Concrete Experience and Reflective Observation, or Reflective Observation and Abstract Conceptualization.

3.3 (f) Final focus groups

When all participants had fully completed the training, two focus groups were held to elicit their thoughts about the training and the IDP resources. Participants were invited to attend whichever of the two groups was convenient to them. The following questions were asked:

1. How much more do you feel you know about ASC after the training?
2. Have you experienced any changes in your thoughts and attitude towards autism?
3. What changes to practice have you made in regards to: Language and communication? Sensory issues? Flexibility and routine?
4. What impact has the training made on outcomes for pupils?
5. What are your thoughts on: the ICT/online aspect of the training? the self-led aspect of the training? the group aspect of the training?
6. What kinds of issues acted as barriers towards completing the training? What kinds of issues acted as facilitators?
7. Were you aware of progressing through the 'learning cycle' when completing the training?
8. What would an ideal training package look like?
Participants' responses were recorded with audio equipment, and this was later transcribed. Brief notes were also taken by myself, in case of equipment failure, but as this was not an issue, the notes were discarded and the transcriptions were used in the data analysis.

3.4 Procedure

3.4 (a) Initial contact with schools
Headteachers were initially contacted via telephone by myself as a researcher and as a generic EP for the area, in order to describe the proposed research, and to arrange a time to introduce the proposal to appropriate staff.

3.4 (b) Introduction to the research
Introductory, whole staff discussions took place in each of the 12 schools in the area. During this session, staff were reminded about the IDP resources and the planned research was described. Individual staff then had the option to agree to participation in the training and the associated research. Participants were asked to respond via telephone, email or post within the next four weeks. In order to prevent staff feeling pressurised into agreement, Headteachers were not involved in this decision making, although some participants personally chose to talk to their Headteachers about their participation.

3.4 (c) Registration, introduction to the IDP, pre-training self-evaluations and assessment
Once individual participants agreed to take part in the research, a second session was arranged in each of the participating schools. In order to promote and encourage use of the IDP, users were introduced to the software, helped to register online, and worked through one of the units
together. However, as the IDP is intended to be used flexibly at the learner’s own rate and convenience, this research project did not cover all 8 units of the IDP within a formal training session or sessions.

Once registered, participants were then asked to complete the self evaluation questionnaire and to print their results. Having obtained their permission, these were then collected and saved until the latter part of the research, when a second batch of questionnaires was completed.

As the questionnaire was a self-evaluation, a knowledge assessment was also administered to participants in order to obtain a more objective measure of their knowledge and understanding of ASC. Again, this measure was repeated at the end of the research. The assessment was piloted on 3 individuals who were not involved in the actual research prior to the actual training session.

### 3.4 (d) Piloting of the knowledge assessment

The questions incorporated in the knowledge assessment (see appendix 4) were taken directly from the IDP training resources, rather than being more general questions regarding ASC. The assessment was piloted on three individuals (who were not subsequently involved in the actual research) prior to session two. It was deemed necessary to pilot the assessment for a number of reasons: To ensure the readability of the questions, to ensure the assessment was not too onerous or too long and, importantly, to be able to form a basis for judging answers to the questions. As a result of this pilot, it was proposed that the assessment was too long, and therefore the number of questions were reduced. (See appendix 4)

The answers from the pilot versions of the assessment were initially scored by myself, and a scoring scheme was devised to ensure consistency of results. A colleague with some experience in the field of ASC was then asked to act as a second marker for the other assessments, using the scoring scheme devised. Both of the markers scored the assessments independently of each other, and then each question was compared to see whether the
marks awarded for that question was consistent between the two markers. The number of actual consistent marks were compared to the total number of opportunities for consistent marks, and a percentage of consistency was thereby calculated. It was agreed that should any major discrepancies arise, the scoring scheme, the assessment questions or both would be changed until there appeared to be a high proportion of consistency between the two markers, ideally over 85%. In reality, this was not necessary as the initial level of consistency was 87%.

3.4 (e) Ongoing Support

During the second session, participants were asked to work through the initial introductory module of the course at their own pace. I was available during this session to answer any questions participants might have and to troubleshoot any difficulties.

Following the second session, I visited participating schools on a number of occasions to offer support and guidance to staff working through the IDP. At the end of the support session I held informal focus groups to reflect upon the learning process so far. Drawing upon the Kolb model of learning, I asked participants to think about their recent learning, and on how they are applying their knowledge in the classroom. These conversations were recorded by use of 'learning logs' which the participants completed at the end of our discussions.

3.4 (f) Post-training questionnaire and assessment and final focus groups

Three to four months later, when participants had completed each of the course modules, a third session was held with the participants. During this session, they were asked to re-take the assessment and complete the self-evaluation again. (See appendices 3 and 4).

Additionally, two separate focus groups were held to ascertain individuals’ views about the resource, and about the method of the training initiative as a
means of professional development. The timing of these sessions varied, as participants in each of the schools completed the online training at different rates.

3.5 Data analysis

3.5 (a) Thematic analysis

The focus group discussions, learning logs and research diary notes were transcribed and then analysed using Thematic Analysis. The Kolb model of knowledge transfer was used as a base on which themes were initially explored. Therefore, initial analysis was modelled upon the four areas of Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation.

The analysis was carried out with reference to the six steps described by Braun and Clarke (Braun and Clarke, 2006, pg. 87). Step one involved reading the raw data several times to become familiar with the content. Second, interesting features were tentatively coded across the entire data set, leading to the third step of searching for themes. As described above, the four stages of Kolb’s experiential learning theory were used as the basis for theme and code generation. The initial themes and sub-themes were identified as;

1. Concrete Experiences (Experiences)
   (i) in school or class
   (ii) from the training

2. Reflective Observation (Thoughts)
   (i) about self
   (ii) about pupils
      - social skills
      - language
      - behaviour
- sensory issues

(iii) about ASC

- prevalence

- differences in boys and girls

3. Abstract Conceptualization (Plans and ideas)

(i) whole school level

(ii) class level

(iii) individual level

4. Active Experimentation (Actions)

(i) whole school level

(ii) class level

(iii) individual level

During the fourth step in the analysis process (reviewing the themes), the second, third and fourth of the themes listed above seemed to overlap. For example, it was sometimes difficult to decide whether a particular statement might be considered ‘reflective observation’ as opposed to a ‘plan’ or ‘idea’. Similarly, some actions that were initially described as ‘plans’ and ‘ideas’ were then talked of in terms of ‘actions’. As the analysis progressed and themes were refined, it was felt that the data could be better explained by reducing the main themes to three rather than four, and the three themes of ‘experiences’, ‘thoughts’ and ‘actions’ were used instead, thereby completing the fifth step in the analysis process, ‘defining and naming themes’. The sixth and final step was to select interesting extracts to recount in the body of the report, and then to compose the thesis, relating the analysis back to the research questions and relevant literature.

The thematic analysis took a mainly ‘semantic’ approach, in that “the themes (were) identified within the explicit or surface meaning of the data” (Braun and Clarke, 2006, pg. 84). This seemed to be the best method of analysis as the data consisted largely of responses to direct questions, and participants
were equally direct in their responses. However, during the analysis, ‘latent’ meanings, i.e. “underlying ideas, assumptions and conceptualisations” (Braun and Clarke, 2006, pg. 84) were also considered, and a few of these are highlighted in the results chapter.

(Worked examples of the analysis can be found in appendix 11.)

3.5 (b) Quantitative (statistical) analysis

The results of the pre- and post-training assessments and self-evaluations produced scores for each participant, which were subjected to statistical analysis.

In order to answer the research question 1a, “What are the views of staff regarding the effect of TRAIn on their knowledge and understanding of ASC?” and 1b, “What are the views of staff regarding the effect of TRAIn on their attitude towards ASC?” results from the pre- and post-training self-evaluations were subjected to a Wilcoxon test and the questionnaires can be summarised into overall scores for (i) knowledge and (ii) affect on practice.

To address research question 2, “What actual impact has the introduction of TRAIn had on staff’s knowledge of ASC, as defined by the content of the IDP training package?” the results of the assessments were also subjected to a Wilcoxon.

(Justification for the selection of a non-parametric test is discussed below in section 3.6 (d) (ii).)

The table below summarises the link between the research questions and the methodology:
### Table two: Overview of methodology linked to research questions:

<table>
<thead>
<tr>
<th>Research question</th>
<th>Approach taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the views of staff regarding the effect of TRAIn on;</td>
<td>(i) statistical analysis of results of self-evaluations (knowledge scores), plus deductive thematic analysis of focus groups, learning logs and research diary.</td>
</tr>
<tr>
<td>(i) their knowledge and understanding of ASC?</td>
<td>(ii) statistical analysis of results of self-evaluations (adjustment to practice scores), plus deductive thematic analysis of focus groups, learning logs and research diary.</td>
</tr>
<tr>
<td>(ii) changes to their own practice?</td>
<td>(iii) Thematic analysis of focus groups, learning logs and research diary.</td>
</tr>
<tr>
<td>(iii) outcomes for pupils with ASC?</td>
<td></td>
</tr>
<tr>
<td>2. What actual impact has the introduction of TRAIn had on staff's knowledge of ASC, as defined by the content of the IDP training package?</td>
<td>Statistical analysis of assessment results.</td>
</tr>
<tr>
<td>3. What are the views of staff regarding the content and the style of TRAIn and the implications for future professional development in schools?</td>
<td>Thematic analysis of focus groups learning logs and research diary.</td>
</tr>
</tbody>
</table>
3.6 Justification of methodology

3.6 (a) Use of mixed methods

Tashakkori and Teddlie (1998) define mixed methodological studies as thus:

"those… that combine the qualitative and quantitative approaches into the research methodology of a single study". (Tashakkori and Teddlie, 1998, pg. 17).

Creswell and Plano Clark (2007) similarly define mixed methods as focussing on

"collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies" and add "Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone". (Creswell and Plano Clark, 2007 pg. 5)

In justifying mixed-method evaluation designs, Greene, Caracelli and Graham (1989) highlight five major themes that might enhance the evaluation as follows:

- Triangulation - seeks convergence, corroboration, correspondence of results from the different methods.

- Complementarity - sells elaboration, enhancement, clarification of results from one method to another.

- Development - seeks to use results from one method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions.

- Initiation - seeks the discovery of paradox and contradiction, new perspectives of frameworks, the recasting of questions or results from one method with questions or sits from the other method.
- Expansion - seeks to expand the breadth and range of inquiry by using different methods for different components.

(adapted from Greene, Caracelli and Graham, 1989, pg. 259)

Greene et al (1989) therefore suggest that a research strategy integrating different methods is likely to produce better results in terms of quality and scope, as they are a genuine effort to be reflexive and more critical of the evaluation practice and, ideally, more useful and accountable to broader audiences.

The present research can be discussed in terms of some of the five themes proposed by Greene et al as follows:

- Triangulation (testing the consistency of findings obtained through different instruments). In this study, it is possible to corroborate the results of the staff’s self evaluations on the effect of the training on their knowledge of autism with a more objective measure of the effect of the training, i.e. the results of the assessment of their knowledge.

- Complementarity (clarifying and illustrating results from one method with the use of another method). In this study, the quantitative data might suggest that staff perceived that they have change their practice in the classroom, but does not provide detail as to what these changes might look like in reality. The qualitative data therefore gives this richer detail.

- Development (how results from one method can then shape subsequent methods or steps in the research process). In this study, results of the assessments and self evaluations could be explored and discussed further in the final focus groups.

- Expansion (providing richness and detail to the study, exploring specific features of each method). In this study, differences about specific areas of professional development might have been omitted if only the quantitative data was used. The qualitative data therefore adds sub-themes, which may otherwise have been glossed over by a single overarching, quantitative question.
It was therefore felt that using a mixed methods approach was the more suitable to this research than a single qualitative or quantitative approach alone, as (i) the quantitative data would give a measure of the impact of the IDP on participants' knowledge of autism and participant’s own thoughts whilst (ii) the qualitative data would give richer detail about the type of effects of the IDP training, and how these might have occurred.

3.6 (b) Insider versus outsider research

Breen describes the difference between insider and outsider researches as thus:

“in general terms the insider researcher came to be seen as someone who studies a group to which they belong, while outsider researchers do not belong to the group being studied” (Breen 2007, Pg. 163).

Rooney (2005, p.6) sub-categorises insider research into 3 types; (i) practitioner research, in which “professionals may carry out a study in their work setting”, (ii) research in which “Researchers may be a member of the community they are studying or they may become an accepted member after a period with the community” and (iii) collaborative research “where researcher and subject are both actively involved in carrying out research”

In terms of this study, I was the allocated educational psychologist for each of the schools from which the participants were recruited, and had been so for a number of years. Furthermore, the nature of the adaptations to the training package meant that I was also involved in the facilitation of the training and its administration, and was heavily involved in the group discussions during the ongoing focus groups. This being so, I considered myself to be very much an ‘insider’ in terms of this research project, and felt that the description “ an accepted member after a period with the community” best described my relationship with the schools involved in this project.

There are both advantages and disadvantages to being an insider researcher, as described by Corbin-Dwyer and Buckle (2009), Unluer (2012) and Bonner and Tolhurst (2002). It can be argued that the role of the insider
researcher may be problematic due to their previous and ongoing involvement with the study, leading to a number of potential flaws in any research. These include:

i. potential distortions, misinterpretations or bias in the interpretation of results, due to their familiarity with the participants and/or the setting, or perhaps due to hidden agenda’s such as local politics.

ii. Participants’ potential to behave differently to an insider, e.g. reluctance to speak openly as they are disinclined to criticise the work of someone they see as a colleague or friend.

Corbin-Dwyer and Buckle suggest that in insider research, “it is possible that the participant will make assumptions of familiarity and therefore fail to explain their individual experience fully” (Corbin-Dwyer and Buckle, 2009, pg 58).

However, there are advantages associated with insider research. In contrast to the theory that over familiarity may lead to assumptions and distortions in interpreting the data, it can be argued that insiders have access to great deal of knowledge which the outsider may not be privy to.

Bonner and Tolhurst (2002) described three significant advantages of insider research; (i) a superior understanding of the group’s culture, (ii) the ability to interact naturally with the group and its members, and (ii) a greater intimacy with participants.

To overcome some of these issue, Unluer suggests “insider researchers must constitute and explicit awareness of the possible effects of perceived bias on data collection and analysis”. (Unluer, 2012, pg 2).

As this research aimed to describe the views of participants regarding the usefulness of the IDP resources, it was important to consider that some of their views might well be negative, which participants might feel awkward in revealing. Although I was able to assure to participants that this research was not to evaluate my own work per se, but to get an account of their evaluations of a training package published by the Government, it was thought more likely that participants would describe any potential negative
thoughts if they were talking to a familiar ‘insider’ rather than a stranger. Importantly, they trusted that I would not take offense at negative comments and trusted that I had no hidden agenda in asking them to be honest in any misgivings. Without my established role as the school EP, this trust may not have been given so readily.

Additionally, there was also potential conflict between my role as a researcher and my role as the schools’ allocated EP. For example, as Unluer (2009) describes, “the insider researcher gains access to sensitive information”. However, this was not felt to be an issue for two reasons. Firstly, at that time I had no current, recent or planned involvement with any pupils with diagnosed or suspected autism. Secondly, even if this had been the case, there was no conflict between advice I would have discussed with staff, and advice given on the IDP.

3.6 (c) Data collection methods

Self evaluation

Self-reporting has long been associated with concerns regarding validity and reliability (quotes). As Podsakoff and Organ (1986) state,

"we are not generally asking people to report a specific fact or finite event. We are asking persons to go well beyond that and to engage in a higher order cognitive process - a process that involves not only recall, but weighting, inference, predictions, interpretation and evaluation”. (Podsakoff and Organ, 1986, Pg. 533).

Concerns include the possibility that participants' responses can be affected by a variety of issues, including as follows:

- Social desirability - Participants may consciously or sub-consciously have a tendency to gear their responses towards 'socially desirable' answers. In this study, it is possible that participants may have tended towards giving higher ratings of 'knowledge' and 'affect on practice' on the second (post-training) assessment, as they felt obliged to demonstrate that their efforts (and their school's
investment of time and resources) had resulted in a positive outcome in terms of their professional development.

- Consistency motif - Podsakoff and Organ (1986) describe this as having "an urge to maintain a consistent line in a series of answers" (Podsakoff and Organ, 1986, Pg. 534). The issue here is that "self-report measures of different variables are often found to contain items similar in content". (Podsakoff and Organ, 1986, Pg. 535). In other words, questions that are supposed to measure different variables are often similarly worded, and are therefore likely to be scored the same, thereby producing skewed results.

- Contextual variability - Participants' responses can often be affected by variables such as mood or prior events and might not be the same if they were elicited on a different day.

Despite these potential difficulties, the pre and post self-evaluation was written into the IDP itself, and therefore it was felt that analysis of the results was worthy of investigation, but with the caveat of considering the potential for the above affects.

Assessment

Although participants' views on their knowledge of autism was elicited via the self-evaluations, it was felt that a more direct measure of knowledge and understanding would give a more objective picture on participants' knowledge, and especially whether there was a significant increase post-training. After some initial research, it was not felt that a suitable pre-existing assessment tool was available. Cascella and Colella (2004) carried out assessments of knowledge of autistic spectrum conditions among speech-language pathologists in Connecticut, as did Schwartz and Drager (2008). Heidgerken, Geffken, Modli and Frakey (2005) also assessed professionals in Health Care settings. In each of these studies, the authors developed their own assessment tools. For example, Cascella and Colella (2004) described the development of their assessment rating scale as thus:

(Taken from Cascella and Colella, 2004, pg. 246)

However, as each of the three studies cited above involved health care and speech and language professionals, the questions did not seem appropriate to assess the knowledge of teaching staff. Furthermore, some of the questions did not correlate with the content of the IDP, such as questions about diagnostic criteria. These questions may have been relevant to professionals working in health care teams and perhaps involved with identifying or diagnosing autism, but not necessarily to educational professionals.

In light of this, the decision was taken to develop an original assessment tool. It would have been possible to draw upon "professional ASD resources", as in the Cascella and Colella study, and get a measure of more general knowledge of autism. However, it was thought that drawing upon the IDP resources themselves in the generation of the assessment tool questions would give a more specific assessment of the impact of the IDP resources.

Focus groups

The aim of a focus group is to “draw upon respondents’ attitudes, feelings, beliefs, experiences and reactions in a way which would not be feasible using other methods” (Gibbs, 1997) The purpose of using focus groups in this study was to explore the ‘understandings, perspectives, stories,
discourses and experiences’ of the participants not only when undertaking the training, but also during their implementation of skills learned and knowledge gained during the classroom in between each training session.

Although the quantitative data might be able to suggest whether the training had had a measurable, positive impact on skills and understanding, it was only through discussion that it would be possible to explore how these changes occurred, why they occurred, and what was the result in terms of supporting children and young people in class.

It may have been possible to gain such insight by interviewing each participant on a separate basis. However, given that there was only a single researcher, and that a significant amount of time had also to be given to that quantitative data, it was felt that focus groups were a more economical way of eliciting views and opinions.

Additionally, apart from the researcher’s time, it was also necessary to be mindful of the school’s time. Although one-to-one interviews might have only taken up the same amount of time for a single participant, it would have meant that schools may have found it necessary to release each person separately, which might have meant considerable time dedicated to unnecessary planning and co-ordination.

Another significant advantage of the use of focus groups was that they were seen to have the added benefit of serving as an opportunity for colleagues to discuss their learning and progress, which they may not have been able to so at another time. (This was an important issue that will be explored further in the discussion section).

With regards to the ‘ongoing’ focus groups, audio recording was not used, as it was felt that this would hinder the natural flow of discussion and the informal ‘feel’ of the sessions. Instead, participants were asked to write their own notes to summarise the main points of their discussions (the ‘learning logs’). These notes also had the dual purpose of aiding the participants in their retention of the knowledge they had gained from their training sessions. I also recorded my observations, reflections and key comments from the
participants in a research diary.

For the final focus groups, two sessions were held, as it was thought that this would enable the optimal number of participants to attend. There were 14 participants who were willing to take part in the focus groups, and therefore organising two groups meant that there was 7 members in each group. As suggested by Gibbs (1997) “the recommended number of people per group is usually six to ten”. It also meant that participants had the choice of two dates and locations, thus enabling them to select a preferred date. Moreover, splitting the number of participants into two groups avoided two of the potential difficulties suggested by Millward (2012, in Smith, Wright and Breakwell [Eds.] 2012) which include large groups being “unwieldy to manage” and making it “hard to obtain a clear recording”. (Millward 2012, pg 425).

Audio recording was chosen as the preferred method of recording the final focus group discussions. Participants had expressed a dislike of visual recording, and their opinions were respected. Audio recording allowed the researcher to record the whole of the discussions, including some non-verbal information such as tone of voice, which would have been lost in written transcription. However, brief notes were taken during the discussion for two reasons - firstly to act as a backup in case of equipment failure, and secondly to help shape the content of the discussions, allowing for appropriate deviations from the set questions if it was felt pertinent to the research, yet also aiming to ensure each question had been covered.

3.6 (d) Data Analysis methods

(i) Thematic Analysis

Thematic analysis has been described as "a search for themes that emerge as being important to the description of the phenomenon" (Daly, Kellehear, and Gliksman, 1997, cited in Fereday and Muir-Cochrane, 2006). As described in the sections above, thematic analysis is a deductive style of analysis in that it uses existing theory on which to base the analysis. The
The process of Thematic Analysis involves dealing with data (which may include interview transcripts, field notes, and video footage) by the creation and application of 'codes' to the data. Through careful reading and re-reading of the data, the codes are combined, catalogued and expanded upon to form 'themes' – defined by Taylor and Bogdan (1984) as "conversation topics, vocabulary, recurring activities, meanings (and) feelings" (Taylor and Bogdan, 1984, p.131). From the themes, it is then possible to form a comprehensive picture of the collective experience of the participants in the research. As part of the process of Thematic Analysis, the researcher is required to build up a valid argument for the selection of the themes, which can be done by referring back to relevant literature. In this research, the analysis was carried out with reference to the six steps described by Braun and Clarke (Braun and Clarke, 2006, pg. 87).

A potential disadvantage of using Thematic Analysis pertains to the idea of interpretivism - specifically, that researchers using this method of data analysis interpret the actions and understandings of others in their own ways, therefore imposing the researcher's own meanings onto the data in question. For this reason, methods such as Grounded Theory, which does not impose themes, but instead allows them to 'emerge' from the data, are said to be a more appropriate method. However, as noted by Taylor and Ussher (2001), it is perhaps unwise to presume that researchers employing methods such as Grounded Theory can truly be completely free of interpretivism. The advantage of using Thematic Analysis therefore include a more honest approach towards interpretivism, and, significantly, being able to relate outcomes more directly to theory. Hence, thematic analysis was felt to be a more appropriate method of linking the current research to existing theories of experiential learning and teacher change.

The Thematic analysis began with basing the themes around ideas relating to Kolb’s experiential learning theory, namely Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation. However, as the analysis progressed and themes were refined, it was felt that the data could be better explained by reducing the
main themes to three rather than four, and the three themes of 'experiences', 'thoughts' and 'actions' were used instead. In the words of one participant:

   TA11: “We thought we was writing the same things in each box”
   (referring to the learning logs which had originally been designed to accommodate the 4 aspects of Kolb’s learning cycle).

In addition, as noted in the research diary:

   “The participants appear to be engaging in the learning cycle very naturally, although it is hard to fit into the four boxes on the prompt sheet”.

   (These changes are discussed in terms of Kolb’s theory as well as other theories of experiential learning and teacher change in the Discussion Chapter).

This change in the analysis was decided upon to avoid what Braun and Clark describe as a ‘potential pitfall’ in thematic analysis, i.e.

   “a weak or unconvincing analysis where themes do not appear to work, where there is too much overlap between themes, or where themes are not internally coherent or consistent”. (Braun and Clarke, 2006, pg. 94)

(ii) Use of non-parametric testing

It is often assumed that to use parametric tests, three conditions must be met, specifically:

   • The level of measurement is at least interval
   • The sample data are drawn from a normally distributed population
   • There is homogeneity of variance

As the data collected from the self-evaluations were derived from Likert type scales (see appendices), it could be argued that the data are not truly interval data, as we should not assume that the intervals between the numbers on the scales are equal. This would mean that a non-parametric test should be used. However, as pointed out by Bryman and Cramer (2005), "parametric
tests can also be used with ordinal variables since tests apply to numbers and not what those numbers signify”. (Bryman and Cramer, 2005, pg. 145).

Similarly, it is not possible to assume that the sample data will be drawn from a 'normally distributed' population. However, Bryman and Cramer highlight two studies in particular where "the values of the statistics used to analyse samples drawn from populations which (had) been artificially set up to violate these conditions (were) found not to differ greatly from the samples which (had) been drawn from populations which do not violate these conditions". (Bryman And Cramer, 2005, pg. 145).

Bryman and Cramer therefore argue that parametric tests are robust enough to withstand violations of the three conditions listed above, and advantages include there being less chance of making type one or type two errors, and the test being more sensitive to features of the data collected.

Despite the arguments cited above, it was felt that the sample sizes used in the statistical analyses (14 for the assessment and 13 for the self-evaluation) were not large enough to justify the use of parametric statistics. Therefore the Wilcoxon test (the non-parametric equivalent of a related t-test) was used in the statistical analyses.

### 3.7 Real World Research

As suggested by Hayes (2000, pg. xvii) “Scientific research doesn't take place in a vacuum”. Real world research, as described by Robson (2002)

> “refers to applied research projects which are typically small scale and modest in scope... often seeking to evaluate some initiative”. (Robson 2002, ebook accessed 2013)

Therefore, although the sample of participants in this research, and the scope of the data and its analysis and evaluation may be “small scale and modest”, this is perhaps typical and indeed may be expected of such a research project. In the psychology researcher’s ideal world, all 24 of the original participants would have completed to research project in full. However, in the ‘real world’ this is not always possible, when family and other
commitments of participants naturally have greater priority than completing training or assessments that are not seen as relating directly to their personal or professional circumstances.

Another important issue to consider in this study is the role of the researcher in facilitating the training, and of the additional, ongoing focus groups which gave participants additional time and opportunity to discuss the training, to evaluate it, and to reflect upon their learning and experiences. Neither of these scenarios were planned into the development or design of the original IDP training. However, in the ‘real world’ this was clearly necessary to encourage participants to begin and even continue the training. Pawson and Tilley suggest that

“it is not programmes that work, but the resources they offer to enable their subjects to make them work” Pawson and Tilley (2008, cited in Robson, 2000, eBook accessed 2013)

The authors describe this phenomenon as “mechanisms” that bring about the effects or results of an intervention. It was important, therefore, to consider the role of such ‘mechanisms’ in the evaluation of the training package, rather than attributing any positive effects purely to the design of the IDP. In the words of Hayes (2000, pg. 13) it is important to “demonstrate the real-world applicability of (the) research”.

Although the four aspects of Kolb’s theory were used in the learning log proformas, and were the basis for discussions during the ongoing focus groups, in reality participants found it hard to distinguish between the four aspects. They reported that they felt that they were repeating themselves between one aspect and the next. This is one of the reasons that the deductive analysis was reduced from four aspects to three, namely ‘experiences’, ‘thoughts’ and ‘actions’.

3.8 Ethical considerations

In any research which involves human participants, ethical considerations are vital. As suggested by the British Psychological Society (BPS),
“Researchers should respect the rights and dignity of participants in their research.” (British Psychological Society, 2010, pg. 4)

Accordingly, there were some issues which needed careful consideration prior to beginning this research. First, all participants were given the opportunity to give their informed consent. This involved a full explanation of the rationale of the research, and its ultimate aims.

Second, all participants were assured that they had the right to completely withdraw from the research at anytime, as well as having the right to withdraw from certain aspects of it (e.g. not answering particular questions)

Third, all data collected during the research remained anonymous, so a coding system was used to allow pre- and post-testing of the participants. All data was securely stored, and was only be seen by myself.

Finally, there was a need to be mindful of my role as a researcher and employee of the Local Authority. It was possible that some sensitive issues may have been raised, and I needed to ensure that I dealt with this in a professional manner.

A request for ethical approval for this research was made to the University Research Ethics Committee on 15th November 2010. Approval was granted on 16/11/2013 (see appendix 12)

3.9 Limitations of this study

In this research, data collection methods were questionnaires, self-evaluations and focus groups, all of which could be described as ‘self-reporting’. Any research which relies heavily on self-reporting from participants has limitations in the conclusions that can be drawn. Participants might have their own agenda, or be affected by mood and context on a particular day.

Participants are also likely to veer towards over-positivity when self-reporting, as social desirability can cause participants to answer questions in a manner portrays themselves positively, and also ‘give’ the researcher the results
that they are ‘hoping’ to achieve. It was therefore anticipated that
participants’ responses may be skewed in order to demonstrate that they had
progressed in their learning, and to demonstrate to me as the insider
researcher that my work had been effective.

Given these issues, self-reporting may not be as simple a task as it appears,
as suggested by Podsakoff and Organ (1986):

“We are generally not asking people to report a specific fact or
finite event. We are asking persons to go well beyond that and to
engage in a higher order cognitive process – a process that
involves not only recall, but weighting, inference, prediction,
interpretation and evaluation”. (Podsakoff and Organ, 1986, pg.
533)

This research therefore aimed to focus on the views of the participants
regarding the effectiveness of the training initiative, and whilst it incorporated
some more objective measures of effect on knowledge (i.e. the knowledge
assessment) it is acknowledged that there are limitations in the conclusions
that can be drawn from the results of this research and the generalisability of
the conclusions to a wider field.
CHAPTER FOUR – RESULTS

N.B. This section will describe the results of the qualitative and quantitative analyses. However, the discussion around the results can be found in the subsequent chapter of this Thesis (Chapter 5, Discussion).

4.1 Statistical Analysis

Wilcoxon signed ranks tests were carried out to determine whether participants scored better in the post-training assessment than the pre-training assessment, and similarly, whether their self evaluations were rated more highly post-training than pre-training. For the self-evaluations, three scores were generated for each participant; a ‘general score’ (total of the items), a ‘knowledge’ score, (total of the ‘knowledge’ items) and an ‘adjustment’ score (total of all the ‘adjustment to practice’ items). Therefore, using the results of the assessment, along with the three results from the self-evaluations, four separate analyses were carried out in total. The results are shown in table 3 below.

Table 3 – Results of statistical analyses

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Mean pre score (SD)</th>
<th>Mean post score (SD)</th>
<th>Z value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>29 (8.9)</td>
<td>36 (7.7)</td>
<td>-2.5</td>
<td>0.006</td>
</tr>
<tr>
<td>Self evaluation (general)</td>
<td>59 (19.74)</td>
<td>91 (19.96)</td>
<td>-2.9</td>
<td>0.002</td>
</tr>
<tr>
<td>Self evaluation (knowledge)</td>
<td>33.2 (8.9)</td>
<td>48.6 (10.1)</td>
<td>-2.8</td>
<td>0.002</td>
</tr>
<tr>
<td>Self evaluation (adjustment to practice)</td>
<td>28.2 (8.9)</td>
<td>42.54 (10.3)</td>
<td>-2.8</td>
<td>0.003</td>
</tr>
</tbody>
</table>
4.1 a) Results of analysis of the assessment scores

Participants scored more highly on the post-training assessment (mean = 36, SD = 7.7) than on the pre-training assessment (mean = 29, SD = 8.9). As p (1-tailed) was less than 0.05, the null hypothesis was rejected, and therefore this difference was classed as statistically significant (z = -2.5, p <0.05). These results therefore suggested that participants’ knowledge of autism (as defined by the content of the IDP) was significantly greater following the completion of the training initiative.

4.1 b) Results of the analyses of the ‘self evaluation’ scores

(i) General scores

Participants scored more highly on the post-training evaluation (mean = 91, SD = 19.96) than on the pre-training evaluation (mean = 59, SD = 19.74). As p (1-tailed) was less than 0.05, the null hypothesis was rejected and the alternative hypothesis accepted, therefore this difference was classed as statistically significant (z = -2.9, p < 0.05). These results therefore suggested that participants’ self-evaluations of their knowledge of autism and the associated adjustment to their practice was significantly greater following the training initiative.

(ii) ‘Knowledge’ scores

Participants scored more highly on the post-training evaluation (mean = 48.6, SD = 10.05) than on the pre-training evaluation (mean = 33, SD = 8.9). As p (1-tailed) was less than 0.05, the null hypothesis was rejected, and the alternative hypothesis accepted, therefore this difference was classed as statistically significant (z = -2.8, p <0.05). These results therefore suggested that participants’ self-evaluations of their knowledge of autism was significantly greater following the training initiative.

(iii) ‘Adjustment to practice’ scores

Participants scored more highly on the post-training evaluation (mean = 42.5, SD = 10.3) than on the pre-training evaluation (mean = 28.2, SD = 7.5). As p
(1-tailed) was less than 0.05, the null hypothesis was rejected, and the alternative hypothesis accepted, therefore this difference was classed as statistically significant ($z = -2.8, p < 0.05$). These results therefore suggested that participants’ self-evaluations of their adjustment to their practice was significantly greater following the training initiative.

4.2 Thematic analysis

It was initially envisaged that the main themes of the deductive analysis would be based upon the four aspects of Kolb's learning cycle, described as Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation. However, as the analysis progressed and themes were defined and reviewed, it became clear that the data were better described using three aspects, namely 'experiences', 'thoughts' and 'actions', (Interestingly the participants of the ongoing focus groups had also found the four aspects of Kolb’s cycle difficult to distinguish (as described in chapter three) and this will be discussed later in this document (chapter five).)

The final themes were therefore defined as follows:

Theme 1 – Experiences
Theme 2 – Thoughts
Theme 3 - Actions

From the three main themes, sub-themes were defined as follows:

Theme 1 – Experiences

Experiences in school or the classroom
- regarding staff noticing a pupil behaviour, occurrence.
- regarding staff noticing a *change* in pupil behaviour.

Experiences from the training
- related to the group work
- related to the self-led aspect
- related to the ICT and technical aspects
- related to ideas, strategies and resources that participants liked or found memorable

Theme 2 – Thoughts

Thoughts about autism and ASC
- related to features of ASC
- relating to parents, home life and the family
- relating to attitude and understanding from staff - i.e. what children with ASC might need

Thoughts about the training initiative
- about changes to own practice during or after training
- about working together with colleagues
- related to evaluation of the training (including further subthemes of ‘timing’ and ‘content’)
- regarding professional development related to the training
- Related to participants’ own learning needs (including further subthemes of ‘motivation’, ‘learning styles’, and ‘safety and security’)

Theme 3 – Actions

Actions taken by individuals
- regarding their own professional development
- regarding features of ASC (how to support children, change the environment.)
- regarding working with parents/family/home
Actions taken by a group

- regarding features of ASC (how to support children, change the environment.)
- regarding transition between year groups.

‘Features of ASC’ were further defined as ‘language and communication’, ‘social interaction’, ‘flexibility of thoughts or behaviour’, ‘related to sensory issues’ and ‘related to behaviour’. All codes could also be tagged with symbols to denote positive (+) or negative (-) comments. (The full coding key for these themes can be found in appendix 10).

Samples of quotes from participants are given in the sections below to illustrate each theme and sub-theme. The particular quotes shown were selected on the basis that they demonstrated a range and balance of typical responses, such as contrasting viewpoints about a particular aspect of the training.

The analysis can be summarised by the following figure:
Figure 8 – summary of thematic analysis

Experiences

- In school & class
  - Noticing behaviours
  - Noticing change
  - Ideas, strategies, resources
  - Group work
  - Self-led
  - ICT

During training

- About ASD
  - Features of ASD
  - Attitude/understanding
  - Learning needs
  - Personal development
  - Changes to practice

Thoughts

- About training
  - Working together
  - Evaluation of Training

Actions

- Group
  - Transition
  - Features of ASD
  - Features of ASD

- Individual
  - Profess. development
  - Parents/family/home
  - Parents/family/home
  - Profess. development

Learning needs

- Safety and security
- Motivation
- Content
- Timing
4.2 a) (i) Experiences

Participants described a variety of 'experiences', i.e. things that they had done or seen both during the actual training delivery, and during their time in school.

**Figure 9 – ‘Experiences’ theme of thematic analysis**

**Experiences in school and class**

Events and experiences in school mainly fell into two types – those whereby participants had taken note of behaviours or something happening, and those where participants had noticed a change in circumstances. The former can be thought of as the first stage of the learning cycle, i.e. a ‘concrete experience’ on which reflection takes place, leading to change in practice. The latter appeared to have clear links to pupil outcome, and also highlights the cyclical nature of learning – i.e. to notice a change one first has to notice the initial issue.
Experiences in school and class - Noticing behaviours

TA3: “On a trip the child was fine in the morning in one room but then we changed rooms/routine, this really affected the child”.

TA2: “I’ve noticed he puts his fingers in his ears”.

TA2: “I’ve realised when he's bored he gets up and goes to the toilet I’ve noticed he puts his fingers in his ears a lot”.

TA1:” I've noticed that one girl would rush out to finish her dinner, walk out, get up and leave. I used to make her go back and eat dinner”.

TA6: “We had a trip to the pantomime, he didn't like the noise”.

TA11: “He struggles with literacy and imagination, this is when he misbehaves most”.

Experiences in school and class - Noticing change

TA8: “He can be calmer, he's not as worked up about what might happen, like if he’s going out on a school trip or whatever”.

TA9: “Because of that smooth transition the child in year three is producing a lot more work than he ever did last year”.

TA10: “The way we've considered the environment, in terms of way he sits, he's far more involved with class this time”.

TA1: “He's become more confident on his own, and he can deal with change so much better”.

TA4: “He's not improved at taking turns. He still wants to be first everything”.

S1: “I think one thing we have noticed is that the transition from Key Stage One to Key Stage Two is a lot better for one child this time. 12 months ago that transition wouldn't have been thought about, but we out a lot of thought in place this time and it’s been a lot better”.

TA9: Because of that smoother transition the child in year Three is producing a lot more work”
There were also some comments that were more implicit in nature, but still seemed to involve noticing a change (or lack of change) in pupil behaviour. These comments were more 'latent' in nature, as defined by Braun and Clarke (2006) pg. 84, and described in the methodology chapter of this document. Two such comments described the social skills in pupils, and could be interpreted as noticing a lack of change or improvement in the social skills of the pupils concerned despite the training initiative and staff's subsequent change in practice:

TA3: “I mean ours are young anyway, they're not the best at taking turns”

TA1: “You see I also still have though is, where he says things that are inappropriate to other children, and that still happens occasionally”.

Experiences during training

Experiences during training were sub-divided into four aspects; comments about the ‘ICT’ involved in the training (i.e. the web-based resources), comments about the ‘self-led’ aspect of the training (i.e. the ability to complete the IDP in participants’ own time), comments about the ‘group’ aspect (which mainly referred to the ongoing support/focus groups which were an addition to the original design of the IDP), and comments about the ‘ideas, strategies and resources’ of the IDP (mainly the content of the web-based IDP training).

The first three aspects seem to relate more to evaluations of the training than a part of the learning cycle. The latter aspect, i.e. comments about ‘experiences in training related to ideas, strategies and resources’, are perhaps particularly pertinent, as they can be thought of as a different starting point of the learning cycle, i.e. a concrete experience of reading or learning something for the first time, and then later reflecting on this, and ultimately linked to a change in practice.

However, it might be argued that the learning that took place during this initiative was not only directly related to learning about autism, but also to learning about (and developing) study skills and self-awareness of aspects of
personal learning and development. Therefore, all four sub-sections are included here.

**Experiences during training – ICT**

The comments below were taken from the research diary and are therefore my reflections and thought from the relevant time:

- Registering took 40 min. There were problems with ICT skills.
- There were issues with the slow computers, people not knowing their logon details for the school system, people not having e-mail addresses, lack of ICT skill such as not knowing what an address bar is, how to type a web address in, slow typing due to lack of skill or experience, pressing the return key before all details were filled in.
- Many of the participants reported difficulties in accessing the IDP resource. They reported that this was due to their lack of skill in ICT and/or the knowledge required.

The remaining comments were directly from participants during the focus groups. Some were critical about the technical workings of the website:

**TA1:** “There were some issues with logging on and off”.

**TA2:** “The videos didn't play for me”.

**TA7:** “It was difficult to find the correct place on the website”.

**TA2:** “The website was blocked by the end weren't it”.

**TA6:** “The password was difficult to remember and use. It wouldn't let you change the password to something familiar”.

**TA1:** “It was a farce, and then because it doesn't work you lose your motivation having to go back again”.

**TA5:** “We could have done without the registration, it would have been simpler just to look at the programme”.
Some respondents criticised the technology systems available in school:

TA5: “We don't have a personal e-mail addresses in the school system, so it makes access difficult”.

Some participants acknowledged their own lack of competence or motivation:

TA10: “I think some people got quite upset. I was quite sort of laid-back about it, but others got quite upset didn't me, because they couldn't get on it, they thought they had to do it”.

TA9: “(The computer part) is just a bit boring. I'm not technical at all, I go on, and I'll be on for 5 min and I'm bored, let's get out”.

A minority of participants were more positive about the ICT aspect of the training:

TA 11: “I've had no technical issues at all, no problems”.

TA6: “The online resource is easy enough to work through”.

Experiences during training - Self-led aspect

Participants appeared to like the ability to undertake the training at their own convenience and at their own rate:

TA11: “You could do it in your own time”.

TA4: “The theory of it is good, the fact that you can access it any time”.

TA7: “I've had a look at the first unit but not got the end”.

TA9: “You can click on things and get more information”.

Experiences during training - Group aspect

Participants seemed to find the time to talk in groups beneficial. Some participants had even used the online resources at the same time, and also reported on the benefits of this. However, there were apparent difficulties in being released from their support roles in class at the same time:

S2: “Speaking about it, everyone's talking, you remember it better”.
TA9: “I think if groups... Like you said we have, we all get on, whatever then you do, you’re not frit to ask each other are you?”

TA2: “That's how we work anyway isn't it, we tends to get together and just share information”.

TA2: “We were all going to be released from class, weren't we, so that we could all do it together, but it just didn't work out”.

Experiences during training - Ideas, strategies and resources

Participants were able to recall many of the ideas they had gleaned from the training, even if they had not yet had the chance to implement them:

TA9: “I actually liked those kind of cards, you know, when it had like, it showed you the children’s writing on it, and like fiction and a fact sheet... They were quite useful I found”.

TA4: “Circle of friends would be something I could go on and use with my child”.

TA6: “I've learnt about communication, transition, passport, chart, time for work then special-interest, visual timetables, one size does not fit all”.

TA10: “I read about using a passport to allow others to know more about the child I work with”

TA7: “I learnt about the social and emotional difficulties children will with autism may have e.g. reading facial expressions, body language, engaging with things which to interest them”.

TA8: “I have read that a child (with autism) likes structure and routine”.
4.2 a) (ii) Thoughts

Figure 10 – ‘Thoughts’ theme of thematic analysis

- About ASD
- Attitude/understanding
- Features of ASD
- Learning styles
- Safety and security

- About training
- Personal development
- Learning needs
- Motivation

- Changes to practice
- Working together

- Evaluation of training
- Content
- Timing
- Release time
- Timing between sessions
- Self-led aspect
- Personal commitments

- Age and severity of pupils
- IT resources
- Role of the facilitator
Thoughts were categorised into ‘thoughts about ASC’ and ‘thoughts about training’. Both of these sub-themes were still quite broad, so further classifications were made.

Importantly, additional sub-themes began to emerge from two of the sub-themes, specifically (i) ‘learning needs’ and (ii) ‘evaluation of the training’. In particular the latter of these produced yet more subthemes which were expanded upon, and produced important and useful information about participants’ opinions of the training. Therefore the sub-theme of ‘evaluation of the training’ was divided into two more sub-memes, (i) regarding ‘content’ of the training (age and severity of pupils, role of the facilitator, and IT resources and (ii) regarding the ‘timing’ of the training (release time from class, timing between sessions, timing of the self-led aspect, deadlines and personal commitments). This is described in more detail in the corresponding sections below.

There were some similarities between a number of the sub-themes, including ‘thoughts about features of ASC’, ‘attitude and understanding of ASC’, ‘thoughts about personal development (adding to skills knowledge and learning)’, ‘thoughts about personal development (next steps)’, and ‘changes to practice’. It is therefore necessary to explain the differences in some of the identified themes:

i. ‘Thoughts about features of ASC’ included comments that were mainly descriptive of features of ASC, e.g. sensory difficulties, language difficulties, without the participants commenting upon whether or not this was a newly acquired piece of knowledge to them.

ii. ‘Attitude and understanding of ASC’ related to statements pertaining to what individuals with ASC might need from others.

iii. ‘Thoughts about personal development (adding to skills knowledge and learning)’ related to statements in which participants described or evaluated a new skill or piece of knowledge that they had acquired.

iv. ‘Changes to practice’ was defined as statements about planned changes to practice when working directly with pupils i.e. what they as
individuals felt they needed to do (as opposed to actual changes, which fell into the 'Actions' main theme).

Thoughts about ASC

Regarding their thoughts about ASC, participants’ responses could be defined as (i) thoughts about features of ASC (e.g. language and communication, sensory issues.) (ii) thoughts about the parents and families and the home life of individuals with ASC and (iii) thoughts about participants’ attitude and understanding towards ASC.

Thoughts about ASC - Features of ASC

Participants described what they had learnt about the different aspects of autism:

TA6: “(I've learnt that) children with autism find difficulty with communication, communicating feelings, noise and change”.

S1: “The noise level in classroom as well, you know it affects the children”.

TA10: “Lights and everything. There's a lot of different things… Aspects of the learning environment isn't it, which we just take for granted”.

On a more ‘latent’ level, some comments were made regarding the issue of literal language:

TA1: “You know, don’t say, ‘Take your jumper off’ – that’s more like a request isn't it, ‘take it’. Whereas if you say ‘jumper off’…”

TA1: “Because of polite society, we say ‘would you like to’, and it’s not actually really a question. We mean ‘you are going to’. Well I do. And you realise that with these children you have to say ‘we are going to’ because you just get ‘No I wouldn’t like to’.
**Thoughts about ASC – Parents, families and home**

Many participants appeared to have developed increased understanding of and empathy towards the parents and families of children with autism:

TA2: “You've really got to put in the time to know them, and the family, because they know better than anybody”.

TA1: “A colleague has a child with ASC, she went through the grieving process. It made me think about the impact on the child on the parents”.

TA1: “I thought about what he does at home, mum says he plays on his laptop”

**Thoughts about ASC - Attitude and understanding towards ASC**

Participants appeared to have a fuller understanding of why some children might present with certain behaviours in some situations:

TA10: “Not so much the attitude (has changed) just developed the understanding as to why they behave in certain ways”.

TA2: “We mean ‘you are going to’ and you realise that with these children you have to say ‘we are going to’ rather than ‘would you like to’ because you just get ‘no would not like to’. And they thought it was a question… But the politeness can, after, ‘thank you for that’, or whatever”.

TA1: “I'm not sure whether diagnosis is a good thing or a bad, but the children I work with all have a diagnosis”.

TA2: “I think it’s very easy for the school to label a child as autistic, but every child is so individual and the triggers and the way they see things, are so different. So it’s not enough to know they’re autistic, you’ve really got to put in the time to know them”

**Thoughts about training**

Regarding thoughts about training, participants’ responses could be defined as (i) the effect of training on their own changes to practice (ii) working
together with colleagues (iii) thoughts about participants’ personal development (iv) evaluation of the training and (v) participants’ learning needs. The latter to subthemes could be further subdivided, as will be discussed below:

**Thoughts about training - Changes to own practice**

Participants described ideas the training had given them about changes they could make to their own practice, even though they had not yet implemented those changes:

TA6: “It made me think, not using sarcasm because they take it literally”.

TA12: “There's nothing we can actually do about it (noise levels in assembly) if it's too noisy you'd probably just take them out... But I mean it is difficult”.

S1: “You think about the lights... We've done that”.

TA7: “I would… Use different language, consult with the senco”.

TA6: “I need to think about things like eye contact, talk at their level, prepare them if there is something different, like a school trip, explaining what was going to happen for example if he needs to he could go for a walk”.

**Thoughts about training – Working together with colleagues**

Participants often made reference to the benefits of completing the training as a group:

TA10: “I think more people, the more members of staff that have a better understanding, I think it helps, you know, with more people having done all the training”.

TA4: “It’s not just the on-line resource, you need more than that, you need the group, and the interaction between your colleagues”

S2: “As Senco, I would encourage meeting like this... I've seen the benefits of working it that way”
TA4: “I think it’s more beneficial as a school to do it all together...with your fellow colleagues... you’re sharing information as well”

TA4: “If we could have all got together if we did it again, we could get together and say right, if we all try, I know it's a bind, to do one, look for it, and will then know how to improve, it's your professional development isn't it?”

TA7: “I realised we need to get the teaching assistants to do the course”.

Many participants appeared to feel reassured being part of a group – having other people to share concerns with:

TA2: “We can all say, ‘How have you done this?’, ‘Are you having problems getting on-line or is it just me?’, ‘Have I got the wrong log in?’”

Participants also valued being able to exchange ideas and information:

TA2: “That’s how we work, isn’t it, we tend to get together and share information”

TA2: “Even this now, I’m picking up as we’re talking”

TA9: “It helps you bounce off each other”

Thoughts about training - Personal development

Participants made several statements that reflected the development of their own learning development, learning styles, needs and meta-cognitive skills.

TA7: “It gave me more confidence”

TA7: “it reaffirmed that I am aware of more than I thought”

TA6: “we do feel we know more yes”.

Thoughts about training - Evaluation of the training

Participants made several comments regarding their opinions on the quality of the training:
TA7: “It was interesting … “It reaffirmed what I did know already, but it was still interesting”

TA1: “It’s good for a quick insight, but brief insight into it I suppose. Because it wasn't that in-depth, was it”.

Participants recalled various examples of how the training had added to their knowledge and understanding of autism. Examples included:

TA6: “We do feel we know more” (following the training)

TA9: “I didn’t work with them (pupils with autism) before, so it did give me a wider picture”

TA7: “It’s helped me develop my understanding of why they’re behave in certain ways”

TA2: “It’s becoming aware… awareness really…simple things like the temperature thing… I didn’t know about that” (referring to sensory difficulties)

As suggested above, the sub-theme of ‘evaluation of the training’ could be further divided into additional subthemes, which were (i) ‘timing’ and (ii) ‘content’:

Thoughts about training - Evaluation of the training: Timing

Timing was quite a common and an important element of the evaluations, with many comments describing how timing issues affected participants’ ability to complete the training and had an impact on the school’s organisation of staff in accessing training. This emerged as a significant sub-theme of the evaluative thoughts and comments:

General comments

TA9: “it wasn’t a big chunk of time, it was only half an hour for these reflection meetings”

S1: “it would be different if the teachers had wanted to be involved, then we’d be having meetings after-school, and that has a knock-on effect on the
teachers. If they have to stay behind. But you could do a separate meeting for your teaching assistants and your teachers, but then you're losing that whole school drive forward with it”.

TA4: “I suppose it would be more beneficial if we all made a point of getting on with it at the same time. But to be honest, we can’t even get to a meeting can we”.

Release time

Release time from class was also raised as an issue on a number of occasions:

TA9: “It's the wrong time of year with Christmas concerts”.

TA5: “Your job is your job, you're getting paid to do your job, and that's more important”.

TA4: “That is the disadvantage of doing it together, we can't find time for each of us, we are all working at separate parts of the school. And like us two, we were both in the same classroom, so if you have two overs out together the teacher loses all the support”.

TA4: “Work sometimes said you could do in work time to get it done”.

TA2: “Well we were all going to be released from class weren't we, so that we could all do it together, but it just didn't work out”.

Timing between sessions

Participants also commented upon the timing in between each of the sessions:

TA3: “I went right through very early on and then the quiz was a while afterwards, months and months later when I met up with you again”.

TA4: “If you keep it more intense I think it works, that's just my theory, that it works better, it all stays in, you can support each other”.

116
Self-led aspect of the training

The self-led aspect seemed to have a positive effect on timing issues:

TA11: “You could do it in your own time”

TA10: “I like to dip in and out, when you're busy it's easier”.

TA6: “I think the training was fine cos you could go back into it. I did like the fact that you could just go back into it”.

TA12: “have like computers at home and things like that, you can get on computers, I mean I did it at home occasionally”

TA4: “The theory of it is good, the fact that you can access it at any time”

Deadlines

Having deadlines to work to appeared to help participants with the timing of their personal study:

TA10: “I liked having the deadlines, when you were coming in, you knew you had to do certain ones didn't you”.

S1: “Yeah cause I wrote on the board, Claire is coming in next week, and everyone were going (gasp) I have not done it”.

TA2: “If we'd have all said right, we've got to have this done by x - that would have been better for me.”

Personal commitments

Unfortunately, personal commitments appeared to have a negative impact on participants’ ability to devote time to study:

TA3: “We have no time at home or at work, it will be better if you come back at the end of January”.

TA3: “I did it really quickly because I had other commitments, I had other homework to do, so I got straight on with it”.

TA3: “I had a problem finding time outside of work”.
Thoughts about training - Evaluation of the training: Content

Age and severity of the pupils featured

Many of the participants commented on the focus of the IDP training not being ‘appropriate’ for the age of the pupils that they were used to working with, or the severity of the autism of the children they were working with.

TA8: “I just wish there was younger children personally” (featured on the IDP)

TA7: “There was a lot of high skill... very high functioning as well... I would like to have seen much lower ability”

S1: (I would like to have seen) “some sort of different behaviours and how you cope with those”

TA8: “It needed to be more primary-based for me”

TA3: “A lot of it was for older kids”

Role of the facilitator

Participants made some references to my role as facilitator of the training initiative and the additions made to the IDP such as the groups sessions, and the impact this had on their training:

TA4: “Sometimes you just need to have someone else”

TA2: “someone to demonstrate how to use resources”

TA2: “I learn more by somebody speaking to me”

TA9: “It helps you bounce off each other”

S2: “If you’d done it on your own, you’d just have ‘done it’… more generally”.

Comments about the role of the facilitator was generally favourable, although one participant pointed out that just having a facilitator or instructor instead of the other resources (as opposed to in addition) would not have been ideal:

TA5: “I prefer seeing things definitely. If it’s just someone standing there talking at me…” (the inference being that she would not have found this helpful).
One participant even went on to state that they would have found additional support/focus group sessions beneficial:

TA4: “I think we should have insisted on more”.

IT/ on-line resources

Participants were generally positive about the presentation of the on-line resources:

TA8: “The overview is helpful”

TA6: “There’s not too much to read on screen”

S1: “The pop-up bits of information were short and concise. It keeps to the point”

TA4: “The summary at the end is okay, but a mini-test would be better”

Similarly, participants’ comments regarding the navigation of the website and the ease of using the online resources were generally favourable:

TA6: “It is easy enough to work through”

TA10: “It is an advantage to be able to dip in and dip out”

TA4: “It’s clear and easy to navigate – very user friendly.

TA8: “I found this list quite easy to work through – it was self-explanatory”

In contrast to the two aspects described above, participants felt that the online IDP package was not easy to access in terms of personal logging on, and reported several technical issues with the system. There were a large number of examples of such comments:

TA10: “Registration was long but straight-forward”

TA10: “We had problems logging on to the school computers”

TA6: “The initial thing was a night mare”
TA7: “The website played up a bit for me”

TA11: “It wouldn’t let me back into the section I’d started”

TA12: “I initially had log-on difficulties, the passwords were too difficult”

TA5: “The videos stopped playing on those computers as well, didn’t it?”

TA9: “There have been some technical issues like ‘bad gateways’ but it was alright at home”

Positive comments about the technical aspects were very much in the minority;

TA2: “I’ve had no issues at all, no problems”

TA10: “I’ve found the technical stuff fine”

TA10: “Finding the website again was fine”

TA12: “I used the DVD in the end and it was OK”

Thoughts about training – Learning needs

As with the ‘evaluation’ subtheme, the ‘learning needs’ subtheme was also further divided into additional sub-categories, (i) Learning styles, (ii) motivation and (iii) safety and security.

Learning styles

Nearly all the participants seemed to be in agreement that the on-line resources were good, but that their preferred learning style is a mixture of teaching methods. The more interactive aspects of the training seemed to be rated highly:

TA5: “I need to see things as well. If I’ve got a power point at the same time (as somebody talking) I’m fine”

TA9: “We’re more interaction you see, we can talk about it with other people. Whereas if you start listening to some computer, you just get a bit... (bored)”

TA12: “I think I’m one of them kinaesthetic learners”
TA12: “Something like this, you come away and have a bit of practice... I find that sort of interesting for me”

TA2: “But sometimes you need to have someone else... I learn more by someone telling, by somebody speaking to me”.

TA5: “You see I don’t, I am definitely visual, I have to look at things, if someone starts talking...”

Motivation

Participants regarded the group sessions to be a positive motivating factor in terms of progressing with the training:

S1: “I think if we’d all been doing this, not as a part of your research, and we’d not had the session where we came together to talk about it and reflect upon what’s been done, and we were just doing it at home... I don’t think it would have been as effective as it has been with the group coming together”

TA9: (Following the above comment) “I don’t think we’d have done it”

S1: “I think if you’d just done it on-line you might have just out it to the back of your mind”

TA10: “Because... we’re all busy, and you’re working, we would have all just said we had done it when we hadn’t, and then we’d have tried to blag it” (referring to my visits for the supportive group sessions and whether they were a motivating factor to complete the training)

The SENCo at one of the schools, who was also a participant, also stated that she had not used group sessions before for staff training, but would do so in the future:

S2: “I wouldn’t have done it before...but I’ve seen the benefits of working it that way”

Some participants regarded the computer-based resources as a positive motivating factor, whilst other regarded the computer work as demotivating:

TA4: “You can just sit down and look at all of the videos. It looks like it might be interesting”
TA10: “You can get into it when you’re sat at a computer”

S1: “I quite liked it, the videos, text and pictures kept me interested and held my attention”

TA9: (I find computers) “just a bit boring. I’m not, I’m not technical at all. I go on, doesn’t matter whether it... I go on and I’ll be on for 5 minutes and I’m bored, let’s get out”

TA7: “I can’t sit there for hours and hours. I need to just get on and off”

One issue that came out of the research diary was that it appeared that staff found it difficult to see the relevance of the training if they were not directly working with a child with autism at that time, and these appeared to be quite a demotivating factor.

A small number of participants cited relevance to their role in school as a motivating factor:

TA5: “It helps you with your work, doesn’t it?”

TA2: “Relevant to what you’re doing in work or school”

TA5: “Especially as we’re all aware that there will be obviously more children with autism coming in, so it’s important to train up”

Safety and security

Interestingly, within this theme, there emerged a sub-theme that was purely ‘latent’. The theme of ‘safety’ or ‘security’ was not referred to explicitly, but several participants made comments which seemed to imply that the potential for learning, especially in a group situation, may be affected by feeling confident enough to participate in discussions and to ask questions:

TA9: “If you get a room full of people, you’re thinking, ‘I should know that’. You do get a bit... you’re frit they’re gonna ask you a question”

TA9: “If there’s a room full of people, and you’re saying ‘I don’t understand’…”

TA9: “I always put my hand up me and someone will say, ‘I’m glad you asked that”.

122
4.2 a) (iii) Actions

Actions fell broadly into two sub-types, actions taken as an individual, and actions taken as group or whole school. The group actions, these mainly consisted of actions around transition between year groups or key-stages, and actions pertaining to features of ASC.

**Figure 11 – ‘Actions’ theme of thematic analysis**

**Actions taken as an individual**

Individual actions consisted of actions pertaining to participants’ own professional development, actions regarding features of ASC, and actions that considered the home, parents and family situation.

**Actions taken as an individual - Professional development**

There were a small number of comments made that suggested that some participants had taken further actions in terms of their personal learning and development:
Ta12: “I was quite interested (in other aspects of the IDP). In fact i went on a lot of things on that web-site. I used a lot of it... there were loads of good things on there, I was like, “Ohhhh, I’ll have a look at that”.”

Ta12: “I looked at the other one (IDP resource), the dyslexia one”.

**Actions taken as an individual - Features of ASC**

Participants described some clear actions that had been taken by individuals in response to certain features of autism, such as communication difficulties and repetitive interests:

TA8: “I think because of (child’s name), the teacher doesn’t change (the routine) much at all”.

TA3: “He was very, very clock orientated... When I’m in class I take my watch off now”.

TA9: “I make sure they look me in the eye”.

**Actions taken as an individual - Home, parents and family**

There was only one comment made which made reference to an individual action taken in conjunction with parents or families:

TA2: “(Mum) is letting him come to holiday clubs. At first I said, “I’m going to be on that school activity, if you want to come that day”. And then when he had done a few I said, “Well I won’t be there but if he wants to do it everyone that will be there will understand and he will be supported”. And she’s letting him come to allsorts now”.

**Actions taken as group or whole school**

Again, 'actions' pertaining to professional development were distinguished from ‘thought’s pertaining to professional development according to whether the statement was a description of planned activity (therefore a ‘thought’) or a description of an action already taken (thereby an 'action').
Group actions fell into mainly two key areas (i) action taken to support needs arising as a result of recognised features of ASC, such as sensory difficulties and (ii) actions taken around transition between schools, classes or key-stages.

**Actions taken as group or whole school - Features of ASC**

In a similar vein the individual actions, participants described some clear actions that had been taken by groups in response to certain features of autism, such as social and communication difficulties, and sensory difficulties:

TA5: “We’ve tried to build up a resistance to noise in the classroom, so we worked on our own last year. Then we brought in another child, so he built a relationship. And then we built it into a group”.

TA8: “If the routine does change, we do explain (now)... we explain that tomorrow is going to be different”.

TA1: “We had to do lots of social stories on how to be a polite loser, or a polite winner, because he does like to gloat”.

**Actions taken as group or whole school – Transition**

Some participants had clearly thought about transition as a particularly crucial area for students with autism:

S1: “The transition from KS1 to KS2 is a lot better for one child this time. 12 months ago that transition wouldn’t have been thought about, but we put a lot of thought, we put a lot in place this time, it’s been far better”.

TA1: “General classroom noise is too much for one of our children...and we built up a tolerance of noise, and we’ve got him back in the classroom... because he’s going to high school and in year 7 you’ve got to build up a resistance to noise”.
CHAPTER FIVE – CONCLUDING DISCUSSION

5.1 Introduction

The previous chapter presented the results of the statistical analyses, together with the thematic and grounded theory analysis. In this chapter, these results are discussed in relation to each of the research questions (section 5.1) and the success of the Rivertown training initiative is evaluated (section 5.2). Implications of these discussions with regard to future practice and existing theory are explored (sections 5.3 to 5.4) and the limitations of the study are acknowledged (section 5.5). Final comments and reflections are then discussed in section 5.6.

5.1 Discussion of Research Questions

Research question 1: What are the views of staff regarding the effect of the Rivertown training initiative on: their knowledge and understanding of ASC; changes to their own practice; and outcomes for pupils with ASC?

The first research question pertained to the views of participants in three key areas, the effect of the training on their own knowledge and understanding, the effect on their changes to practice, and the effect on pupil outcomes. As this question attempts to explore the links between putting learning into practice and reflecting upon outcomes, Kolb’s experiential learning cycle (with some modification) was used as the theory on which to base a deductive analysis, the three major themes being ‘experiences’, ‘thoughts’ and ‘actions’.

The first part of this research question pertains to knowledge and understanding of ASC, and therefore drew upon the themes of ‘thoughts about training’ and ‘thoughts about ASC’. The second part of this research question concerned ‘changes to practice’, and therefore drew heavily upon the themes ‘actions taken as an individual’ and ‘actions taken as a group’. Finally, the third part of the question concerned pupil outcomes, and therefore drew on the ‘experiences in school or class’ theme, in particular the
sub-theme ‘noticing change’. Each of these three aspects of the initial research question is discussed individually as set out below:

(i) **What are the views of staff regarding the effect of the Rivertown training initiative on their knowledge and understanding of ASC?**

Staff were mainly positive about the impact that the training initiative had on their knowledge and understanding of ASC. Some were more broad in their comments, reporting a general increase in their understanding, such as “we do feel we know more yes”, whilst some were more specific in listing exactly what they had learned, such as “the noise level in the classroom... it affects the children”. Some participants commented that they did not specifically feel that their knowledge had increased, but did acknowledge that the training had affirmed their existing knowledge, e.g. “it reaffirmed that I am aware of more than I thought”.

All of the participants stated that there had been at least some impact at all on their knowledge of ASC, and yet it is important to consider that their responses may have been over-positive due to the fact that they might have perceived myself, as the researcher, as having a vested interest in the results, and therefore they would not want to have spoken negatively about the training. Therefore, to look a little more objectively at this aspect, it is useful to draw upon the results of the self evaluations. Although there may still be an issue pertaining to over-positivity, this measure might be somewhat less prone to this as the results were slightly more anonymised by the use of coding the participant identification. The results of the ‘knowledge’ section of self-evaluation showed significant increases post training, with a large size effect. It is therefore concluded that participants’ perceptions of their knowledge of ASC did significantly increase as a result of the training initiative.
(ii) What are the views of staff regarding the effect of the Rivertown training initiative on changes to their own practice?

Again, by far the majority of participants reported that they had made changes to their practice, with no respondents suggesting that they had not changed at all. Changes were sometimes at an individual level, e.g. “When I’m in class I take my watch off now”, or could be at a whole-school level, such as “The transition from KS1 to KS2 is a lot better for one child this time. 12 months ago that transition wouldn’t have been thought about, but we put a lot of thought, we put a lot in place this time, it’s been far better.”

Once more, a slightly more objective measure of participants’ perceptions of the changes to their own practice is the result of the self-evaluations. The results of this showed a clear increase post-training, with a large size effect. One might therefore conclude that participants’ perceptions of their changes to own practice did significantly increase as a result of the training initiative.

It is important to consider that participants might have naturally veered towards over-positive reporting. They had invested a significant amount of time in the training, some of which was during work time. Being an ‘insider’ I had links with the Sencos and Headteachers in all of the schools (i.e. line-managers and people of authority), and it is possible, indeed even likely, that participants would have wanted to demonstrate that the school’s investment in their employees had been worthwhile.

(iii) What are the views of staff regarding the effect of this training initiative on outcomes for pupils with ASC?

The thematic analysis highlighted where participants ‘noticed change’ in pupil behaviour and outcomes. Responses included pupils being calmer, producing more work, being more involved with class peers, becoming more confident, being more tolerant of environmental stimuli (such as noise), and being more socially skilled. It is again important to consider some possible factors that may have positively skewed responses. These would include wanting to sound positive in front of myself as the facilitator of the training so
as not to cause ‘offence’. As in the previous question, participants may also have wanted to believe and demonstrate that something they had invested personal and school time in had had a positive effect on their ‘day job’ and on the pupils they were employed to care for.

There is another issue that should also be acknowledged – namely that pupils may have made progress and improvements due to natural development and maturation, or even the overall quality of the teaching in class. It is not possible to surmise that any pupil development was as a direct result of staff training. However, this research question pertains to staff perceptions of the effect on pupils, and therefore regardless of the actual cause of pupil progress, participants’ perceptions were that the training had indeed had a positive effect on pupil outcome.

**Research question 2: What actual impact has the introduction of the Rivertown training initiative had on staff's knowledge of ASC, as defined by the content of the IDP training package?**

This research question was directly addressed by the results of the statistical analysis of the knowledge questionnaire. Results showed a significant improvement in test scores from pre- to post-training, with a medium size effect. It is possible that some increase in knowledge would have been made over the intervening months, due to on-the-job experiences and exposure to other sources of information. However, as the questions in the knowledge assessment were taken directly from the IDP resources (sometimes verbatim) it seems fair to assume that the training did directly impact on staff knowledge.

**Research question 3: What are the views of staff regarding the content and the style of the Rivertown training initiative?**

The ‘thoughts about training’ theme of the thematic analysis yielded detailed information regarding participants’ opinions of the training. This information can be summarised as thus:
Content of the training initiative

The IDP resources were generally regarded quite favourably in terms of the teaching content – the information conveyed by the text and videos. Participants reported that the information added to their own knowledge as well as giving them more specific strategies and resources to use. Participants working with older pupils expressed concerns that the IDP did not seem to include as much content regarding this age range, and similarly, some participants expressed a desire to learn more about children with more severe need.

The additionality of myself as a facilitator was also positively regarded, even though this had not originally been a part of the planned project. Participants reported needing someone to organise and motivate them into engaging and completing the training.

Timing

Timing was a significant issue for several reasons. Many participants reported difficulties with being released from their class duties, and this had been a factor in many potential candidates refusing to sign up to the training initiative in the first instance. However, in contrast, some participants stated that their line managers had agreed to allow them some time away from their usual duties to engage in the training. This was particularly apparent in two of the participating schools, and participants from these schools accounted for at least half of the total numbers.

Timing in between sessions was also seen as important, with too long a period of time in between sessions affecting the impact of the training. Linked to this, having set deadlines (even just planning the subsequent session) by which time participants were required to finish particular units of the IDP package were reported to serve as a motivator in completing the training.

The self-led aspect was reported to be a positive aspect in that participants found it easier to fit in their training around other commitments. However,
linked to this was the issue of having too many other commitments, usually personal ones, to be able to complete the training in their own time.

**Working together**

Collaborative working, although not originally a component of the IDP, was highly regarded by all participants. What were designed to be ongoing focus groups for purposes of data collection were regarded as valuable opportunities to engage in group reflection, to share ideas, to voice concerns and to motivate each other.

**Technical issues**

The presentation of the web resources was very positively received. However, although a small minority of participants reported no difficulties with using the on-line resources, the vast majority had significant concerns, especially in the early months of the initiative. Issues included personal competencies with ICT skills (e.g. not knowing how to type a website address into the address bar) and IT system difficulties (e.g. the school IT systems not allowing participant to log on to their school ‘account’). However, the majority of comments were made about two aspects of the IDP resource itself. Firstly the need to register onto the IDP system – the process was a long one and caused significant frustration, and staff often found that they could not log on for a second time despite successfully registering. Secondly, there were also several comments about video clips and other aspects of the on-line resources not working properly.

Some months into the project, the IDP resources were amended and there was no longer the requirement to log on individually. Although this was seen as a positive step by some in that it cut out what they deemed to be an unnecessary step, others felt this was a negative as it meant that individuals could not keep a personal track of their own progress, or make or read comments within their personal area.
Learning needs

Issues in this area mainly fell into three broad themes – motivation, learning styles, and safety and security. Many participants seemed to be aware of their own learning styles and needs, for example, referring to the fact that they were a ‘kinaesthetic’ or ‘hands-on’ learner, and stating that pictures and videos helped to portray the information more meaningfully. Factors that were seen as facilitating motivation included the group sessions, use of the computer and understanding the relevance of the training to their daily work supporting pupils and teachers. Conversely, some saw the use of computers as a demotivator, stating that they found sitting in front of a computer “a bit boring”. Perceived lack of relevance (such as not currently being involved with any pupils with ASC) was also reported to be a demotivating factor. The latent theme of ‘safety and security’ was expressed in term of participants implying that they needed to feel safe and comfortable with asking questions and admitting that they had not understood something.

5.2 The success of the Rivertown training initiative and the IDP resources

Using the results and discussion cited above, it seems appropriate to surmise that the Rivertown training initiative was indeed successful in that it increased the knowledge and understanding of ASC in those members of staff undertaking the training, raised awareness of ASC, led to changes in practice, and was perceived to leading to improvements in pupil outcomes. In Guskey’s terms, one might say that the training led to ‘teacher change’, albeit with mainly teaching assistants. The training may also have had some unintentional pay offs, such as increasing ICT competency in some adults.

To a large extent, the success of the initiative may have hinged on the role of the facilitator, which of course was never a design feature of the IDP itself. Therefore the success (or indeed the uptake) of the IDP as a standalone item may not have been quite so positive.
One noticeable area which participants reported less success was the impact upon the social skills of pupils. Participant comments included:

TA4: “Yeah he’s not improved at taking turns”

TA1: “You see I’ve also still have though is, where he said things that are inappropriate to other children, and that still happens occasionally”.

TA4: “It’s a work in progress”

Why this area may have received less reported success is unclear. It is perhaps possible that as one of the fundamental difficulties for individuals with autism is with social skills, the strategies identified in the training for social skills may have been more challenging to implement, and had less of an impact on individuals.

The results of this study support the findings of the evaluation of the IDP resources by Lindsay et al (2010, 2011) in several aspects:

First, as suggested above, the success of the training initiative was somewhat dependant on a facilitator being available to coordinate the training. Lindsay et al (2010, 2011) had also found that “time allocated to a key person” and “leadership support to book slots in the CPD timetable” (Lindsay et al 2010, pg. 38) were motivators to engage in the IDP training, whereas a “lack of clarity about who would lead on the IDP resources” and the “lead person not given time to plan” were reported barriers to engagement. (Lindsay et al 2010, pg. 38)

Second, the IDP materials were regarded quite positively in the present study, but technical errors with the IDP website or within school IT systems were sometimes viewed as a barrier to accessing the resources. Lindsay et al had found that that “views about the phase 2 materials (autistic spectrum) were more positive” (Lindsay et al, 2010, pg. 3) but participants reported “technical difficulties related to the autism materials” (Lindsay et al, 2010, pg. 38).
Third, participants in the present study clearly found that the opportunity to ‘work together’ in order to clarify thoughts, share information and to seek reassurance was highly beneficial. Similarly, Lindsay et al (2010) stated that “impact was greatest when the CPD had used active learning techniques – opportunities to discuss, reflect, plan, try out and review were seen as key to subsequent impact on practice”. (Lindsay et al, 2010, pg. 5)

Fourth, Lindsay et al stated that the “practice of CPD was stronger when... there was a whole school approach” (Lindsay et al, 2010, pg. 39). Within the theme of ‘working together’, several participants in the present study stated that working in large groups had been beneficial, and that to work as a whole school would be ideal. To quote a participant of the present study, “I think it’s more beneficial for a school to do it together. With your fellow colleagues. And then you’re sharing knowledge as well”.

Fifth, Lindsay et al (in referring to the impact of the IDP as a whole, and not just the autism strand) suggested that “between two thirds and three quarters of teachers judged that the IDP materials had improved their knowledge, understanding and confidence to teach pupils with dyslexia, SLCN, AS and BESD” (Lindsay et al, 2011, pg. 11). In the present study, the statistical results of the self evaluations and the assessments suggests that an even higher percentage of participants reported increases in ‘knowledge, understanding and confidence’.

Finally, the provision of time to carry out CPD activities was a key finding in both studies. In the present study, ‘timing’ emerged as a significant theme in the evaluation of the training. Similarly, Lindsay et al reported comments from headteachers such as, “so what made the biggest difference, I think, was finding some time” and “finding time to do that and have proper quality discussions sometimes is really hard to do because we’ve so many other pressures on staff”. (Quotes taken from Lindsay et al, 2011, pg. 57).

(The implications of the findings on theories of learning, professional development and teacher change are discussed in more detail in sections 5.3 and 5.4 below)
5.3 What are the implications for future practice?

5.3 (a) for the employment and training of teaching assistants and Sencos

As described in the literature review [Chapter Two, 2.3(d)] opportunities for Professional Development for teaching assistants is historically quite limited (e.g. Swann and Loxley 1998, Moran and Abbott 2002) although has somewhat increased in relatively more recent years (Hancock 2002, Groom and Rose 2005, Butt and Lance 2005, Pugh 2007) However there is still some concern about the amount of training available for TAs (Symes and Humphrey 2011).

As found by Hancock (2002) and Smith et al (2004, cited in Pugh 2007) issues pertaining to both personal and work time emerged as significant themes during this research. Therefore, release time during the working day and/or remuneration for training outside of usual working hours might be issues that school leadership teams need to address in order to promote continuing professional development in their teaching assistants. It is concerning that not all school leadership teams view this as important. Indeed, even with the offer of free resources and a free facilitator in the course of this research, there were a significant amount of schools that did not appear to deem the training worthwhile. Worryingly, one of the schools who declined the offer of the training was in special measures at the time, but teaching assistants were told that any participation in the research would have to be purely in their own time with no remuneration, and accordingly, only one member of staff from this school agreed to participate in the research. One might have hoped that schools in such a context might have embraced the offer of such support. Contrastingly, some schools were happy to release staff for training and/or for the group sessions, and the ethos of such sessions was relaxed but professional, and perhaps had the greatest impact than in schools where participants completed the training in their own personal time.

Participants who came together for the ongoing group sessions clearly valued having time to do so, this being illustrated by the subtheme of
‘working together’. Although these sessions were not an original design feature of the training (the time to come together was originally planned for technical support) they quickly became an integral part of the initiative for several participants and were obviously highly valued. Again, this is an issue for senior leadership teams in school to address. Headteachers and line managers may have to think creatively about how teaching assistants are deployed, and how they would be able to release groups of assistants from their classroom duties at the same time.

My role in this research also seemed to shift over the course of the training initiative. I had initially envisaged my role to be somewhat technical, and to stimulate discussion about participants’ thoughts about each unit of the training as they completed them. However, my role appeared to veer towards that of a ‘mentor’ over time. This may have been in part due to my other role as the allocated EP for each of the participating schools, in that staff in those schools were used to seeking support and advice from me. However, my own feelings about the role I seemed to take on board was that participants wanted someone to guide or mentor them through the training. This was not merely for technical support or to stimulate discussion, but someone they could turn to ‘check things out’ if they had been unable to get answers from one another. One is wary about using the term ‘expert’, but there was a distinct feeling that participants wanted someone to assume an expert role. Even the Senco’s, who might have assumed this role themselves, would turn to me for support and advice, or to ‘check out’ things they were unsure of. It seems then that teaching assistants who engage in CPD activities would benefit from accessing support from a ‘mentor’. As described in the literature review Burgess and Mayes (2007) found that teachers had some concerns about assuming the role of mentor to teaching assistants, and therefore it is possible that Senco’s could assume this role in schools. Whether or not Senco’s had the wide ranging skills and knowledge to assume such a role for the diverse range of training initiative possible across the school would be an interesting area of research to explore.
The web-based resources received mixed reviews from participants. Those who were competent with IT and enjoyed working on computers found them to be a motivating factor. Participants who were perhaps less accomplished in the area viewed the web-based resources less favourably, especially when technical issues arose. As described in the literature review, Yang and Lui (2004) found that participants valued ‘more face to face seminars and more of a mentoring role’ which was lacking in the on-line training initiative reviewed in their research. It could be assumed that participants in the present study also valued the same elements as described in the paragraphs immediately preceding this one.

Shinkavera and Benson (2007) found that participants’ IT skills had increased as a side affect (albeit a planned one) of completing on-line training course. In the present study, we might assume that there had been a similar shift in IT competency (e.g. participants learned how to type a website name into the address bar) although this was not directly measured.

Importantly, as the facilitator in this initiative, the levels of IT skills in some of the participants concerned me greatly, especially given that these teaching assistants were supporting pupils in their own IT lessons. If on-line learning is to be used regularly in future training initiatives, many members of staff would first need to access training courses in basic IT skills in order to complete web-based training. Additionally, there is a real implication here that teaching assistants generally would benefit from specific training in IT skills. Moreover, given that the rate of technological development appears to increase dramatically year on year, it is perhaps wiser to suggests that IT training for teaching assistants is not merely beneficial, but an absolute necessity if they are able to adequately support pupils in this rapidly expanding field.

With regard to the issue of on-line/web-based resources, the present study supports the view of Fallowo (2007) in that web-based learning has certain advantages such as control over time and place of learning, and the ability to communicate ‘without constraints’. However, disadvantages or barriers to on-line learning include disruption to family life, technological issues with websites, and poor IT systems within schools.
All of these issues are set against the backdrop of the current economic climate and the proposed educational reforms. Of particular concern is the recent suggestion made by the press and some trade unions that Education Secretary Michael Gove is set to reduce the number of teaching assistants in schools. (Stevens 2013; GMB 2013) At a time where funding is reduced, it will be interesting to observe where Local Authorities and Headteachers make cuts in budgets and employment.

5.3 (b) What are the implications for the design of future training initiatives?

The results of the third research question allows one to suggest what individuals might regard as a ‘good’ training package. In real terms, this would have to be balanced by what would be most the affective and economical training for schools to put on or buy in. We might therefore surmise what the ‘ideal’ training package might look like. The aspects of the training initiative which were highly regarded by participants included the following:

(i) The ability to be flexible about when and where they completed the individual aspects of the training (i.e. the self-led aspect).

(ii) To have some dedicated work time to be able to complete training (i.e. not all in own personal time).

(iii) To keep training sessions fairly close together in order to have maximum impact, with set deadlines to increase motivation.

(iv) The opportunities to come together and share ideas, discuss concerns, working as a whole school if possible.

(v) To have a leader or facilitator to talk through more complex aspects and to organise the training routines.

(vi) Web-based resources that are easy to use and understand, without technical errors. Staff may even require specific training in IT skills.
prior to carrying out other forms of online training, in order to maximise
the use of the on-line resources.

(vii) The inclusion of practical ideas, strategies and resources to use in
class (i.e. in addition to theoretical learning)

(viii) Training that covers a wide range of pupils, e.g. in terms of age and
severity, in order to increase the relevance of the training to individual
staff.

(ix) Different forms of teaching and learning styles to engage a range of
individual and to maintain motivation, but especially more practical
teaching and learning styles.

(x) An ethos of safety and security so that trainees can feel comfortable
enough to ask questions and be open about not understanding.

(xi) Training that is relevant to the trainees' individual needs.

Some of the above points could be easier to implement than others for
different reasons. For example, there may be additional costs involved in
relation to implementing actions mentioned in some of the points, especially
the last point about training being relevant to individuals, or about allowing
trainees to use work time in which to complete their training. The points about
teaching and learning styles and a safe and secure ethos may not
necessarily have any financial implications, but ensuring that they happen
may be difficult depending on who is providing the training. There may be
organisational difficulties in releasing a large number of staff to work together
in groups. Additionally, the resources (both web-based training resources
and suggested practical resources and ideas to use in class) may vary in
quality depending on who is designing the training.

The use of ICT can be an excellent motivating factor, but perhaps only for
those who are comfortable and accomplished with ICT skills. Those who
were less skilled or experienced found the ICT resources less motivating.
The research, although not aiming to do so, uncovered a worrying trend in
the limitations in the ICT skills of teaching assistants. For example, the initial
tasks of logging onto the school IT system, or typing in a web address was a challenge for some participants. This suggests that there is a need for teaching assistants to access basic IT training before expecting them to access other on-line professional development courses.

An additional but crucial point regarding the use of web-based or other IT resources is the reliability factor. Web-site errors or crashes not only delay training but also impact on trainees’ motivation to continue. IT resources therefore need to be of highly quality – which of course has further financial implications.

This research supports the work of Boud and Walker (1991), Boud and Cohen (1993) Boud (1994). Boud (1994) describes three key factors that are important to consider before the training ‘event’, i.e. a focus on the learner, a focus on the milieu, and a focus on learning skills and strategies. Each of these three aspects is linked to the list above. For example, a ‘focus on the learner’ might include consideration of their personal commitments and the impact that training might have, as well as ‘training that is relevant to the trainees’ individual needs’. A ‘focus on the milieu’ might include the ‘ethos’ of the training, i.e. feeling safe and secure. A ‘focus on the learning skills and strategies’ is clearly linked to point (ix) “different forms of teaching and learning styles to engage a range of individual and to maintain motivation, but especially more practical teaching and learning styles”.

Boud’s critical issues during the training event (‘noticing’, ‘intervening and ‘reflection-in-action’) and after the training event (‘return to experience’, ‘attending to feelings’ and ‘re-evaluation of experience’) are also linked to the current research. ‘Opportunities to come together and share ideas, discuss concerns’ [point (iv)] and ‘Having a leader or facilitator to talk though more complex aspects and to organise the training routines’ [point (v)] are close to Boud’s issues of the needs for ‘intervening’, ‘reflection-in-action’ and ‘re-evaluation of experience’.

Finally, the issues raised by Moon (2004), that Kolb’s model is one of teaching and not learning and that it requires a facilitator to ‘educationally orientate’ the learner, are also somewhat supported by the findings of this
research, as not only was my role as facilitator reportedly valued, it also arose out of necessity in order to keep the training initiative on-track.

5.3 (c) What are the implications for the role of educational psychologists and educational psychology services?

Educational psychologists might be considered ideal candidates to design and deliver training that schools may require. EPs tend to have knowledge and experience of working with a vast array of pupils with wide-ranging needs, and therefore the content of training packages designed by EPs should include relevant and useful information. EPs also have knowledge and understanding about teaching and learning processes, and therefore the design, presentation and ethos of training should also be of a high standard. EPs are used to working in the role of ‘facilitator’ in schools during individual and group consultations, and therefore this is another reason that they should be accomplished at this role. (As described above, there are clear links here to Moon’s requirements for a facilitator role, [Moon, 2004]). However, there are other professionals who may equally possess the skills and experience to undertake such a role, such as autism specialist teachers or training consultants within local authorities.

Additionally, an EP is likely to have an established and effective professional relationship with the school and the staff, it is probable that they would be able to design training package best suited to individual school or groups, therefore making the training more relevant and meaningful. As suggested by Fenwick (2001) the issue of ‘context’ is crucial, as learners are not “fundamentally autonomous from his or her surroundings” (Fenwick, 2001, pg. 21). An EP, especially one who already has an established role within school, would not only possess other prerequisites to the role, but would also understand ‘context’. However, it is again acknowledged that other local authority professionals also very often have established links with schools, and may also be skilled at designing training packages to suit the needs of individual schools.
Although the number of Local Authority Educational Psychology Services are becoming purely ‘traded’ services, some local authorities (including the one in which this research took place) still have at least some LA-funded EPS time. This means that it would be possible for some schools to access training initiatives designed and delivered by an EP at no extra cost to the school. However, it might be tentatively suggested that not all schools perceive the EP role to include much training work. Often, EP workload is centred around the needs of individual pupils and focuses on assessment, observation and recommendations via an individual consultation process. In the current financial climate, it is perhaps increasingly important for Educational Psychology Services to promote their roles and services. Schools, consortiums of schools, or large groups within schools may be offered high quality, cost effective, bespoke training packages that are grounded in evidence-based practice. This being so, EPs would benefit from incorporating advice from research such as the present study and from other research into training design and delivery in order to ensure the training is not only high quality, but is up to date with current trends and knowledge, and is geared towards the requirements of individual schools and settings.

Finally, as IT resources can be a popular and potentially cost effective method of delivering training, it poses a question regarding the technological competence of educational psychologists designing training packages. Do educational psychologists in an increasingly competitive market need to develop more technical competence? Or do Services need to employ IT technicians to do this work on behalf of the service? Or do EPs remain in a purely consultative and signposting role, recommending existing resources, and perhaps adding in aspects such as the facilitator, opportunities for trainees to converse in the same way that the current research was designed? Certainly, it is food for thought for those in senior management roles within educational psychology services and local authorities.
5.3 (d) for the future of the IDP resources and TRAIn?

As the training initiative was deemed to be successful, albeit with the adaptations of an added facilitator and ongoing group support sessions, it leaves the question regarding the usefulness of the IDP resources themselves. As described in the introductory chapter, the IDP resources, being a part of the previous Government’s national standards initiative, are currently only available in an archived area of the web. The resources (aside from the technical issues) were effective and highly regarded, and it therefore seems a shame that they are no longer being actively promoted. However, it seems unlikely that a current Government would actively promote the success of a previous, opposing political party. It may therefore be up to educational professionals, including educational psychologists, to research and promote effective, evidence-based training packages such as the IDP.

The TRAIn programme could easily be implemented by educational professionals, and might be seen as a more interactive approach to training than existing models of training delivery, such as traditional INSET days where an outside speaker is invited to deliver a presentation. As the IDP materials are available on-line via the NASEN website, it would be possible for professionals to utilise these and develop the support that is necessary for TRAIn. Indeed, as many educational services (including educational psychology services) have or are developing a ‘traded’ service, TRAIn would be a useful resource to draw upon and could be considered cost effective. Educational services would potentially save some costs incurred in developing new training package, and these saving could then be passed onto schools and settings who buy in such services.

As suggested in the previous section, educational psychologists may be ideal candidates to deliver such training initiatives, due to their familiarity and relationships with schools, and their understanding of both the content of the training as well as how to design and deliver such training. This being said, schools may instead choose to appoint a facilitator within the school for financial or convenience purposes and the EP role may therefore be to give support and guidance to the facilitator, which may require far less EP input
than actual delivery of the programme. Although this has implications for the income generation of EP traded services, it is likely to be more beneficial and empowering to the school if they have their own internal source of expertise to draw upon.

However, the more recent development of the Autism Educational Trust resources means that the IDP has in a sense been superseded by the newer initiative. According to the evaluation report by Cullen et al (2013), the level one strand (the 90-minute awareness raising session) has already reached over 10,000 participants and has been received positively. At level 1, 86% of participants though that the training was worthwhile, at level 2 the number was 84%, and this figure rose at level 3 to 98%. Participants also reported significant increases in their knowledge about autism, and that they have taken action to improve outcomes for students, such as improving the learning environment, improving communication across the school about individual pupils, and seeking the views of parents. In addition, the competency framework and national standards were being used by at least one member of staff in 35% and 26% of schools respectively.

As a result of the success of the AET programme, Cullen et al (2013) have recommended to the government that “every endeavour is made to ensure the continuation and expansion of the AET hubs training programme, with an overall aim of eventually reaching across the whole of England”. (Cullen et al, 2013, pg 9) Furthermore, the authors also recommends that hub leads target level 3 training at “those in leadership positions within schools”. It therefore seems likely that the AET may soon be rolled out nationally, which might mean that schools would be less inclined to engage in either the IDP or TRAIInitiative.

5.4 What do these results means in terms of existing theories of learning, professional development and teacher change?

This research was initially designed to draw heavily on Kolb’s theory of experiential learning (Kolb, 1984). Despite attempting to use his four key
areas as a basis for the thematic analysis, it was difficult in practice to distinguish between the four stages, and instead the stages were reduced to three key elements – experiences, thoughts and actions. We can also draw upon similar elements in theories of teacher change, such as Guskey’s model of teacher change (Guskey 2002) and Clarke and Hollingsworth’s model (Clarke and Hollingsworth 2002).

Clarke and Hollingsworth’s model was described in chapter two as thus:

*Figure 12 – Traditional model of teacher change as described by Clarke and Hollingsworth, 2002*

![Diagram of traditional model of teacher change](image)

This maps quite closely onto the three areas described in this research, i.e.

*Figure 13 – Model of processes described in the current research (i)*

![Diagram of model of processes described in the current research](image)

We might also presume from the results of the research, that the changes in practice also impacted upon pupil outcome, adding the final stage to the model. Experiences might also be those found in noticing behaviours in class, and not just limited to experiences in formal training. Therefore the model can be yet again adapted as thus:
However, this figure does not portray the complex, cyclical nature of the learning or teacher change processes, and therefore as suggested in the literature review chapter it may be more pertinent to instead look at the Interconnected Model of Professional Growth (Clarke and Hollingsworth 2002):

**Figure 15 – The interconnected model of professional growth**

This model could also be adapted slightly to portray issues found in the current research, as set out below. It incorporates the key elements from theories of experiential learning and teacher change, and is mainly based on the Interconnected Model of Professional Growth as described by Clarke and Hollingsworth (2002). ‘Learners’ may enter at any stage in the process, and
shift towards another stage, but not always in a sequential order described in
the models such as Guskey (2002).

Figure 16 – Revised Interconnected Model of Professional Growth

There are however some important additions and adjustments. Again,
experiences could be in class or during training. ‘Thoughts’ are often quite
reflective, based on new learning and observations of pupils, and therefore it
seems pertinent to add the label ‘reflections’ to this stage of the process.
‘Outcomes’ are not only related to pupil outcomes, but also the effect on the
learning and or/ continuing professional development of the participants.

The lines marked in bold, between ‘experiences’ and ‘outcomes’ are also
added. The traditional Interconnected Model only seems to suggest that the
‘external sources of information or stimulus’ (experiences) only impact upon
learners’ direct ‘knowledge, beliefs, attitude’ (thoughts) or on ‘professional
experimentation (actions). However, as the new model adds learners’ own
CPD as an ‘outcome’, it seems relevant to add a connection between ‘experiences’ (e.g. the on-line training) and ‘outcomes’ (i.e. the gains in skills in the participants). This seems especially pertinent given the suggestion that participants may have had unexpected gains in areas such as IT competency.

It is interesting that over a decade after it was conceptualised, the Interconnected Model has stood the test of time. Over the period of a decade there can be (and indeed have been) enormous changes to the educational systems, as dictated by political parties and social contexts. However, the process of learning itself perhaps remains somewhat more static.

5.5 Limitations of the study

This research was originally conceived to include teachers as well as teaching assistants. Invitations were open to all such staff in each of the eleven schools that were approached to consider participation in the research. It was envisaged that with a mix of qualified teachers and teaching assistants, a comparison could be made between each group. However, at the initial sign-up, only three teachers agreed to take part in the research. Of these, two were Senco’s, and reported that they were participating in the training mainly in order to support their staff, but also hoping to confirm or add to their own understanding of autism. The third teacher did not complete the training as she left to take a new post of employment half way through the academic year. Whilst the results of this research may therefore not allow any meaningful insight into possible differences in learning between teachers and teaching assistants, it does however fill a void where research into the professional development of teaching assistants is concerned, as described by Symes and Humphrey (2011) and Swann and Loxley (1998). However, it is still concerning that what was designed (at the time of publication) to be a flagship, government initiative had such a poor rate of engagement, especially amongst teaching staff.
Drop-out rate was also an overall concern, with job changes, staff leaving their employment, and family commitments causing several participants to become unable to complete the training. This meant that the research involved a smaller number of participants than was originally envisaged, which inevitably affects the generalisability of the research to a wider population.

The research was also initially envisaged as a more simple evaluation of the IDP resources as a standalone item, rather than adding in the role of a facilitator. However, it quickly became apparent that this would be a necessity due to the difficulties some staff had in accessing the resources due to IT competencies and accessibility of IT systems. Therefore, this research cannot draw any conclusions regarding purely self-led, on-line training.

It was acknowledged from the outset that it would been useful to collect more objective data, such as observations of participants’ behaviours and approaches in the classroom pre and post-training, as this would have removed some of the issues of self-reporting and social desirability bias. However, this was deemed to be beyond the scope of a single researcher within the time period. Similarly, pupil outcome might have been judged more objectively by measuring progress of pupils within the school. However, apart from the large scope of such an approach, it was difficult to identify which pupils to assess and which assessment tools to employ.

In terms of the analysis, thematic analysis was chosen as it was deemed the best way of linking the research to theories of experiential learning and therefore enabled a contemporary perspective to the psychology behind such theories. It was of course acknowledged during the period of research that thematic analysis alone was insufficient in portraying all emerging issues, and grounded theory was therefore chosen to explore the evaluation side of the research, as this encapsulated ideas about the training initiative that were not linked to learning theory, but allowed some insight into how future training initiatives should be designed.
In this study, the final focus groups were at times difficult to manage, as it appeared that some participants did indeed have their own agenda. For example, one participant (who tended to dominate the discussion unless I made a point of drawing other participants into the conversation) clearly wanted to talk about her accomplishments, as if she required some recognition and respect for this. Interestingly, this participant was from the school in which senior management had not supported the initiative, and she had engaged in the training and related activities in her own time. It was therefore likely that this participant was seeking the recognition within the focus group that she had not received from her own line-managers and colleagues. Nevertheless, it is acknowledged that it might have been beneficial to select a small number of children to use as case studies, with the use of behavioural observation checklists to measure progress in terms of social skills and behaviour, and other objective measures such as language assessments. The final focus group contained a relatively large number of questions than might have been deemed effective in gaining a deeper insight into key issues. This was perhaps due to the fact that two analytical methods were used, each leading to a different set of key questions for the final focus groups, one set linked to the theory of learning, and the other set pertaining to an evaluation of the training initiative. The number of questions used may have prevented participants from engaging in more detailed discussions during the focus groups, and therefore limiting the richness of the available data. However, the questions did allow exploration of the two different analyses and limiting the number of questions may have limited insight into either or both the key areas (i.e. learning theory and evaluation).

5.6 Summary and final reflections

Summary

The training initiative was deemed to be successful, with measurable increases in knowledge, and self-evaluated increases in knowledge and changes to practice. The research has supported the Interconnected Model
of Professional Development first designed by Clarke and Peter (1993) (subsequently adapted by the Teacher Professional Growth Consortium [1994]), with some adaptations that acknowledge the impact of training directly onto outcomes for learners in terms of their own CPD, some of which might not be a direct aim of the training content, but occur as a positive aside, such as the development of ICT skills.

Analysis of participants’ views suggest that planning, developing and delivering training in schools is a complex process, which requires careful consideration of several factors highlighted in the body of this thesis, and eleven key themes have been suggested as starting points for consideration in the design of future training packages.

Finally, it is suggested that educational psychologists can be ideal professionals to assume the role of designers and deliverers of training packages, and consideration and development of this notion is particularly pertinent at present, given the current financial climate and the development of traded services in many local authorities.

**Future Directions**

This research leaves a number of unanswered questions which would make interesting areas for future research. First, as with any training intervention, the sustainability of change is always an interesting avenue to pursue, therefore the long-term effect of this intervention on learning would be worthy of exploration.

Second, given that the effect on pupil outcome was measured only in terms of participants’ perceptions, a longer-term study into measurable effects on pupil outcome would also be pertinent.

Third, given that the Secretary for Education has recently proposed changes to the numbers and roles of teaching assistants, it would be interesting to see how those teaching assistants left in the profession are allowed to access training and CPD activities, and whether there is an increasing role for the development on on-line training resources.
Fourth, given that this research has produced recommendations for the idealistic design and delivery of training, with the suggestion that educational psychologists are ideal professionals to do this, it would be interesting for Educational Psychology Services to develop training initiatives with regard to these recommendations and evaluate their effectiveness.

Finally, given that the 'Inclusion Development Plan' resources were designed to promote inclusive education in mainstream schools, it would be extremely interesting to explore why so few teaching staff expressed a desire to participate in the training, especially when the training was offered for ‘free’ and teachers would have the ability to engage in the self-led aspects at their own convenience. Does working time for CPD activities need to be allocated by headteachers in order to free teachers from the classroom? Or is there an issue regarding teachers perceiving such training as being only for those who are newly qualified, or those who have an autistic child in their class?

**Personal Reflections**

In terms of my own development, this research has provided me with the grounds on which I can develop the most effective training packages for my schools, which I hope will lead to improved outcomes for staff and pupils. Additionally, as I am currently acting in the role of Principal Educational Psychologist, it has given me insight into how I may need to develop my Service in light of our shift towards an increasingly ‘traded’ service, coupled with competition from neighbouring authorities.

Over the two years in which I have researched and written this thesis, I have continued to work as a generic educational psychologist in each of the participating schools. I have been able to witness the impact of the training without my continued, direct involvement, and have seen that some staff members continue to put into practice their learning, but also continue to discuss their experiences with each other, thereby providing each other with support and motivation. Without a doubt, the schools in which I see most evidence of the continued impact of the training are the one in which larger
groups completed the training together, and when those staff were given time within the working day to complete training, or at least attend the groups sessions. Moreover, these schools appear anecdotally to have a happier, healthier, more positive ethos for both staff and pupils.
References


Butt, G. & A. Lance (2005) Modernising the roles of support staff in primary schools: changing focus, changing function. Educational Review. 57 (2) 139-149


Daly, Kellehear, & Gliksman (1997) cited in

and Theme Development. *International Journal of Qualitative Methods*. 5 (1) pg 82


Pavlov (1928) Lectures on Conditioned Reflexes (Translated by W.H. Gantt) London: Allen and Unwin


Pugh, J. (2007) ‘How are primary school teaching assistants being managed, motivated and led since the implementation of the National Workforce Agreement in 2003?’, Presented at *BERA Conference 2006*.


Stevens, J. (2013) Army of teaching assistants faces the axe as Education department attempts to save some of the £4billion they cost each year. *Daily Mail*. Published 2nd June 2013. DMG Media


Symes, W., & Humphrey, N. (2011) The deployment, training and teacher relationships of teaching assistants supporting pupils with autistic spectrum disorders (ASD) in mainstream secondary schools. *British Journal of Special education* 38 (2) 57-64


Tolman, E. C. (1938). The determinants of behavior at a choice point. Psychological Review, 45, 1-41


Workforce Agreement Monitoring Group (2006) Meeting the professional standards for the Award of Higher Level Teaching Assistant, Guidance Note 12 London. DfES.
List of appendices

1. Participant information sheet
2. Participant consent form
3. IDP self evaluation form
4. Pilot knowledge assessment and revised knowledge assessment
5. Marking scheme for assessment
6. Learning log data from ongoing support meetings/focus groups
7. Research diary notes including transcriptions from discussions held during ongoing support meetings/focus groups
8. Transcript of final focus group 1
9. Transcription of final focus group 2
10. Coding keys for thematic analysis and grounded theory analysis
11. Worked examples of thematic analysis and grounded theory analysis
12. Ethical approval
Appendix 1

Participant information sheet

(See next page)
An evaluation of a training initiative for mainstream primary school staff based on the Inclusion and Development Plan resources for children with Autistic Spectrum Condition.

Participant Information Sheet

You are being invited to take part in a research study as part of a Doctorate in Educational Psychology at the University of Manchester. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

Who will conduct the research?
Claire Cooper-Jones, Educational Psychologist, Rivertown Educational Psychology Service and Doctorate in Educational Psychology student, School of Education, University of Manchester.

Title of the Research
An evaluation of a training initiative for mainstream primary school staff based on the Inclusion and Development Plan (IDP) resources for children with Autistic Spectrum Condition.

What is the aim of the research?
To investigate staffs' perceptions and the impact on staff knowledge of a training initiative based on the Inclusion and Development Plan resources for Autism.

Why have I been chosen?
All staff in the Heywood Primary Schools have been asked if they would like to take part in this research.

What would I be asked to do if I took part?
There will be an initial session to introduce participants to the IDP online resources, including registration. Participants will also be asked to complete a self-evaluation form pertaining to their knowledge of autism, and an assessment which will also explore their understanding of autism. Both the self-evaluation and the assessment will remain anonymous at all times.

During the academic year, participants will be asked to work through the IDP training package by themselves, and I will visit participants on a monthly basis to discuss their progress through the training package and to discuss their opinions of it. These conversations may be audio recorded, but will remain anonymous. Notes will also be taken during these discussions to form a research diary.

When participants have completed the training package, they will be asked to complete the self-evaluation and the assessment again. These will remain anonymous.

Finally, focus groups will be held to invite participant to comment on the training and its impact/effectiveness.

What happens to the data collected?
The data (self-evaluations, assessments, research diary of notes taken and any audio recordings) will be used to analyse staff's perceptions of the IDP resources, and to evaluate any changes in knowledge and understanding between the two administrations of the self-evaluation and the assessment.

How is confidentiality maintained?

The data will be kept in a locked cabinet in the Educational Psychology offices at the Sutherland Centre. All assessments and self-evaluations will remain anonymous. The data will be destroyed once the research and write up are complete. Electronic data will be stored using encryption.

What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself.

Will I be paid for participating in the research?

No.

What is the duration of the research?

The initial session in which the online resources are introduced and the self evaluation and the questionnaire are administered will take approximately one hour. The online training will probably take approximately 20 minutes per unit (with a total of 8 units), spread out over 6 to 8 months. Ongoing support will probably entail 20 minutes monthly over 6 to 8 months. The final session in which the self-evaluation and assessment are re-administered will take approximately 45 minutes. The focus group will take approximately one hour at the end of the training initiative.

Where will the research be conducted?

The introductory sessions, ongoing training and discussions, self-evaluations and assessments will be carried out at the school at which you currently work. The final focus group will be held at a primary school in Heywood, and you will be able to select one of three schools that is most convenient to you.

Will the outcomes of the research be published?

Results will be used as part of my Thesis which is a requirement of the Doctorate in Educational Psychology course at Manchester University. It is possible that the research will also be published in a professional journal in the future.

Criminal Records Check (if applicable)

I have an enhanced Criminal Records Bureau certificate.

Contact for further information

Claire Cooper-Jones, Rivertown EPS, Sutherland Centre, Darnhill, Heywood, OL10 3PY. Tel. 01706 926400. E-mail clairecooper.jones@rivertown.gov.uk

What if something goes wrong?

Please contact Jan Stothard, Principal Educational Psychologist, Rivertown EPS, Sutherland Centre, Darnhill, Heywood, OL10 3PY. Tel. 01706 926400.
If a participant wants to make a formal complaint about the conduct of the research they should contact the Head of the Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL.
Appendix 2

Participant consent form

(See next page)
An evaluation of a training initiative for mainstream primary school staff based on the Inclusion and Development Plan resources for children with Autistic Spectrum Condition

CONSENT FORM

If you are willing to participate in this research, please complete and sign the consent form below.

1. I confirm that I have read the attached information sheet on the above research project and have had the opportunity to consider the information and ask questions and had these answered satisfactorily

2. I understand that my participation in the research is entirely voluntary and that I am free to withdraw at any time without giving a reason and without detriment to any service.

3. I understand that any interviews or focus groups will be audio recorded.

4. I agree to the anonymous use of quotes

5. I agree to take part in the above named project:

Name of participant: Signature: Date:

Name of person taking consent: Claire Cooper-Jones. Signature: Date:
Appendix 3
IDP self evaluation form
(see next page)
**Self-evaluation checklist for the learner**

**Note:** The self-evaluation tool should be completed by learners before and after using the resource to identify existing knowledge and understanding and the areas in which they might enhance their skills.

**Codes used:**
- K – knowledge
- A – adjustment to practice

### My knowledge and understanding of the autism spectrum and adjustments to practice

<table>
<thead>
<tr>
<th>My knowledge and understanding of the autism spectrum and adjustments to practice</th>
<th>Rate 1–4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4</td>
</tr>
<tr>
<td><strong>Unit 1: What is the autism spectrum?</strong></td>
<td></td>
</tr>
<tr>
<td>1K I know the main areas affected in pupils on the autism spectrum.</td>
<td></td>
</tr>
<tr>
<td>2K I have some knowledge of the early development of pupils on the autism spectrum.</td>
<td></td>
</tr>
<tr>
<td>3A I take action to find out how a pupil on the autism spectrum is affected in these areas.</td>
<td></td>
</tr>
<tr>
<td>4A I alter my approach in the light of this information.</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 2: Social and emotional understanding</strong></td>
<td></td>
</tr>
<tr>
<td>5K I know why social interaction with peers and adults is hard for a pupil on the spectrum.</td>
<td></td>
</tr>
<tr>
<td>6K I know that the pupil has difficulty in being aware of and understanding his or her emotions and those of others.</td>
<td></td>
</tr>
<tr>
<td>7A I adjust my communication style to facilitate interactions with pupils on the autism spectrum.</td>
<td></td>
</tr>
<tr>
<td>8A I use strategies to facilitate the social inclusion of pupils on the autism spectrum.</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 3: Communication and language</strong></td>
<td></td>
</tr>
<tr>
<td>9K I know some of the ways in which the communication of pupils on the autism spectrum differs from typical pupils.</td>
<td></td>
</tr>
<tr>
<td>10K I know some of the specific difficulties in the understanding and use of speech and non-verbal language (e.g. gesture, facial expression) that pupils on the autism spectrum experience.</td>
<td></td>
</tr>
<tr>
<td>11A I use additional forms of communication when working with a pupil on the autism spectrum.</td>
<td></td>
</tr>
<tr>
<td>My knowledge and understanding of the autism spectrum and adjustments to practice</td>
<td>Rate 1–4</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>12A</td>
<td>I adjust my language to help the pupil understand spoken instructions.</td>
</tr>
<tr>
<td><strong>Unit 4: Flexibility of thought and behaviour</strong></td>
<td></td>
</tr>
<tr>
<td>13K</td>
<td>I know that a pupil on the autism spectrum has great difficulty with change and in predicting what might happen next.</td>
</tr>
<tr>
<td>14K</td>
<td>I know that pupils on the autism spectrum have difficulty in knowing what to do at break and lunch times.</td>
</tr>
<tr>
<td>15A</td>
<td>I show pupils clearly what is to happen within the day, within the classroom and within a task.</td>
</tr>
<tr>
<td>16A</td>
<td>I put structure and predictability into unstructured times such as break, lunch and free-choice times.</td>
</tr>
<tr>
<td><strong>Unit 5: Sensory perception and responses</strong></td>
<td></td>
</tr>
<tr>
<td>17K</td>
<td>I know that pupils on the autism spectrum may be oversensitive or under-sensitive to sights, sounds, taste, smell and touch.</td>
</tr>
<tr>
<td>18K</td>
<td>I know that sensory issues in school can create serious challenges and barriers to some pupils on the autism spectrum.</td>
</tr>
<tr>
<td>19A</td>
<td>I assess both the sensory environment and a pupil’s responses to sensory input.</td>
</tr>
<tr>
<td>20A</td>
<td>I modify the sensory input and challenges to pupils on the autism spectrum, where necessary.</td>
</tr>
<tr>
<td><strong>Unit 6: Know the pupil</strong></td>
<td></td>
</tr>
<tr>
<td>21K</td>
<td>I know that the profile and skills of an individual pupil on the autism spectrum is very uneven and can vary a great deal between pupils on the spectrum.</td>
</tr>
<tr>
<td>22K</td>
<td>I know that it is important to involve the pupil, parents and carers in obtaining information on a pupil’s needs, strengths and interests.</td>
</tr>
<tr>
<td>23A</td>
<td>I engage parents and carers in compiling a profile of the pupil’s strengths and needs.</td>
</tr>
<tr>
<td>24A</td>
<td>I engage the pupil on the autism spectrum in compiling a profile of the pupil’s strengths and needs.</td>
</tr>
</tbody>
</table>
## Unit 7: Curriculum priorities and inclusive practice

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>25K</strong></td>
<td>I have knowledge of how pupils on the autism spectrum might be affected across subject areas or within my own subject area.</td>
</tr>
<tr>
<td><strong>26K</strong></td>
<td>I know the key features which make for inclusive practice for pupils on the autism spectrum within a mainstream school.</td>
</tr>
<tr>
<td><strong>27A</strong></td>
<td>I make adjustments to enable a pupil on the autism spectrum to access the subject areas I teach.</td>
</tr>
<tr>
<td><strong>28A</strong></td>
<td>I work to inspire an inclusive ethos in school in relation to the attitudes of other pupils and my work with parents and carers.</td>
</tr>
</tbody>
</table>

## Unit 8: Sources of support

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>29K</strong></td>
<td>I know the people within school from whom I can get advice and support regarding pupils on the autism spectrum.</td>
</tr>
<tr>
<td><strong>30K</strong></td>
<td>I know some sources of information, external to the school, on the autism spectrum.</td>
</tr>
<tr>
<td><strong>31A</strong></td>
<td>I read and contribute to the information about pupils on the autism spectrum which is shared with colleagues in the school.</td>
</tr>
<tr>
<td><strong>32A</strong></td>
<td>I can list the ways in which I include parents and carers in supporting their children in school.</td>
</tr>
</tbody>
</table>

### Total score out of 128
Appendix 4

Pilot knowledge assessment and revised knowledge assessment

(see next page)
### Knowledge Assessment based on the IDP resources training initiative

All of the questions below are taken directly from issues raised in the IDP resources.

1. What are often described as the three main areas of difficulty for people with autism?
   (i) ......................................................................................................................
   ....................................
   (ii) ......................................................................................................................
   ....................................
   (iii) ......................................................................................................................
   ....................................

2. Can you list other common difficulties often associated with autism?
   ...................................................................................................................................
   ...................................................................................................................................
   ...................................................................................................................................
   ...................................................................................................................................
   ...................................................................................................................................

3. Can autism be caused by poor parenting skills?
   .................................................................................................................................

4. Pupils with autism who are academically able only have a mild form of autism – true or false?
   .....................................................................................................................................

5. What two important dimensions account for the differences between pupils with autism?
   (i) .....................................................................................................................................
   ....................................
   (ii) .....................................................................................................................................
   ....................................
6. Can you list some possible advantages of obtaining an actual diagnosis?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………

7. In everyday conversations, apart from the words people use, what other clues might we use to interpret what people mean or say?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………

8. Why might a pupil with autism feel more general anxiety than other pupils?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………

9. People with autism usually use very little language – true or false?

……………

10. What difficulties might a pupil with autism have when playing a shared game such as Snap! or Monopoly?

…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………
…………………………………………………………………………………………

11. Can you list some reasons why anyone might choose to communicate with someone else? An example is given.

1. To request something they want or need.

…………………………………………………………………………………………
…………………………………………………………………………………………
12. What is the difference between 'expressive' and 'receptive' language?

13. What is echolalia?

14. What is the issue with using idioms such as, "pull your socks up" when talking to a pupil with autism?

15. What is the problem with saying, "go and wash your hand in the toilet"?

16. Why might a pupil with autism continually and repeatedly ask you the same questions?
17. What could you do to help a pupil who experiences anxiety regarding the order or timing of the school day?

………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………

18. What alternative and/or complementary forms of communication can you name?

………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………

19. What kinds of things might a pupil with autism do to attempt to provide themselves with security and predictability?

………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………

20. Why might a pupil with autism very often engage in or talk about things of special interest* to them? (*sometimes referred to as 'obsessions')

………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………

21. Can you name some advantages and disadvantages of these kinds of special interests?

………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………

22. What could you do to help a child who has particular anxieties relating to making decisions and choices?

23. Why might a pupil with autism not respond to their name being called?

24. If a pupil with autism was transferring to another class or school, what could you do to help them prepare?

25. What times or parts of the school day are often particularly difficult for pupil with autisms?

26. How could you check out if a pupil has particular issues with sensory difficulties?
27. Apart from the usual 'five' senses, what other two senses do people with autism often have difficulty with? (If you cannot remember the actual term, a description will suffice.)

…………………………………………………………………………………
…………………………………………………………………………………
………………………………………………………………………………………………

28. Why might handwriting be a problem for pupils with autism?

…………………………………………………………………………………
…………………………………………………………………………………
………………………………………………………………………………………………

29. What could school do to support a pupil with handwriting difficulties?

…………………………………………………………………………………
…………………………………………………………………………………
………………………………………………………………………………………………

30. List some strategies you might use with a pupil who has visual oversensitivity.

…………………………………………………………………………………
…………………………………………………………………………………
………………………………………………………………………………………………

31. List some strategies you might use with a pupil who has auditory oversensitivity.

…………………………………………………………………………………
…………………………………………………………………………………
………………………………………………………………………………………………

32. If a secondary pupil with autism has olfactory oversensitivity (i.e. is over sensitive to smells) what lessons might cause a particular difficulty?

…………………………………………………………………………………
…………………………………………………………………………………
………………………………………………………………………………………………
33. What might be a useful method of ensuring all staff in school know and understand a particular pupil with autism?

34. Why might homework cause a particular problem for pupils with autism?

35. What could you do to help prepare a pupil with autism for a new learning activity?

36. Can you name things you could do in school to find support and information?

37. Can you name people or services outside school who could help you understand more about a pupil with autism?

38. How could you ensure that you communicate with parents on a regular (i.e. daily) basis?
39. If you were the key-worker for a child with extremely challenging behaviour, what strategy would be good practice in order to maintain your own wellbeing?

Thank you for your time and support in completing this assessment. Your paper will remain anonymous and individual results will not be shown or given to anyone else.
Knowledge Assessment based on the IDP resources training initiative

All of the questions below are taken directly from issues raised in the IDP resources.

1. What are often described as the three main areas of difficulty for people with autism?
   (i) ....................................................................................................
   (ii) ............................................................................................... 
   (iii) ............................................................................................. 

2. Can you list other common difficulties often associated with autism?
   ........................................................................................................
   ........................................................................................................

3. Can autism be caused by poor parenting skills? .........................

4. Pupils with autism who are academically able only have a mild form of autism – true or false? ..................................................

5. What two important dimensions account for the differences between pupils with autism?
   (i) ....................................................................................................
   (ii) ............................................................................................... 

6. Can you list some possible advantages of obtaining an actual diagnosis?
   ........................................................................................................
   ........................................................................................................

7. In everyday conversations, apart from the words people use, what other clues might we use to interpret what people mean or say?
   ........................................................................................................
   ........................................................................................................
8. Why might a pupil with autism feel more general anxiety than other pupils?

9. People with autism usually use very little language – true or false? ….

10. What difficulties might a pupil with autism have when playing a shared game such as Snap! or Monopoly?

11. Can you list some reasons why anyone might choose to communicate with someone else? An example is given.
   1. To request something they want or need.

12. What is the difference between 'expressive' and 'receptive' language?

13. What is echolalia?

14. What is the issue with using idioms such as, "pull your socks up" when talking to a pupil with autism?

15. Why might a pupil with autism continually and repeatedly ask you the same questions?
16. What could you do to help a pupil who experiences anxiety regarding the order or timing of the school day?
……………………………………………………………………………………
……………………………………………………………………………………

17. What alternative and/or complementary forms of communication can you name?
……………………………………………………………………………………
……………………………………………………………………………………

18. What kinds of things might a pupil with autism do to attempt to provide themselves with security and predictability?
……………………………………………………………………………………
……………………………………………………………………………………

19. Why might a pupil with autism very often engage in or talk about things of special interest* to them? (*sometimes referred to as 'obsessions')
……………………………………………………………………………………
……………………………………………………………………………………

20. Can you name some advantages and disadvantages of these kinds of special interests?
……………………………………………………………………………………
……………………………………………………………………………………

21. Why might a pupil with autism not respond to their name being called?
……………………………………………………………………………………
……………………………………………………………………………………

22. If a pupil with autism was transferring to another class or school, what could you do to help them prepare?
……………………………………………………………………………………
……………………………………………………………………………………

23. What times or parts of the school day are often particularly difficult for pupil with autisms?
……………………………………………………………………………………
……………………………………………………………………………………
24. How could you check out if a pupil has particular issues with sensory difficulties?

……………………………………………………………………………………………………
……………………………………………………………………………………………………

25. Why might handwriting be a problem for pupils with autism?

……………………………………………………………………………………………………
……………………………………………………………………………………………………

26. What could school do to support a pupil with handwriting difficulties?

……………………………………………………………………………………………………
……………………………………………………………………………………………………

27. List some strategies you might use with a pupil who has auditory oversensitivity.

……………………………………………………………………………………………………
……………………………………………………………………………………………………

28. If a secondary pupil with autism has olfactory oversensitivity (i.e. is over sensitive to smells) what lessons might cause a particular difficulty?

……………………………………………………………………………………………………
……………………………………………………………………………………………………

29. What might be a useful method of ensuring all staff in school know and understand a particular pupil with autism?

……………………………………………………………………………………………………
……………………………………………………………………………………………………

30. Why might homework cause a particular problem for pupils with autism?

……………………………………………………………………………………………………
……………………………………………………………………………………………………

31. What could you do to help prepare a pupil with autism for a new learning activity?

……………………………………………………………………………………………………
……………………………………………………………………………………………………
32. Can you name things you could do in school to find support and information?
........................................................................................................................................................................................................
........................................................................................................................................................................................................

33. Can you name people or services outside of school who could help you understand more about a pupil with autism?
........................................................................................................................................................................................................
........................................................................................................................................................................................................

34. How could you ensure that you communicate with parents on a regular (i.e. daily) basis?
........................................................................................................................................................................................................

35. If you were the key-worker for a child with extremely challenging behaviour, what strategy would be good practice in order to maintain your own wellbeing?
........................................................................................................................................................................................................
........................................................................................................................................................................................................

Thank you for your time and support in completing this assessment. Your paper will remain anonymous and individual results will not be shown or given to anyone else.
Appendix 5

Marking scheme for assessment

(see next page)
Knowledge Quiz based on the IDP resources training initiative

All of the questions below are taken directly from issues raised in the IDP resources.

1. What are often described as the three main areas of difficulty for people with autism?
   (i) Speech/language/communication (1 point)
   (ii) Social skills/social integration/communication understanding (1 point)
   (iii) Inflexible thinking (1 point)
   3 points max.

2. Can you list other common difficulties often associated with autism?
   Sensory (perception)
   ............................................................................................... 1 point max.
   ............................................................................................... 1 point max.

3. Can autism be caused by poor parenting skills? No 1 point max.

4. Pupils with autism who are academically able only have a mild form of autism — true or false? False 1 point max.

5. What two important dimensions account for the differences between pupils with autism?
   (i) Intellectual ability/intelligence (1 point)
   (ii) Severity of autism/degree of autism (1 point)
   2 points max.

6. Can you list some possible advantages of obtaining an actual diagnosis?
   (1) Awareness for child/parent/teacher, reason they find things difficult
   (2) Raising awareness for family, support, understanding
   6 points max.

7. In everyday conversations, apart from the words people use, what other clues might we use to interpret what people mean or say?
   Body language, facial expressions (1 point each)
   Will also accept context (1 point) and tone of voice (1 point)
   4 points max.

8. Why might a pupil with autism feel more general anxiety than other pupils?
   Lack of theory of mind, lack of understanding intentions of others (1 point)
   Difficulty with change and preference for sameness (2 points)
   Difficulty predicting or understanding the world (1 point)
   4 points max.

193
9. People with autism usually use very little language – true or false?  
   false 1 point

10. What difficulties might a pupil with autism have when playing a shared game such as Snap! or Monopoly?
   - Taking turns (1 point)
   - Not understanding rules (1 point)
2 points max

11. Can you list some reasons why anyone might choose to communicate with someone else? An example is given.
   1. To request something they want or need.
      - Asking nicely (giving info) e.g. saying what they want
      - Asking nicely (sharing info) e.g. spending or saying thank you
   2. To ask about / find out something.
5 points max

12. What is the difference between 'expressive' and 'receptive' language?
   - Expressive = spoken language / speaking / talking (1 point)
   - Receptive = understanding others (1 point)
2 points max

13. What is echolalia?
   - Copying / repeating what people say / repetition / repeating words / phrases
1 point max

14. What is the issue with using idioms such as "pull your socks up" when talking to a pupil with autism?
   - Take it literally
1 point max

15. Why might a pupil with autism continually and repeatedly ask you the same questions?
   - They enjoy hearing the words / talking about special interest
   - Feeling anxious / reassurance
   - Help understanding
4 points max
16. What could you do to help a pupil who experiences anxiety regarding the order or timing of the school day?

- Visual timetable, warnings, preparation, etc. 

2 POINTS MAX

17. What alternative and/or complementary forms of communication can you name?

- Using objects, photos, pictures, symbols, gestures, signs, electronic aids, etc.

3 POINTS MAX

18. What kinds of things might a pupil with autism do to attempt to provide themselves with security and predictability?

- Routines, sameness (1 point)
- Repetitive/obsessive behavior (1 point)
- Body movements (swinging, flapping) (1 point)

3 POINTS MAX

19. Why might a pupil with autism very often engage in or talk about things of special interest to them? (*sometimes referred to as 'obsessions')

- To provide structure/predictability/control (1 point)
- To feel within their ability (1 point)
- To feel safe (1 point)

3 POINTS MAX

20. Can you name some advantages and disadvantages of these kinds of special interests?

- Motivation (or similar) (1 point)
- Inhibiting (or similar) (1 point)

2 POINTS MAX

21. Why might a pupil with autism not respond to their name being called?

- Absorbed in an activity of interest (1 point)

1 POINT MAX

22. If a pupil with autism was transferring to another class or school, what could you do to help them prepare?

- Arrange visits, take photos, discuss their preferences, set up a transition plan, etc.

6 POINTS MAX
23. What times or parts of the school day are often particularly difficult for pupils with autism?
   a) Beginnings, endings, transitions, etc. ......................................................... 1 POINT MAX
   b) Lunchtimes .................................................................................................. 1 POINT MAX
   c) Assemblies ................................................................................................... 1 POINT MAX
   d) Break, play times .......................................................................................... 1 POINT MAX
   e) Points max

24. How could you check out if a pupil has particular issues with sensory difficulties?
   Complete a sensory profile/checklist .................................................................... 1 POINT MAX

25. Why might handwriting be a problem for pupils with autism?
   a) Difficulty with proprioception (sense of where body is, etc.) ...................................
   b) Tongue, pressure, or weak grip ...........................................................................
   c) Other: (e.g., fine motor skills difficulty, unlined, expanded upon) ......................... 2 POINTS MAX

26. What could school do to support a pupil with handwriting difficulties?
   a) Special grip pen, equipment ............................................................................. 3 POINTS MAX
   b) A desk: (e.g., nonslip, cushion) ......................................................................... 3 POINTS MAX
   c) Dictation ............................................................................................................. 3 POINTS MAX

27. List some strategies you might use with a pupil who has auditory oversensitivity.
   a) Allow to wear headphones/ block out noise ...................................................... 6 POINTS MAX
   b) Speak softly, quietly .......................................................................................... 6 POINTS MAX
   c) Darken to the shade near the pupil ..................................................................... 6 POINTS MAX
   d) Use materials to dampen sounds ....................................................................... 6 POINTS MAX
   e) Work in a quiet area ............................................................................................ 6 POINTS MAX

28. If a secondary pupil with autism has olfactory oversensitivity (i.e. is over sensitive to smells) what lessons might cause a particular difficulty?
   a) PE ....................................................................................................................... 3 POINTS MAX
   b) Cooking, Food tech. .......................................................................................... 3 POINTS MAX
   c) Chemistry, Science ........................................................................................... 3 POINTS MAX

29. What might be a useful method of ensuring all staff in school know and understand a particular pupil with autism?
   a) Create a passport ............................................................................................... 3 POINTS MAX
   b) Staff bulletin .................................................................................................... 3 POINTS MAX
   c) Written bulletins ................................................................................................ 3 POINTS MAX
30. Why might homework cause a particular problem for pupils with autism?
- Understanding it / e.g. spending too long on it
- Repetition /还没 time for it
- Separation of home / school / homework
- Help
9 points max

31. What could you do to help prepare a pupil with autism for a new learning activity?
- Pre-teaching
- Extra... staff / back-up

32. Can you name things you could do in school to find support and information?
- SENCO / school nurse / LSAS / learning support dept
- Thesaurus / dictionaries / staff / back-up
- Internship

33. Can you name people or services outside if school who could help you understand more about a pupil with autism?
- Outreach team / child / adult
- Behaviour support
- Specialist / educational psychologists
- Educational psychology
- Paediatrician

34. How could you ensure that you communicate with parents on a regular (i.e. daily) basis?
- Home-school diary
- Speak at start / end of school
- Email / phone / text

35. If you were the key-worker for a child with extremely challenging behaviour, what strategy would be good practice in order to maintain your own wellbeing?
- Training / help
- Share the burden / responsibility

Thank you for your time and support in completing this quiz. Your paper will remain anonymous and individual results will not be shown or given to anyone else.
Appendix 6

Learning logs

(i) Blank learning log

(ii) Data transcribed from learning logs
## Learning Log

### Identification number: \hspace{2cm} IDP Unit: \hspace{2cm} Date:

<table>
<thead>
<tr>
<th>1. Concrete experience</th>
<th>2. Reflective observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regarding the IDP work you have done recently… What were the key ideas? What did you learn?</td>
<td>What are your thoughts and reflections about the things you have described opposite?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Abstract conceptualisation</th>
<th>4. Active experimentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Relating to the Unit you covered,</em> what has happened in class recently? What incident sticks out in your mind? How can you put together your experience with what you have learned from the IDP with your work in class?</td>
<td>What plans can you make to change how you work with children? What might this look like? When and where will it happen? How will you know if it has worked?</td>
</tr>
</tbody>
</table>
MEETING 1. School E

TA 1
- I have experience of Aspergers.
- I'm not sure whether diagnosis is a good thing or a bad, but the children I work with order have a diagnosis.
- A colleague has a child with ASD, she went through grieving process. It made me think about the impact on the child on the parent.
- Others perceive it as "not normal"
- I thought about how it would affect me if my own child had autism-is diagnosis a good thing or a bad.
- A child in school can be very different to that child and home situations.
- We take for granted the fact that these children are in school and do usually take on board what happens at home.
- They have no contact with out-of-school activities, they can be quite insular.
- As a parent would I be working on the social skills.
- Since I have completed IDP unit one I have set up two groups for the child i.e. SULP and language group.
- I have used incidental opportunities for example wet play to get out of board game, I use the same group of children and have worked on social skills
- I have been actively looking for resources such as snap cards and interactive games.
- I thought about what he does at home-mom says he plays on his laptop.
- I have been duplicating resources.
- I have been working on speech and language and is his social skills
- He does seem very isolated.
- He used to leave early at lunchtime because he had issues.
- Now getting through the day isn't enough.
• Other staff have noticed uncommented on positive improvements in all the children in the group.

• One teacher is using this to write about it in her MSc degree, she wants to use the same resources.

• For example a child with selective mutism has answered regularly in class.

• My child has written Christmas cards for the group.

• He can be possessive over children in the group I plan to change the peers except.

• Sometimes things get silly, I've noticed to the children in the group don't work.

• I have had some support from the class teacher.

MEETING 2. School B

TA6
• I thought it [the IDP resource] was good.

• Some of it I knew, but some of it I have learnt.

• I found it helpful.

• I learned by writing things down that's how I learn, rather than sat listening to someone talk at me.

• [I've learnt that] Children with autism find difficulty with communication, communicating feelings, noise and change.

• It made me wonder how I can communicate better by speaking clearly so that they are better prepared.

• It made me think, not using sarcasm because they take it literally.

• Their understanding, they find it difficult to understand things.

• I need to think about things like eye contact, talk at their level, prepare them if they're something different, like a school trip, explaining what was going to happen for example if he needs to he could go for a walk.

• I probably would have done it (before) but not in as much detail.

• (What happened was) he had been upset before the trip, but he coped really well, better than I thought. He told me he enjoyed it, he left school happy.
• We had another trip, to the pantomime, he didn't like the noise, he needed some breaks so he sat with me.

• I'm more conscious of doing it now.

• Knowing the child - you can tell by their behaviour what kind of day they are going to have. You can tell if they might get upset, seek and take him out before you get to that point.

**TA7**

• technically I thought it [the IDP resource] was fine personally.

• It was better to register at school.

• I've had a look at the first unit but not got to the end.

• I've made some notes.

• It wasn't tedious.

• There were clear subheadings and sections and bullet points that made it easy to read.

• It was interesting.

• It reaffirmed what I did know already, but it was still interesting.

• I never clicked that it occurs more employees, although we have only had boys.

• The two-dimensional as that was good.

• It gave me more confidence.

• It wasn't anything totally new.

• It reaffirmed that I am aware of more than I thought.

• I linked it to children we've had in the past for example when I first started at the school I thought "I should have dealt with that better". But we have had so many children now we know lots of things to do like visual timetables.

• I realised we need to get the teaching assistants to do the course.

**TA8**

• I needed help after the initial session (from the senco) to complete registration.
• I learned it [autism] affects more boys than girls.

• I wrote things down to refresh my memory and I can go back to it.

• It shows that there are different levels [of autism] with different children, some are not as severe as others.

• Each individual case is different. The child I work with now is totally different to others I've seen, and children I worked with before.

• I've changed the way I speak to him.

• They take things literally you have to be careful with the way you phrase things.

• Sometimes you say things to the class and you have to remove him and take him to one side and make sure he is understood.

• I found (the IDP training) very interesting. It's got lots of info in there.

• I wish this was there a few years ago, I had a child with severe autism, and it would have been useful.

**TA9**

• it's (the IDP resource) good, I like it.

• I've got a book and I've made notes that I can remember.

• The technical issues are fine, the instructions were fine.

• It's good, could you can click on things and get more information.

• It's clearly labelled.

• It goes over it again at the end, so you remember it.

• (Regarding the two-dimensions) I was believed, I knew it was a wide range, I didn't realise there were different categories, it's good to know they're not all the same, they can be different.

• Last week I had (pupil name) and I know she needs her space, so I just held back.

• It's the individual, you can't just put them all under one heading, you have to be different.

• She felt quite difficult to work with, I know she's very intelligent but it's her behaviour is, she likes to put everything straight.
• If I had just gone him blind and not known her I would have been scared.
• She's very unpredictable.
• Is made me realise that you have to really know them.
• Her parents believed it was something they'd done, and they now realise it's not their fault.

MEETING 3. School A

TA2
• I learnt about circle of friends and the passport.
• I didn't know the correct vocabulary for some issues (before completing the training)
• I've learnt about the difference between Asperger's and autism.
• I've realised when he's bored he gets up and goes to the toilet.
• I would like to introduce a circle of friends and the passport idea.
• I've noticed he puts his fingers in his ears.
• Going to the toilet, we now say no and tell him to go finishes work instead.
• We turn the sound or our voices down.
• We look for reasons for particular actions before reprimanding (him).
• (We use) precise, simple instructions.

TA3
• I didn't know that (children with autism) could be affectionate.
• I learned some terminology.
• (I learnt about the issues around) sound.
• I would generally treat (children with autism) the same.
• (I've learnt) don't take the child in situations that are too loud except, provide other activities.
• (I will plan to consider) the position of the child.
• (I will use) clear language, sometimes simple.
• (I will use) specific language.
• (I will use) one instruction at once.
• (I will be) watching my language, role.

TA4
• (I read about), the circle of friends.
• Circle of friends would be something I could go on and use with my child.
• As I've only done the first two models, the info I have gained is info I already knew.
• (I plan to) explain in simple terms what to do next through visual timetables, now and next, etc.
• (I've thought about) sound control—we are not very good at it.
• Not all staff are aware of sensory issues.
• It's not just children with autism, the same difficulties can apply to all/other children.
• [I will put] quiet rooms in place.
• Staff are more aware.
• Just put up with it.
• Noise—I would stand near at key times. I would take him out of noisy environments, I wouldn't take him in there in the first place, or (I would make sure we had) access to an easy exit.
• These strategies would also apply to others.
• Regarding noise I would explain (his difficulties) to the class, I would use traffic lights (to indicate the noise level), (I would teach him about) and indoor/outdoor voice.

TA5
• How they (children with autism) behave is interesting, I didn't know.
• I didn't know about eye contact.
• I had a basic knowledge (of autism) but it made me think about the children.
• The first unit was a gentle reminder, it consolidated what I was thinking.
• I enjoyed hearing the child's perspective, how he deals with difficulties.

• (I learnt about the issue of) noise.

• I started to think about all staff's understanding of children in our school, e.g. lunchtime staff.

• I realised why certain children may not give eye contact.

• I started to think about how we can make all staff aware, especially with supply teachers, how disruption to routine might affect behaviour.

• Awareness that they (children with autism) might struggle with small talk.

• We need to warn, fore-warning of potential noise.

• Passports to learning might be useful.

• Not insisting on eye contact.

MEETING 4. School D

TA11
• (I've learnt about) various means of communication, pupil perspectives, understanding, and behaviour.

• (I've learnt about) how different the characteristics of from one child to another.

• (I plan to) make other staff aware of the condition and strategies to use.

• (I've learnt that) pupils may use/learn different forms of communication, jacket potato.

• It was interesting to hear the children's perspective of the condition.

• It is vital to know, understand and share this information within the setting i.e. schools/days out.

• The children recognise and understand their condition.

• The information should have been shared with staff and keep people prior to (the) incident.

• (I've thought about) It's important for the children at a certain age to understand the condition unrelated to their own behaviour.
(I plan to) make all staff aware/understand the condition and strategies to be used with the child when agitated.

TA12
(I've learnt about) communication issues, child's perspective.

Thinking about one child I work with and why he acts sometimes as he does.

More aware of and understanding of different behaviours.

Understand their frustrations.

(I plan to use) different approaches to some behaviour during lunchtime, one-to-one support.

(I've learnt about) difficulties with communication.

(I've learnt about) Strange phrases that mean something to the child - jacket potatoes.

(I've thought about) What they say might not be what they mean.

(I've thought about) Unusual reaction to smells, relationships, environment, noise.

Tone of voice.

Don't give too many instructions.

Find calm and quiet place for child to calm down when upset.

Don't push the issue, let child speak when ready.

Explain things with visual aids.

(I plan to) Make sure planning is already before the lesson starts.

(I plan to use) Resources - visual aids to assist with learning.

(I plan to) Find out what that particular child's interests are to use as a learning tool or a reward.

S2
(I've learnt about) language, how to use it.

Was not aware of autistic children repeating things they are telling you.

(I've learnt about) clear instructions.

(I've learned that) Need to be more careful with language and instructions.
• (I've thought that) Need visual daily timetable, not weak.
• Not understanding due to language not been clear.
• Can change practice to remedy this (the above).
• (I could use) Visual timetable for each day to reduce anxiety each day.
• Use clear language and instructions to help children understand.
• Will happen throughout the day.
• Will know if it's working if children improve their work and behaviour and are less anxious.
• (I've learnt about) language and metaphor.
• (I've learnt about) How to use language appropriately.
• (I've learnt about) Clear instructions.
• I didn't know about autistic children repeating phrases.
• (I've thought that I) need to be more careful with language and instruction.
• (I've thought that I) need visual timetable for each day, not week.
• (I've wondered if) incidents of not understanding [are] due to my language not been clear.
• Can change practice to remedy this (the above).
• (I could use) visual timetable for each day to reduce anxiety each day.
• Use clear language and instruction to help children understand.
• Will happen throughout the day.
• Will know if it's working if children improve their work and behaviour and are less anxious.

MEETING 5. School C

TA10
• I learnt about using a passport to allow others to know more about the child I work with.
• Autism affects more boys than girls.
• Autistic children can still be very intelligent.

• Some children need their own space.

• I think it (the passport), is a brilliant idea, as I know what things he likes or dislikes, and things he needs help with for example shouting out in class.

• I have noticed this (autism affects more boys than girls) as I walk around school.

• A child at my school will ask you to leave her alone, but will also invite you into her space willingly.

• One child wants to sit on her own table at lunchtime and doesn't want anyone to sit with her. I as a dinner lady ask the other children to respect her wishes and sit on another table.

• I will be making a passport for the child I work with for his transition to high (I've read) the general introduction and the key ideas associated with autism.

• I note it stands for now.

• (I've learnt) the symptoms presented when a child becomes aggravated.

• Started thinking back to my experiences based with children with autism [they] range on the spectrum and remembering behaviour presented.

• Thinking about how I could have dealt with the situation differently.

• What could be put into place proactive to avoid distressing behaviour.

• I work in after-school club with child with autism - really got stressed the other day because the wind blew his plant pot over and all the soil, seed etc fell over. Thinking now it was the unexpectedness that created the situation. Next time I would put in place "what could happen" so that if a happens this will happen and this needs to be done.

• From the IDP now realising clues to behaviour to show when a child [is] starting to become distressed.

• (I plan to) may be to check the strategies are working, to create daily diary to see improvement in child within class.

MEETING 6. School B

TA6
• (I've learnt about) communication, transition, passport, chart, time for work then special interest, visual timetables - one size does not fit all.

• (I've thought about) double meanings, use one word phrases, gestures, thinking time, use other forms of communication [such as] photos diagram actual objects.

• (I will) think about not using double meanings.

• (I will) use one word or simple instructions.

• (I plan to) give child thinking time to process instructions etc.

• (I plan to) use clock for timed work.

• In the classroom (I plan to) monitor to see if success.

TA7

• (I've learnt about) the social and emotional difficulties children with autism may have e.g. reading facial expressions, body language, engaging with things which don't interest them.

• (I've learnt that) more ways of communication need to be taught.

• (I learned that) communication and language difficulties - expressive and receptive skills.

• (I've learnt about) echolalia - some children with autism may stay at this phase.

• (I've learnt that I) need a variety of forms of communication - visual timetable, photos, symbols, gestures, signs.

• (I've thought) use simple instructions, precise.

• (I've thought) used the child's name so they know instructions are directed at them.

• (I've thought) give the child time to think things through.

• (I've thought) use the child's interest to engage them.

• (I thought) use visual prompts signs, pictures, symbols.

• (I've thought I) need to teach them the different ways of communicating.

• A child displayed high levels of anxiety after been told off by supply teacher. He didn't understand what he had done.
• Need clear explanations, support the child with social interactions to reduce the occasions of rough play.

• We need to develop ways to communicate information to all adults that may work with the children. Make their individual needs clear i.e. inclusion passport.

• (I might use) social skills stories.

S1

• (I've learnt) expressing them self - need time to do this.

• (I've learnt) receptive [language skills] - may not understand other people's language/body language.

• (I've learnt about) usefulness of visual timetables, then and now chart, workstation, using different objects for communication, pictures, symbols.

• Make situations more predictable.

• (I've thought) adapt according to the child's needs - may not need visual timetable.

• Can use Pecs, sign language, Makaton.

• Give time to think

• repeat words the same, don't change them.

• Use short words not sentences.

• Be clear and precise.

• Use the child's name.

• Use short words.

• Don't use metaphors etc.

• Remember different meanings of the words.

• Be calm, don't shout.

• Allow them time to access the information you have said.

• (I plan to change) way we use language, think about how we speak, tone etc.

TA8

• (I have) read that a child like structure and routine.
• I give more clear instructions and give a time for a certain thing to happen e.g. phonics time.

• A child was moving to a new phonics group so that was a change of routine.

• I prepared the child for the change before it happened. I explained clearly which teacher he would be going to and when and why.

MEETING 7. School D

TA11
• (I've learnt) that many things can affect a child with autism. All autistic children are different.

• Different strategies that can help make the child's life easier.

• The sensors can affect the child.

• It made me think about how I deal with (pupil's name) behaviour, and why he behaves as he does.

• He behaves like this because he struggles with literacy and imagination this is when he misbehaves most.

• (I plan to) take him out to work on his own and to make it simpler.

TA12
• (I've learned that) environments are problematic and need making user-friendly before learning can begin.

• (I thought about) forward planning to facilitate [the child]

• pre-tutoring about environment and changes helps a child focus on learning subject instead of unrelated things.

• Exams cause distress so I tried to highlight the free time are nice activities after doing at the event, explaining also what would happen in the event.

• I will look at the whole school approach and improve my consistency.

S2
• (I've learnt that) lots of professionals will be involved but it is important that key workers liaise and share stronger relationship with the child/parent and vice versa.

• Also all professionals involved aware of progress/change.
• I feel I need to talk to other staff and pupils more to gain more insight into child and gain different perspectives.

• I needed to pick up on how child behaved / learned etc after I went home, with the class teacher.

• A clearer picture will be gained about the child's moods and how he cooperates with staff and pupils which I may need to really to parents.

• (I learned) to have an open mind and sometimes be guided by the child's past or present experiences background knowledge or profiles done.

• To encourage conversation about feelings, needs and problems constantly.

• To get to know the child more personally.

• To allow planning for future learning.

• We have moved to quieter areas with less background noise to enable concentration and feeling happier with environment.

• Less fiddling - helped to focus attention, specific time to be allowed.

• (I plan to) make a sensory profile and review.

• Ask other children for sensitivity and allowing child to work without a racket (noise).

• Encourage others to say if bright light affecting vision, Paul blinds for child and/or all.

MEETING 8. School A

TA2

• (I have learned that children with autism) can be very intelligent but struggle at simpler tasks. Not all can express emotions. Important to know the child.

• Consequences: feelings of failure, anxiety.

• Can lead to social isolation.

• Need to think is the child being bad mannered or is it just not understanding.

• Find out more about the child.

• Passport idea: likes/dislikes qualities, how to interact and look after.

• Think routine/timetables.
• Consistency

• observation exercise score rating over a day e.g. level of engagement, anxiety, lesson objectives met, positive contact.

• (I plan to use the) passport idea.

**TA3**

• children can be oversensitive/under sensitive.

• Proprioception, spatial awareness.

• Thinking more about if a child likes a certain colour - I checked what colour cup at lunchtime a child would like to see if it was the same every day, he wasn't bothered and chose a different colour the next day.

• On a trip child was final morning (in one room) but then we changed rooms/routine this really affected the child.

• More aware about problems they may face in the future with trips/space.

**TA4**

• (I've learnt) there are seven different senses.

• (I've learned about) Proprioception - wear hat.

• (I've learned about) Visual aids.

• (I've learned about) Dimmer switches.

• (I've thought about) regular updates, information is shared and consistent throughout the school.

• (I've thought about) passport to children

• (I've thought about) trying to speak quietly and clear instructions.

• (I plan to) make passport; make noiseometer; plan ahead liaising with the child, staff, parents and outside agencies.

• I plan to ask other members of staff and child to evaluate.

**TA5**

• (I've learnt about) oversensitive/under sensitive.

• (I've learnt about) proprioception, space.
- (I've learnt about) vestibular - balance/move.
- (I've thought) that information should be passed on regarding children.
- (I've thought about…) To be aware of the oversensitive/under sensitive of children, i.e. to speak slowly, allow space.
- (I've thought about) the layout of the classroom, walls/light.
- (I) think the camera strategy is an excellent strategy/resource.
- (I plan to) do assessment on individual child.
- (I plan to) work with family to produce a passport.
- I thought about ways of working, having noticed child struggling when writing and thinking of ideas.
- (I've) noticed which areas cause problem and try to think of ways to help.
- (I've thought…) Breakdown initial task to the simplest way he can understand and deal with one small section at once.
- (I plan to) scribe, plan, while he thinks, not allowing him to fiddle with pens, and talk about task, right down basic ideas, then down to him to write up himself, expanding with punctuation, while words, suggesting he thinks about these things using a whiteboard for spellings, allowing him to fiddle with pens as a reward.

**MEETING 9. School C**

**TA10**

- (I have) read/learnt that knowing the individual is important.
- (I have reflected that there is) one child in class, only recently found out he was a ASD.
- (I have reflected that there are) lots of different issues e.g. sensory/emotional, (I have) seen children with different profiles across the school.
- (I have thought about…) One child always has to go into dinner whole first, (he has) sensory issues, doesn't eat normal food. Other children have been accepting (of this).
- (I plan) being less tactile, if I had known he was a ASD I might not have been as tactile with him. I've tried to get him to look at me, I will be less insistent next time.
• (I've noticed that one girl would) rush out to finish dinner, rush out, get up and leave. I used to make her go back and eat dinner.

• I read up on sensory difficulties, I realised it might be a sensory issue of noise/overcrowding/smells.

• (I've reflected that) a lot of her difficulties in school stem from the dinner hour. I didn't understand why staff didn't have the same issues with smell.

• (I plan to) let her leave an overwhelmed, not getting too anxious/overwhelmed, she has a better dinnertime and then is better in class.

• (I plan to) don't say "I can't smell it" any more, just say "I thought I could smell something".

MEETING 10. School E

TA1
• (I've learnt about) difficulties in different subjects. Show strengths.

• (I've learnt that she) may not be able to understand and be unable to tell staff.

• (I've learnt about) pre-tutoring.

• (I've learnt about) usage of equipment.

• (I've learnt about) adapting classroom to suit individual needs.

• (I've thought about) consider(ing) sensory issues, lighting, hearing, dependent on child.

• (I plan to) sen meeting to set up inclusion passports, then share with all school; lunchtime supervisors, dinner staff, secretaries, cleaners etc.

• (I plan to) clarify what info needs to be shared with staff, parents, child, outside agencies.

MEETING 11. School B

TA6
• (I've thought about) adapting the learning environment, difficulties in subjects.

• (I've reflected) adapting the learning environment - insightful, (don't usually think of adapting this).

• (I've reflected) these difficulties were unknown so it's interesting to see.
- (I've reflected) usage of equipment.
- I don't currently work with any autistic children in class.
- (I plan to) analyse the website resources to see if they could make a better system for our setting.
- (I plan to) whole school feedback on individual situations to raise awareness.

**TA7**
- (I've learnt that) to help a child we need to know a lot of information.
- (I've reflected…) Pass on information, how to prepare information for record/class teacher/parent.
- (I've reflected ...) introduce new child to staff.
- (I've reflected…) Emotional / social well-being commented in homeschool book, issues at home reported.
- (I plan to) method/procedures reviewed, updated.

**TA8**
- (I've learnt that) pupils may experience difficulties in some lessons, ICT, science etc, may also bring out strengths.
- (I've learnt that) communication is very important between all agencies, including child.
- (I've learnt about) adapting workplace and pre-tutoring. Passport.
- (I've reflected that I) did not realise or think about more creative art, not sensory but imagination.
- (I've noticed that) other children in class (have) shown understanding and kindness when working with the child.
- (I plan to) ask senior management to introduce passports. Adjustments made to the curriculum.

**TA9**
- in order to treat as individual.
- (I've reflected) … The need to communicate with staff and prepare e.g. passports, knowledge of child background/likes and dislikes, e.g. sensory issues, problems doing work/accessing the curriculum.
• (I've thought about) pre-tutor, to use verbal instructions and demonstration prior to playing with peers in lesson, e.g. in PA.

• (I plan to) enable child to partake more independently in lesson and breakdown more difficult tasks by demonstration.
Appendix 7

Research diary notes including transcriptions from discussions held during ongoing support meetings/focus groups

The following information represents data collected whilst working with the participants over the course of the training period. Type in black font denotes a direct quote from participants. Type in red font denotes comments made by myself as the researcher in my research diary.

Visit 1 – School D

- None of the participants had had time to look at the resource therefore no data was collected.

Visit 2 – School E

- TA1: “there were some issues with logging on and off” (Logging on had not always worked)
- TA1: “the website was easy to navigate and that the videos are easy to click through”
- We completed the Kolb cycle chart the participant had done the first unit and had reflected on it and already changed her practice. She had done this naturally without prompting.

Visit 3 – School A

- Many of the participants reported difficulties in accessing the IDP resource. They reported that this was due to their lack of skill in ICT and/or the knowledge required.
None of the participants had managed to look at the first IDP unit.

Some participants had had an initial look at the website in general, and had an overview of the course but had not looked at the first unit.

Some participants reported being unsure exactly what the IDP is as they have not yet seen a resource.

TA3: “[accessing the online resource is] a nightmare”.

TA5: “We don’t have our own personal e-mail addresses in the school system, so it makes access difficult”

TA2: “I’ve had no [technical] issues at all, no problems”.

TA4: “You can just sit down and look at rates of the videos. It looks like it might be interesting”.

TA2: “the videos didn't play for me”

TA3: “The registration was a long haul”.

TA5: "We could have done without the registration; it would have been simpler just to look at the programme”.

TA4: "It’s the wrong time of year [to find time for training] with Christmas concerts”.

TA3: "We have no time at home or at work [to find time for training] ... it will be better if you come back at the end of January”.

Visit 4 – School D

For the second time none of the participants had had time to look at the IDP resource, therefore no data was available.

Visit 5 – School C
- TA10: “I found the technical stuff fine [the website] was easy to navigate.
- TA10: “you can get into it when you’re sat at a computer”
- TA10: “I like to dip in and out – when you’re busy it’s easier”

Visit 6 – School E

- The session was cancelled due to the participant being ill.

Visit 7 – School B

- TA6: "The password was difficult to remember and use. It wouldn't let you change the password to something familiar".
- TA7: "It was difficult to find the correct place on the website".
- TA9: "It would benefit from including younger and or less able people".
- TA8: "I would need to repeat it to refresh and remember".
- TA6: "It is an advantage to be able to dip in and out".
- TA8: "The overview is a helpful".
- TA7: "I like the resource such as the dinosaur and the poem".
- TA9: "It was good being able to choose to read and to listen".
- TA6: "I quite liked most of it".
- TA9: "There have been some technical issues in recent days such as ‘bad gateways' but it was okay at home".
- TA8: S1: "I found this list easy to work through - it was self-explanatory".
- S1: "I quite liked it, the videos text and pictures kept me interested and held my attention".
- TA6: "There's not too much to read on-screen".
• S1: "The pop-up bits of information were short and concise, it keeps to the point".

Visit 8 – School A

• TA2: "A short cut straight to the exact resource would be better".
• TA6: "Videos don't work and they are unreliable".
• TA2: "My login and password details are working okay".
• TA3: "The resource is useful and easy enough to navigate".
• TA4: "The summary at the end of each section is okay but a mini test would be better".
• TA5: "When we answer the questions there is no option to save our answers or at least print and save our results".
• TA3: "It is a useful resource for websites and books".
• TA5: "I liked having a teacher and pupil perspective. It gives a better understanding and insight of what it is like for them, seeing the frustration the experience".
• TA5: "My password seem to stop working. I applied for a new one but it didn't work. I tried two different e-mail addresses. I've not had time to phone up about it".
• TA4: "It is clear and easy to navigate, very user-friendly".
• TA2: "It's very interesting. But it is biased towards older children. It's hard to relate to the younger ones".
• TA3: "It's easy to get through".
• Staff seem to find it hard to see the relevance of the training resource if there are no children with autism and their class. If staff do have suggestions, it’s at a whole school level not an individual (pupil) level.

Visit 9 – School D

• S2: “The website wasn't working for four of five days, Thursday to Monday”.
• Not all staff have started the training resource.
• A few members of staff have not been able to access the resources second time due to technical errors.

Visit 10 – School C

• TA10: "Registration process was long but straightforward".
• TA10: "I had problems with logging onto the school computers".
• TA10: "Finding the webpage again was fine".
• TA10: "There was lots going on on-screen but it was okay".
• TA10: "It was self-explanatory but I already knew a lot”.

Visit 11 – School B

• N. B. the online IDP resource has changed - participants no longer need to login with a password. This means that individual progress is not logged. There have also been other minor changes such as a change in the course title.
• TA9: "I think everyone please there is no password now it's quicker"
• TA7: "I didn't like not being able to change my password"
• S1: "I feel more inclined to go on"
• TA6: "the change of title was slightly confusing but I worked out"

• TA8: "the only downside is that I can't see what I have done where I'm up to"

• TA7: "the progress tracker was inaccurate anyway" (so it doesn't matter that it's no longer there).

• TA9: "I like being able to go back and forwards"

• TA8: "I like the resources (mentioned) e.g. the dinosaur"

• TA6: "I liked examples of work"

• TA7: "the website played up a bit for me"

• TA8: "Finding time (to do the training) was okay, school are allowing us time".

• TA6: "I would like to have seen more examples and strategies for less able children"

• The participants appear to be engaging in the learning cycle very naturally, although it is hard to fit into the four boxes on the prompt sheet.

Visit 12 – School D

• TA11: "It wouldn't let me back into the section I started"

• TA12: "I spent 30 to 40 min trying to sort out"

• S2: "I did ask for technical help but I found it hard"

• TA12: "I used the DVD in the end it worked okay"

• S2: "it was an interesting content, especially knowing the individual styles"

• TA12: "it is simpler than it looks"

• TA11: "the references, the extra bits, they tell you where to find out more"

• S2: "I liked the format of the course, I completed it in two nights"
- TA12: "I initially had logon difficulties, the passwords were too difficult"
- One person had been off ill.
- One person was going to take the disc home as they couldn't log on.
Appendix 8
Final focus group 1 Transcription of full session

Schools: B, C, D
Participants: TA6, TA7, TA8, TA9, TA10, TA11, TA12, S1, S2
Facilitator: CCJ

Question One: How much more do you feel you know about ASC after the training?

CCJ: How much more do you feel you know about ASC after the training?
TA6: We do feel we know more yes (all laugh) yes
TA7: I think it is about… Given sort of more ideas about things to use.
CCJ: What kind of things?
TA8: I liked the passports
TA9: I actually liked those (inaudible) kind of cards you know when it had like, it showed you the children's writing as a child on it and like fiction and a fact sheet. Do you remember those. You have to go into the bottom bit and go into a file. They were quite useful I found.
CCJ: What kind of things have you learned that he didn't know before?
S1: (Inaudible) the noise level in classroom as well, you know it affects the children.
TA7: Definitely. (Inaudible)
TA10: Lights. Lights and everything. There's a lot of different things…
TA7: ... That we could change.
TA10: Aspects of the learning environment isn't it, which we just take granted.
TA11: We don't realise it affects them at all do we. Are you ara
CCJ: So do you think as a training package it actually worked?
TA8: I just wish there was younger children personally.

TA6: Yeah.

TA7: And it was about there was a lot of high skill wasn't it, (inaudible) very high functioning as well.

TA6: I would like to have seen much lower ability…

TA7: Yeah

S1: To see some, sort of different behaviours and how, you cope with those, you cope with those.

CCJ: What would you give it out of 10 as a training package?

TA7: Personally I'd say eight… Only because... Only because I would like the younger and I would like the different... I thought they was all quite high functioning on there, I must admit.

S1: Yeah I would say the same because I definitely did (inaudible) definitely came away with things to look for that maybe I'd never even thought of before but it sort of triggered what somebody would look like, like (child's name) likes the green cup and you thought 'ooh', now I wouldn't have thought of that.

TA7: Yeah

S1: But it reminded me and so the next day I thought I'll just watch does he still go and get the same colour cup.

TA8: It needed to be more primary based for me.

**Question Two: Have you experienced any changes in your thoughts and attitude towards autism?**

CCJ: Have you experienced any changes in your thoughts and attitude towards autism?

TA10: I think you need to give them more time like to answer questions…

TA12: Yeah.
TA9: And things to think things over before… Expecting an answer sometimes. Or even asking slowly or repeating the same thing so that they understand what you're asking. Sometimes your questions are too complex for them to you know understand you know like asking one question at once as well rather than three or four (inaudible).

TA10: I think I was quite (inaudible), I'd worked with autistic children before, so I think I did (inaudible)

TA9: I didn't work with them so closely, so it did give me a wider picture.

TA7: I don't think it has necessarily changed my attitude. It's helped develop my understanding of why they're behaving in certain ways.

TA10: Not so much the attitude's erm, just developed the understanding as to why they behave in certain ways.

S1: I found it much easier, I have a child in reception this time, mum questioning whether I thought… Whether he is autistic or not because she hadn't found out. I was able to kind of refer to what I'd learnt on the IDP and say, "well he's definitely shown these behaviours" and reel off several things which supported that, whereas 12 months ago I probably would've been kind of blagging my way through the conversation.

**Question three: What changes to practice have you made in regards to:** Language and communication? Sensory issues? Flexibility and routine?

CCJ: Have you changed the language you use?

TA7: I really think about things before I say them now.

TA9: Yeah I do, I make sure they look me in the eye.

TA8: Yeah.

TA12: I was aware (inaudible) you have to say it how it is.

TA11: I don't like, if I'm having to deal with like, behaviour like lunchtimes may be, I always give him a reason why he can't play like they're playing (inaudible).

TA12: But I always make sure I tell him why he can't do it, you know.
CCJ: What about non-verbal communication?

TA8: I think I we do good non-verbal anyway, aren't we with children.

TA12: Yeah.

(Inaudible)

TA10: There are certain ones that there, that you just have to look at and they know, you don't they, not saying anything.

(Inaudible)

CCJ: What about sensory issues?

S1: it's really hard that...

TA8: It is...

TA12: There's nothing we can actually do about it.

(All talk at once)

TA10: If it's too noisy you'd probably just take them out (inaudible) but I mean but it is difficult.

S1: You think about the lights or ...

TA11: We've done that (inaudible)

TA12: Yeah

(inaudible)

S1: Yeah

(inaudible)

TA12: We are more aware of it and with having this child in reception erm, you know when he first started he was going down in whole school assembly where when everyone claps its really noisy so… Really watching him to see how he was reacting to those situations so we can give him that support and reassurance. And then when we've been in class and all the children have been singing he'll have to cover his ears so again, we kind of turned the volume down a little bit and just said, you know, I just said try not to shout in singing.
(Laughs)

CCJ: What about the lack of flexibility?

TA8: I think again because of (child's name) the teacher doesn't change much at all.

(Inaudible)

TA7: Same, just make it routine daily.

TA8: If the routine does change though, we do explain… We do explain that tomorrow is going to be a different. You are know this is how it's going to be.

TA7: We would do that anyway wouldn't we to prepare and remind the children that are going to (inaudible) tomorrow.

**Question 4: What impact has the training made on outcomes for pupils?**

TA8: He can be calmer, he's not as worked up about what might happen, like if he's going out on a school trip or whatever.

TA10: I have noticed that one boy doesn't actually put his hand up.

(Inaudible)

S1: I think one thing we have noticed is that the transition from Key stage 1 to Key stage two, is better for one child this time. 12 months ago that transition wouldn't have been thought about, but we put a lot of thought, we put in a lot in place this time and been, it's been far better.

(Inaudible)

TA12: I might be speaking out of turn like but dinner times it does seem a lot calmer. He'll even come and say now if someone's done something.

TA10: I think more people, the more members of staff that have a better understanding… Think it helps you know, with more people having done all the ...

(inaudible)

TA8: deviating off it

TA9: That's really frustrating that
TA8: It isn't it?
TA9: Trying to explain to people and they just like to yeah like right, whatever.
TA8: Yeah.
CCJ: Is that because of the passports or because of the training?
TA8: The training
TA7: Training
TA8: Yeah.
CCJ: What about academic progress
TA9: Because of that smoother transition the child in Year three is producing a lot more work than he ever did last year.
TA10: The way that we've considered the environment – in terms of where he sits, he’s far more involved with the class this time, and there's been a few changes there – he's been to a party.
TA8: Yeah
TA9: Yeah he did make some progress as well
TA10: Yeah
TA8: If (name of TA) had actually done the programme as well, so , he might have... (inaudible)
CCJ: would you be more likely to recognise ASC?
S1: Definitely
(Inaudible)
TA7: I would probably do the same – use different language, consult with (name of SENCO)
(Inaudible)
TA6: Other agencies Maybe, i don’t know.
TA7: Somebody outside that’s been involved, like you [an EP].
(All laugh)
TA11: I think if you’re more aware like, you can say, you can give more examples, can’t you, like to (name of SENCo) or whatever, to say, “Oh I’ve noticed the child’s doing this” or whatever.

TA7: Yeah

TA11: Think about what you’ve seen

TA6: Putting a picture together isn’t it, sort of thing.

TA11: You can always talk to Mum though

TA6: Yeah

(inaudible)

**Question 5: What are your thoughts on: the ICT/online aspect of the training? the self-led aspect of the training? the group aspect of the training?**

CCJ: What are your thoughts on the different aspects of the training?

TA6: I think the training was fine cos you could go back to it. I mean the initial thing was a night mare, but I did like the fact you could just go back into it.

TA11: Yeah you could do it in your own time

TA12: Yeah I really liked that

CCJ: Did you prefer this to ‘chalk n talk’?

TA8: I’d have liked both really

TA12: Yeah

TA11: Yeah

TA9: We’re more interaction you see, we can talk about it with other people, whereas if you start listening to some computer, you just get a bit...

TA6: Yeah

TA11: What you think might not be what it is telling you. Even when you’ve watched it it might not be what...

TA6: You can actually talk about it can’t you
TA11: ...what it is telling you yeah.

S1: I think if we’d have all been doing this, not as a part of your research, and we’d not had the session where we came together to talk about and reflect upon what’s been done and we were just doing it at home and not really...

TA9: We’d have probably not done it!

S1: ...I don’t think it would have been as effective as it has been with the group coming together.

TA10: Yeah cos when you’re together you can say, ‘well what did you think about this or what about that, and sometimes I couldn’t get on could I, I had to wait till I’d spoke to you and then you helped me get back on it and yeah.

TA6: Yeah it (the online resource) is easy enough to work through.

TA8: I don’t know I think just coming together was probably enough

TA7: enough

TA12: enough yeah

TA6: it just kind of erm made sense a bit more didn’t it. Like what you've done.

S1: I think if you'd just done it online you might have just put it is to the back of your mind where as thinking about it...

TA6: I think you're right there

S1: ... I think... You do it and then it's forgotten

TA6: you've done it

S2: speaking about it, everyone talking it's, you remember it better

CCJ: What about a book?

TA8: Oh a book!

TA9: Oh not that!

S1: No

TA8: no

TA7: I still learn hands-on me, definitely
TA12: I think I'm one of them kinaesthetic learners

(inaudible, all laugh)

TA9: Pictures and videos break up the text, yeah

TA11: it was just nice to have the video clips that backed up what you'd just been reading about, it just helps you just…

CCJ: What about working on a computer?

TA9: Just a bit, boring. I'm not, I'm not technical at all, I go on, doesn't matter whether it… I go on and I'll be on for 5 min and I'm bored let's get out.

TA7: I can't sit there and rest for just hours and hours. I need to just get on and off.

TA12: I don't, I can sit quite happily, I'd do nothing else

(all laugh)

CCJ: What did you think about the self-led aspect?

Ta12: I did, I quite liked it

inaudible

S2: And if something didn't go in the first time you could go back and do it again

TA12: yeah if there's a room of people and you're saying I don't understand…

(All laugh)

TA9: I always put me hand up me, and then someone will say I'm glad you asked

TA8: so why don't you put your hand up then

(All laugh)

TA9: it is, if you get a room full of people, you're thinking I should know that

TA8: Yeah

TA9: You do get a bit, you're frit their going to ask you a question

TA12: Yeah

(All laugh)

TA8: that's something else
(All laugh)

TA8: the long night, kind of

(Inaudible)

TA10: but I liked having the like the deadlines, when you were coming in, you knew you had to do certain ones, didn't you.

S1: Yeah cos I wrote on the board, players coming in next week, and everyone were going (gasp) I have not done it

(all laugh)

S1: I suspect some people wouldn't have done it. *(If I hadn't gone in for the visit)*

TA10: Definitely

(all laugh)

S1: You don't have to own up to it!

(all laugh)

TA10: Because of the things kind of, where all busy, and you're working. We would have all just said we had done it when we hadn't and then we'd have tried to blag it.

(All laugh)

TA7: There's only one person I would have done it

TA12: I was quite interested. In fact I went on a lot of things on that website. I used a lot of it, I was, there were loads of good things on there, I was like 000h I'll have a look at about that

CCJ: Did anyone else do that?

TA6: I went into the, when it said look at this, for more info.

S2: Yeah

TA12: No I looked at the other, at the dyslexia one. There's lots of different things on it. It was really good.

(Off task discussion)

CCJ: Would you have liked to do the training just online?
S1: As senco, I would encourage meetings like what we've had having to mix of this, for this way this time.

(Inaudible)

S2: I wouldn't have done it before, no. But I've seen the benefits of working it that way.

(Off task discussion)

CCJ: What about the group aspect?

TA9: I think if groups came... Like you said we have, we all get on, whatever then you do, you're not frit to ask each other are you?

TA7: If you're in a room full of strangers or whatever, like if you put those with another school, it might be a bit different might it, do you know what I mean? TA9: But...

CCJ: Would you do a group again?

S2: It would be doable yes

TA11: Yes cause you would just, I just altered my dinner times didn't I

S2: Yeah

TA11: And breaks times yeah

TA9: It wasn't a big chunk of time, it was only half an hour for these reflection meetings

S1: It would be different if the teachers... If our teaching staff had wanted to be involved.

CCJ: Yeah?

S1: Then we'd be having the meetings after-school and that has a knock-on effect on the teachers, if they have to stay behind. But yeah you could do a separate meeting for your teaching assistants and your teachers but then you're losing that whole school drive forward with it.

CCJ: So why do you think more teachers didn't take part?
S1: I'm trying to think who we have. There's quite a few. There were genuine reasons as to why they didn't want to. I can't remember what they were now. We had one that moved to year six, she thought that moving from year one to year six was enough for her. At the time the workload for the teachers, there was an NQT and she just felt that she had too much on her plate to take on another thing, and one was off sick and we are only probably six others anyway so some of them did express an interest in the start but then, they're not, I don't think they could commit.

**Question 6: What kinds of issues acted as barriers towards completing the training? What kinds of issues acted as facilitators?**

CCJ: What kinds of issues acted as barriers towards completing the training? What kinds of issues acted as facilitators?

TA8: Only technical issues or something

TA9: Yeah

TA11: yeah

TA10: I think some people got quicker (inaudible) you'd have thought it was, what's the word, I was quite sort of laid-back about it but others got quite upset didn't they? Because they couldn't get on it, they thought they had to do it (inaudible)

TA12: I think some people…

TA11: … They sort of made it into, bigger, bigger than…

TA12: I think if you have like computers at home and things like that, you can get on computers, I mean I did it at home occasionally

TA10: Yeah

(all laugh)

CCJ: But yeah apart from that…

TA10: You've just got to make time

*Tape Stops and Turns over*
Question 7: Were you aware of progressing through the 'learning cycle' when completing the training?

CCJ: Were you aware of progressing through the 'learning cycle' when completing the training?

TA9: It helps you bounce off each other

S2: If you'd have done it on your own you have just… Done it, yeah. If we'd have done it more generally…

TA12: I think you'd have to get, er a question like, a leading question… They would have to, have to be some sort of title so you didn't get lost.

TA11: We thought we was writing the same things in each box

TA10: Doing the sheets was better than not doing it at all

TA11: Yeah

TA8: Yeah

S1: Yeah

TA7: Yeah

TA6: You come bounce your ideas around if you've got… Differences (inaudible)

S2: But still (inaudible for several minutes)

TA7: No we have, not everyone else has done it, and it's like any course you go on you come back and you think (inaudible) people don't want to listen do TA12: They, they're not bothering…

TA11: But we shouldn't be doing that, it's difficult but we've still got to do it, do you know what I mean, cos everyone's not, if only one of you is going (inaudible)

Question 8: What would an ideal training package look like?

CCJ: What would an ideal training package look like?
TA8: I would make it for one

TA6: It's a bit like the first aid…

TA8: Definitely

TA7: … When the first aider came in here and did that here, I felt that was far better than going off (inaudible)

TA12: I think when you do it in school, training, I thought that was the best one that. (Inaudible)

S2: (inaudible) the whole school (inaudible) don't work because if…

TA9: If school don't take it on board, then the things you put into place don't work

TA8: I need to be a course

(inaudible)

TA8: everybody needs to think

TA12: yeah

TA8: Like if you come into contact with the children, the year after…

TA12: Yeah you see, I, (inaudible)

TA7: I think someone coming to present and maybe do sections…

TA12: Something like this, you come away and have a bit of a practice

TA7: Yeah practice together yeah

TA9: Together yeah talking

S2: (inaudible) you like to be directed

(all laugh)

TA9: You see, I find that more sort of interesting for me

(inaudible)

End of recording and focus group
Appendix 9

Final focus group 2 - Transcription of full session

Schools: A, E.
Participants: TA1, TA2, TA3, TA4, TA5.
Facilitator: CCJ

Question One: How much more do you feel you know about ASC after the training?

TA1: It helped me a lot
TA2: It helped me a lot too
TA1: Especially when you’re working with, with the children that we've got, there's a lot of stuff that helped
TA3: Yeah
TA1: Although quite a bit of it was for older and that…
TA3: Yeah that was the thing; a lot of it was for old… older kids
TA1: Yeah
(Inaudible)
TA2: But it was still helpful as there was a lot of stuff from there
TA4: Yeah

CCJ: Have you done better in the assessment?
TA2: I did
TA4: Yeah me too
(Inaudible)

TA4: I think the problem was, there was a gap, if we'd have done it straightaway I'd have done better
TA3: I did it really quickly because obviously, because I had other commitments, I had other homework to do… So I got straight on with it…

TA4: It were a rush

TA3: And went right through very early on and then the assessment was ellipse a while afterwards, months and months later when I met up with you again

CCJ: Do you feel you know more?

TA3: Yeah because I think you take more on board and you can relay it to your own situation was different children. And you think how it affects them slightly differently

TA5: Mmm...

**Question Two: Have you experienced any changes in your thoughts and attitude towards autism?**

TA5: I think we are more patient

TA1: Yeah

TA3: Yeah definitely

TA1: I think you try to see things through their eyes more

TA3: Yeah

TA4: Yeah

TA2: You can understand the communication a bit more

TA5: It's difficult that isn't it

TA2: It is

TA3: Yeah

TA4: Yeah

TA2: It's becoming aware, awareness really now, that I know what to expect. Simple things like the temperature thing, I didn't, I wasn't, I didn't know about that...

TA4: Yeah

TA2: ...and now I do so obviously I can identify that, look out for it, be aware of it.
TA1: Just to be aware of the communication difficulties. Even the children that seem
to have clear speech, you have to be, you know, the connections are a little bit
different, so they might use one simple word and completely mean something else.

TA2: And I think it's very easy for school to label a child as autistic but every child is
so individual and the triggers and the way they see things, are so different, so it's not
enough just to know their autistic, you've really got to put in the time to know them.

TA5: You do

TA4: Yeah

TA2: Yeah

TA5: And the family

TA2: Yeah

TA5: Because they know better than anybody

Question three: What changes to practice have you made in regards to:
Language and communication? Sensory issues? Flexibility and routine?

CCJ: How about changes to language?

TA5: Yeah it has been changed

TA1: I think we've been doing it a lot with doing these sessions, you know giving him,
once you know, I think just saying one thing rather than going forward, back, forward,
you know just giving one instruction.

TA3: We've been using more, you know, when he's playing up, we've been doing '1,
2, 3'. It works really well.

TA2: Visual yeah

TA1: He knows, he gets his head down like this… You can get your fingers
underneath, he can see the three and it's like, oh all right oh.

All laugh

TA1: I can do that across the room

TA5: Yeah
Well you can, it’s long-distance

TA1: I support this child, but I’m doing a different role now but I’m still within that same classroom, and it’s been difficult for other people coming into work with him, and I’m going “no, one sentence at a time”, and over the room I can go to him and he knows that I’m still counting back down because obviously the person who’s been working with him sort of at the moment...

TA3: What is this counting?

TA1: … Counting back, it's just very visual for them that you’re warning, you go 54321 second, at a level they'll get.

TA2: It's like with (child's name) now, he, you, you get told to close your eyes and hell closes eyes and he'll open them again and I'll whisper no, close your eyes, 54321, and then he’s keeping them closed for five seconds so you use it then.

TA1: But we do it and he knows he's got 321

TA2: Yeah

TA1: We started at 10, we got, went to 3, we had to go back to 5 because I moved away

(Inaudible)

TA1: But you know my (child's name) I said, “Do you want me to count?”“Oh no no no”.

All laugh

TA2: I know, I had to do it with my two as well

TA2: “Three! Don't go any further!”

TA1: But interestingly, mum is taken on board, the counting backwards, and uses it at home

TA3: Oh right

TA2: Right

TA1: Which she'd never done before cos she's got a little one and she's actually using it with both of them
TA3: That’s good
CCJ: What other aspects?
YA4: I think you have to be just bit more clearly defined, rather than kind of, when we speak in a normal conversation you do ramble a little bit more than is necessary.
TA1: Yeah
TA4: Yeah
TA4: So to give very clear very precise ... And you have to reward...
TA5: Yeah
TA2: Yeah
Inaudible
TA4: ... Reward the way that they will understand it
CCJ: And non-verbal?
TA4: We do use a lot of non-verbal
TA2, TA3: Yeah
TA1: Yeah
TA4: Especially in assembly
All laugh
TA4: “Close your eyes, sit down” [gives demonstration]
CCJ: What about sensory issues?
TA1: yeah well it's helped with (child's name)
TA5: Yeah
TA1: Because we've had problems with erm, with eating and you know (inaudible)
TA1: Certain foods mixing in with the other, or other people eating.
TA4: Yeah it's helped with that, it's really (inaudible)
TA4: Yeah he's been outside
TA1: You accommodate it more
TA4: It wasn't a case of 'ooh what will we do now', 'it's ahh, recognise it'.

TA2: Yeah

TA4: Now he's eating again

Inaudible

TA1: While he said today, 'I don't like the noise', but I'm not...

TA2: I can't blame him really

TA3: I don't like the noise

TA5: The noise!

All laugh

TA1: But you take into account other things like the rain, if it's raining, you can expect him to arrive late

TA4: Yeah, good point

TA1: Tolerance to cold, or hot or, whether they are aware that they are getting overheated, so there's a lot of other aspects of that. 'Go and take your jumper off'. 'No, no'. 'Look, you're flushed, look at your face, you know, come on take your jumper off, you're melting, your clammy, your hair'. He won't go will he. You have to literally, you know...

TA3: Tell him yeah

TA1: So that's what I say, I say, just, 'come on, jumper off'. You know don't say 'take your jumper off' it's more like a request isn't it, take it, where as you say 'jumper off'.

TA5: Yeah

TA4: Yeah

TA1: Because with his brother, erm, who was it...

TA4: Someone said, 'I can't get his jumper off'. I said just say 'come on James jumper off'. You know, that's what we do with (child's name) now and he just takes it off.

TA1: Yeah yeah
TA4: Yeah and don't give him a choice

TA1: No

CCJ: Is that part of the language then, don't give him a choice?

TA4: Yeah

TA2: Yeah

TA1: Oh definitely yeah

TA5: Yeah

TA4: Choice is really blurry

All laugh

TA3: Especially for erm, especially if they are taken out of their comfort zone to come to school. Everything school is so, insulting, is just, invading them isn't it? Everything school really. So the fact that you give them a choice, it blurs everything, because I know (child's name) is having difficulties now, at (name of high school). He was given the choice, well will do this or would you like to do that. There cannot be a choice, because then you are taking away all the boundaries and all the security that they have. They need to know what's happening, know that somebody is there that knows what's going to happen, what they should be doing.

TA1: But the other thing is, because of polite society we say 'would you like to' and it's not actually really a question.

TA5: I know what you mean yeah

TA2: we mean 'you are going to', well I do, and you realise that with these children you have to say 'we are going to' rather than 'would you like to' because you just get 'now I wouldn't like to'

All laugh

TA2: And they thought it was a question (laughs) but the politeness can come after, thank you for that, or whatever

TA4: That's right

(Inaudible) rewarded
TA2: But you have to rephrase what you'd said to a different child in the classroom

TA4: You have to be very blunt as well

TA1: Yeah you do, you do feel very blunt

TA2: Like with (child's name) he wants to be a car all the time

TA3: But it makes you laugh because I have two get hold of him and [say] 'you are not a car today you're a person now' and he was like okay. And when she said... I was like this... I had to walk away.

TA2: You can't believe you're saying it but...

TA3: But I didn't say anything...

TA2: But it does work doesn't it, if you say to him 'no you're not a car now you're a person'.

TA4: It doesn't always work straightaway

TA2: Oh obviously a lot of the topic work that you cover erm...

TA4: Sticky hands

TA3: Yes, yeah

TA2: Or if he can endure it and just build tolerance to enjoy it for a little bit. With (pupil's name) erm it was really severe, back in key stage one he did not like it at all, but having to put an apron on, you have to erm understand that, have a discussion with parents that he might end up messy, because the apron is more of an issue. And if... we use washable paints anyway so you just have to, wash the uniform. Because the apron is an important bit, that's not the important bit that they are there to learn is it?

TA4: But the fact that they've got this, then they've got to like get their hands messy, the table, everything around the room becomes, everything changes, so it's you know, how many things can you change for them to be able to take part in that lesson. How many things can they endure? So it's one thing at a time. So you'll say forget the apron, forget that, just put a little finger in the paint, you know, you build up, really really small steps, I am at the end. (Child's name) had a full hands glue,
and I'd aim to see how long he could keep it on. And I had my hands full of glue like this

All laugh

TA4: And I love it me, because it's great to pick off

TA2: Yeah

All laugh

TA4: Really well, so we went for a walk, with our hands, (laughs) just try and look at lots of things so when not just looking at that.

CCJ: Would you have done that before the training?

TA4: Yeah I would

TA2: But its such small steps the, all the time. Sensory things we have to be really careful with them being sen, you tend to, to use apparatus with them, and you get stuff that's big and bright and exciting. We had to be really careful but it has to be, interesting, but oh it goes too interesting, we've had it! Because it's...

TA1: Yeah yeah all the stimulation yeah

TA2: You've got to tread this really fine line between use it, but if it's too exciting you've had it haven't you?

CCJ: Yeah

TA1: Oh they want to, or this is great, and throw it at you

TA2: Yeah

TA1: Not really

TA5: It's everywhere isn't it?

TA4: You've got to be really...

TA1: Got to gauge

TA4: Yeah that overload of other...

TA2: Mmm

TA3: Yeah
TA2: So

TA3: But all kinds of lessons can be affected by sensory can't it, really, everything

(All talk at once)

TA3: Yeah

TA1: Just general classroom noise is too much for one of our children... This week we used the middle room, we stay in for the starter and then we move back out of the room. And when I worked with him originally, I don't now obviously, and we built up a tolerance of noise and then we worked on our own for while, then I had one of the other children, come in and work with those then we got it, that, it was a group situation. We are in year five now and we've got him back in the classroom, built up a tolerance. But very, sort of progress to their, you know

CCJ: Yeah

TA1: Because you could have, because he's going to high school, in year seven you've got to build up a resistance to noise. But if you think about how we cope with noise it is sometimes too noisy for me and stuff

TA4: Yeah

(All talk at once)

TA1: So how are they supposed to focus if they are going to get so distracted and completely overloaded. So you want them to focus on writing?

TA2: Bloody hell!

All laugh

TA4: But I also think personal space is an issue for us. It's about, all these young reception children, and they're all squashed together, and they're trying to write something and they've got to concentrate, and they've got elbows and all sorts in the way!

All laugh

TA4: Not good

TA1: No
CCJ: And the lack of flexibility?

TA3: I’ve actually done the reverse. I’ve moved us further and further away from routine is. But that was in conjunction with Maugham. We got Maugham in and talked to her and said you know, you know, that at home each he gets up at this time, he has breakfast at that time, and then you leave the house at that time. And he was very very clock orientated... Cause where there was o’clock in the room, whatever room, he moved to where the clock was, clock, and if you said ‘we are going to do this at 10 o’clock’ he’d say ‘it’s, it's 10 o'clock, it's 10:02, it's 10:03’. And we’ve actually, although I’m still in the same class in a different role, we’ve actually removed the clock from the classroom completely. So he has no concept. When I’m back in class I take my watch off now. None of his wear a watch. And will say to him ‘this morning...’ And he'll sometimes still say ‘when?’, But also he used to have his own visual timetable, and he wasn’t using it, so we removed it.

TA1: Yeah

TA2: Sometimes it's nature, you do change what you're doing, so he doesn't know what he's going to be doing on Thursday afternoon. Whereas before, we used to set up, ‘this is changing today, were going to do this instead of that’ and we just built up a tolerance. Whereas if you just stick to that, as long as I say a couple of minutes before, ‘this afternoon were going to be going outside today, you're not expecting it, but you’re going to be going and doing this’, or somebody now tells him, because that was my role, but, he will accept that he’s with adults he can trust, and that we can do that with him. As long as there is someone very familiar around him.

TA4: Yeah

CCJ: Yeah

TA3: It's like we do, our two, they ask you the same thing.

TA2: We’ve had to work on getting him to stop, ‘can I change my book now?’ He’s literally just walked in the room, ’can I change my book now?’.’ No we change our book in the afternoon’. ‘Can I change my book now?’

TA3: Yeah
TA2: ‘We change our book in the afternoon’. We've, that's what we've (inaudible) its majors more, it's more, it doesn't drive you as mad now, does it?

TA3: No it doesn't

TA2: The course... Because you realise you've got to...

TA1: Have an empathy for them

TA3: Yeah definitely

TA2: It, it takes, its ways of saying it

TA3: Yeah

TA2: But to get him to, but can I get him to realise that things are different and we have to have new experiences. Mum suddenly took him out to clubs that she never used to take into. She's letting him come to after-school activities. She's letting him come to holiday clubs. Because at first I did, 'I'm going to be on that school activity, if you want to come on that day'. And then once he done a few I said 'well I will be there but if he wants to do it, they, everybody that will be there will understand, and he will be supported'. And she's letting him come now to all sorts, it's fantastic.

TA3: Yeah

TA2: He even goes to somewhere at (name of youth club) or something

TA3: Yeah that's round the corner, yeah

TA2: Yeah, aah, which is huge!

TA4: Its little things, like I was saying with the rain and things

TA2: Yeah

TA4: You would, just reassure it’s really at the start. To say, ‘you are wet now but you know what we can dry you!’

All laugh

TA4: ‘You will dry off, it’s amazing! ’ And you'd make, you'd be really dramatic about it and you go 'wow' or have his hand under the cold tap and do things like that, flick things at him.

All laugh
TA4: i do sound like I torture (child's name) but (inaudible) and he was going 'aah!'...
Just go and dry it'

All laugh

TA4: So you make it fun

All laugh

TA5: No no we'll get you back!

TA4: But that because I know him well

(All laugh and talk at once)

**Question 4: What impact has the training made on outcomes for pupils?**

TA1: He's become more confident on his own. And he can deal with change so much better.

TA2: I don't know (inaudible) with all of them...

TA3: The only thing I look at is a school bell

TA5: Yeah

TA3: How where doing

TA5: Where saying that one of the kids, you would think that he did, but we didn't, but we hadn't actually related...

TA3: Yeah

TA5: ... So its things like that, you know, that, that, doesn't make him any easier to cope with, but we now understand that, where he's coming from. Whereas before it was a lot different, you know? Once you know that.

(Inaudible)

TA5: He's used to get very much in a loop. "Can I change my book, can I change my book, can I change my book?" And he used to get more and more worked up didn't he?

TA1: Yeah
TA5: And now he, you know, he will actually go away for 10 min
TA1: Yeah
TA5: He'll come back again!
TA1: Yeah

All laugh

TA4: You can use picture cues for him to look at.
Yeah
TA4: For that
TA1: Yeah yeah

TA4: I'd say, I'd put up a picture of, a cross on it and when you turn it over then it's time to go. So I wouldn't have to pick him up for, stop asking you. But they are, I mean they're getting better all the time. We keep saying, we keep you know, pushing it back, pushing it back, pushing it back. But it's not only with regard to changing a book is it?
TA2: Oh no
TA3: Yeah
TA4: Like if he's been somewhere
TA2: Yeah

(inaudible)

TA4: Or "I've got a headache" or "I've got..." You know. A minute later "I've got a headache". I said "yes I know you have". I said "go and get some water". "I've got a headache". You know, and I mean...

CCJ: What about socialising?

TA5: We have [noticed a difference] because obviously we've tried to build up a resistance to noise within the classroom, so we worked on our own last year. Then we brought in another child, so he built up a relationship. But we rotated it on a weekly basis, who got to come and work in the middle room with those. And then we built it up to a group and, erm, because historically he had support over lunchtime,
because lunchtimes were an issue, he now, we've withdrawn the support and we have a buddy system. So he's building up really good relationships with his peer group and his own class now. And that extended to, somebody's actually going for tea next week.

Ta1: Oooh!

All laugh

TA4: Aw!

CCJ: And any impact on social skills?

TA4: It's a work in progress

(Inaudible as all talking at once)

TA2: I mean ours are a lot younger

TA3: (Inaudible) as much

TA2: In, you know reception...

TA3: I mean hours our young anyway aren't they? They're not the best at taking turns anyway so...

All laugh

TA4: Yeah he's not improved at taking turns

CCJ: Right

TA4: He still wants to be first at everything, and it's his...

TA1: And winning as well, losing, is hard...

TA2: I was going say that

All laugh

TA3: While actually he's quite good at losing now because like basketball, and, he plays the hoops at lunchtime

TA2: Yeah
TA1: ... Somebody else I say, "Who has scored the most?" And you know he's really good at it. But then I purposely chose someone else last week who was even better, to see how he reacted, and I was trying to gauge his reaction (laughs).

(All talk at once)

TA4: Sometimes you do have to push the boundaries to see what reaction you get. And I said, "Tomorrow you might win".

TA2: Yeah

TA4: "Okay" and it was shrugged off so easy.

TA1: We had to do lots of the social stories on how to be a polite loser, or a polite winner, because he does like to gloat!

All laugh

TA5: Yes, we have a lot of gloatings!

All laugh

TA2: We get that

TA1: You see I've also still have though is, where he said things that are inappropriate to other children, and that still happens occasionally.

TA4: Yeah we get that as well

TA2: Yeah we do

TA1: He, there was a drumming lesson. There was a child missing that morning and she wasn't there but obviously the other children were there, and he said, "Where's fact so and so" and "pardon?" But he knew by my face that it wasn't... And he, sort of looked. And I said, "come and have a talk, let's go for a walk". So then we tried to say things like, "what if you had a funny shaped nose and everyone was going ha ha, ha ha?"Is my nose funny?"

All laugh

TA1: But we have speech, he has speech and language anyway, so we'd already been working on things like that and we try explain to him that, you know. But then we, we quite often relay it back to his own family situation. What if somebody said that to your little brother?
Question 5: What are your thoughts on: the ICT/online aspect of the training? the self-led aspect of the training? the group aspect of the training?

TA3: It should be easy online and it was really annoying because it just didn't let me on.

TA2: Yeah

(Inaudible)

TA4: The theory of it is good - the fact that you can access it any time and work sometimes said, you could do in work time to get it done.

TA1: Yeah

TA5: Mmmm

TA4: Yeah

TA2: We couldn't get on it by the end could we?

TA4: I suppose we would be, it would be more beneficial if we all made a point of getting on with it at the same time

TA5: ...the same time

TA2: Well that was the point, actually wasn't it?

TA4: Because... and then it kind of dragged on where...

TA2: We just didn’t

TA4: ... And obviously coming back to see you, it was a few more weeks down the line...

TA2: Yeah

TA4: ...so, if you keep it more intense I think it works, that's just my theory that it works better it all stays in, you can support each other.

TA2: But it didn’t happen
TA5: Yeah I agree
TA2: Well we were all going to be released from class weren’t we so that we could all do it together but it just didn't work out.
TA3: We can’t get released
TA5: The videos stopped playing on those computers as well didn’t it?
TA2: But the website was blocked by the end weren’t it?
TA1: Yeah
TA4: Yeah but then it wasn’t, it was blocked for a while but then it wasn’t.
TA2: If the resources were a bit more… Well, worked.
CCJ: So would you prefer this training style or a different one?
TA4: I’d prefer to be with the course with other professionals
TA3: You can have a discussion then can’t you?
TA1: Yeah
TA2: Mmm
TA3: Yeah
TA5: I mean there was nothing wrong with the way it was delivered actually…
TA4: No it was good
TA5: …the way the information was laid out was great
TA4: But sometimes but sometimes you just need to have someone else…
TA5: Not in isolation
T2: I learn more by someone telling, by somebody speaking to me
TA3: Yeah
TA5: You see I don’t, I am definitely visual, I have to look at things, if someone starts talking…
TA1: But I am visual as well I just can’t, if I just read something off, off the internet… it doesn’t go in.
TA5: But I ended up writing, almost repeating everything I was reading, in written form, I needed that connection.

CCJ: Yeah

TA5: I prefer seeing things definitely

CCJ: Yeah

TA5: If it's someone just standing there talking at me...

TA1: Mmm

TA2: Someone to demonstrate how to use resources

. TA5: ..I do my best, but I need to see things as well, if I've got a PowerPoint at the same time I'm fine.

TA1: It's good for er... it's good for a quick insight, but brief insight into it I suppose. Because it wasn't that in-depth, was it?

TA2: No

TA5: Yeah, okay...

TA3: But to start off, if he didn't know anything, yeah it's a good opener.

TA2: It was good for me.

TA4: If you're new to autism then... yeah.

CCJ: How about the self led aspect?

TA1: Erm..

CCJ: I mean doing things yourself at your own pace rather than a facilitator leading a formal training session?

TA1: I'd rather that (a facilitator leading a weekly training session)

TA2: I'd rather that yeah

TA4: I think we should have insisted on more. I mean I'm quite self-motivated anyway, so I got straight on with it anyway because I'm a nerd.

(All laugh)

TA3: I had a problem finding time outside of work.
TA5: Cos I had other... I had other erm, that's why I did it because I knew I had other things going on.

TA2: Yes same with me (inaudible)

TA1: So I got straight on with it

TA4: Dive straight in

TA2: If we'd have all, said right, we've got to have this done by...

TA3: Yeah that would have been better for me

TA2: We'd have been more thorough and...

TA3: Knowing it was...

TA2: (Inaudible) phase 2 really we could have worked on it ourselves and then all got together to discuss it each week

TA1: Yeah

TA3: That would have been the ideal

TA1: Yeah

TA2: I think we need that structure (inaudible)

TA4: But to be honest, we can't even get to a meeting can we.

(Off task discussion)

TA4: That would have helped that (having regular group discussions)

Ta2: Even this now, I'm picking up things while we're talking.

CCJ: Would you have preferred a mixture of both styles?

TA2: Yeah

TA3: Yeah

CCJ: So what were the advantages or disadvantages of a group of people doing the training together

TA2: well I mean 'cos we can all say how have you done this, are you having problems, getting online or is it just me, have I got the wrong log-in?
TA5: No, is it just me?

TA3: Yeah I check, what you think you got out of part of it (inaudible) and we got different things out of it. Yeah

TA2: Exactly

(Inaudible)

TA1: Yeah

TA5: Especially as a school though, I think it's more beneficial for a school, to do all altogether. With your fellow colleagues, and then you're sharing knowledge as well.

TA3: You know other people as well

TA5: We have been doing that haven't we, one to one meetings haven't we?

TA3: Yeah

TA2: That's how we work anyway isn't it, we tend to get together and just share information.

TA4: Mmm.

CCJ: And the disadvantages?

TA3: Being able to get together

TA2: Yeah

TA4: Yeah

TA1: Time

TA2: Time

TA4: Just time

TA2: We've had to synchronise our...

TA4: That is the disadvantage of doing it together that, we can't find time for each of us, were all working at separate parts of school

TA2: Oh yes

TA3: And like us two, we were both in the same classroom, so if you have us two out together...
TA2: Three people out of one room.

TA4: That’s like us as well

TA2: ... In one room, which is what we had the teacher loses all the support.

TA4: It’s like now, Judith is on her own.

TA5: She can deal with it (all laugh)

CCJ: Did you have to go back and reread and check things?

TA3: I did

TA5: I did, I had a look

TA4: I didn't retrack it cos I already use other resources, book and stuff anyway

TA1: I didn’t revisit... I didn’t revisit

TA2: I did I looked

TA3: Yeah so did I

TA2: Re-read

TA1: (Inaudible) if I had done a couple of things as I was going along as well going back and re-reading

TA5: I had a holiday, come in between so…

TA4: It goes him better if you keep doing that

(Off task discussion)

**Question 6: What kinds of issues acted as barriers towards completing the training? What kinds of issues acted as facilitators?**

TA3: ICT didn't work

TA2: Finding time outside of work

TA4: Time and technology

TA5: Technology not working and work

TA2: Yeah
TA1: I would've liked to have gone on to see what other could learn about really, but... It was a farce, and then because it doesn't work you lose your motivation, having to go back again.

TA4: Yeah, I got very frustrated

TA3: Yeah cos that was my plan, while I had a longing.

TA5: You needed an hour; 35 min of it was spent going logon, logon, logon.

TA3: Yeah

(All laugh)

TA2: Other commitments really

TA5: Well commitments really, because you know, your job is, you're getting paid to do your job and that's more important.

TA2: Yeah

CCJ: So what kind of things were facilitators or motivators?

TA5: It helps you with your work doesn't it?

TA1: Yeah yeah

TA4: To do your best yeah

TA2: Do your job

TA3: Do your best by the child

TA2: And relevant to what you're doing in work and school

TA5: Especially as we're all aware that there will be obviously more children with autism coming in, so it's important to train up on it.

TA4: Definitely.

(Off task discussion)

TA5: Why is it more common in boys than girls, was that in the other course?

TA3: I don't remember that bit.

TA5: It just said... but it doesn't say why
TA1: A lot of things are more common in boys than girls though)

TA4: Just because er, the importance of knowing about autism is greater, because you know you've got more children coming into school with autism now.

TA2: And will be

TA1: Mmm

**Question 7: Were you aware of progressing through the 'learning cycle' when completing the training?**

TA4: With some things yes

TA5: Yeah

TA4: With some things (inaudible) oh, oh look at that.

TA2: And yeah we did put things into… Yeah, into, into erm, what's the word, we did things, anyway

(All laugh)

TA2: I know what I mean. Is it Friday?

TA3: I don't know cos you tend to do it all the time anyway, don't you? You'll see something or you'll have a conversation won't you and you think ‘oh right’ you know and like you say it's kind of going through your brain, you try and fit, it's kind of an ongoing thing in life really, not just.

**Question 8: What would an ideal training package look like?**

TA5: Erm, I would say of erm either research is , I think, more than like an online resource but also for you to erm, I’m trying to think as I say something, I know what I’ve got in my head… but also for you to go through one section, recognise it in, during the day, your scenario, pinpoint it come back to the group, share it and obviously put in practice the first thing that you've learnt about that before you progress to another aspect of it, then obviously once you’ve done that go back to the online resource, research it, look for it, change your practice, discuss in the group...that way I think will be more thorough.
TA4: But obviously for like Jamila, it's not just the on-line resource, you need more than that, you need the group, and the interaction between your colleagues...

TA1: Yeah you do

TA4: ..the discussion.

TA3: It's not been, it's not been cut and dried has it.

TA5: Because you can go through that, and go through each bit and stop there and leave it from there, you're not really taken the time out to erm, (interrupted)

(Inaudible)

CCJ: What got in the way of doing this?

TA3: Time.

TA5: Same things it always is

TA1: Not allowing us to have time to do it

TA4: because if we could have all got together, I mean now we know, if we did it again, we could all get together and say right, if we all try, I know it's a bind, to do one, look for it, and we'll then know how to improve, it's your professional development isn't it,

TA5: Even then, we could all say right Wednesday afternoon, three o'clock, we'll all get together, and then somebody could be off sick, and someone's else has got to cover, so it still all boils down to time.

TA3: So it does all boil down to time

TA4: Its (Head teachers) fault, because he promised us half an hour a week.

(All laugh)

TA3: I'll let you tell him that

(All laugh)

TA4: I'll tell him, he's sick of the sight of me this week anyway.

(All laugh)

CCJ: Any other comments
TA2: Well it has helped, cos like you three say, there was certain parts of it that you wasn’t aware of or that maybe you didn’t understand at first, or recognise

TA5: If you recognise, yeah,

TA1: If you see, written and...Oh yes, explains it

TA3: Yeah

TA4: Yeah

TA2: And it gives you, it just give us much more...

TA4: Improved our understanding hasn’t it of why that happens and what it actually means by doing things a certain way

TA1: And really small changes as well that make a big difference

TA3: And without realising it you would adapt ways then

TA2: Like you say…

TA3: Sometimes not massively but

TA2: Even your body language

TA1: Yeah

TA4: Even the way you stand, you know...

TA5: Yeah...and how you get them to look at you, you know, things like that.

End of focus group
### Appendix 10 – Coding keys for qualitative analyses

#### 10 a) Coding Key for Thematic analysis

<table>
<thead>
<tr>
<th>Theme</th>
<th>Code</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a(i)</td>
<td>E/s/not</td>
<td>Experiences in school/class related to staff noticing pupil behaviour</td>
</tr>
<tr>
<td>1a(ii)</td>
<td>E/s/ch</td>
<td>Experiences in school/class relating to staff noticing a change in pupil behaviour or situation</td>
</tr>
<tr>
<td>1b(i)</td>
<td>E/t/g</td>
<td>Experiences from the training related to the group work</td>
</tr>
<tr>
<td>1b(ii)</td>
<td>E/t/s</td>
<td>Experiences from the training related to the self-led aspect</td>
</tr>
<tr>
<td>1b(iii)</td>
<td>E/t/i</td>
<td>Experiences from the training related to the ICT and technical aspects</td>
</tr>
<tr>
<td>1b(iv)</td>
<td>E/t/isr</td>
<td>Experiences from the training related to ideas, strategies and resources that participants liked or found memorable</td>
</tr>
<tr>
<td>2a(i)</td>
<td>T/a/feat</td>
<td>Thoughts related to features of ASC*</td>
</tr>
<tr>
<td>2a(ii)</td>
<td>T/a/pfh</td>
<td>Thoughts about ASC related to parents, home life and the family</td>
</tr>
<tr>
<td>2a(iii)</td>
<td>T/a/a&amp;u</td>
<td>Thoughts about ASC related to attitude and understanding from staff - i.e. what children with ASC might need</td>
</tr>
<tr>
<td>2b(i)</td>
<td>T/t/chpr</td>
<td>Thoughts about changes to own practice during or after training</td>
</tr>
<tr>
<td>2b(ii)</td>
<td>T/t/sh</td>
<td>Thoughts about sharing aspects of the training with colleagues</td>
</tr>
<tr>
<td>2b(iii)</td>
<td>T/t/eval</td>
<td>Thoughts related to evaluation of the training</td>
</tr>
<tr>
<td>2b(iv)</td>
<td>T/t/pd</td>
<td>Thoughts regarding professional developments related to the training</td>
</tr>
<tr>
<td>3a(i)</td>
<td>A/i/pd</td>
<td>Actions taken by individuals re their own professional development</td>
</tr>
<tr>
<td>3a(ii)</td>
<td>A/i/feat</td>
<td>Actions taken by individuals re features of ASC*</td>
</tr>
<tr>
<td>3a(iii)</td>
<td>A/i/pfh</td>
<td>Actions taken by individuals re working with parents/family/home.</td>
</tr>
<tr>
<td>3b(i)</td>
<td>A/g/feat</td>
<td>Actions taken as a group re features of ASC*</td>
</tr>
<tr>
<td>3b(ii)</td>
<td>A/g/trans</td>
<td>Actions taken as a group re transition between year groups.</td>
</tr>
</tbody>
</table>
### 10 b) Coding Key for Grounded theory analysis

<table>
<thead>
<tr>
<th>Theme</th>
<th>Code</th>
<th>Definition (Statements pertaining to...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4a</td>
<td>C/isr</td>
<td>Content of the IDP in terms of ideas, strategies and resources</td>
</tr>
<tr>
<td>4b</td>
<td>C/a&amp;s</td>
<td>Content of the IDP in terms of age and severity of the individuals featured in the IDP</td>
</tr>
<tr>
<td>4d</td>
<td>C/und</td>
<td>Content of the IDP in terms of</td>
</tr>
<tr>
<td>4e</td>
<td>C/fac</td>
<td>Content of the IDP in terms of the role of the facilitator</td>
</tr>
<tr>
<td>5a</td>
<td>Te/err</td>
<td>Technical issues – website errors and difficulties</td>
</tr>
<tr>
<td>5b</td>
<td>Te/pres</td>
<td>Technical issues – pertaining to the presentation/layout of the on-line information</td>
</tr>
<tr>
<td>5c</td>
<td>Te/nav</td>
<td>Technical issues – pertaining to navigation of the web-site</td>
</tr>
<tr>
<td>6a</td>
<td>D/bso</td>
<td>Descriptive statements relating to behaviour, strategies or outcomes</td>
</tr>
<tr>
<td>6b</td>
<td>D/act</td>
<td>Descriptive statements relating to individual actions</td>
</tr>
<tr>
<td>6c</td>
<td>D/learn</td>
<td>Descriptive statements relating to personal learning/development</td>
</tr>
<tr>
<td>6d</td>
<td>D/feat</td>
<td>Descriptive statements relating to features of ASC</td>
</tr>
<tr>
<td>6e</td>
<td>D/th</td>
<td>Descriptive statements relating to participants’ own thought/opinions</td>
</tr>
<tr>
<td>7a</td>
<td>PL/ls</td>
<td>Personal Learning – learning styles</td>
</tr>
<tr>
<td>7b</td>
<td>PL/mot</td>
<td>Personal Learning - motivation</td>
</tr>
<tr>
<td>7c</td>
<td>PL/need</td>
<td>Personal Learning – other needs</td>
</tr>
<tr>
<td>8a</td>
<td>WT/ch</td>
<td>Working together – checking out and reassurance</td>
</tr>
<tr>
<td>8b</td>
<td>WT/inf</td>
<td>Working together – giving, receiving or sharing info.</td>
</tr>
<tr>
<td>9a</td>
<td>Ti/comm</td>
<td>Timing – participants’ other (personal) commitments</td>
</tr>
<tr>
<td>9b</td>
<td>Ti/self</td>
<td>Timing – self-led aspect of the training</td>
</tr>
<tr>
<td>9c</td>
<td>Ti/dead</td>
<td>Timing – deadlines</td>
</tr>
<tr>
<td>9d</td>
<td>Ti/sess</td>
<td>Timing – of or between the sessions</td>
</tr>
<tr>
<td>9e</td>
<td>Ti/rel</td>
<td>Timing – release time given from class.</td>
</tr>
</tbody>
</table>
Appendix 11 – Worked examples of qualitative analyses
Appendix 12 – Ethical Approval

Secretary to Research Ethics Committee 5
Faculty Office - Devonshire House

Tel: 0161 275 0288
Email: jared.ruff@manchester.ac.uk

Claire Cooper-Jones
School of Education
16th November 2010

Dear Claire

Research Ethics Committee 5 (Flagged Humanities)

I am writing to thank you for coming to meet the Committee on 15th November and to confirm that it gave the above research project a favourable ethical opinion, subject to the following clarifications and conditions:

- That you consider revising the proposed title of ‘Knowledge Quiz’; a number of options was suggested by the committee such as ‘Knowledge Assessment’ and ‘Knowledge and Understanding’. The issue here is that the participants should not in some way feel pressurised to interpreting their involvement in the study as being one of success or failure.
- That you state that there will be ‘a minimum number of participants involved in the study of...
- That you state that there will be a maximum number of participants involved in the study of...

Your response to the above points should be sent to me ideally no later 24th November 2010.

This approval is effective for a period of five years and if the project continues beyond that period it must be submitted for review. It is the Committee’s practice to warn investigators that they should not depart from the agreed protocol without seeking the approval of the Committee, as any significant deviation could invalidate the insurance arrangements and constitute research misconduct. We also ask that any information sheet should carry a University logo or other indication of where it came from, and that, in accordance with University policy, any data carrying personal identifiers must be encrypted when not held on a university computer or kept as a hard copy in a location which is accessible only to those involved with the research.

Finally, I would be grateful if you could complete and return the attached form at the end of the project or by September 2011.

I hope the research goes well.

Yours sincerely

Jared Ruff, Senior Research Manager
Faculty of Humanities and Secretary to URC 5 (Flagged Humanities)
0161 275 0288
Jared.ruff@manchester.ac.uk