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**A CASE STUDY OF THE DEPLOYMENT OF TEACHING
ASSISTANTS IN SECONDARY SCHOOLS TO SUPPORT
LEARNING**

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Doctor of Education (EdD)

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June 2015

Declaration

I hereby declare that this thesis has not been and will not be submitted in whole or in part to another University for the award of any other degree.

Signature: _____

Acknowledgements

This thesis is dedicated in equal measure to my parents, Edward and Hilda and to my husband, Russell. For my father and mother, it is offered as a mark of heartfelt gratitude for their commitment to education and for the many ways in which they stimulated my love of learning. For my husband, it is offered as a tribute to his patience, understanding and unfailing support throughout the process of writing and final completion of this thesis. I would also like to thank my sons, Jonathan and Gregory, for the interest they have shown in my progress and for their words of encouragement.

My sincere thanks go particularly to Louise Gazeley who has given me unstinting support and encouragement. Her invaluable advice has enabled me to maintain a sense of perspective and to keep working towards the completion of this case study. Thanks are also due to my second supervisor, Jo Westbrook for her thoughtful comments and generous support. I should also like to thank Pat Drake who was my supervisor at the beginning of the EdD and the many colleagues who have shown an interest in my progress, in particular, Julia Sutherland but also Jacqui Shepherd, Sally Dudley, Norma Harding, Simon Thompson, Keith Perera, Andy Chandler-Grevatt and Janet Steadman. My thanks also go to the tutors who teach or have taught on the EdD programme for stimulating my initial interest and motivation.

My final thanks go to the schools, teachers, teaching assistants and learners who welcomed me into their classrooms and whose co-operation I greatly appreciated.

UNIVERSITY OF SUSSEX

DOCTOR OF EDUCATION

**A CASE STUDY OF THE DEPLOYMENT OF TEACHING ASSISTANTS IN
SECONDARY SCHOOLS TO SUPPORT LEARNING**

SUMMARY

This research focuses on the ways in which teaching assistants are deployed to support learning in secondary schools and investigates the effect of the different deployment approaches used. Much of the previous policy and research literature conceptualises the relationship between the teacher, teaching assistant and learner as tripartite and hierarchical - a three-way relationship in which the teacher has the major responsibility for promoting learning. Key debates in the literature include whether teaching assistants make a positive contribution to learning, represent good value for money or have an impact on educational attainment. The lack of consensus provided the impetus for this case study which contributes further to the debate.

In this case study, the theorisation of the teaching assistant's role is grounded in the constructivist theories of Vygotsky and Bruner and, to a lesser extent, of Piaget. The role is also considered in the light of the theories of Bandura, Malaguzzi, Black & William and James et al. In the classroom this means that the learning is not only focused on **what** the teaching assistant does to support learners but also **how** learning is supported through the use of specific approaches. The study suggests that some models of deployment allow teaching assistants more scope to work in particular ways which offer more opportunities for learning.

Methodologically, the research takes the form of an exploratory case study. The study was completed within the defined boundaries of three schools and seven lessons. Unlike previous studies which have taken predominantly quantitative approaches and provide a focus on the measurement of learners' attainment, this case study takes a wholly qualitative approach in order to focus closely on the interaction between teachers, teaching assistants and supported learners and how particular models of deployment support learning.

The case study involved six teachers, seven teaching assistants and fourteen learners from three state comprehensive schools, located in one local authority. Different deployment models were observed. These included the more typical model where teaching assistants were deployed to support individuals, pairs or groups of learners within the classroom or to work in a different location with a small group of learners withdrawn from the class. Also observed was a higher level teaching assistant team teaching with a teacher in the classroom and a ordinary level teaching assistant deployed in managing a learning support facility and working independently from the teacher.

Data were collected through a four stage approach that began with joint semi-structured interviews with pairs of teaching assistants and teachers. Joint interviews were followed by lesson observations. Following this, teachers and teaching assistants were interviewed separately in order to obtain their individual perceptions of the learning of supported learners in the lesson. Lastly, group interviews were conducted with supported learners to obtain their views on the support they had received. The different data sources were examined using four perspectives to identify the various ways in which teaching assistants were being deployed and how these supported learning.

The case study provided a range of qualitative data from which it was possible to explore the complexities of the relationships between teachers, teaching assistants, and learners and to identify models of teaching assistant deployment which allow them to contribute more fully to learning. The study also highlighted the importance of building professional relationships. It concluded that the lack of planning between teachers and teaching assistants, the unavailability of training for teachers on managing the work of teaching assistants and for teaching assistants on supporting learners, all have a negative effect on support for learning. The learners suggested that they appreciated the academic and pastoral help they were given while also being able to provide examples where learning was over-supported and, therefore, detrimental to intellectual independence. The study, therefore, has implications at different levels - for example, for policy makers and institutions who determine roles, models of deployment and the training and management of teaching assistants when they are working both inside and outside of the classroom.

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TERMS

Statement of Educational Needs:	describes a learner's SEN for which special help is required. Issued when the LA decides this help cannot be provided by the school.
School Action Plus:	for identified SEN learners for whom the teacher receives advice or support from outside agencies
School Action:	for identified SEN learners for whom the teacher provides different or additional strategies

NB: There is a new Special Educational Needs and Disability (SEND) Code of Practice as from 1st September, 2014.

LIST OF ABBREVIATIONS

AfL	Assessment for Learning
APP	Assessing Pupil Progress in English at KS 3
ASD	Autism Spectrum Disorders
BERA	British Educational Research Association
BESD	Behavioural, Emotional and Social Difficulties
CAS	Critical Analytic Study
DfE	Department for Education
DfES	Department for Education and Science
DfEE	Department for Education and Employment
DSpLD	Dyslexia and Specific Learning Difficulties
EAL	English as an Additional Language
EPPI	The Evidence for Policy and Practice Information and Co-ordinating Centre
FSM	Free School Meals
GCSE	General Certificate of Secondary Education
HLTA	Higher Level TA
ICT	Information and Communication Technology
IWB	Interactive Whiteboard
KS3	Key Stage 3 11 - 14 years
KS4	Key Stage 4 14 - 16 years
LA	Local Authority
MLD	Moderate Learning Difficulties
NAHT	National Association of Head Teachers
NASUWT	National Association of Schoolmasters Union of Women Teachers
NFER	National Foundation for Educational Research
NCIP	National Curriculum Inclusion Policy
NJC	National Joint Council (for Local Government Services)
NSA	Numeracy Support Assistant
NTRP	National Teacher Research Panel
NUT	National Union of Teachers
OFSTED	Office for Standards in Education
SENCO	Special Educational Needs Coordinator
SEN(D)	Special Educational Needs (and Disabilities)
SLCN	Speech, Learning and Communication Needs
TA	Teaching Assistant
TES	Times Educational Supplement
TDA	Teaching Development Agency
ZPD	Zone of Proximal Development

CHAPTER 1 CONTEXT AND RATIONALE

Introduction

The pattern of interaction between the teacher, teaching assistant (TA) and learner is often conceptualised in previous policy and research literature as tripartite and hierarchical. This is exemplified in the 2003 agreement between the Government and the unions where it is explicitly stated that, although the intention was to 'push back the boundaries of what teaching assistants can do in classrooms' (Raising Standards and Tackling Workload - a national agreement, 2003; 61, p.12), it was expected that qualified teachers would 'make the leading contribution to teaching and learning, reflecting their training and expertise' (Raising Standards and Tackling Workload - a national agreement, 2003; 61, p.12) and it was they who must remain accountable for the learners' outcomes.

Research into the deployment and impact of support staff has shown that the most frequent models between teacher, TA and learner(s) are where the TA provides in-class support, where the TA works with small groups outside of the classroom or where the TA manages literacy or numeracy groups independently (Blatchford et al, 2009a; Wilson et al, 2007). Much research uses quantitative or mixed methodologies to measure the impact of support staff on learners' **attainment** (Higgins, 2011; Blatchford et al, 2009a; Gray et al, 2007; Swan & Loxley, 1998). Instead my thesis uses a qualitative methodology to explore the variation in deployment practices and the ways in which these support or limit the opportunities for **learning**.

It should be noted that a number of researchers have pointed to the plethora of job titles assigned to the role of those staff supporting learning in schools (Balshaw & Farrell, 2006; Lee, 2002; Swan & Loxley, 1998), for example, teaching assistants (TAs), classroom assistants, learning support assistants and associate staff. This thesis refers to those providing learning support as teaching assistants (TAs) or higher level teaching assistants (HLTAs) unless alternative role titles are used in the other studies reported on.

The TA's role has evolved over time from one of providing extra help in the classroom and supporting learners with special needs in special schools to one where the TA provides learning support in mainstream classrooms under the direction of the teacher. Those who, in the past, received Government funded training to gain HLTA status have opportunities to teach independently although overall responsibility for learning remains

with the teacher. Funding for HLTA training was cut by the Government in 2010 and funded training for TAs is not usually provided. Some school based training may be available and informal training with teachers is sometimes undertaken voluntarily.

In the context of this thesis deployment is understood from an ecological perspective (Bronfenbrenner, 1979) which includes the decisions made as to where and with whom the TA works but also the opportunities provided by the teacher for the TA to make a positive contribution to learning. This includes the approaches to learning that TAs are allowed, enabled or directed to use. The literature review illustrates that the concept of learning is complex and difficult to define. For schools and teachers who are judged in terms of performance tables (DfE, 2010), the important visual markers of learning are the achievement of targets, levels and grades. The ways in which TAs are deployed support both academic and socio-academic learning (Cajkler et al., 2007). Marton et al (1993) suggest that learning can be summed up as acquiring knowledge, remembering facts, applying knowledge, achieving understanding and undergoing personal change. Rather than regarding these as separate concepts, Watkins & Mortimore (1999) suggest that learning is more of a developmental process brought about by the merging of these aspects. Vygotsky (1978) asserts that learning is not necessarily defined by a learner's actual developmental level or chronological age but by the potential level of development which can be achieved by working with a more knowledgeable adult or with more capable peers. This suggests that learning is not necessarily a linear process but takes place more holistically in line with the development of the individual learner.

James et al (2007) also recognise the difficulty in defining learning, highlighting the different perspectives from which learning can be viewed and assessed. They acknowledge that the assessment and support of learning is dependent on the perspective taken. In this thesis, learning is viewed from a constructivist perspective where approaches to learning include: the use of open-ended tasks with individuals or groups of learners, opportunities for learning from each other and/or with the teacher or TA as the 'more knowledgeable other' (Vygotsky, 1978); using higher order thinking skills such as hypothesising and questioning strategies (Bloom et al., 1956); building on the ideas of others and providing thinking time to promote intellectual independence. These approaches find their roots in the constructivist theories of Bandura (1977, 1989) Vygotsky (1978), Bruner (1987), Malaguzzi, (1998) and James et al (2007).

1.1 Rationale

Some research has suggested that TAs make a positive contribution when supporting learners. Brown & Harris (2010) found that increased expenditure on TAs improved learners' attainment. Ofsted found that support staff were making 'a greater impact on pupils' achievements (Ofsted, 2008; p.5) in the light of schools' improved understanding of learners' learning and better TA deployment. Wilson et al (2007) found that both HLTAs and senior leaders felt the HLTA role was having a positive impact on learning, particularly with small groups or individual learners. Moreover, when teachers were asked about the contribution TAs made to learning some tended to highlight the positive effects in areas relating to learners' motivation and/or behaviour (Blatchford et al, 2009a). However, research has also suggested that TAs have little or no positive impact on learning (Higgins et al., 2011; Blatchford et al, 2009a; Mujs, 2003). This type of research tends to focus on TAs' impact and the interchangeable use of terms suggests that learning is akin to or synonymous with attainment and can be similarly measured. The findings from a recent summary of research evidence on improving learning and attainment highlight this view, reporting that 'most studies found very small or no effects on attainment' (Higgins et al, 2011; p.28). Mujs (2003) also found no difference in attainment between learners who were receiving support and those who were not.

These debates around the role of the TA in supporting learning at secondary level have provided the focus for all my work over the duration of my doctoral studies. In 2008, I completed an evaluation entitled 'The Impact of Teaching Assistants on Learning Progress' which suggested that some teachers and TAs believed that TAs were instrumental in improving learners' learning and behaviour, but that some TAs felt constrained by teachers' instructions and suggested that they could, if given the opportunity, fulfil a wider role. My Critical Analytical Study¹ was entitled 'Professionally Equal but Differently Qualified and Skilled - Rethinking the Role of the Classroom Support Assistant.' My interest in this debate was initially sparked by my professional role as a Head of Department in a secondary school, responsible for deploying and working with TAs and now training trainee teachers to do this also.

¹This examined the case for rethinking the role of TAs and increasing their professional status through the provision of more professional training and development. It was completed as part of my EdD (2009).

1.2 Overview of Research Approach and Design

This research takes the form of a nested, exploratory case study of the deployment of TAs in secondary schools (Thomas, 2011). It is conducted from a qualitative, interpretative perspective. It explores the ways in which TAs were deployed to support learners in three secondary schools and how the different models of deployment identified facilitated learning. This topic has been the subject of some debate amongst researchers who have used predominantly quantitative or mixed method methodologies to measure the impact of TA support on learners' academic attainment (Blatchford et al., 2009a; Higgins et al., 2011). The methodological approach chosen for this study provided the opportunity to focus on the interaction between teachers, TAs and learners as a means of understanding the complexities of deployment practices which form the bedrock of learning support.

The research process began with a meeting with the Local Authority Support Staff Advisers who were attending a University meeting about a Diploma Course for TAs. I was able to ask advisers to suggest schools who were deploying TAs to support learning and who might be amenable to being involved in the proposed research. Based on the advisers' suggestions, three suburban, state comprehensive schools in South-East England were approached and they all agreed to participate. For the purposes of anonymity they are renamed in this thesis as Rushleigh, Windihurst and Mistfell.

The format for the research was identical in each school. As shown below, it began with the pre-lesson observation, then joint interviews with teachers and TAs followed by a lesson observation. Next teachers and TAs were interviewed individually. Lastly, learners were interviewed in the mode they received support - individually, in pairs or in groups.

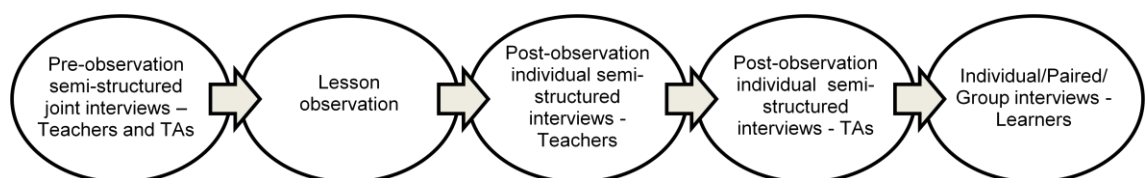


Figure 1 Overview of research design

Teachers working with TAs were initially approached by the individual schools and they also agreed to participate in the research. My research questions were constructed to

investigate models of TA deployment, their effect on teaching and learning and the influence of policy and institutional factors on deployment practices. They were:

- In what ways are teaching assistants deployed within the classroom?
- How does the method of deployment affect teaching and learning?
- How are deployment practices affected by policy level and institutional factors?

1.3 Profile of Case Study Schools

1.3.1 Rushleigh School

Rushleigh is a large, mixed, 11-16 comprehensive school with approximately 1,650 learners. They come from a wide range of backgrounds and the majority are of white, British origins. Very few learners have English as an Additional Language (EAL). The number of learners qualifying for free school meals (FSM) is well below the national average. SEN(D) learners are also very much in the minority with numbers well below the national average. The school has training school status.

Learners achieve well above the national average of 58.2% with 74% achieving five GCSEs A*-C including English and Mathematics in 2011. In its last Ofsted² report the school was described as 'outstanding.' It was also commended for the good progress its SEN(D) learners make and the individual learning support provided. Rushleigh currently has eighteen TAs, some of whom are part time. They provide in-class support and also work with small withdrawal groups, bottom sets or those with SEN(D) or other learning needs. Some TAs work in different subject areas but their allocation to classes is mostly consistent. Instead of selecting an Option subject, GCSE learners can, with advice, opt to receive independent learning support in a particular subject with a specially allocated TA. TAs are line managed by an Assistant Head.

1.3.2 Windihurst School

Windihurst is much smaller than Rushleigh. It is a mixed 11-16 community school with approximately 850 learners. The number of those qualifying for FSM is lower than the

² Undated for the purpose of anonymity

national average and there are few learners with EAL. Learners are predominantly from white, British, backgrounds, with those from ethnic minority groups making up a very small percentage of the school's intake. Unlike Rushleigh, it has a higher than average number of SEN(D) learners. The school has specialist status for Science and Mathematics and is also a training school.

The school achieved improved GCSE results in 2011 with 57% of learners achieving five A*- C including English and Mathematics as against the national average of 58.2%. In its last Ofsted³ report the school was described as 'good.' It was commended for the good progress made by learners and for the professional development of its teachers which was continuing to improve the quality of learning support provided. Windihurst currently has twenty six TAs who provide in-class support and work with small withdrawal groups, bottom sets or those with SEN(D) or other learning needs. Some work exclusively in one subject area, whilst others are deployed across a range of subjects. Like Rushleigh, TAs' allocation to specific classes is mostly consistent. Their line manager is an Assistant Head.

1.3.3 Mistfell School

Mistfell is also a smaller than average, mixed comprehensive 11-16 school with approximately 990 learners. Like Rushleigh and Windihurst, the number of learners qualifying for FSM is lower than the national average and there are few learners with EAL. The majority of learners are from white, British backgrounds and those from ethnic minority groups make up only a small proportion of the intake. The proportion of SEN(D) learners and those with other learning difficulties is below average. The school achieved a stable performance in GCSE results in 2011 with 66% of learners achieving five A*- C including English and Mathematics as against the national average of 58.2%. In its last Ofsted⁴ report the school was described as 'good' and recognised as having 'several outstanding features.' It was commended for ensuring that all learners' needs were addressed and for the provision of support for SEN(D) learners. The school was awarded Leading Edge status by the DfE and has been designated as a Gifted and Talented school.

³ Undated for the purpose of anonymity

⁴ Undated for the purpose of anonymity

Nine TAs are currently employed, of which two are HLTAs. Some provide support in different subject areas, but mostly TAs are allocated to departments, particularly for Maths and English. The majority of learning support is provided for bottom sets or those with SEN(D) or other learning needs but there is some scope for TAs to provide support across the ability range. Their work and the provision of support are line managed and coordinated by the Head of Department. In this school, subject based TAs help with the preparation of departmental resources.

1.4 Overview of Thesis Structure

This thesis is presented in six chapters. Chapter One has outlined the context and rationale and given an overview of the research approach and design, the research questions and a profile of each of the research schools. Chapter Two comprises the literature review which is presented in five sections - a) Policies and Structures Affecting the Deployment of TAs, b) Critiques of TAs' Support for Learning, c) Models of Deployment, d) Learning Theories and e) The Ecological Conceptual Framework. The chapter concludes with an overview of my key approach and a discussion of the ecological framework. Chapter Three discusses the methodological approach and methods of data collection. Chapter Four presents a detailed discussion on the Models of Deployment of TAs with learners. Chapter Five examines the factors shaping their patterns of interaction. Chapter Six concludes with a discussion of my research questions, my contribution to knowledge, an overview of the main findings, the implications for policy and practice, my development as a researcher and final reflections.

CHAPTER 2 LITERATURE REVIEW

Introduction

The Literature Review is presented in five sections which chart the evolution of the TA's role from its historical roots to its development through governmental policies and structural factors to understand how these may constrain or support TAs' contribution to learning. A review of the critiques of TAs' support for learning is also included in order to highlight how the learning support provided by them has been evaluated in recent research findings. While the critiques aid the identification of three dominant models of deployment the relationship between these models and opportunities for learning are less commonly explored (see for example, Vincett, Cremin & Thomas, 2005). The penultimate section presents the learning theories used to underpin the discussion of my own research. The review ends with the ecological conceptual framework which discusses the interactive systems which ultimately affect TAs' deployment.

2.1 Policies and Structures Affecting the Deployment of TAs

This section explores how the role of the TA has emerged and developed from an historical perspective and underlines the importance of conceptualising the deployment of TAs ecologically within an interactive structure of policies and the practices of institutions, departments and teachers, TAs and learners.

2.1.1 Evolution of the Teaching Assistant Role

Historically, schools have been used to working with extra helpers in the classroom (Mitchell, 2009). However, there was a significant increase in this practice between 1980 and 1990. Thomas (1992) posited two main reasons for this. The first was 'the idea that children with special needs should be integrated into mainstream schools' (Thomas, 1992; p.2) and the second was 'the idea that parents have a central place in their children's education - including full involvement in their children's schools' (Thomas, 1992; p.3). The part 'ancillary workers' played in supporting integration from special schools into the mainstream sector (Warnock, 1978) and their role in supporting learning, particularly with SEN(D) learners is recognised. The Warnock Report (1978)

also noted the possible need for an increased number and range of staff to support those children 'categorised' as having special needs and highlighted their value:

Ancillary workers are usually chosen for their sympathetic attitude to children and their experience as parents. Indeed care, extra understanding and affection they offer can be very important to some children. They have very little training, except where school-based in-service training is well developed and they rely on the teachers with whom they work for guidance as to their duties (Warnock, 1978; point 14:33, p.274).

It also emphasised the ancillary workers' (sometimes called non-TAs) value in enabling 'teachers to concentrate their attention on individuals or small groups' (Warnock, 1978; point 14:32, p.274), and underlined the importance of their educational work with learners under the teacher's direction. The variance in TAs' skills and experience makes explicit the tension underpinning attempts to define the primary purpose of their role and this has contributed to the current confusion between the role of learning support assistant (LSA), who traditionally supported learners with SEN(D) (Special Educational Needs and Disabilities) and the role of the TA - the DfES' preferred term (DfES, 2000) - who supported learners with perceived needs or across the attainment levels as directed by the teacher. It should also be noted that SEN(D) covers a whole raft of special needs - amongst others, autism and dyslexia - as well as basic difficulties with learning for which intervention or support is required.

The role of the TA developed from new, ambitious governmental policy. The introduction of the National Strategies and the drive to raise standards placed extra workload on teachers and, in 2000, led to the introduction of a scheme whereby 'classroom assistants' supported teachers by relieving them of time-consuming, practical tasks. In March 2001, David Blunkett, the Education and Employment Secretary announced his intention to extend this scheme for the years 2002-2004 by earmarking £400m for the recruitment and training of 'classroom assistants' to work with teachers both in and out of the classroom. His intention was to relieve the pressures of work experienced by teachers (BBC, 2001a, 19th March 2001; LGC, 2001).

In November 2001, Estelle Morris, the new Education Secretary, announced proposals for a major re-organisation of staffing in schools. It was envisioned that classroom teachers would oversee the work of teams of support staff. 'Classroom assistants' would undertake a range of tasks, possibly including lesson supervision, to free up teachers to prepare and plan lessons and mark learners' work (BBC, 2001b, 12th Nov

2001). These proposals were opposed by teachers' unions, NAHT, the NUT and the NASUWT on the grounds that it was an attempt to 'forestall growing difficulties in teacher recruitment' - with suggestions that there could be a shortfall of 40,000 teachers in five years. The view was also expressed by David Hart, General Secretary NAHT, that it 'would do nothing to raise standards and (would undermine) the role played by high quality teachers' (BBC, 2001b, 12th Nov 2001).

On the 15th January, 2003, the agreement entitled Raising Standards and Tackling Workload: a National Agreement (DfES, 2003) came into effect. It was introduced as representing 'an historic, National Agreement between Government, employers and school workforce' which promised 'joint action, designed to help every school across the country to raise standards and tackle workload issues' (DfES, 2003; p.1). The contractual changes for teachers listed a range of tasks which they were routinely undertaking but which would now be passed to support staff (DfES, 2003; p.5). Teachers were to remain ultimately responsible and accountable for teaching and learning but new developments would push back 'the boundaries of what assistants can do in the classroom' (DfES, 2003; p.12).

2.1.2 Training, Preparation and Planning

2.1.2.1 Formal Training

The Government's intention to provide formal training is evidenced in the 2003 agreement which explicitly asserted that support staff would take on 'extended roles' to support teaching and learning, supported by the 'right training and standards frameworks' (DfES, 2003; p.4). It suggested that TAs may specialise by providing support in a specific subject area and made clear that TAs who 'interact with pupils in relation to teaching and learning should always be led and supervised by the pupils' classroom/subject teacher' (DfES, 2003; p.12). The agreement did not explicitly address the different skills and training needs of those TAs (LSAs) supporting SEN(D) learners with a range of special needs and those TAs who supported teaching and learning across the attainment levels. This may, however, be implied by the stated intention to support TAs with the 'right' training (DfES, 2003; p.4). Lewis et al (2010) also recommend that SENCOs should always be qualified teachers and should be fully trained. Nationally accredited training for SENCOs was made available in July 2008 and funded places were available for 2013-2014. They also found that:

Good practice guidance once again emphasises the importance of ensuring those working with children and young people are appropriately trained. It recommends for example the training of all teaching and learning support staff in disability awareness and core skills for working with children with SEN especially in mainstream schools, with a pool of staff trained in particular specialisms (Lewis et al., 2010; p.28).

This again underlines the need for competent staff with the expertise to ensure that the very different needs of SEN(D) learners are met. Although TAs work under teachers' direction, they have some freedom to make pedagogical decisions whilst interacting with learners. A systematic review conducted by Cajkler et al (2007) also suggests that both TAs and teachers need training to ensure that learners' dependence or an intrusive relationship is avoided.

The 2003 agreement envisioned an enhanced role for those TAs interested in career progression to the role of higher level TAs (HLTA) for which training would also be available (DfES, 2003). New professional standards were put in place which required the HLTAs to demonstrate expertise in understanding the curriculum and in advancing learning. The Professional Standards for HLTA (TDA, 2006) highlighted other implications for training including using teaching and learning activities, familiarity with SEN(D) guidance, skills in planning and monitoring and assessing the work of learners. As part of a professional team, the HLTA would be given responsibility to work with individual learners, small groups or classes under the direction of the teacher (TDA, 2006). However, the agreement also recognised that 'teachers and HLTAs are not interchangeable' (DfES, 2003; p.12) and that TAs must be led and supervised by the classroom teacher. Furthermore, it stated that where HLTAs worked alone and unsupervised in the classroom, the teacher's professional judgment when assessing their contribution must be informed by 'an appropriate national standards framework for such assistants, and by national guidance to schools concerning the operation of the school system of supervision' (DfES, 2003; p.12).

The 2003 agreement also explicitly covered pay and training stating that these should be in line with TAs' roles and responsibilities and should provide a basis for HLTAs to train to become qualified teachers should they wish to do so in the future. Here, the agreement reiterated the recommendations of The Dearing Report (Dearing, 1997) and those outlined in *Working with Teaching Assistants - A Good Practice Guide* (DfES, 2000) to provide training and professional career routes for support staff. Despite these attempts by the Government to set standards, there is a lack of policy support for

TA or HLTA training or for career development. More recently, for example, Michael Gove, then Secretary of State for Education, announced overall cuts in funding (Garner, 2010; The Independent, 6th July 2010), particularly for the qualification of HLTA for which funds are no longer available. Nevertheless, since 2003, there has been a significant increase in the numbers of TAs supporting learning in the classroom and whilst in-service training days are usually attended by TAs, there are fewer opportunities for training directly linked to their role. UNISON (2007) report that TAs:

were not paid to attend staff meetings when the most important every-day training issues are addressed (and that there was) no formal training available for specific roles (UNISON, 2007; p.58).

Thus, the 2003 agreement highlighted the Government's intention to reduce teachers' workload by introducing greater numbers of TAs to undertake clerical tasks and help raise standards but with no financial support for training and limited opportunities for career progression. Even when opportunities were provided, research has found that training had little or no effect on TAs' status or career progression and that some TAs were frustrated by their lack of prospects (Brown & Devecchi, 2013). Furthermore, research suggests that there is no training for newly qualified or experienced teachers in how to manage and develop the TAs' work (Blatchford et al; 2009b). This, together with the lack of joint preparation and planning time, impedes the development of the TAs' expertise.

2.1.2.2 Informal Training

Teachers play a dominant role in providing informal training for TAs during voluntary joint preparation and planning of lessons. However, neither the Government nor schools provide formal training for teachers to fulfil this role nor is there any formally allocated time for colleagues to participate in this activity. Several studies have underlined the importance of this allocation. Blatchford et al, (2009a) point out that the 'lack of meaningful time for joint planning and preparation before, and for feedback and reflection after' was a recurrent theme of their research entitled *Deployment and Impact of Support Staff Project* (DISS Project; Blatchford et al., 2009a; p.133). Teachers and TAs sometimes used their own, unpaid time for planning or TAs were given instructions at the start or during lessons. Blatchford et al (2009a) point out the potentially negative effect this might have on managing learners and or on providing effective support for learning. Other researchers have also emphasised the importance of joint planning and indicated that there is little, if any time provided by schools for this activity (Moran

& Abbott, 2002; Dixon, 2003; Wilson & Bedford, 2008; Blatchford et al., 2009b; National Centre for Excellence in the Teaching in Mathematics, 2011; Spencer & Edwards, 2011).

Good relationships between teachers and TAs have a positive effect on joint preparation, planning and informal training. Recommendations from Thomas (1992) suggest that effective teamwork ensues where there are clearly defined roles, opportunities for joint discussion, planning and evaluation of ways of working are provided. He also suggests that 'the composition of the team needs to be carefully considered' (Thomas, 1992; p.204). Teams based on compatibility are more likely to develop effective professional relationships where the TA's role is clarified by the teacher. Vincett, Cremin & Thomas (2005) assert that the allocation of TAs to a limited number of teachers would provide the opportunity for them to get to know each other. This could facilitate the development of positive relationships and support informal training but the question of what to do if colleagues do not get on together also needs to be addressed. Other key principles identified by Vincett, Cremin & Thomas include the commitment of senior management to teamwork by providing 'non-contact time, venues for training and meetings and review and feedback on performance' (Vincett, Cremin & Thomas, 2005; p.31).

2.1.3 Special Needs and Disability

Learners are identified as having SEN(D) by the Code of Practice (DfE, 2014) if they find learning significantly more difficult than others of the same age. The same Code of Practice also identifies those learners with a significant disability which prevents them using educational facilities generally used by others of the same age in mainstream or post-16 institutions and for whom special provision has to be made.

The provision made by schools to address inclusion and to support statemented SEN(D) learners, English as an Additional Language (EAL) or other perceived learning or behavioural needs sometimes militates against inclusive practices. For example, setting of classes can affect a teacher's approaches to group work (Florian & Black-Hawkins, 2011). Furthermore, research has shown that it is TAs who are mostly deployed to provide this support for learning (Blatchford et al., 2009a; Blatchford et al., 2009b; Blatchford et al., 2009c; Webster et al., 2009; Webster et al., 2010; Wilson & Bedford, 2008), even though the wide range of learners' needs require specialised skills to enable them to access the curriculum (DfE, 2011a).

In a more recent report, Webster & Blatchford (2013) stated that TAs took more responsibility for statemented learners than teachers and that they had 'much of the responsibility for the planning and teaching of statemented pupils (Webster & Blatchford, 2013a; p.2). Although learning and behavioural needs can be regarded as separate entities, they are often interrelated and it is sometimes difficult to understand whether learning difficulties promote behavioural problems or whether behavioural issues obstruct learning. Cremin & Thomas (2005) suggest that when learners' attainments are judged against standards which have, through educational endorsement, come to be seen as objective and absolute, it results in some learners comparing themselves or being judged by institutions unfavourably against other learners and it is this perception of relative status rather than the absolute standard of attainment which becomes the marker of learning difficulty. The significance of this relative status can also be seen in the way some individuals adopt patterns of behaviour to achieve identity and status when they are judged or compared against other individuals who behave in accordance with social norms (Cremin & Thomas, 2005).

Comparison of these absolute standards of ability or lack of ability results in the labelling of learners which is particularly pertinent at the level of SEN(D). These learners subliminally learn that they are different to other learners in the classroom and that also, in some cases, they do not merit the attention of their teacher who leaves it to the TA to provide support. Cremin & Thomas (2005) state that 'the most significant player in this discourse is the umbrella signifier of Special Educational Needs' (Cremin & Thomas, 2005; p.432). By extension, therefore, TAs are the visual signifiers of SEN(D) for those learners whom they routinely support.

Gillies (2005) argues that the issue of social class can play a significant part in the labelling of learners as having SEN(D) and suggested that middle class parents tend to be more proactive in utilising their cultural, economic and social capital to ensure that their 'bright' offspring get the help they need to improve their learning - for example, by developing relationships with teachers, paying for private tuition and through social connections. Gillies (2005) argues that working class parents tend to have more limited access to those forms of economic, social or cultural capital that would support them when approaching the school or discussing their child's progress with teachers. They are, therefore, less likely to complain or question the use of a TA to support their child's progress. Gillies (2005) suggests that if they do approach schools to discuss issues it

often causes hostility 'with working-class mothers and fathers feeling misunderstood and de-valued by teachers' (Gillies, 2005; p.846).

Lindsay et al (2006) note that 'socio-economic disadvantage (poverty) and gender have stronger associations than ethnicity with overall prevalence of SEN(D) and of certain categories of SEN' (Lindsay et al., 2006; p.1). At national level, the study recommended that:

The DfES should work together with the Teacher Development Agency and the National Strategies to ensure that initial teacher training and guidance to schools include information about the influence on the identification of SEN of poverty, gender and ethnicity and to develop and disseminate strategies to address disproportionality (Lindsay et al., 2006; p.5).

It is especially important for TAs to understand the needs of individual learners they support but, given the plethora of learning needs, this is not always possible. Of particular concern is the growing tendency for TAs to take responsibility for teaching those learners who are most in need of teacher support. Research found that TAs have a 'direct pedagogical role' (Blatchford et al., 2010b; p.4) in interacting with learners - principally those with SEN(D) - who become increasingly separated from the curriculum and interaction with the teacher the more they are supported by TAs. It is possible that the variation in foci on learning between those who are directly involved in formal education may also make a significant difference to learners' achievements, shaping and influencing the ways in which TAs work with learners. Specifically, this means schools - who take their signal from Government - teachers, TAs and learners.

2.1.4 Learning Framework

2.1.4.1 National Curriculum

Schools, teachers and TAs are all working within the framework of the National Curriculum (NC) where learning is defined, measured and assessed in terms of attainment. The NC sets out targets and grades so that learning is achieved in steps related to age norms, rather like Piaget's stages of cognitive development (Piaget 1964; Gauvin & Cole, 1997). Until recently, a system of 'levels' was used to report individual learners' attainment and progress across Key Stages 1 and 2 (Primary - 5-7 years) and Key Stage 3 (Secondary - 11-14 years). The Government's view of learning reflects what Bruner (1977) describes as a shifting away 'from an emphasis upon the production of general understanding to an emphasis on the acquisition of specific skills'

(Bruner, 1977; p.5), clearly linking it with the achievement of its benchmark of five GCSEs at grade C, including English and Mathematics. In its published performance tables it states:

National targets require schools to ensure that a specified percentage of pupils make at least expected progress in English and, separately, in Maths between the end of KS2 and the end of KS4. The measure of expected progress is built on the principle that pupils achieving a level 4 in English or in Maths by the end of KS2 should be expected to achieve at least a C grade GCSE in that subject (DfE, 2010; no page number).

The NC has now been reformed by the Coalition Government and the new, statutory NC was implemented as from September, 2014. For Key Stage 4 (14-16 years) English and Maths it will be implemented as from September 2015 (DfE, 2014). As part of the reforms, Michael Gove, then Secretary of State for Education, abolished levels on the grounds that 'the system was complicated,' difficult for parents to understand and encouraged teachers to focus on a pupil's current level, rather than consider more broadly on what the pupil can actually do' (DfE, 2013b; no page number), thereby suggesting that teachers view the achievement of targets as more important than wider learning. The perceived narrowness of this approach to assessing attainment and progress was also deemed to be at odds with the 'new curriculum freedoms' (DfE, 2013b) being given to schools via the new programmes of study. The curriculum content of these is reduced, for example, in English, and marks a return to basics. They indicate what should be taught by the end of each Key Stage, thus offering schools the opportunity to develop a curriculum for their own learners which enables them to fulfil the expectations of the relevant Key Stage. Schools will also be able to:

introduce their own approaches to formative assessment, to support pupil attainment and progression. The assessment framework should be built into the school curriculum, so that schools can check what pupils have learned and whether they are on track to meet expectations at the end of the key stage, and so that they can report regularly to parents (DfE, 2013b; no page number).

The NC (2014) sets out an inclusion policy which is relevant to teachers and TAs. It underlines teachers' obligations to provide challenges for those learners whose attainment significantly exceeds the expected standard and to focus even more closely on planning for those learners whose levels of prior attainment are low or whose backgrounds are disadvantaged; it asserts that assessment should be used to set ambitious targets.

Nevertheless, although the NC (2014) explicitly focuses on inclusion, there are significant differences in achievement at GCSE between those learners identified with SEN(D) (11% five A* - Cs) and those who were not (74% five A* - Cs). This suggests that more could be done to narrow the gap in attainment in terms of monitoring progress and evaluating the quality of intervention and learning support in line with the SEN(D) Code of Practice and considering different ways to improve practices if progress is unsatisfactory (Lewis et al, 2010). This report (Lewis et al., 2010) also underlines another measurement - the need for the systematic recording of data to monitor pupil progress using the statutory P Scales introduced in 2008 (still current in July, 2014) and to set targets for improvement. A detailed guide about using the P Scales is available (Standards & Testing Agency, 2013). Like the NC, these are a set of descriptions to support the norm-referenced assessment of learners and a linear system of recording the achievement of SEN(D) learners who are working towards Level 1 of the National Curriculum. Eight is the highest level, indicating a lead into the Level 1 of the NC.

2.1.4.2 Personalised Learning

In an attempt to ensure that all learners are catered for, the Government's inclusion policy is supported by personalised learning and teaching which is defined as:

taking a highly structured and responsive approach to each child's and young person's learning, in order that all are able to progress, achieve and participate. It means strengthening the link between learning and teaching by engaging pupils - and their parents - as partners in learning (2020 Vision Report of the Teaching and Learning in 2020 Review Group, DfES, 2006; p.6).

Although the National Curriculum focuses on age related progress, it supports personalised learning which is centred on individual learners, their knowledge and understanding and their skills and attitudes to learning. Its terms include the rigorous use of data, monitoring of progress and assessment, an understanding the factors which affect learners' progress and the use of high quality teaching for learners of all abilities. It endorses collaborative learning and learners' self assessment. It states that the introduction of challenging, varied but achievable work will encourage success for all learners (2020 Vision Report of the Teaching and Learning in 2020 Review Group, DfES, 2006).

Personalising learning is closely focused on Assessment for Learning practices (AfL) (Black & William, 1998; James et al, 2007). Learners who are given appropriate

feedback, understand their progress and are able, with the teacher and TA, to decide on a course of action to further extend their learning. Active learning is seen as being enhanced by teaching approaches which include making learning objectives explicit, open-ended questioning, focused marking with targets and the provision of time for learners to reflect on and review their individual progress (2020 Vision Report of the Teaching and Learning in 2020 Review Group, DfES, 2006).

2.2 Critiques of Teaching Assistants' Support for Learning

This section reviews the literature concerning the role of the TA within the classroom and the school. It discusses those factors which are related to their role. These include the opportunities for joint planning, training, career development and progression and the importance of positive, professional relationships with teachers and learners. The section also considers the literature which critiques the deployment of TAs and their contribution to learning. Lastly, different models of TA deployment are reviewed and four dominant models based on findings from Blatchford et al's research (2009a) are presented and discussed.

2.2.1 The Deployment of Teaching Assistants

There have been numerous studies into the deployment and impact of support staff (Higgins et al, 2011; Blatchford et al, 2009a; Mujis, 2003), some with findings that suggest little or no impact, others with positive or mixed findings. In these quantitative or mixed methods studies, learning is seen in terms of attainment and the methodologies chosen suggest that this can be measured, presumably in terms of targeted levels or grades. In response to the introduction of The Pupil Premium (Higgins et al., 2011) which continues to provide extra funding to support 'disadvantaged' learners to catch up with their peers, Higgins et al (2011) conducted a review to sum up some of the research on improving learning (attainment). Its purpose was to support schools in making a more informed choice about how best to support those pupils eligible for the extra funding. However, for TA deployment, the review highlighted the implication that:

If TAs are used with the intention of improving the learning of pupils, they should not undertake the tasks they are routinely assigned (Higgins et al. 2011; p.28).

This lends weight to the argument that TAs could be deployed more effectively if training and support were made available to enhance their proficiency. The review also found that TAs routinely undertake tasks such as hearing learners read and sorting out equipment (Higgins et al., 2011). Other research also found that TAs were involved in routine duties such as putting up displays and doing photocopying (Durant & Kramer, 2005). Importantly, what these findings suggest is that TAs are sometimes deployed to assist the teacher rather than to support learners. Whilst this may indirectly support learning by reducing teachers' workload, learners are more likely to benefit from working with a TA deployed to provide focused support as directed by the teacher. Nevertheless, it is undeniable that teachers find the support with routine tasks useful and it is unsurprising, therefore, that findings by NFER's Teacher Voice Omnibus Survey on the use of the Pupil Premium (National Foundation for Educational Research, NFER, 2012) show that both primary and secondary teachers place the provision of additional TAs in the top three or four priorities at the school for extra spending at the school in 2011/12.

In the large study by Blatchford et al (2009a), which focused on the deployment and impact of support staff in schools, the researchers made explicit links between TAs' contribution to attainment and learning and the ways in which they were deployed in classrooms. The researchers recognised that TAs were directly involved in teaching in the classroom and that they generally worked with lower achieving and SEN(D) learners especially in English and Mathematics. SEN(D) learners are defined as those with specific difficulties, for example, autism, dyslexia or disability. Some participants stated that without the extra input from support staff, it would be difficult for schools to ensure that these learners were fully included in the learning process. Nevertheless, the effect of the learner(s) working solely with a TA was separation from the teacher's expertise, the curriculum and peers, both in terms of interaction and in accessing the full range of the curriculum. The study found that:

pupils with more classroom support have less interaction with the teacher and at secondary level there is less individual interaction between teachers and pupils and less active contributions from pupils to teachers.....in some cases, teachers deliberately spent less time with these pupils, handing over moment by moment responsibility to the TAs (Blatchford et al., 2009a; p.135).

Several points emerge from this. The 'deliberate' action of some teachers to delegate responsibility for lower attaining learners to TAs may be as a direct result of schools' focus on attainment targets and progress as laid down in the National Curriculum. By

delegating the TA to support lower attaining learners, the teacher can focus more closely on those likely to attain higher targets. Lower attaining learners, who need more interaction with the expert teacher because of their learning difficulties, actually get less teacher time as a result of this practice. It can also cause difficulties for learners re-integrating back into lessons (Blatchford et al., 2009a). Regarding the impact of support staff on learners' attainment, Blatchford et al (2009a) found that the relationship between providing extra support and academic progress (attainment) was negative for Wave 1 (2006) for Years 1, 3 and 7 (English and Mathematics) and Year 10 (English) and for Wave 2 (2007) for Years 2, 6 and 9 (English, Mathematics and Science). This study found that:

The inclusion of prior attainment in both Wave 1 and 2 means that in practice we can conclude that the negative effect was on progress over the school year as well as end of year attainment (Blatchford et al., 2009a; p.129).

Wave 2 was a repeat of a smaller previous study (Wave 1) where the negative impact on academic progress (attainment) first emerged. Findings from Waves 1-3 together are presented in the research report - Deployment and Impact of Support Staff in Schools (Results from Strand 2, Wave 2) - (Blatchford et al, 2009a; p.2). As Blatchford et al (2009a) noted, even after taking into account other possible variables such as School Action Plus and Statemented learners:

the negative relationship between support and academic progress was therefore replicated across two different studies (Waves 1 and 2) and seven year groups altogether (Blatchford et al., 2009a; p.129).

In the final comments to the International Conference on Interpersonal Relationships in Education, Blatchford et al (2010b) argue for an inclusive approach to the provision of effective teaching and learning support, asserting that:

models of teacher and school effectiveness need to be modified to include support staff and models of effectiveness when applied to teachers will also need to be applied to TAs (Blatchford et al., 2010b; p.4).

They concluded that 'we need imaginative and informed ways of positioning the pedagogical role of TAs relative to teachers' (Blatchford et al., 2010b; p.4). However, the conclusion as it stands isolates the TA from the teacher and does not acknowledge the interactive relationship between them or the importance of the pedagogical role of the teacher being positioned relative to the TA. More recently, in

the light of the DISS project's findings (Blatchford et al, 2009a), that the 'current and widespread model of TA deployment in mainstream UK schools has unintended negative effects on supported pupils' academic progress' (Webster et al, 2011; p.17), the WPR (wider pedagogical role) model of preparedness, deployment and practice was developed by Webster et al (2011) as a way of uncovering the implications of TA support. The findings were used to recommend ways of improving TAs' 'impact on pupil outcomes' (Webster et al., 2011; p.17). They called into question whether TAs should retain a pedagogical role, arguing that if they do 'it should be more tightly defined and supported by better training and monitoring' (Webster et al., 2011; p.17).

Other studies highlight teachers' concerns regarding the tendency 'of some TAs to remove the challenge of a task from some children by 'doing too much for them'' (Moran & Abbott, 2002; p.169), probably with the best of intentions. In this study, interview data from the Stage 4 groups of learners also show that TAs are too quick to offer support. Research by Giangreco & Broer (2005) concerning the use of 'para-professionals' to support learners with disabilities in general education classes also found that less than 15% were concerned that they may have a negative impact on the teacher or on learner interaction, made clear from their responses to two statements (Giangreco & Broer, 2005; p.16):

- I am concerned that my close proximity to students with disabilities may be unnecessary or may be interfering with teacher or peer interactions - **85.42% disagree or strongly disagree.**
- I worry that students with disabilities I work with are unnecessarily dependent on me or other paraprofessionals - **63.19% disagree or strongly disagree**

Furthermore, in their literature review on 'How TAs are perceived for the social and academic support they give in secondary schools, a systematic literature review on the perceptions of ways in which teaching assistants work to support pupils' social and academic engagement in secondary classrooms [1998-2005]', Cajkler et al (2007) found that whilst TAs were perceived mostly in a positive light, negative perceptions were found in several of the studies reviewed. Learners' comments included the tendency of TAs to be over-protective whilst some older learners found their support unhelpful and intrusive. The review also expressed concern over learners who found the over-support of TAs an unsettling school experience; the review suggested that this might be damaging and pointed out that they 'could find no UK studies on this issue' (Cajkler et al., 2007; p.45), a situation which appears unchanged.

Much earlier research by Mujis (2003) found that pupils supported by TAs did not make any more progress in mathematics than those who were not. This suggested that improving attainment (which Mujis terms as achievement) against a range of measures including standardised mathematics test scores does not automatically go hand in hand with the provision of extra support. The study identified useful approaches such as collaborative group work, learning from peers and 'individualised, computerised learning systems' (Muijs, 2003; p.229). However, it concluded that:

This study does not provide much support for the use of classroom support assistants as a way of improving the achievement of low achieving students or as a means of increasing child-adult contact without employing more teachers, and it would seem ill-advised to seek to solve teacher shortages by replacing them with an army of learning assistants, unless entry qualifications, training and rewards for the latter are substantially improved (Muijs, 2003; p.229).

Howes et al (2003) conducted a large scale review which aimed to identify and evaluate the empirical evidence as to whether TAs could make an impact on learners' participation and learning in schools. They found in Cluster B schools they made 'no consistent or clear overall effect on class attainment scores' (Howes et al., 2003; p.7), although they could be effective at mediation between groups (Cluster A and C schools). They also found that in Clusters A and D schools, TAs who worked against inclusion had a negative impact by working in isolation with the learner(s) or by their continuous close proximity to them. The review also highlighted the more positive but contradictory evidence emerging from the qualitative studies which underlined the 'significant' contribution made by TAs to learners' attainment. Overall, the findings from this study were mixed and, therefore, inconclusive.

In contrast to this mixed picture, a report from the Training and Development Agency for Schools (Brown & Harris, 2010) suggested that 'the results showed a statistically significant relationship between increases in expenditure on TAs and improved student attainment' (Brown & Harris, 2010; p.2) and that in those schools which had fewer TAs, learners were less likely to achieve well. However, the report acknowledged that improved learners' attainment was not brought about just by the numbers of TAs but by the quality and type of support they provided. This finding has implications for training. As the researchers point out, 'an important factor in the effectiveness of teacher assistants is the level of skill and experience they can offer pupils and teachers' (Brown & Harris, 2010; p.10). Interestingly, the report suggested that one potential reason for

this was that the TA can provide learning support where required, leaving the teacher to teach the rest of the class without interruption:

It is possible that TAs may have the largest effects on the attainment of the pupils they **do not directly support** by allowing the teacher to have more undisturbed interaction with the whole class (Brown & Harris, 2010; p.11).

Ofsted (2008) highlighted the positive impact made by TAs on achievement using terms which are identifiable with progress and attainment in that they are explicitly measured against improvement in KS3 and KS4 results. A key finding was that 'the wider workforce was having a greater impact on pupils' achievement and well-being than identified in previous surveys' (Ofsted, 2008; p.5). It suggested that this was because schools were focusing more closely on learning needs and using the school development plan to make decisions regarding the deployment of their staff. It also made clear that TAs supporting teaching and learning had greatest impact when they were clear what their role was and what to do to progress learning. The report also underlined the importance of good communication between teachers and TAs.

Research by the NFER (Wilson et al., 2007) used both quantitative and qualitative data to investigate the deployment and impact of HLTAs. Their results showed that 72% of HLTAs who responded to an open-ended question asking them to point to a positive contribution they had made to 'pupil performance' (Wilson et al., p.30) were able to identify one example, either through intervention strategies or small group work. Case studies from the research suggested that HLTAs made a significant contribution, particularly when they had good subject knowledge.

A discernible trend emerging from the research studies reviewed here is that quantitative studies produce consistently more negative results than qualitative studies; that is, where the impact on learning is conceptualized as attainment and measured statistically. Where learning is considered in relation to the experiences of those who work with them, they are seen to provide a significant source of support for learning by managing behaviour, motivating learners and developing social skills (National Teacher Research Panel, Thornton & Hedges, 2006; Blatchford et al., 2009a). However, the support of TAs may be more beneficial to teachers rather than learners in that it frees teachers to focus on the remainder of the class without distraction, particularly if potentially disruptive learners work with the TA out of the classroom. Learners with specific behavioural issues sometimes work out of the classroom supported by a TA under the direction of the teacher. This containment of potentially disruptive learners by

TAs frees teachers to support the learning of the remainder of the class without distraction (National Teacher Research Panel, Thornton & Hedges, 2006).

2.3 Models of Deployment

The limited amount of attention being given to how classroom practice was affected by increased numbers of TAs was highlighted by Vincett, Cremin & Thomas (2005). In view of the financial costs involved in providing this resource, they questioned whether the substantial increase in extra TAs produced added advantages for learners; they also questioned 'the impact, positive and negative on teachers' practices' (Vincett, Cremin & Thomas, 2005; p.21). The researchers noted the 'broad brush' approach taken in large-scale projects, suggesting that 'future research could usefully explore a more detailed picture of how TAs are deployed' (Vincett, Cremin & Thomas, 2005; p.21) for example, by exploring how TAs support learners with different learning needs and the different ways TAs and teachers relate to learners, particularly in the use of questioning and in providing support. They asserted that the detailed picture 'would complement the(se) large-scale studies' (Vincett, Cremin & Thomas, 2005; p.21) and provide further insights into the deployment of TAs.

To facilitate a close focus, the researchers conducted a detailed case study, collecting data through structured observation, interviews and documentary evidence to investigate the ways in which TAs and teachers could work together to support pupils' learning. They researched the literature for ideas that might be useful in facilitating and enhancing teamwork. Three different models of deployment, organised in six classrooms, were set up and evaluated; Room Management - where, during a set period of time - the activity period - the learning manager (teacher) focuses intensively on the work of individual learners whilst the activity manager (TA) supports the remaining learners in the class; Zoning - where classroom organisation is based on 'adults taking responsibility for different geographical areas or *zones* of the classroom' (Vincett, Cremin & Thomas, 2005; p.47); and Reflective Teamwork - where TAs and teachers meet and plan in advance how they will work together 'in full collaboration as equal partners' (Vincett, Cremin & Thomas, 2005; p.50). Two of these models had been used before but not in mainstream schools. Reflective Teamwork was new, developed specifically for the study from research 'into reflective teamwork and principles of humanistic psychology' (Vincett, Cremin & Thomas, 2005; p.41).

The findings showed that although all three deployment models produced significant improvements, Reflective Teamwork appeared to make the least difference. The researchers suggest that this was possibly due to there being 'no children with very low baseline engagement figures in these classrooms as there were in the other four' (Vincett, Cremin & Thomas, 2005; p.73), which means there was less scope for improvement. However, Reflective Teamwork did seem to 'equalise the power relationships between teachers and the TAs' (Vincett, Cremin & Thomas, 2005; p.73) thereby supporting collaborative practice. The researchers suggest there is a case for taking the most effective from all three models and using them as a basis for training teachers and TAs, particularly in 'the notions of visiting, roaming, enforcing and hover support' (Cremin, Thomas & Vincett., 2005; p.427) - that is, circulating and visiting learners to set targets and to check they are being met (teacher and TAs), enforcing structure and discipline (teacher) and differentiating the amount of support given (teacher and TAs).

However, using current practice and research findings, models of TA deployment can be constructed differently. For example, if TAs are deployed within the classroom, they mainly support low ability or SEN(D) learners, often on a one-to-one basis but sometimes with small groups (Blatchford et al., 2009a). They also found that, in secondary schools, 20% of TAs sat with the learner(s) and listened to the teacher teach and were engaged in clarifying and 'providing additional explanation and reinforcement' (Blatchford et al, 2009a; p.63) for them. Blatchford et al (2009a) found that the 'instances of secondary TAs working with 'pupils away from the classroom and the teacher comprised a third of all observations' (Blatchford et al., 2009a; p.64). There was also a relatively high proportion of TAs leading an intervention strategy where learners were withdrawn from 'non-core subjects to work on literacy and numeracy skills (such a scenario constituted a different task)' (Blatchford et al., 2009a; p.66). The introduction of the HLTA role (DfES, 2002) opened the door for support staff to take on 'specified work' which included 'delivering lessons to pupils' (Woodward & Peart, 2005; p.12). This 'specified work' could also include team teaching with the teacher (Wilson et al, 2007).

Although Blatchford et al (2009a) make no reference to models of deployment, the research findings describe how TAs are deployed. From this and aspects of other research (Vincett, Cremin & Thomas, 2005) it is possible to discern three dominant

models for the purposes of this study which is interested in these patterns of TA deployment. These are:

- Model 1: in class support - the typical model of the three-pronged, hierarchical relationship between the teacher, who delivers the lesson, the TA and learners
- Model 2: a TA supporting a small group of learners away from the classroom but under the teacher's direction
- Model 3: a TA independently running a lesson for learner(s).

2.3.1 Model 1 In-Class Support

This is the most typical model where the TA is deployed in the classroom with the teacher to support learner(s). It is likely that the history of extra helpers working in the classroom (Mitchell, 2009) and the move towards the integration of learners with special needs into mainstream education (Thomas, 1992) forms the basis for this. Nevertheless, it is reinforced by the use of role titles such as 'classroom-based support staff' (DfE - Schools, 2012) and by research such as that undertaken by Blatchford et al., (2009a) which shows that in two thirds of the lessons observed, TAs were providing mainly one-to-one learning support in the classroom. This model is shown diagrammatically as:

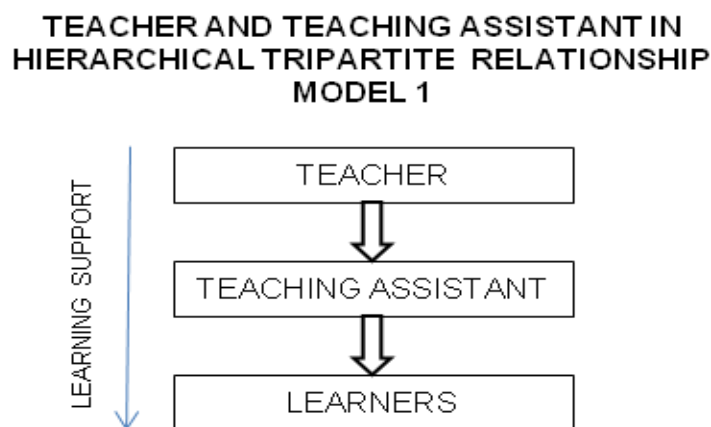


Figure 2 Model 1 - typical model

This model can facilitate learning if the TA has a clearly defined role and enters into reflective teamwork with the teacher (Vincett, Cremin & Thomas, 2005). The TA's reflective practice would be consolidated by working with an 'explicitly reflective' teacher who could promote the TA's ability for reflection ensuring 'that the reflective

activity of both teaching assistant and teacher is enhanced through rich, professional dialogue' (Collins & Simco, 2004; p.8). Devecchi & Rouse (2010) emphasise the importance of collaboration between the teacher and TA. They take the view that it is a key element in the planning and implementation of 'effective support for children's learning and well-being' (Devecchi & Rouse, 2010; p.91). Collaboration also provides space for reflection 'during and after practice' and builds trust and mutual respect between the teacher and TA (Devecchi & Rouse, 2010; p.97). However, other research indicates that this model can also have negative outcomes by isolating learners from their peers (Balshaw & Farrell, 2006). Furthermore, the more support a learner has from the TA, the less time s/he has from the teacher. As Blatchford et al (2009a) noted, 'during many in-class observations, it was noticeable how little teachers interacted with pupils supported by the TA' (Blatchford et al., 2009a; p.90) and interactions between the TA and learner were more likely to focus on task completion.

2.3.2 Model 2 - TA Independently Teaching a Withdrawal Group

The second model is a modified example of zoning where the TA takes responsibility for delivering the pre-planned lesson to a small group of learners in 'a different geographical area' (Vincett, Cremin & Thomas, 2005; p.47) outside of the classroom. The model is shown diagrammatically as:

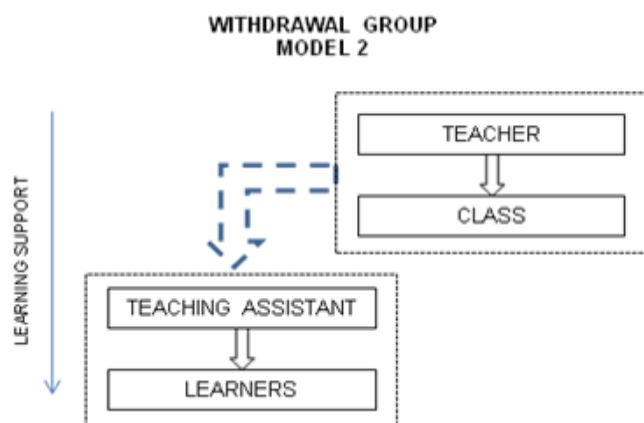


Figure 3 Model 2 - TA independently teaching withdrawal group

Withdrawal groups, where the TA is deployed to support a small group of learners away from the classroom and the teacher, are also routinely used as a way of providing learning support for learners. As Blatchford et al (2009a) note, 'the structured

observations show that primary and secondary school TAs spent a third of their time supporting low ability/SEN pupils in contexts away from the classroom and the teacher' (Blatchford et al., 2009a; p.90). This may have the advantage of allowing withdrawn learners to focus closely on tasks and allow the teacher to give more support to the remainder of the class, but, as already noted, the practice can have a potentially negative effect on separating withdrawn learners from the curriculum, the teacher and their peers and can cause difficulties for learners' 'assimilation back into lessons and connecting with class work' (Blatchford et al., 2009a; p.136). The success of this model relies on prior discussion and planning between the teacher and TA and the TA's independent expertise in scaffolding the work (Wood et al., 1976) and skill in working actively with learners in the Zone of Proximal Development (ZPD) (Vygotsky, 1978).

2.3.3 Model 3 - Independent Teaching by an (HL)TA

The last model is where an (HL)TA is deployed in a dominant, hierarchical position with learners, there being no teacher present. This model is identifiable in Blatchford et al's findings (2009a) which found that low ability/SEN(D) learners were often involved in intervention strategies and that in secondary schools such learners 'were often withdrawn from non-core subjects to work on basic literacy or numeracy skills' (Blatchford et al, 2009a; p.66) or to support subject based work in a specifically designated learning support area. In this scenario, the majority of learners complete different tasks from their peers in the classroom (Blatchford et al, 2009a) and within the intervention group itself. This is model is shown diagrammatically as:

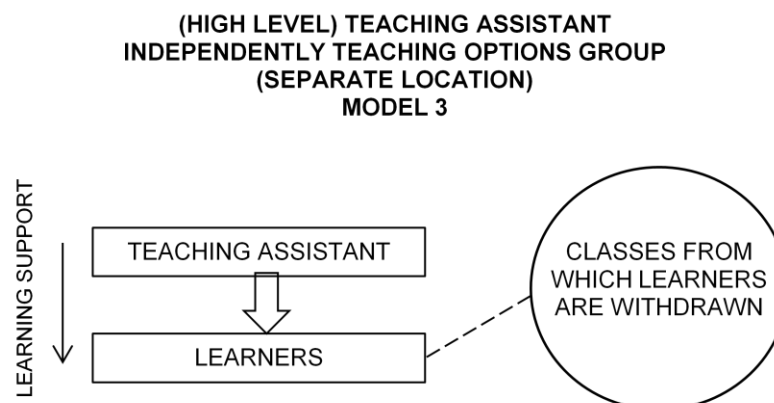


Figure 4 Model 3 - (HL)TA independently teaching options group

Theoretically, this provides learner(s) who struggle with learning the opportunity to either interact with peers or interact on a one-to-one basis with a more knowledgeable

adult (Vygotsky, 1978). Attendance in this intervention group is often at the expense of being withdrawn from non-core subjects (Blatchford et al., 2009a). The independent teaching role of the TA suggests that s/he should be fully trained as an HLTA to undertake this role (Woodward & Peart, 2005).

To summarise, although these are the most dominant models of deployment, it is left to schools, departments and teachers to decide on the location of their deployment, the learners with whom they will work and the ways in which they support learning. In the next section, the theories of learning are discussed.

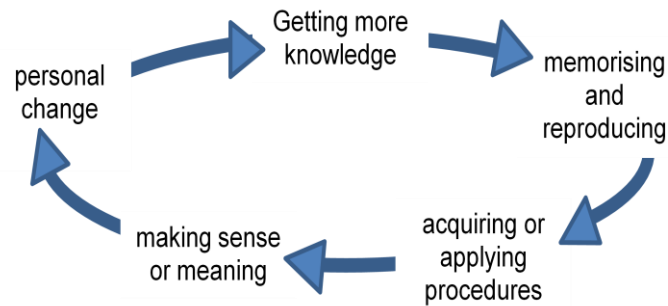
2.4 Theories of Learning

As noted in Chapter One (p.11), James et al (2007) assert there is an assumption that the term 'learning' is defined and understood by everyone in the same way. In fact, learning is difficult to conceptualise and attempts to define it precisely have instead led to the identification of a range of perspectives which can be used as a starting point from which learning can be viewed and explained. The question as to how learning is assessed and supported will depend on the perspective from which learning is viewed. This section will discuss the different perspectives on learning and consider how they will support the learner in 'learning how to learn' (James et al; 2007) and how learning can be assessed.

Past studies have led to the identification of five categories which constitute learning; the list comprises the attainment of more knowledge, being able to remember and reproduce knowledge, the acquisition and application of systems or procedures, making sense or meaning and personal change (Marton et al., 1993; Saljo, 1979). However, Watkins & Mortimore (1999), taking a constructivist stance, warn that the boundaries between knowledge and meaning may be blurred or illusory. They suggest that:

The learning of 'simple factual knowledge' requires learners actively to construct meaning, even when those around them may view such meanings as perfectly obvious (Watkins & Mortimore, 1999 p.10).

In other words, these categories are not separate entities - rather, they suggest a developmental process which results in learning being advanced; as learning is an on-going process, the learner can build on current learning to access new learning. This is illustrated diagrammatically:



(Source - five categories of learning: (Watkins & Mortimore, 1999; Marton et al., 1993; Saljo, 1979) adapted by E. Slater)

Figure 5 Five categories of learning - a developmental process

Using this model, the learner could be supported to acquire and apply new knowledge. Likewise, assessment of the learner could be set against each category of learning; for example, by assessing the learner's acquisition of new knowledge or the ability to remember what has been learnt and so on. However, the value placed on life-long learning in the fast developing world of the twenty first century has led to a growing interest in 'learning how to learn' which is defined by James et al (2007) as:

a process of learning which enables the learner to know how best to go about learning other things, including school subjects but also other valued forms of knowledge, skills, attitudes and capability' (James et al, 2007; p.5).

'Learning how to learn' and how best to proceed with learning also relies very much on how learning is viewed. James et al (2007; p.17) have identified the main perspectives on learning as Behaviourism, Cognitive/Social Constructivism and Socio-Cultural theories. Behaviourism defines learning as new behaviours acquired through conditioning - classical conditioning (Pavlov, 1927) - which has very limited application in the classroom (Mahto & Hawkins (2006) and operant conditioning (Skinner, 1978) which describes a learning process that foregrounds the deliberate actions or 'operants' of individuals as they actively operate in the environment and learn to behave in particular ways. Behaviourist theory can be seen in lessons when teachers and TAs use 'positive or negative reinforcers' (Skinner, 1978) - for example, giving praise or cancelling a detention - to strengthen good behaviour. As such it has only limited relevance to findings in this case study. The influence of behaviourist theory in learning has diminished in recent years but 'many practices associated with it are still widespread' (James et al, 2007; p.17).

Albert Bandura (1977) highlighted the limitations of behaviourist theory by asserting that direct reinforcement was not the cause of all types of learning:

Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behaviour is learned observationally through modelling: from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action (Bandura, 1977; p.22).

Instead, as seen here, he proposed that learning takes place through observation and modelling rather than direct reinforcement. Bandura's social cognitive theory came out of his earlier social learning theory. He provides a link between behaviourist and cognitive theory by proposing that learning takes place through a system of 'triadic reciprocal causality' - an interaction between personal, social/environmental and behavioural factors which influence and are influenced by each other (Bandura, 1989; p.2). Thus, learning for individuals is shaped by the continuous interplay of those factors at work within the classroom environment. In social cognitive theory, learning is self-regulated and knowledge is actively constructed through observation and social interaction. The teacher's role is that of model and facilitator. S/he also plays a key role in promoting the learner's self-efficacy (Bandura, 1991, 1986) - that is, a confident belief in their own abilities - by providing challenging but achievable tasks. Peers also provide models and the learner is involved in active co-construction of knowledge, active thinking and participation (Woolfolk, 2013). This echoes the theoretical and practical philosophies propounded by Malaguzzi, founder of the Reggio Emilia system, the aspects of which he described as 'interactive and constructivist' (Malaguzzi, 1998; p.66). He asserted that teachers and parents were key elements in the education of children and prioritised collaborative learning between small groups which he believed would 'facilitate fruitful conflicts, investigations and activities connected with what each child has previously said and self-regulatory accommodations' (Malaguzzi, 1998; p.69).

Bandura's theory of modelling postulates that observational learning is underpinned by four processes which are essential if learning is to take place. These are: attention, retention, reproduction and motivation-reinforcement. Taking each of these in turn, Bandura explains that little or no learning will take place if attention is not paid both to the model and its inherent characteristics. Secondly, observation alone is of little use without being able to remember what has been modelled. Retention is a two-pronged

process which involves memorising a symbolic pattern of what has been observed and retaining the knowledge. Thirdly, after attentive observation and effective retention and dependent on physical capabilities, reproduction of what has been modelled can be attempted. Lastly, the learner has to be motivated to reproduce the action or behaviour and this is more likely to occur if positive incentives are provided. Negative reinforcement is likely to have a detrimental effect, not only on performance but also on the learner's attention span or their ability to create the necessary symbolic patterns (Bandura, 1977).

Zimmerman & Schunk (2003) assert that that observational learning is a useful tool for teachers who are interested in developing teaching through demonstration. They point out that abstract modelling has particular pedagogical importance and that Bandura's research showed that abstraction would only take place if learners were given a variety of demonstrations, tasks and settings - for example, 'different types of Piagetian conservation problems' - (Zimmerman & Schunk, 2003; p.21) from which they could extract a conceptual rule. Conceptual learning was significantly improved when demonstrations were accompanied by teachers' explanations.

2.4.1 Approaches to Constructivism

Constructivist theories offer major perspectives on learning and how knowledge is constructed. Cognitive constructivists hold the Piagetian view that knowledge is constructed by transforming or re-organising existing knowledge; learning always involves this process. Therefore for cognitive constructivists, teaching is less important than exploration and discovery (Woolfolk, 2013; p.362). This suggests that teaching should begin by facilitating an exploration of existing knowledge in order for learners to be able to transform and reconceptualise what is already known. Social constructivist or Vygotskyian approaches build on constructivism by emphasising the importance of social interaction and experiences for learning either with a more knowledgeable adult or an expert peer, 'mediated by language and promoted by social norms that value the search for understanding' (James et al, 2007; p.18). This approach led Wood et al (1976) to develop the concept of 'scaffolding' where teachers assess and support learning at the learner's level of competence, gradually withdrawing support and finally transferring the responsibility for learning to the learner (Wood et al; 1976).

For Vygotsky, to assess learning fully involves a twofold process; firstly learning is assessed at the learner's current performance and then, at the second level - the ZPD. As Lunt asserts:

'such assessment by definition involves a dynamic interaction and focuses on the child's processes for learning or ability to interact with a more competent adult' (Lunt, ed. Daniels 1993; p.160).

The Assessment for Learning Strategy is Government policy (DCSF, 2008-00341) and has been developed within a constructivist framework for understanding learning (James et al, 2007; p.18). A major review of research on classroom assessment and its impact, commissioned by the Assessment Reform Group and conducted by Black & William (1998), identified five key criteria which would improve learning through assessment; giving effective feedback to learners, actively involving them in their own learning, adjusting teaching in the light of assessment results, understanding how assessment affects learners' motivation and self-esteem which then affects their learning and recognising the need for learners' self assessment and understanding how to improve (Assessment for Learning - Beyond the Black Box 1999; pp.4-5).

Cognitive and social constructivist theories have had a major influence on learning and its development in schools. Many are embedded in the ways in which teaching and learning take place in classrooms and with individual learners. The next section provides a review of those from which approaches to learning are drawn.

2.4.2 Cognitive Constructivism

Piaget, a Swiss psychologist, was the first to study and develop a theory of cognitive development in children (Woolfolk, 2013). His work provides a theoretical basis for other research into children's cognitive processes and his developmental stages are central to the way in which learning is measured formally in the NC. Piaget proposed that knowledge is constructed from within our own thoughts and experience; thus his work is often presented as placing emphasis on the individual's active construction of meaning and knowledge. However, Cole & Wertsch (1996) argue that Piaget did not prioritise individual action but recognised the importance of social interaction in the construction of knowledge in his statement:

There is no longer any need to choose between the primacy of the social or that of the intellect. Collective intellect is the social equilibrium resulting from the interplay of operations that enter into all cooperation (Piaget, 1971; p.114).

DeVries (1997) also opposes the view that Piaget gives 'primacy to individual cognitive processes' (DeVries, 1997; p.4) arguing that this misconception may have arisen because Piaget's later work primarily focused on the logical reasoning of individual children rather than on any social factors (DeVries 1997). DeVries (1997) asserts that Piaget always mentions social factors when discussing the development of the child. Examples can be found in Piaget's earlier work, where he states 'there are social elements in logical knowledge' (Piaget, 1995; p.196) and in the conclusion to Chapter 5 (1995) where he discusses genetic logic and sociology:

In conclusion, we believe that social life is a necessary condition for the development of logic. Thus we believe that social life transforms the very nature of the individual (Piaget, 1995; p.210).

Piaget (1964, Gauvain & Cole, 1997) explicitly distinguishes between development and learning. Development is 'a spontaneous process, tied to the whole process of embryogenesis' (Piaget, 1964, Gauvain & Cole, 1997; p.20). Embryogenesis is defined as 'the development of the body but is also concerned with the development of the nervous system and the development of mental functions' (Piaget, 1964, Gauvain & Cole, 1997; p.20) which ends only in adulthood. For Piaget, knowledge development is an on-going, biological and psychological process involving the total of all knowledge structures. His notion of development contrasts with his concept of learning which, he suggests, does not occur spontaneously but, rather, is 'provoked' by an external stimulus or situation. He also describes learning as 'a limited process - limited to a single problem or to a single structure' (Piaget, 1964, Gauvain & Cole, 1997; p.20). Piaget's view is that 'development explains learning' rather than development being achieved through the cumulative acquisition of learned items. He states that:

Development is the essential process and each element of learning occurs as a function of total development, rather than being an element which explains development (Piaget, 1964, Gauvain & Cole, 1997; p.20).

Fundamental to Piaget's theory of knowledge development is 'an operation,' defined as a 'thinking action' - that is, an action which the subject is able to structure, modify or change internally; it is reversible in each direction through the process of addition, subtraction, linking or separating. Piaget explains that an operation or 'interiorised

action' never takes place in isolation but is always a smaller part of a larger, logical structure. He illustrates the point:

An operation would consist of joining objects in a class to construct a classification. Or an operation would consist of ordering or putting things in a series. Or an operation would consist of counting or measuring. In other words, it is set of actions modifying the object and enabling the knower to get at the structures of the transformation (Piaget, 1964, Gauvain & Cole, 1997; p.20).

These operational structures are important in understanding what constitutes knowledge development. Underpinning them are four stages of cognitive development for which Piaget has set approximate ages. Piaget asserts that 'the ordering of these stages is constant and has been found in all the societies studied' (Piaget, 1964, Gauvain & Cole, 1997; p.21), although the average chronological ages these stages occur varies between societies. This implies that cultural factors such as ways in which societies raise children, organise their educational systems and teaching methods are influential in and affect knowledge development. These are:

- *Sensorimotor - pre-verbal (0-18/24 months)*: practical knowledge is laid down for developing more permanent knowledge. The child begins to construct a schema - a mental representation - for a permanent object. This action and will later develop and be combined into finding an object when the child realises it is lost.
- *Preoperational - (the onset of language development until approximately 7 years)*. During this stage the child has an egocentric view of the world and is unable to take on other perspectives. Hence the child engages in collective monologues where each child talks but without interacting with others. Egocentric speech 'declines with age' (Woolfolk, 2013; p.59). This stage is also characterised by the development of symbolic function to represent objects and not only on material objects themselves. The child is able to construct an image and think through a process in one direction, but cannot yet mentally reverse it.
- *Concrete operational - (7-11 years)* - the first operations or 'thinking actions' appear and the child can now complete and sequentially reverse them. The child develops the ability to think logically, to reverse processes, to understand numerical and simple scientific concepts, classification, ordering and the tenses of past, present and future.
- *Formal operational* - the child can now reason deductively and hypothetically (Piaget, 1964, Gauvain & Cole, 1997).

Piaget's stages have been criticised for taking no account of cultural influences. Piaget (1964, Gauvain & Cole, 1997) found that children in Martinique reached the concrete

operational stage approximately four years later than those in Switzerland but Ginsburg & Oppen, (1988) suggest this is more likely to be because of cultural differences than the earlier maturity of Swiss children (Ginsburg & Oppen, 1988). The four year difference between Swiss and Martinique children in attaining the concrete-operational stage might be explained by studying the timing and the ways individuals are inculcated into societal and cultural factors and the point at which speech and social interaction develop. This factor, and their constant ordering of the stages, raises the question as to how movement is achieved from one stage to another. Piaget (1964, Gauvain & Cole, 1997) suggests that it is a natural development based on understanding achieved from the earlier stage. In other words, as argued earlier, development must precede learning. This is particularly apposite to the work of TAs tasked with supporting learning in the classroom. If one accepts Piaget's theory it is difficult to see how TAs, working predominantly with learners who have SEN(D) can develop learning through intervention because Piaget's notion of natural development suggests that little can be done to speed this process up. The observable variance in learners' abilities and the intellectual development learners achieve through working with a more knowledgeable adult or with more capable peers (Vygotsky, 1978) in the classroom provide a convincing argument against the Piagetian theory of developmental stages.

For Piaget, four factors are involved in the developmental stages: *Maturation* - an on-going, embryogenic process involving the healthy development of the central nervous system and reflexes which indirectly affects intellectual development but does not fully explain how it occurs. *Experience* - the experience of objects and physical reality. This is important but does not fully explain everything. Piaget provides an example involving repeated experiments on the 'conservation of a substance' where the child changes the shape of a plasticine ball into a sausage. When asked, the child states that there is the same amount of plasticine even though the shape is changed. The child is then asked if it has the same weight and, later, the same volume. The child first agrees that there is the same amount of plasticine even though the shape has changed. Later he will say that the weight is conserved. Later still, he will state the volume is also conserved. Piaget's question is:

'where can the idea of conservation of substance come from? What is a constant and invariant substance when it doesn't yet have a constant weight or a constant volume? (Piaget, 1964, Gauvain & Cole, 1997; p.22).

The ball can be weighed in order to understand the conservation of weight and the conservation of volume can be understood by immersing the ball in water. Piaget's point is that 'there is no experiment, no experience (which) can show the child that there is the same amount of substance' (Piaget, 1964, Gauvain & Cole, 1997; p.22) because the idea of substance is achieved prior to either weight or volume. It is, 'simply a logical necessity' which for Piaget is 'an example of progress in knowledge, a logical necessity for something to be conserved even though no experience can have led to this notion' (Piaget, 1964, Gauvain & Cole, 1997; p.22). However, 'logical necessity' is not the only way a learner can make intellectual progress. Learning can be achieved through observation and retention of models provided by teachers or peers and by social interaction (Bandura, 1977). A learner, working with a 'more knowledgeable other' (Vygotsky, 1978) can, if ready to do so, work within the ZPD and this may not be at the approximate age set by Piaget for a particular stage of development.

The third factor is *Social transmission* - linguistic or educational - which occurs when an adult is explaining a problem or giving information to a child. As Ginsburg & Oppen (1988) explain, the importance of social transmission in developing cognitive function is recognised by societies as is the value of passing on knowledge, culture and others' experiences to facilitate learning:

Because of social transmission, the child need not completely reinvent everything for himself. The culture provides him with extraordinary cognitive tools – the counting numbers, a language, an alphabet. These tools enable him to do mathematics, to speak, to write - in sum, to participate in higher intellectual activities, particularly those of a literate nature (Ginsburg & Oppen, 1988; p.219).

However, for Piaget (1964; Gauvain & Cole, 1997) social transmission alone is insufficient. In order to assimilate information the child requires the appropriate structures. For this reason 'you cannot teach higher mathematics to a 5 year old. He does not yet have the structures to enable him to understand' (Piaget, 1964, Gauvain & Cole, 1997; p.23). In the classroom, Piaget's theory implies limiting upfront teaching and pitching it at the right level to develop those structures to advance learning. It suggests that the TA could be deployed to support individual learning by re-pitching information, explanations and tasks at a level which facilitates access for those learners who have not achieved a required level.

The last factor is *Equilibration* - the impetus which drives cognitive development. It is an active, self-regulatory process through which the child achieves 'higher levels of

equilibrium throughout development.' As such 'it is the backbone of mental growth' (Ginsburg & Oppen, 1988; p.221). Equilibration is best understood as a continual thinking process wherein the child actively responds to new information by attempting to understand and achieve coherence through assimilating new data into existing schema. Accommodation takes place when this does not work and it becomes necessary to make adjustments, modifications or changes to existing schema to accommodate new data and achieve equilibrium. Non-achievement results in a state of 'disequilibrium' - defined as cognitive development brought about by conflict - and this provides the impetus for re-starting the intellectual process. Social interaction can result in disequilibrium because the equality inherent in peer challenges to each others' viewpoints is useful in developing learners' cognition (Palincsar, 1998). From a Piagetian view, the TA working with a peer group might promote cognitive development by helping learners to rationalise and respond to challenges to their own views. The TA can assume the role of peer, responding to challenges to their viewpoints from other learners and from the teacher.

Piaget has his critics, as has been pointed out here. The four, separate stages of cognitive development with specified age limits for each stage seemed arbitrary to Bruner (1977) and Vygotsky (1978) who regard cognitive development as more of a continuous process. This arbitrariness is reflected in schools where learners are organised in year groups based on age rather than individual cognitive development. Inevitably, some learners are below the assumed development for their age group. Inevitably, the TA is tasked to support these learners. Dawson-Tunik et al (2004) also object to the principle that stages of development should be placed at the heart of development theory, stating that:

At the centre of such a theory, we seek fundamental principles that can explain and predict development phenomena, not simply describe them. Stages are descriptions of phenomena. Even when stage definitions are highly abstract, they must point to observables. That is their value. (Dawson-Tunik et al., 2004; p.261).

However, Lourenco & Machado (1996), argue against these criticisms, asserting that 'in Piagetian theory, age is at best an indicator, not a criterion of developmental stage' (Lourenco & Machado, 1996; p.147). They reject the assumption that, if age norms and data are at variance, Piaget's theory must be wrong. As Piaget himself says:

It is possible to characterise states in a given population in terms of chronology, but this chronology is extremely variable.....I consider the ages only relative to

the populations with which we have worked. (Piaget, cited by Lourenco & Machado, (1996; p.147).

Nevertheless, Driver (1978), argues that Piaget's experiments are 'selected and shaped to reflect the underlying structures being studied' and that data is reported to support his theory (Driver, 1978; p.56). She questions those who replicate Piaget's experiments by closely following his procedures for setting up tasks and using his criteria for analysing the data without considering whether or not particular structures exist:

The question is, 'do the children have a certain cognitive structure?' (for example, hierarchical classification or conservation of number) as opposed to asking the more open-ended question 'what structures of thought do the children use to handle problem situations?' (Driver, 1978; p.56).

Driver (1978) suggests that Piaget makes authoritative claims regarding the universal nature of these structures and expresses concern regarding the potential dangers inherent in the influence of Piaget's structures on the school curriculum arguing that:

A distinction needs to be made between those who see in Piaget's work a quasi-scientific theory which will enable educators to construct more effective instructional systems, and those who see in it a rationale for a more child-centred education (Driver, 1978; p.59).

Driver (1978) argues that the assumption that Piaget's four developmental stages and associated structures are key elements in the development of thinking, may lead to school curricula focusing exclusively on these, resulting in potentially artificial activities being introduced into classrooms to support specific thinking skills. Her argument is particularly relevant in today's climate of target setting which sees learning as the achievement of assessment criteria at graduated Key Stages as codified in the NC and not specifically related to authentic cognitive development regardless of learners' chronological age.

2.4.3 Social Constructivism

Vygotsky's theories of cognitive development have greatly influenced educational practices in our schools. Three concepts are particularly pertinent to the deployment of TAs and the ways in which they support learning. The first is the learner working with a more knowledgeable adult or peer (Vygotsky, 1978) who has greater knowledge and understanding of a specific task. This could be the teacher but the role is often undertaken by the TA who is deployed to provide learning support by acting as a bridge

between the learner's current achievement and the achievement which can be accessed with guidance - 'the zone of proximal development' (Vygotsky, 1978). Vygotsky asserts that social interaction between peers and the undertaking of shared tasks also promotes learning.

Vygotsky is a proponent of sociocultural theory asserting that intellectual development is shaped or constructed through social interaction and shared culture. He conceptualised development 'as the transformation of socially shared activities into internalised processes' (John-Steiner & Mahn, 1996; p.192). This is illustrated by his comments on social interaction and the transformation of practical activity which is a process whereby by the child's initial use of preverbal and pre-intellectual cultural tools, rudimentary thinking and actions give way to a later stage which incorporates the use of cultural signs and codes through speech and specifically word meaning. He explains:

The most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence, occurs when speech and practical activity, two previously independent lines of development, converge (Vygotsky, 1978; p.24).

Vygotsky (1934, 2012) states that his experiments reveal that, as these separate functions occur, the child develops egocentric speech as well as social speech which increases in line with the difficulty of the task. This led him to hypothesise that egocentric speech provides the basis for internal speech while external social speech is rooted in communication with others; thus, the interpersonal process is transformed into an intrapersonal one. He conceives this process 'as a phenomenon of the transition from the social activity of the child to his more individualised activity - a pattern of development common to all the higher psychological functions' (Vygotsky, 1934, 2012; p.133).

For Vygotsky, each function occurs twice. The interpersonal (interpsychological) process occurs through social interaction with another individual, for example, when a child consults an adult for help in solving a problem s/he cannot solve. Where external help is removed or unnecessary, the interpersonal function gives way to the 'intrapersonal' (intrapscychological) process - where the child uses its inner resources to succeed in reaching a solution alone. Vygotsky (1978) stresses that the 'transformation of an interpersonal process into an intrapersonal one is the result of a long series of developmental events' (Vygotsky, 1978; p.57) which may exist or change

over a long period. Nor is completion of the process guaranteed; for some this will be the last stage of their development. Language difficulties are often experienced by SEN(D) learners who may have some developmental delay. The TA, as more knowledgeable adult (Vygotsky, 1978) has a role in developing learners' ability to solve problems and understand concepts independently through speech. The individual's ability to apply to themselves a social activity previously used with others is an important step for Vygotsky who suggests that 'the history of the process of the internalisation of social speech is also the history of the socialisation of children's practical intellect' (Vygotsky, 1978; p.27). In other words, thinking and learning find historical roots in social interaction first before the individual can perform these functions independently.

Vygotsky (1934, 2012) highlights the similarity between the functions of egocentric and inner speech and pinpoints the theoretical differences between himself and Piaget. He asserts that the function of egocentric speech is more than that of accompanying the activity of the child. It also:

serves mental orientation, conscious understanding; it helps in overcoming difficulties; it is speech for oneself, intimately and usefully connected with the child's thinking. Its fate is very different from that described by Piaget. Egocentric speech develops along a rising, not a declining curve; it goes through an evolution, not an involution. In the end it becomes inner speech (Vygotsky, 1934, 2012; p.133).

with the result that those speech structures which the child has mastered become their thought structures, even while being more elliptical and fleeting. Vygotsky postulates that children faced with tasks that present even slight difficulties will respond by using strategies such as asking others, the use of tools, using a combination of words and actions using intrapersonal speech or even addressing the object itself. Vygotsky (1978) believes that it is this blend of speech and action which has a very special purpose in the child's intellectual development and socialisation in a specific environment and culture as illustrated by the assertion that:

the path from object to child and from child to object passes through another person. This complex human structure is the product of a development process deeply rooted in the links between individual and social history (Vygotsky, 1978; p.30).

This emphasises the importance of the learner having someone more capable - another learner or a TA - to support their learning, talk through their ideas and check

their understanding, something that has important implications for the ways TAs are deployed to facilitate learning.

Unlike those psychologists who place emphasis on either internal or external experience to the exclusion of the other, Vygotsky suggests that cultural settings are inextricably and dynamically linked to human activities. The process is crucially underpinned by 'semiotic mediation' which he regards as the key principle in the joint construction of knowledge. Psychological tools - language, mathematical systems, writing, diagrams, maps and schemes and works of art - cultural tools, computers, rulers, calendars and calculators - are very important to the process of cognitive development. Vygotsky believes that higher order thinking, abstract reasoning and problem-solving are 'mediated' - that is, supported or achieved - through the use of these psychological and cultural tools and especially language.

Vygotsky believes that in achieving mastery over nature we achieve mastery over self and this begins with mastering the use of psychological tools - for example, language - to give shape and transformation to our thoughts and internalise knowledge. Vygotsky's concept of mediation is explained by Bruner in the introduction to *Thought and Language* (Vygotsky, 1934, 2012, p.vii):

Man, if you will, is shaped by the tools and instruments that he comes to use.....and, if neither the hand nor intellect alone prevails, the tools and aids that do are the developing streams of internalised language and conceptual thought that sometimes run parallel and sometimes merge, each affecting the other (Bruner, 1962)

It is important, therefore, to recognise that knowledge is not internalised directly but is advanced through the use of psychological and cultural tools. The child who works with an adult or more informed peer to construct knowledge will exchange views, solve problems and select cultural tools to conceptualise or represent their ideas. In this way, they will develop Wittgenstein's metaphorically described 'socially provided tool kit of semiotic means' (John-Steiner & Mahn, 1996; p.193; as discussed by Wertsch, 1991). The internalisation of these means and practices and their availability for independent use are crucial in the development of cognitive functioning; 'physical tools are directed toward the external world; psychological tools are directed internally and are appropriated during activity' (John-Steiner & Mahn, 1996; p.193; Vygotsky, 1978). John-Steiner & Mahn (1996) states that the term 'appropriation' was coined by

Leontiev (1981) to describe how children take up these socially provided tools and make them their own. She said that children:

cannot and need not reinvent the artifacts that have taken millennia to evolve in order to appropriate such objects into their own system of activity. The child has only come to an understanding that is adequate for using the culturally elaborated object in the novel life circumstances he encounters (Griffin and Cole, 1989; p63, cited in John-Steiner & Mahn, 1996; p.193).

John-Steiner & Mahn (1996) assert that psychological tools are not produced in isolation from sociocultural influences. Rather, they emerge as products of a sociocultural evolutionary process to which individuals who participate actively in the practices of their communities have access. Wertsch (1994) demonstrates how important Vygotsky's analysis of mediation is to our understanding of his work in the fields of psychology and education. He explains that Vygotsky's analysis of mediation:

is the key in his approach to understanding how human mental functioning is tied to cultural, institutional and historical settings since these settings shape and provide the cultural tools that are mastered by individuals to form this functioning. In this approach, the mediational means are what might be termed the 'carriers' of sociocultural patterns and knowledge (Wertsch, 1994; p.204).

Vygotsky's psychological approach, then, demonstrates how the development of higher mental functions, defined as the ability to construct knowledge and make meanings, are shaped by social interaction with parents and significant others and through immersion in shared cultural and symbolic norms.

2.4.3.1 Zone of Proximal Development

Learning and development are inextricably linked and children's learning begins before they start school. However, the informal, pre-school learning is very different to the more formal learning that takes place at school. Given the organised nature of school life, it is not surprising that schools attempt to synchronise learning to match the teaching of certain subjects and their specific levels of difficulty. Vygotsky (1978) draws attention to the limiting effect of assessing a child's capability only in terms of their 'actual developmental level' - that is, what they can do independently:

In studies of children's development it is generally assumed that only those things that children can do on their own are indicative of mental abilities (Vygotsky, 1978; p.85).

He argues that the chronological age of the child may or may not be in concordance with his or her mental age because mental age is determined by a child's ability to complete tasks independently which have been standardized against the chronological age. This chronological determination of capability against an average age highlights the influence of Piaget who set approximate ages for stages of development to occur even though he recognized the variation in age related capability between different societies. However, Vygotsky asserts that there is a high variation in capability exhibited in children with an identical mental age when guided by an adult or more capable peer and this led him to the conclusion that mental ages are not identical and, therefore, the patterns of learning for children of different mental ages would vary accordingly.

The difference between the actual mental age and the mental age which a child achieves after interventional guidance by an adult or more capable peer is what Vygotsky (1978) terms as the ZPD and which he defines as:

The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978; p.86).

For Vygotsky, development and learning do not occur simultaneously; rather, learning precedes development. It is this sequence that gives rise to the zones of proximal development where learning sets in motion a range of developmental processes 'that are only able to operate when the child is interacting with people in his environment and in cooperation with his peers' (Vygotsky, 1978; p.90) and which contribute to the child's developing intellectual independence. This has implications for teachers in that they need to ensure that learners are provided with those learning opportunities and are able to support TAs to enable them provide effective interventional guidance for learners. However, Matusov & Hayes (2000) argue that Piaget (1995) might not fully subscribe to the Vygotskyian emphasis on the importance of social interaction and the ZPD to learning on the grounds that if a child is not ready to work with another, more capable adult or peer, it will result in the imposition of the other's views and will not affect the 'structures of the child's actions (ie social constraint)' (Matusov & Hayes, 2000; p219). As Piaget (1995) asserts, in these circumstances 'the "self" remains unconverted' (Piaget, 1995; p.228). For Piaget (1995), the child has to be ready to co-operate and interact with peers and reluctant participation will only result in no

advancement in learning. Nevertheless, Cole (1985) who has expressed his concern at the on-going separation of the sub-fields of psychology, suggests that Vygotsky's ZPD provides a way of reintegrating anthropology and psychology, and describes it as a place 'where culture and cognition create each other' (Cole, 1985; p.146). In other words, they are inextricably bound together and cannot be regarded as separate entities existing in isolation from each other.

Piaget and Vygotsky have been influential in the field of child development. However, there are some fundamental differences in their theories. Piaget's view of development occurs in hierarchical stages, suggesting this happens in isolation at a given time. Vygotsky suggests that social interaction plays an important part in cognitive development. Whilst both emphasise the importance of language, Piaget asserts that thought comes before language whereas Vygotsky believes that language precedes thought. This exploration of their theories on learning and development and social interaction has relevance to this study on the deployment of teaching assistants in secondary schools to support learning. Vygotsky's emphasis on the importance of learners working with a more knowledgeable adult or capable peer to work in the ZPD has particular resonance.

Bruner's (1978) theories are influenced by Piaget and Vygotsky but with important differences. He states that the act of 'learning seems to involve three almost simultaneous processes' (Bruner, 1977; p.48). The first he describes as the *acquisition* of new knowledge which he suggests either replaces or refines existing implicit or explicit knowledge which is already known. It can also significantly change our existing knowledge or understanding. The second is *transformation*, which provides the opportunity to manipulate or extrapolate existing information taking it to a further dimension. The last is *evaluation* through which new learning is checked and tested. Bruner postulates that 'in the learning of any subject matter, there is usually a series of episodes, each episode involving the three processes' (Bruner, 1977; p.49).

Bruner (1987), also a proponent of social constructivist theory, suggests that learners use prior or current knowledge in the active construction of new knowledge; he also underlines the important role language, social interaction and culture play in cognitive development, asserting that other researchers have also demonstrated:

...the importance of collaborative activity in enhancing problem-solving ability. They have observed the role of language and interaction in exploring possible solutions (Bruner & Haste, 1987; p.8).

Bruner & Haste (1987) suggest that a learner's cognitive approach to a problem can be challenged by peers, teachers or parents through the pacing and scaffolding of the process of problem solving. They also highlight the Vygotskyian view that language is 'a symbol system' reflecting 'sociohistorical development' (Bruner & Haste, 1987; p.9). Thus, cultural immersion makes it impossible for 'a child to develop a concept that does not have an expression within her culture of origin, either specifically in language or within other means by which communication is enacted' (Bruner & Haste, 1987; p.9). The four year difference that Piaget found between the Swiss and Martinique children provides support for this view.

The term 'scaffolding' was coined by Wood et al (1976) to describe the process of:

an adult "controlling" those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence (Wood et al., 1976; p.90).

Scaffolding (Wood et al, 1976) is a dynamic process which is characterised by the continual adjustment, tailoring and differentiation of responses to the learner (contingency support); gradual withdrawal of support in line with the deepening of understanding and skills (fading) and the growing assumption of responsibility by the learner for their own learning (transferring responsibility) (van de Pol et al., 2010). This mediating and mediated role can be undertaken by the TA through effective differentiation strategies, knowing when to withdraw support and allowing learners to assume responsibility for their own learning. For the TA to be able to support learning effectively and for successful learning to take place, the appropriate social interactional frameworks should be in place, the instructional framework should be accessible for the child to learn, the adult should be ahead of the child; there should also be set routines which take place in familiar surroundings and contexts and a focus on the development of linguistic skills (Bruner, 1978).

The focus on language, social interaction and the support of a more capable adult or peer in Bruner's concept of 'scaffolding' bears all the hallmarks of Vygotsky's influence. However, He believes, like Piaget, that children are biologically equipped with cognitive structures which will increasingly develop the ability for more complex cognitive

functioning. He also accepts that the child's capacity for abstract thought is developed through adaptation to and interaction with the environment and that active experience and mental operations are prerequisites to gaining competence in knowledge. However, like others, Bruner does not accept Piaget's development stages. Instead, he proposes three modes of representation - enactive, iconic and symbolic (Bruner, 1978; p.11). At first, Bruner attributed ages to each mode but later decided that, unlike Piaget's stages of development, his modes of representation were not age-specific; however, they are invariant and, like Piaget's stages, they are sequential; the child develops in this order. The lack of age specificity for each mode is more useful and accommodates learners who develop more slowly than others at given chronological ages, like those SEN(D) learners whose development can change over time. In the enactive mode, the child learns primarily through sense perception, reflexes and actions and this correlates closely with Piaget's sensorimotor stage. In this mode, the child begins to construct and store knowledge through motor responses, develop schema for actions and develop an understanding of object permanence. Object permanence, where the child has come to understand that an object exists even when it is not in sight, is, for both Bruner and Piaget, a key development in cognitive functioning.

In the iconic mode, the child develops the ability to construct, represent and store knowledge using mental images. This correlates with the last six months of Piaget's sensorimotor stage where the child has now internalised schema. However, although the child has developed the capacity to think in pictures and is able to draw, 'holding images in the mind does not help us solve problems.' (Jarvis & Chandler, 2001; p.152).

Regarding the symbolic mode, Bruner & Kenny's 1966 experiment - which focused on 'the manner in which children between 5 and 7 handle a double classification matrix' (Bruner, 2006; p.71) - provides evidence that an important transition in cognitive functioning takes place in between the ages of 5 and 7, an hypothesis with which both Piaget and Bruner agree. Fundamentally, however, they view it differently. Piaget (1995) attributes the transition to the onset of logical operations whilst Bruner attributes the transition to the development of language (Jarvis & Chandler, 2001). For Bruner, as well as for Piaget and Vygotsky, language and cognitive development go hand in hand. Language provides the child with the tool to engage in 'symbolic thinking' using mathematical, linguistic or musical symbols, 'to categorise things and to start thinking logically' (Jarvis & Chandler, 2001; p.152).

2.4.4 A Theory of Instruction

Bruner (1978) asserts that a theory of instruction is prescriptive in that it sets up rules by which knowledge or a skill is best achieved and provides a benchmark for making critical judgements and evaluation of particular ways of teaching. Because it is 'a normative theory,' criteria and the conditions for meeting them are also set up. These should have 'a high degree of generality (Bruner, 1978; p.40). In mathematics, for example:

they should not specify in an ad hoc fashion the conditions for the efficient learning of third-grade arithmetic; such conditions should be derivable from a more general view of mathematics learning (Bruner, 1978; p.40).

Bruner argues that theories of learning are *descriptive* rather than prescriptive in that they describe what happened after the event - for example, what a learner cannot yet do. Conversely a theory of instruction sets the means whereby the learner may be led towards a specific area of learning. Bruner (1978) explains that a theory of instruction..... 'is concerned with how what one wishes to teach can best be learned, with improving rather than describing learning' (Bruner, 1978; p.40).

Bruner's emphasis on using teaching practices which best support learning signposts for teachers how to plan the deployment of TAs to facilitate learning. Like Piaget, he recognises the difference between learning and development:

A theory of instruction must be concerned with both learning and development and must be congruent with those learning and development theories to which it subscribes (Bruner, 1978; p.40).

He envisages a theory of instruction with four key elements. Firstly, experiences which engender a predisposition to learn should be clearly specified. The second relates to the ways in which knowledge is structured to make it accessible to the learner. He postulates that there is an 'optimal structure' (Bruner, 1978; p.40), a set of propositional steps leading towards the generation of a new and larger field of knowledge. Thirdly, it should make explicit those sequences which best support the learner to access and understand the knowledge or skills to be learned. The sequence in which materials are presented crucially affect a learner's ability to learn. Lastly, it should specify the nature and frequency of rewards and sanctions. This directly affects the TA whose primary role is sometimes that of managing behaviour. As learning progresses, Bruner (1978) suggests that it will signal a point where it is more beneficial to move from extrinsic rewards such as teacher's praise to allow the learner to experience the intrinsic reward

of achieving independent mastery of a difficult or complicated problem. Much of Bruner's theory of instruction has clear links with scaffolding (Wood et al, 1976) which has been discussed earlier in this thesis.

2.4.4.1 The Spiral Curriculum

Bruner's modes of representation underpin his proposition of a spiral curriculum. This, he perceives as a fundamental structure of learning through which the understanding of subjects is attained at an ever-increasing level of complexity or difficulty through the process of regular revisiting. He postulates that any presentation of knowledge can be simplified to render it accessible to any learner. He explains that the knowledge structure may be characterised by the mode of representation into which it falls as well as by 'its economy and its effective power' (Bruner, 1978; p.44). Any knowledge or problem associated with it can be represented by:

a set of actions appropriate for achieving a certain result (enactive representation); by a set of summary images or graphics that stand for a concept without defining it fully (iconic representation); and by a set of symbolic or logical propositions drawn from a symbolic system that is governed by rules or laws for forming and transforming propositions (symbolic representation) (Bruner, 1978; pp.44-45).

Bruner (1977) emphasises the importance of structured curricula where accessible materials are presented sequentially to meet the learning needs of the learner. He also postulates that the mastery of ideas relevant to a knowledge domain should go together with 'the development of an attitude toward learning and inquiry, toward guessing and hunches' (Bruner, 1977; p.20) in order to achieve independent problem solving. He asserts that it takes more than simply presenting facts and ideas in order to awaken these attitudes in the learner but suggests that it would involve considerable research to understand how this might be achieved. Nevertheless, Bruner (1977) believes discovery learning is important:

It would seem that an important ingredient is a sense of excitement about discovery - discovery of regularities of previously unrecognised relations and similarities between ideas, with a resulting sense of self-confidence in one's abilities (Bruner, 1977; p.20).

For Bruner, curricula should offer some sequences and tasks which offer the excitement of independent discovery. The implications are that closed tasks, over-

supported learning or task completion do not provide the space required for those discoveries to occur.

The literature review has outlined the main perspectives on learning and highlights those features of cognitive/social constructivist and socio-cultural theory which are embedded in educational practices and outlined in the five criteria for AfL (James et al, 2007). These perspectives suggest that learning is facilitated through personal, social, environmental and behavioural interactions, demonstration/observation of modelled behaviour and active co-construction of knowledge (Bandura, 1989). It is an interactive process (Malaguzzi, 1998) and is promoted through collaborative work with peers or a more knowledgeable adult (Vygotsky, 1978) who scaffolds the learning to meet learners' developing needs (Wood, 1976) and enables them to discover for themselves (Bruner, 1977).

2.5 The Conceptual Framework - An Ecological Approach

The first point to be drawn from this review of the literature is that the effects of relationships and educational practices on the deployment of TAs do not occur in isolation; they impinge on each other, resulting in complex interactions between all those involved in the educational process. Ultimately, it is this interaction which determines whether the TA's support does or does not extend the opportunities for the learner to learn. The learner is placed at the centre of an ecological framework conceptually similar to that proposed by Bronfenbrenner (1979), from which can be seen those interconnected, influential aspects which determine the quality of learning support provided by the TA for the learner(s). The outer layer of the framework - the Macrosystem - consists of deployment cultures which have emerged as the TA role evolved and from governmental policies relating to TAs. The Exosystem comprises institutions and departments who deploy TAs to fulfil specific roles. Teachers and TAs in the Mesosystem interact primarily with learners in the Microsystem but also institutions and departments in the exosystem. The framework is presented 'as a set of nested structures, each inside the next, like a set of Russian dolls' (Bronfenbrenner, 1979; p.3). These nested factors, which all play their part in shaping the deployment of TAs and, ultimately, in developing learning are illustrated in Figure 7 below:

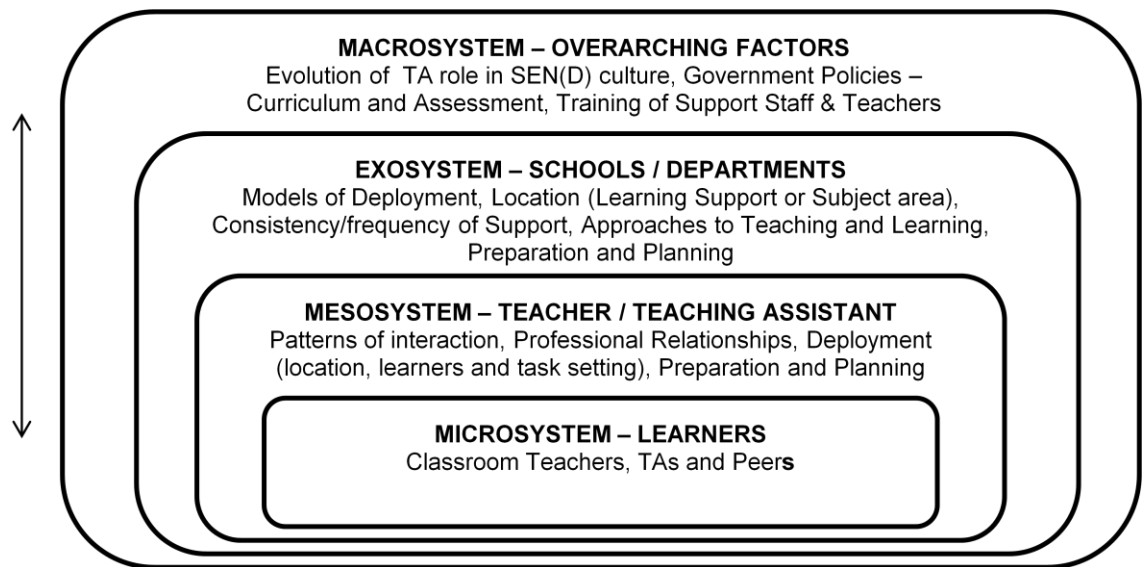


Figure 6 Conceptual framework - factors shaping the deployment of TAs

2.5.1 Macrosystem: Factors relating to Government Policy

The outer layer of the ecological framework - the Macrosystem - comprises the structural, cultural and historical factors which have influenced the development of the TA's role. The integration of SEN(D) learners into mainstream schools in the period 1980 - 1990 (Thomas, 1992) and the support given for this by 'ancillary workers' (Warnock, 1978) underlined their value in terms of their contribution to providing learning support for SEN(D) learners. The Literature Review suggests that this has led to the TA's role being interchangeable with that of the LSA with the result that they are rarely deployed with learners other than those learners with SEN(D).

Governmental policies and agreements also have an influence on the criteria by which TAs are appointed and deployed (DfES, 2003, p.3: para. 14; TDA 2010; pp.3-4). The review of policy literature has highlighted the intention to increase the numbers of TAs in schools. These have paved the way for many more support staff to work in schools but there is little laid down as to the ways in which they are to be deployed by teachers to support learners, except for the directive that the teacher maintains the responsibility for providing and directing learning and, in the case of the HLTA who has a more autonomous role, 'the head teacher is satisfied that the person has the skills, expertise and experience required to carry out specified work' (The Education [Specified Work] [England] Regulations; March 2012; 6.1(c)). Hence, there are no statutory entry qualifications or externally provided training courses. Although voluntary, specialist

training is available, it is usually self-financed. Cuts in funding for HLTA training (Garner, 2010; The Independent, 6th July 2010) have limited TAs' career progression. However, even when provided, training makes little difference to this (Brown & Devecchi, 2013). There appears to be no statutory training either for trainee or in-service teachers in managing the work of TAs (Blatchford et al, 2009b) and the lack of joint planning found by other researchers (Blatchford et al., 2009b; Dixon, 2003; Moran & Abbott, 2002; National Centre for Excellence in the Teaching in Mathematics, 2011; Spencer & Edwards, 2011; Wilson & Bedford, 2008) suggests there is no governmental policy for the provision of joint planning time.

2.5.2 Exosystem: Institutional and Departmental Factors

Institutions and departments are located together in the second layer of the ecological framework - the Exosystem. This is because they are both concerned with the location and deployment of TAs, albeit at different levels. Schools appoint TAs to meet their own requirements and adapt the TA's role accordingly (Brown & Devecchi, 2013). Thus, TAs may be located in subject or learning support departments according to institutional needs. Because SEN(D) learners are 'twice as likely to be eligible for FSM' (Deprivation and Education - the evidence on pupils in England - Foundation Stage to KS4; p.10), schools with higher numbers of SEN(D) learners are more likely to deploy TAs with these learners rather than deploying them to provide more general support (Blatchford et al, 2009a; Webster & Blatchford, 2013).

Schools take responsibility for the TAs' induction and internally provided training. Externally provided training is voluntary and self-financed. There is no requirement to train teachers to manage the work of TAs or for schools to provide joint planning time. More could be done to meet these needs (Blatchford et al, 2009b). The 'distinctive responsibilities' of SEN(D) co-ordinators and subject managers is noted in the National Agreement (DfE, 2003, Point 45; p.10). These responsibilities have implications for the provision of specialist training for TAs who are deployed with SEN(D) learners, subject knowledge training for those deployed in departments and training in approaches to teaching and learning. There are also implications for the frequency and consistency of support and for facilitating voluntary joint planning.

2.5.3 Mesosystem - Teacher and Teaching Assistant Factors

Teachers and TAs are both located in the third layer of the ecological framework - the Mesosystem - where teachers are directly involved in creating effective patterns of interaction between themselves, the TA and learner(s) by developing and maintaining professional relationships and tapping into the experience of TAs, particularly HLTAs, to share effective teaching and learning approaches via prior and post lesson discussions. The teacher creates effective teamwork by fully including the TA in the learning process, achieved by involving the TA in lesson planning and by according the TA more recognition and status in the classroom (DfE, 2012; Schools, DfES, 2000; p.21). The teacher directs the learning and decides on the TA's model of deployment in the lesson - the location, the supported learners and task setting. Ideally, the teacher provides the TA with some professional development (DfE, 2012; Schools) through modelling and explaining teaching approaches.

The successful deployment of TAs is underpinned by an understanding of those elements which constitute their successful deployment. The support they provide is fourfold. It consists of 'support for the pupil, support for the teacher, support for the curriculum and support for the school' (DfES, 2000; p.8). TAs support SEN(D) learners and other learners, they carry out routine tasks for teachers and support the curriculum by working within and across subject areas. They support school policies and contribute to maintaining the school ethos (DfES, 2000). In their role, TAs also influence and shape the patterns of interaction with the teachers with whom they work by their willingness to facilitate teamwork. A negative relationship or a reluctance to work together can have a direct bearing on the ways in which TAs are deployed and may result in a restriction of the TA's role to routine tasks (DfES, 2000; p.21) or affect the ways in which they contribute to learning.

2.5.4 Microsystem - The Supported Learner

As already noted, the developing learner is located at the centre of the ecological layers in the immediate setting or microsystem (Bronfenbrenner, 1979). For the purposes of this case study, the microsystem is defined as the classroom and it is from here that the learner develops and learns through interaction with teachers, TAs and peers. However, the learner's development can also be directly affected by factors from which they are far removed (Bronfenbrenner, 1979), for example, institutional

decisions and governmental policy. The interconnectedness of the ecological layers is both directly and indirectly influential 'and can be as decisive for development as events taking place within a given setting' (Bronfenbrenner, 1979; p.3).

Chapter 3 details the methodological stance taken for conducting the research and discusses the justification for the approach and methods used to collect data. Chapter 4 presents the findings on the models of deployment and TAs with learners whilst Chapter 5 discusses the factors which shape patterns of interaction. Chapter 6 presents the conclusion to this thesis.

CHAPTER 3 METHODOLOGY AND METHODS

Introduction

This chapter presents the methodological approach and methods used in this thesis to investigate the ways in which TAs are deployed in secondary schools and the effects the different models of deployment have on learning. The research takes the form of an exploratory case study which was conducted with three state comprehensive schools and completed in a limited timescale and within defined boundaries. It begins with a discussion of the methodological approaches used and is followed by a section on case study research. This is followed by a presentation of the research design, and a separate section on researcher identity. Next, the methods of data collection are presented. The chapter concludes with a discussion on the limitations of the study and the ethical considerations.

3.1 Data Collection

Data were collected between January and March 2011 from seven classes across the three schools; two classes from Rushleigh - a Year 10 Option Group and a Bottom Set Year 9 English group; three classes from Windihurst - a Year 8 English Access group, a Year 9 Special Needs Humanities group and a Year 10 GCSE History group and two classes from Mistfell - a Year 8 English mixed ability group and a Year 8 Bottom Set Maths group. The lessons were selected in consultation with each school and covered a range of year groups, subject areas and topics as shown in the table below:

SCHOOL	TEACHER	LESSON NUMBER	TAS	LEARNERS	ACTIVITY
Rushleigh		1	Anna (Working alone)	Ellie/Louise	Year 10 Option Group– Support with Ellie/English (work on Macbeth) & Louise/German (work on vocabulary and learning support project)
	Claire	2	Barbara (In-class individual support)	Paul	Year 9 English Bottom Set (work on homelessness magazine/word process own poem)
Windihurst	Edward	1	Donna (Group withdrawal)	Catherine Derek Connor Luke Robert (withdrawn)	Year 8 Access Group English (work on written response to a novel – work on literacy)
	Fiona	2	Gill (In-class support)	Simon/Will	Year 9 Humanities Bottom Set (work on the Mexican oil spill for magazine article)
	Ian	3	Hayley (In-class individual support)	Jane	Year 10 History (work on identifying factors contributing to success of D-Day)
Mistfell	Leah	1	Katy (Group support)	Peter Rachel Stephen Terry	Year 8 English Mixed Ability (work on questioning techniques for conducting interviews)
	Owen	2	Mary (Class support)	Peter Rachel Stephen Terry	Year 8 Maths Bottom Set (work on different types of measurement) The learners interviewed from English were also selected by the school to comment on their experiences in Maths

Table 1 Overview of lesson observations

3.2 Methodological Approach

Social reality can be understood from two different perspectives, positivist and anti-positivist. The first sees reality as objective and is based on the belief that we can know the world and that reality is 'out there' and can be discovered. From this objectivist view, reality is abstract and rule-governed and 'knowledge is hard, objective and tangible' (Cohen et al., 2007; p.7). It requires the researcher to take a positivistic stance, adopting the role of observer and using quantitative methodological approaches to access knowledge and understanding of the world. From an anti-positivist or subjectivist viewpoint, there is no objective reality and meaning does not exist independently. Robson (2011) suggests that subjectivist researchers adopt a

social constructionist, interpretivist stance based on the notion that reality is socially constructed and subjectively interpreted by individuals from their actions and interactions. This methodological approach aims to compare the representations of reality emerging from the data and, as Cohen et al, (2007) note, to analyse the language and meanings individuals bring to their socially constructed world and their lived experiences.

Ontologically, I hold the view that the different subjective realities offered by the participants and my own subjective views of lesson observations are 'meaningful properties...which my research questions are designed to explore' (Mason, 2002; p.65). Epistemologically, I am positioned with the social constructionist view that these meaningful 'social properties are constructed through interactions between people' rather than 'having a separate existence' (Robson, 2011; p.24) and that it is important to keep this interactive perspective in view during the research process.

3.3 Deployment

In this study, TA deployment is considered in terms of the various ways in which they are deployed to support learning by schools and, in particular, by teachers. Unlike previous research or review studies which have tended to use quantitative or mixed methods approaches to measure attainment (Mujis, 2003; Blatchford et al, 2009a; Higgins et al, 2011), this case study is qualitative and interpretative. It aims to focus closely on the interaction between teachers, TAs and learners, to understand their perceptions and to unpick the complexities of the deployment strategies used with a view to making further contribution around the debate. The measurement of attainment is only one way of understanding the learning achieved through TA deployment and it does not show the full picture. Furthermore, the provision of extra adults to work alongside teachers in the classroom does not, in itself, bring about the development of learning; it has more to do with how learning is achieved through the teaching and learning strategies used in the classroom and how TAs are deployed by the teacher to promote learning. Models of TA deployment and the provision of learning support are social constructions and can usefully be deconstructed when qualitative research methods are used to explore how learning is supported and developed.

3.4 Case Study Research

This is a case study of the deployment of teaching assistants in secondary schools to support learning. Methodologically, the case study is specific in that it investigates a small number of cases as a 'single instance of a bounded system' (Cohen et al., 2007; p.253). Case study research provides the opportunity to focus closely on a framed entity - in this case, three schools, a limited number of lessons, teachers, TAs and learners. Each lesson is a case, the models which emerge are not. As Thomas (2011) and Stake (2005) note, the case study provides a single focus but can be investigated from a variety of perspectives by any methods the researcher selects.

The research was conducted as a nested, exploratory case study because the schools and lessons providing the focus for the research were 'units' and 'sub-units' encapsulated and compared within the wider case of the deployment of TAs in secondary schools to support learning. As Thomas (2011) asserts, the nested case study 'gains its integrity, its wholeness, from the wider case' (Thomas, 2011; p.153). This is illustrated below:

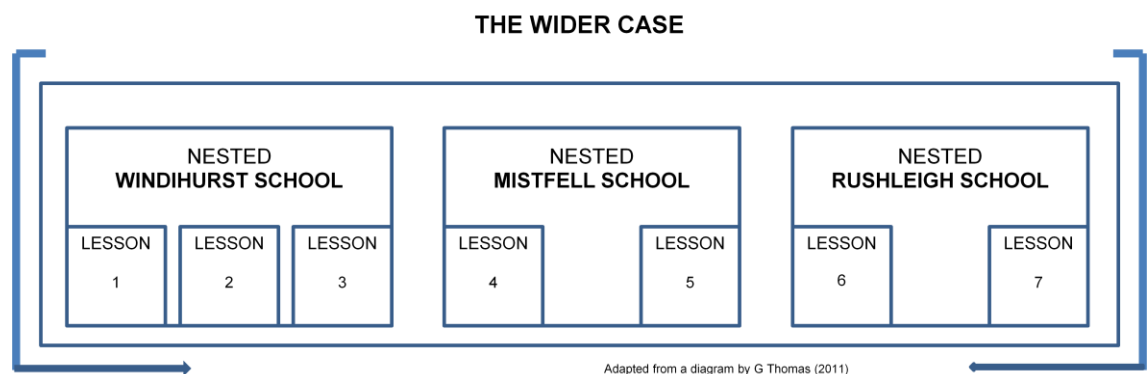


Figure 7 The deployment of teaching assistants to support learning in secondary schools

The focus on the deployment of TAs supporting learning was chosen in response to the contradictory findings emerging from those research studies reviewed in the literature review investigating the association between deployment and support for learning. As an insider-researcher (Drake with Heath, 2011) my experience of working with and managing TAs provided some understanding of their support roles but inevitably this was based on a professional/ personal, one-dimensional perspective. Conducting the exploratory case study facilitated examining the case using a variety of perspectives through the collection of data from different sources, for example from teachers, TAs,

learners and lesson observations in three schools. Using open-ended questions, semi-structured joint and individual interviews with teachers and TAs and interviews with learners were conducted and lesson observations were also undertaken. Furthermore, using the ecological, conceptual framework presented the additional advantage of considering the case through those interactive factors which have an influence of the TAs' contribution to learning.

Case study research is not without its critics. For example, Walker (1983) presents his reasons not to embark on this methodological approach. He highlights the 'uncontrolled intervention in the lives of others' (Walker, 1983; p.156), asserting that to conduct interviews or to enter into discussions with teaching staff and head teachers may undermine the structures within which schools operate. However, schools are used to looking at their systems critically with a view to making improvements. Findings from case studies give voice to those who work within the system and provide information which schools can choose to use or reject depending on whether they assess it as being useful to improving the educational provision. Others, for example, Campbell & Stanley (1966) have been even more critical, asserting that 'such studies have such a total absence of control as to be of almost no scientific value' (Campbell & Stanley, 1966; p.6). In terms of this case study, it suggests that the working experiences of expert teachers is less useful than the hard data of targets and results in identifying the strengths and weaknesses of school structures and in suggesting improvements. Campbell (1975) later recanted, explaining that he had now moved away from his dismissive views on case study research.

Walker (1983) points up the biased nature of case study research and the problems of balancing data from interviews against observational data where two different views may emerge. Lastly, he describes the case study as essentially conservative, and argues that it often unintentionally increases 'the vulnerability of innovations to the political process' (Walker, 1983; p.163) and has the effect of setting in stone what is essentially a changing or 'fluid' situation. However, Thomas (2011) notes that a particular strength of the case study arises from in-depth inquiry from a variety of angles in order to understand *why* or *how* something occurred or *how* it affected a particular outcome which provides 'a richer, more balanced picture of our subject - we get a three-dimensional view' (Thomas, 2011; p.4). Other scientific and applied scientific disciplines also use multiple methods and case study research to carry out investigations.

Flyvbjerg (2006) has also answered the criticisms of case study research by asserting that they have been based on misunderstandings, particularly in regard to the prioritisation of theoretical knowledge over context-based knowledge, the purported impossibility of testing theories or making generalisations from a single case and the claims of bias. Flyvbjerg (2006) argues that the case study offers the opportunity for obtaining context-dependent knowledge from which the researcher gains expertise. Context-dependent knowledge also allows for 'the development of a nuanced view of reality' (Flyvbjerg, 2006; p.223) which accepts that the complexity of human behaviour cannot be understood in terms of 'the rule-governed acts found in much theory' (Flyvbjerg, 2006; p.223). Finally, in response to the concerns about researcher bias towards confirming their preconceived ideas, Flyvbjerg (2006) makes it clear that those who have to reformulate their ideas in the light of unexpected findings are more likely to realign their initial preconceptions with the research results than they are to use the findings to validate their preconceived theories. In other words, they will change their original preconceptions to mirror those highlighted in the research findings rather than try to fit the findings to support their original theories:

....experience indicates that the case study contains a greater bias toward falsification of preconceived notions than toward verification (Flyvbjerg, 2006; p.237).

Flyvbjerg's arguments in favour of the case study approach convinced me of the value of context-based research because of the opportunities it offered to develop an understanding of the learning support school systems in operation, the interactions between teachers, TAs and learners and to explore the individual, subjective views of the participants to arrive at some new explanations of how TAs support learning in schools.

3.5 Researcher Identity

This research study arose primarily out of a long-term, personal and professional experience of working with TAs, teachers and learners within learning environments and through experience gained as a professional manager of TAs. This 'situated knowledge' (Thomas, 2013; p.144) defines the positionality of an insider researcher. As such, I recognised that I came to the research process with values and beliefs which would inevitably compromise the ability to remain unbiased. In order to counteract this and to maintain reflexivity I have sought to 'locate myself and my ideas explicitly in the

research project' (Drake with Heath, 2011; p.20) and explore the effects of my insider position in the research process. I also used an iterative framework suggested by Srivastava & Hopwood (2009) for the analysis of the data which is fully discussed in the section entitled Methods of Data Analysis.

My initial researcher identity was located in my knowledge and understanding of the workplace and my understanding of the issues which might arise concerning the deployment of TAs. Whilst recognising the benefits which this insider-knowledge could provide, I also understood that it could be seen as 'both an asset and a liability' (Gewirtz et al., 2009; p.568), in the first instance because of my familiarity with my chosen research area and, in the second instance, the potential it offered for using my insider-knowledge to interpret data and reach conclusions in line with biased expectations and preconceptions. In the face of these 'equivocal, unstable moments' (Richards, 2003; p.39), and falling back on my preconceived ideas, I realised that I had to remain reflexive. To do so, I had to maintain my awareness of my own position in the research, the influences I might bring to the interpretation of data and the ways in which I might be influenced by it (Gilgun, 2010). This I did by using the iterative framework provided Srivastava & Hopwood (2009 - Appendix 1).

Kvale's metaphor of the 'traveller' (Kvale, 1996; p.4) is apt to my role as qualitative researcher. As 'traveller' I am an inevitable element in the research process. As Dunne, Pryor & Yates (2010) suggest, this implies that there is no 'fixed and exterior social world but a world of meaning' (Dunne et al., 2010; p.15) where the actors in the research process, of which I am one, are jointly involved in the social construction or negotiation of knowledge.

3.6 Methods of Data Collection

A variety of data collection methods were used involving pre- and post-lesson observation joint and individual, semi structured interviews with teachers and TAs (Appendices 2 and 3), lesson observations as a non-participant observer (Appendix 4) group interviews with learners (Appendix 5). The process is illustrated below:

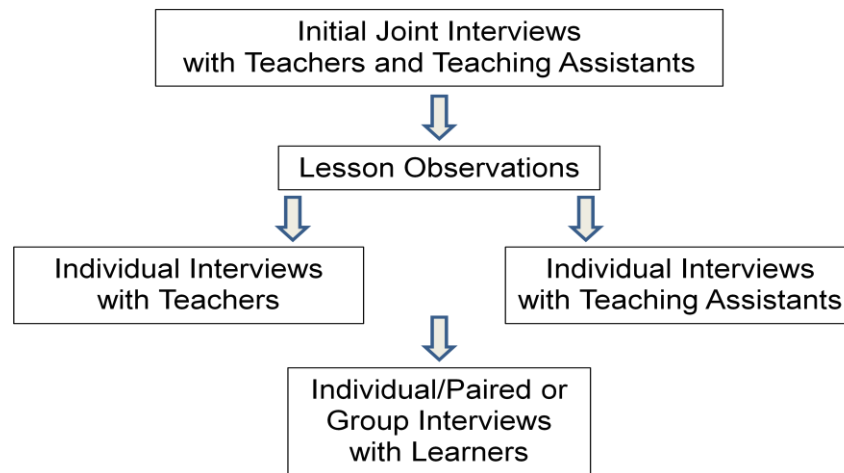


Figure 8 Methods of data collection

All interviews lasted 25-30 minutes each and those with teachers and TAs were audio-taped and transcribed. As Bell (2007) suggests, this facilitated eye contact and allowed the interviewer to show interest which may have encouraged the participants more opportunity to respond freely. Although audio-taping could have been used in interviews with learners, I chose to make field notes. This was because parental consent was not sought and it was the school in loco parentis and learners who agreed to the interviews. Field notes were made of their responses which made it easier to identify each speaker.

The semi-structured interview was used with all participants to collect data on a number of pre-planned topics - for example, on how the TA was to be deployed, planning and training opportunities and the experiences of learners receiving learning support. Although the questions were worded and set out in order, they were used as a 'default' mode (Robson, 2011) which potentially allowed for modification or extension with supplementary, unplanned questions. The semi-structured interview, therefore, provided flexibility to pursue a line of inquiry which might arise during the interview process. As Robson (2011) notes, the open-ended nature of the interview structure also provided the opportunity to ask follow up questions in order to clarify participants' views.

3.6.1 Joint Pre-Lesson Observation Semi-Structured Interviews with Teacher and Teaching Assistant

Joint, pre-lesson observation interviews with teachers and TAs were conducted with the intention of gaining an understanding of their working relationship and a range of

other factors which might affect the provision of learning support - for example, length of working relationship, opportunities for planning and definitions of learning progress. The paired interview also allowed for the possibility of assessing their relationship and interactions at first hand. All pairs were asked the same questions with focus on the 'how' and 'why' questions - 'Does the way of working in this class differ from lesson to lesson - how?' 'What opportunities do you have for planning?' 'Why might planning be important?' and, 'How did you decide on the form the learning support would take in the lesson?'

3.6.2 Individual Post Lesson Observation Semi-Structured Interviews - Teacher/Teaching Assistant

Individual interviews were conducted with each teacher and TA to allow them to talk without constraint about the lesson outcomes and their working relationships with each other (see Appendices 2 and 3). The individual interview ameliorated the 'power asymmetries' (Dunne, Pryor & Yates, 2010; p.34) by providing space for any concerns which they did not feel able to express in the presence of the other. It allowed for the possibility that different data might emerge to provide deeper insights. Both teachers and TAs were asked for their impression of the lesson. Questions for teachers and TAs included - 'Can you give any examples of how the TAs (you) supported your (the) teaching in this lesson?' and 'Can you give me any examples of how a particular learner made progress with the TA's (your) support?' Throughout the research process the joint and individual interviews were relaxed and participants' responses were readily forthcoming. However, critical responses were more forthcoming from teachers when referring to the work of TAs and their tendency to over-support learners and from TAs, when giving their views on the teachers' performance or their professional relationships. My underlying purpose in arranging for post-lesson individual interviews had been to give both participants freedom to express their views without the potentially constraining influence of the teachers' or TAs' presence. Freed from the 'power asymmetries' (Dunne et al., 2010; p.34), TAs and teachers were able to comment in ways which were not manifest in the pre-lesson observation joint interviews.

3.6.3 Interviews with Learners

Interviews were planned and set up to give learners a 'voice to their own interpretations and thoughts rather than rely solely on our adult interpretations of their lives' (Eder &

Fingerson, 2002; p.181). The focus was on gaining their responses to TA learning support. Examples of questions included 'Can you give me any examples of how the TA helped you in this lesson?' which brought forth this response from a learner in English - 'helping me write a news report using the questions'. In answer to the question 'Are there any other ways in which the TA helps you?' one learner responded 'If I am worried, I can talk things through' and all learners in the group agreed.

The individual learner was interviewed separately whilst other interviews were conducted in groups or pairs. This reflected how they had been supported in lessons. The interview structure was chosen to provide a context for learners where they would feel most comfortable and was set up on the basis that learners' familiarity with group and paired learning and interaction would minimise the imbalance of power between them and the adult researcher, thus enabling them to challenge or build on each other's views and to 'construct their meanings collectively with their peers' (Eder & Fingerson, 2002; p.183). It was important to gain their trust so the interview process was informally introduced and questions were addressed to the group rather than individuals with a view to eliciting 'genuine responses...rather than simply responses to the interview situation' (Cohen et al., 2007; p.375). A further potential limitation arose from the decision not to audio-record the group interviews with learners, choosing instead to make verbatim field notes of their responses. Whilst this aided the identification of each learner in the group, it meant that I was not able to take account of pauses or inflections in speech patterns which may have resulted in a loss of implied meanings. It was also possible that the occasional checking of their responses may have impeded their spontaneity. However, the checking ensured that the notes were transcribed verbatim and were an accurate reflection of their views even though it did not allow for nuanced meanings which can be gleaned from the ways in which speech is delivered.

3.6.4 Lesson Observations

My role in the lesson observations was that of non-participant researcher, observing the lesson from the back of the classroom and maintaining distance from those working in the classroom (Cohen et al., 2007). The lesson observation provided the advantage of experiencing first-hand the provision of learning support in the participant schools and in gaining information from watching and listening directly. This allowed me to see for myself and contextualise the action. As Robson (2011) asserts, observation is 'pre-eminently the appropriate technique for getting at "real life" in the real world' (Robson,

2011; p.316). The approach to lesson observation was informal in that it involved producing a narrative account of the lesson by making notes on what was observed and as it occurred (Robson, 2011). Nevertheless, in terms of my research questions, I was particularly interested in noting the ways in which the TAs supported the learning and in identifying learning progress based on independent contributions of learners to class discussion and in written responses. I made hand-written, observational notes during the lesson. For example:

I observe TA working with Jane - Jane is contributing her ideas and seems very interested in the topic. TAs uses a range of questions to keep her focused. This is successful and Jane completes the mind-map of her points.....the second class feedback takes place. Jane has identified points and makes correct, independent contributions to the class feedback. This is evidence of her achievements.

Jane - Learner working with Hayley
TA - Windihurst School

Notes were word-processed following each lesson and were sufficiently detailed to provide an aide-memoire at the time of writing up the findings (Loftland, 1971).

As Yin (1989) states, real-life situations require the researcher to be adaptable when confronted by changes to the itinerary or unexpected new arrangements. On two such occasions unplanned changes occurred at the beginning of the research process. I expected to interview and observe TAs working with teachers based on the assumption that the TAs would be working in the classroom or with a withdrawal group but under the direction of the teacher. However, In Rushleigh, as one participant TA was fulfilling the role of a teacher working independently in the school's Option Group this meant that there was no teacher perspective because the TA was not operating in a tripartite relationship. As a result, she was initially interviewed and observed alone. However, the TA was also experienced in providing in-class support in English for learners attending the Option Group. To accommodate this difference the questions prepared for the joint interview were slightly adjusted in style but not in content - for example, the question 'how long have you worked together?' was modified to 'how long have you worked in the school? No modifications were necessary in the post-observation interview.

The second occasion occurred in Windihurst where last minute cover problems meant that the pre-observation, joint interview with the teacher and TAs who worked together in the Year 8 Access Group had to be conducted as two individual interviews. In this case, the teachers and the TA were asked the same questions and their responses

were compared with a view to assessing their compatibility. In all other cases my initial schedule was implemented as planned. Nevertheless, these unplanned changes underlined the contingent nature of qualitative research and clearly demanded a flexible approach to collecting data for the case study. The structured research schedule which I had planned had to be made to fit in with the unexpected structure of learning support in the Option Group at Rushleigh and this reflected the limitations underpinning my assumption and expectation of a particular model of working. This, and the procedures in place in Windihurst to cover unforeseen staff absences, demanded reflexivity and highlighted the necessity of fitting in with the real-life world of school systems rather than attempting to impose my own research agenda on the research participants. Therefore, I adapted the research process to accommodate these unforeseen circumstances as they arose.

3.7 Methods of Data Analysis

The data was word-processed verbatim immediately after interviews and observations had been completed. A summary of the main findings from interviews and lesson observations in each school was word-processed to identify points which might provide some answers to my research questions (Altrichter et al., 1993). I used coding and 'constant comparison' of the data to identify themes (Thomas, 2013; p.235) - (Appendices 2 and 3). From each participant school, I identified the main findings from the joint interviews, lesson observations and individual and learners' interviews and categorised and compiled the data under those headings pertinent to my research. These were - Deployment, Learning, Location, Consistency, Relationships, Training and Planning. I used the data under each of the headings to make data summaries and basic analysis from which to write up my findings (Altrichter et al., 1993).

To conduct the detailed data analysis I used Srivastava & Hopwood's (2007) iterative framework which is described as 'a deeply reflexive process' (Srivastava & Hopwood, 2009; p.77) and not as a task to be repetitively implemented. Its purpose is to provoke insights, enhance understanding and to allow the researcher to develop 'continuous meaning' (Srivastava & Hopwood, 2009; p.77). For example, by visiting and revisiting the data on the deployment of TAs as it was collected I was able to clarify and develop my understanding of the effects in different situations. My overall framework was based on a question format for reflexive, triangulated inquiry as suggested by Patton

(2002; p495); the questions to myself were addressed from three perspectives and are shown below:

The reflexive inquirer (myself)	What do the data show about TAs deployment and their contribution to learning?
The participants	What can they tell me about the deployment of TAs and their contribution to learning?
The audience for this research	How can I analyse the data and present the findings in ways which make sense to them?

[personalised iterative framework based on Patton's categories of reflexive questions (2002; p.495)]

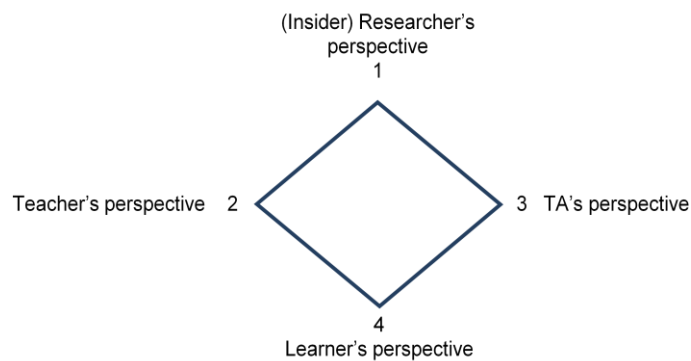
Table 2 Questions for the framework for data analysis

Furthermore, the iterative process also helped to minimise the possibility of bias or preconceptions. For example, one substantive research question of this thesis is: How does the method of deployment affect teaching and learning? Using the iterative method illustrated by Srivastava & Hopwood (2009), I asked myself, as researcher, what the data were telling me using the following sub-questions:

- At interview, what are the data from teachers and TAs telling me about deployment and learning
- At interview, what are the learners telling me about deployment and learning?
- What does the observational data tell me about deployment and learning?

The second question in the process was: What do I want to know? I wanted to know what methods of deployment were currently being used and which of these were most successful in promoting independent learning as defined in this thesis. The last question was: What is the relationship between what the data are telling me and what I want to know? This process highlighted some mismatch between the data from pre-lesson observation, joint interviews and the individual interviews following the lessons. In the joint interviews, participants presented positive relationships whereas in the individual interviews, teachers and TAs were less constrained in expressing criticisms. This led to a re-examining of the observational and interview data, and a reapplication of the first question to reflect on what it revealed in terms of the substantive research question.

Each question specifically addressed what I wanted to know at each point in the research process, after each lesson observation and each individual, joint and group interview and then again across the range of this data. My approach to data analysis was inductive; it was, therefore, a process of discerning and continuously making meaning by interpreting the patterns or themes as they arose from the data rather than from any preconceived notions of mine. I adapted Altrichter et al's (1993; pp.115-116) method of triangulating data, using instead four perspectives, to take account of the data emerging from the teachers' TAs' and learners' perspectives and my own perspective as researcher. However, although the observation data provided my perspective as the fourth party, as a teacher-researcher I could not be defined solely as 'neutral' fourth party, as Altrichter (1993) suggests in his original diagram. Rather, I was located in the space between the worlds of 'insider' and of 'outsider' (Humphrey, 2007; p.23). Therefore, I have modified Altrichter's (1993) diagram, positioning my perspective as that of (insider) researcher. By examining the data from four perspectives, I was able to draw conclusions about the relationship between deployment and learning which might, in the future, provide a basis for further research.



{adapted from Altrichter et al's diagram (1993, p116)}

Figure 9 Four perspectives model

- The teacher's perspective (by interviews)
- The TA's perspective (by interview)
- The learners' perspective (by interviews)
- The researcher's perspective (by observation)

3.8 Limitations of the Study

Although the case study produced some rich data, its major limitation was that it was small, comprising only three schools, seven TAs, six teachers and fourteen learners. As a result, the number of observations was limited, there being opportunity for only seven in total. The study would have been stronger and potentially more useful if it had been conducted with a larger number of observations, perhaps with different teachers and TAs or with TAs working independently. It would have been useful to observe Edward (teacher) and Donna (TA) working with other classes, Anna (TA) supporting a different independent group or Ellie (learner from the independent group) working in class to ascertain whether these new scenarios would have made a significant difference. A study conducted over a longer period of time might well have produced significantly different findings. Despite this, the study has implications for the ways in which current school systems and individual models of deployment used by classroom teachers make a difference to the ways in which learning is supported goes some way to explaining the negative findings on TAs deployment and learning found by a number of researcher studies. Further larger scale research would provide the opportunity for wider investigation into the deployment of TAs by schools and teachers and contribute to the debate on how to deploy them more strategically to promote positive learning.

3.9 Ethical Frameworks and Approval

I am fully aware that research is governed by ethical frameworks which expect researchers to 'operate within an ethic of respect' for all those involved in the research process (British Educational Research Association, 2011; p.5, henceforth BERA). BERA's ethical guidelines are set out under four headings: Responsibilities to Participants, Responsibilities to Sponsors of Research, Responsibilities to the Community of Educational Researchers and Responsibilities to Educational Professionals, Policy Makers and the General Public. The heading - Responsibilities to Participants BERA (2011) - explicitly states that 'voluntary consent' should be given by all participants and this is defined as 'the condition in which participants understand and agree to their participation without any duress prior to the research getting underway' (BERA, 2011; p.5). It is made clear that voluntary consent should be obtained prior to the commencement of the research and that researchers must 'recognise the right of any participant to withdraw for any or no reason and at any time, and they must inform them of this right' (BERA, 2011; p.6).

This research study was submitted to comply with the University's Standards and Guidelines on Research Ethics (2010 - see Appendix 6), standards that were later updated and strengthened to include greater detail. Under these new, ethical frameworks, key areas are identified and these include a focus on young people as a separate, more vulnerable group. In the light of this, if I were to do research of this kind again, I would be more aware of the need to consider this group as a separate entity from the beginning. However, it was not my initial intention to include young learners in the research. Later I felt that, as the research focus was something that concerned them, it was ethical to give them the opportunity to comment. My supervisors gave additional permission for this (see letter, Appendix 7) and although this was the process at the time, under the new, ethical frameworks I am aware that I would have had to obtain extra approval through a different, more formalised process. Prior to commencing the research, and consistent with the ethical frameworks, an explanation of the purpose of the research, the details of the proposed methods of data collection and information regarding anonymity and confidentiality was provided to selected schools. Formal consent for their participation was sought from senior staff and, later, voluntary consent from all research participants (BERA, 2011).

3.9.1 Involvement of Participants.

3.9.1.1 Schools

As indicated in the Introduction to this thesis (p.13) schools deploying TAs to support learning were identified with the help of Local Authority Staff Advisers. An invitation which fully explained the purpose of the research, methods of data collection and information regarding anonymity and confidentiality was sent to the three selected schools. Informed consent was sought in writing from schools and the right to withdraw was offered prior to the commencement of the study (Thomas 2011). Agreement for conducting research in the schools was obtained from senior staff via telephone conversations where research procedures were fully discussed.

3.9.1.2 Teachers and TAs

Before the interviews and observations began, individual members of staff who had agreed with senior staff that they were willing to participate were verbally given details of the research and offered the right to withdraw. Before the process began, they also gave their consent to the audio-recording of the pre-observation paired interviews and

the post lesson individual interviews. Teachers and TAs were interviewed jointly before the lesson observation to facilitate an understanding of professional relationships and opportunities for pre-planning. Teachers and TAs were interviewed individually following the lesson to take account of 'power asymmetries' (Dunne et al., 2010; p.34) and to enable them to express their views without constraint. In line with Thomas' (2011) advice, I took the steps necessary 'to allow participants to look at the data that referred to their own experience' (Thomas, 2011; p.70) and made transcripts of these available for their perusal but participants did not take up this offer.

3.9.1.3 Learners

Learners who took part in the individual, paired or group interviews afterwards were selected by participant schools and consent for their participation was given by the schools 'acting *in loco parentis*' (Cohen et al., 2007; p.54). In retrospect, I would now follow the University's current Standards and Guidelines on Research Ethics and ask schools to request formal parental consent on my behalf. However, this would have been difficult to achieve at the time because the ad hoc inclusion of learners as research participants made it difficult to define the process or to obtain permission earlier, and would, as well, have placed additional workload on teachers (Alderson & Morrow, 2011). Instead, I used the principle of 'freely given consent' (Boddy, 2014; p.95) by ensuring that learners were given the right to agree or to say no if they did not wish to participate in the research. Before each interview, they were provided with 'a real and legitimate opportunity' (Cohen et al., 2007; p.54) to withdraw before the interview commenced. One learner decided not to participate in a post lesson group interview and was allowed return to his lesson 'without needing to give a reason' (Alderson & Morrow, 2011; p.112). Another learner who indicated that he did not wish to join the withdrawal lesson that was to be observed was also allowed to rejoin the rest of the class on request and therefore also did not attend the group interview which followed.

At interview, I explained to learners what I wanted to ask them about and asked them if they were happy to be there and they answered affirmatively. They were given the opportunity to ask questions and discuss their views (Alderson & Morrow, 2011). However, I was mindful of the power relationships between adults and children and maintained a relaxed, friendly and unofficial approach at all times. The positive and negative feedback they gave suggested that they were comfortable with the situation.

To put them further at ease I made field notes of their responses rather than recording them and I used these to clarify their views and read them back to them to ensure that I had understood them accurately. The notes also facilitated the identification of each learner when transcribing the data in a way that would have been more difficult from an audio-recording.

In all cases, interviews with learners were conducted where other adults were nearby - for example, one individual interview took place in the Library. The rest took place in classrooms in the presence of a member of staff who maintained distance from interviewees. This was the most ethical thing to do since I was a visitor in the school. I am aware that this might have constrained learners' comments but all the adults were sufficiently far away for the conversation to remain private.

3.9.1.4 Anonymity and Confidentiality

As far as possible, confidentiality was guaranteed for all participants, particularly by providing for separate interviews for teachers and TAs and by ensuring that learners were not interviewed in the presence of their teachers or TAs. Anonymity was assured by anonymising school names and by the provision of pseudonyms for learners, TAs and teachers.

CHAPTER 4 FINDINGS - MODELS OF DEPLOYMENT - TEACHING ASSISTANTS WITH LEARNERS

Introduction

In this chapter, the findings discussed are concerned with the microsystem of the ecological, conceptual framework (see p.59-60) where the TA is deployed by the teacher to support learners. They are discussed in the light of the three different, basic models of observed in the research participant schools and outlined earlier. In the schools the findings highlighted five variations of Model 1 (in-class support) which produced different outcomes and where there were higher and lower levels of attachment and independence. There was also one example of Model 2 (withdrawal group attached to a class but in separate location) and one of Model 3 (TA teaching a group independently). A brief synopsis of each lesson is presented in a paragraph preceding the main discussion.

4.1 Models of Deployment - Teaching Assistants with Learners - The Microsystem

Across the three schools and seven lessons I observed five variations of Model 1, one of Model 2 and one of Model 3 as shown below:

LESSON SUB-UNIT	SCHOOL	MODEL	KEY DISTINCTION	TYPE OF SUPPORT
1	WINDIHURST	MODEL 1A	IN-CLASS SUPPORT	PAIRED
2	WINDIHURST	MODEL 1B	IN-CLASS SUPPORT	INDIVIDUAL
3	MISTFELL	MODEL 1C	IN-CLASS SUPPORT	GROUP
4	MISTFELL	MODEL 1D	IN-CLASS SUPPORT	TEAM TEACHING (HALF CLASS)
5	RUSHLEIGH	MODEL 1E	IN-CLASS SUPPORT	INDIVIDUAL
6	WINDIHURST	MODEL 2	WITHDRAWAL - ATTACHED TO CLASS	GROUP
7	RUSHLEIGH	MODEL 3	INDEPENDENT TEACHING	PAIR

Table 3 Models observed in participant schools

4.1.1 Model 1 - TAs Providing In-Class Support

The Literature Review suggests that the common model of deployment is one where the TA works within the classroom with the teacher. In this model it is the teacher who directs the learning whilst the TA is deployed to support the learner(s) with special or perceived educational needs. The TA is seated next to or in close proximity to the learner(s) to give focused support. Whilst Model 1 was the most commonly observed model in this study, five examples were seen where the same model had subtle differences and resulted in different outcomes for learners. These are discussed under the headings Model 1, Scenarios A-E.

4.1.1.1 Model 1 - Scenario A

Lesson Overview

This example, from Windihurst, was a Year 9 Special Needs Humanities lesson on the Mexican Oil Rig Disaster. It was led by teacher, Gill and supported by TA Fiona. The lesson content was presented using a series of video clips which included Obama's speech and a map displayed on the interactive whiteboard to assist learners in locating the drilling area. The larger part of the lesson was presented by the teacher to the whole class. She asked recall questions to help learners remember the key points, selecting SEN learners to repeat answers. Learners were then asked to complete mind maps or independent notes, depending on their attainment level, in order to enable them to write about the disaster in a newspaper article during the next lesson. They were allowed to discuss their points with each other. Also present in the lesson, ***but not a participant in this research, was another TA, Flora, who was supporting Dennis, a statemented learner.*** The research participant was Fiona, an experienced TA who normally supported a learner with speech and language difficulties, but, due to this learner's unexpected absence, was asked to support Simon and Will, two learners with perceived learning needs.

This lesson showed that the TA (Fiona) strove to support two learners but was constrained in the extent to which she could use social constructivist approaches by her positioning outside of the main lesson content and working in isolation with the learners. In this lesson, Fiona and learners were seated in a row and hierarchically positioned in relation to the teacher (Gill) who worked mainly at the front of the class either presenting or asking questions to check understanding. This example of the tripartite, hierarchical relationship is diagrammatically illustrated as:

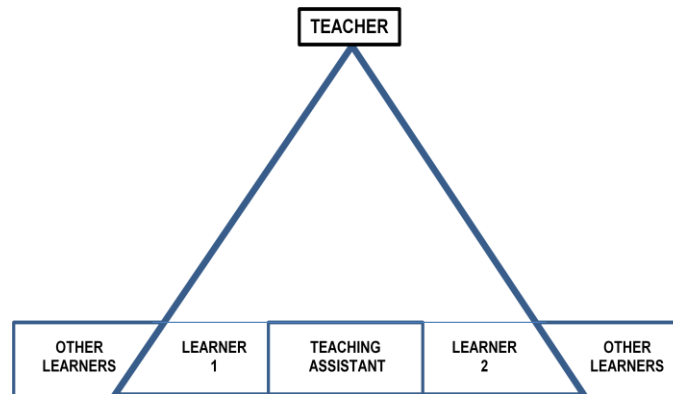


Figure 10 Model 1 A

The main finding was that the hierarchical positioning, with the teacher at the top of the triangle and the TA and learners at the base and isolated within the triangle, had the effect of preventing the development of any teamwork between the teacher and the TA because the TA's central position between the two learners physically discouraged it. Apart from briefly checking progress, Gill (teacher) left Fiona (TA) to work through the tasks with Simon and Will (learners). Furthermore, when the rest of the class was later given the opportunity to discuss their mind maps and notes with each other, monitored and supported by the teacher, Fiona remained in her central position between Simon and Will which precluded any opportunity for them to develop their learning through peer interaction or to become fully active in their own learning (Black & William, 1998; James et al, 2007). The lesson observation showed that they were reliant solely on Fiona to explain and summarise points on the Mexican Oil Slick for them. As one said:

'the TA helped me to understand details of the oil slick. She helped me remember things so it was easier to answer questions in the end.'

(Will - Learner - post lesson observation paired interview)

Following the teacher's initial class presentation, the TA was tasked to help both learners to complete a differentiated mind map with information from the video to help them to identify points to include in their newspaper article. The teacher checked that the TA understood the task. At this stage, the observation showed that Fiona's input veered towards completing the task rather than encouraging intellectual independence by scaffolding learning (Wood et al, 1976) or by supporting the learner as the more

knowledgeable adult (Vygotsky, 1978). She worked methodically with the two learners, re-explaining each point and reproducing information from the video. As Simon (learner) said 'she helped me pick out things to put on the grid.' This process lacked the 'dynamic interaction' required (Lunt, ed. Daniels, 1993; p.180) between TA and learners to assess learning at the two performance levels (the current level and the ZPD) proposed by Vygotsky (1978). However, during the Oil Slick Disaster presentation, the teacher's transmission of information may have resulted in Simon and Will achieving learning in two of the categories identified by Marton et al (1993) and Saljo (1979) as constituting learning; that is, acquiring knowledge based learning and memorising facts sufficiently to support the completion of the newspaper article planned for the next lesson. The TA said:

I think that Simon and Will, prior to coming into the lesson, did not really know very much about the oil crisis. At the end they certainly understood some of the effects and were beginning to think about what had happened and how it would have affected us if it had happened at Windihurst.

(Fiona - TA - post lesson
observation individual interview)

At interview, Gill, the teacher briefly discussed another learner, Dennis, *who was supported by Flora, the TA not involved in this study*. This was of interest in that Gill suggested that the TA's completion of the mind map for the learner would ensure that he would be able to memorise information from her prompts. She said:

Dennis.....he struggles quite a lot - so Flora did the mind map for him - she was writing it down but pointing things out as they came up, prompting him to notice - so if it was about birds - what was the effect on them - and she wrote 'they had oil on them'..... I think if I was to ask him about the oil slick before and then ask him now I think he would know about the birds...

(Gill - teacher - post lesson -
observation individual interview)

It is difficult to agree with the teacher's comment that task completion by the TA had been useful in advancing learning for this learner. Using the completed mind map as an aide-memoire to remembering facts to complete a new piece of work - in this case, a newspaper article - is unlikely to allow for the development of new ways of thinking in order to assimilate or accommodate new learning (Gross, 1997; Piaget, 1964; Gauvain & Cole, 1997), nor is it likely to support the independent learning developed through the process of interaction with more capable peers or by working with an expert adult in the ZPD (Vygotsky, 1978).

TAs are sometimes deployed to manage the behaviour of those learners, both in and out of class, who are likely to disrupt the learning of others (Blatchford et al, 2009a; NFER, Thornton & Hedges, 2006). At interview, Gill said that she generally relied on Fiona's support in monitoring and dealing with behavioural problems in class:

Fiona, for example, will pick up on behaviour. She will either deal with it herself or highlight it for me. For example, when we were doing poetry in the class and I said 'write about somebody you know well' and a voice straight away at the back of the class was heard and Fiona said 'perhaps we ought to remind them, Miss' so she will help me in that way or she will pick up things or observe things which maybe I don't see – so it is a united front!

(Gill - Teacher - post lesson
observation - individual interview)

Underpinning the teacher's comment is the assumption that an important aspect of the TA's role is managing learners' difficult behaviour. In view of the absence of the learner with whom Fiona would normally work, Gill asked her to support Simon and Will who, she said, had a poor attitude to learning. This suggested that Fiona would be managing their behaviour in addition to providing learning support. At the post lesson observation interview, Fiona said that Simon and Will had made progress in the lesson and that this was as a result of the strategy of her adopting a relaxed approach to behaviour management:

I think they were both very focused today. I guess that I have quite a good relationship with them so I can keep them focused without bearing down on them - you know, 'you've got to do this, you've got to do that' - they are quite relaxed. Simon went a bit off task talking about his mum being a vegetarian but still eating fish - so talking about fish – I was happy to do that and then bring it back to what we were doing. So it's quite focused but relaxed and that worked. Definitely!

(Fiona - TA - post lesson
observation - individual interview)

In this example, Fiona provided for Simon the extrinsic reward of talking about fish as a positive reinforcer (Skinner, 1953) and as a precursor to completing the work in hand. Fiona's focus on the achievement of good behaviour also suggested that the teacher's primary reason for deploying Fiona to support Simon and Will was to pre-empt behavioural issues rather than to support their learning. The key issue emerging here is that TAs are sometimes used as a way of negating the influence of learners' poor behaviour on the learning of others. However, although poor behaviour often arises as a result of learners' inability to access lesson content, whether this was the case for

Simon and Will was unclear. They were generally well-behaved but worked in isolation from the main lesson content and received no feedback from the teacher (Black & William, 1998; James et al, 2007). Fiona encouraged them to pay attention whilst she completed the mind map with them as they answered her questions. In the lesson they obtained information for writing the newspaper article but did not appear to have achieved independent learning. If Fiona had scaffolded the work (Wood et al, 1976) and used recall and open-ended questions (Bloom et al, 1956) she may have enabled Simon and Will to work within the ZPD (Vygotsky, 1978) and facilitated greater independence in completing the mind map, thus consolidating their good behaviour *and* their learning.

4.1.1.2 Model 1 - Scenario B

In this example, although the same classroom format was used, the TA's support appeared to be more positive. This section discusses the reasons for this.

Lesson Overview

This example, also from Windihurst, was of a Year 10 History lesson on the success of D-Day in World War Two. It was led by Ian, the teacher and supported by Hayley, an experienced TA. The lesson content was on World War Two and involved a starter activity where learners had to create a caption for the war photograph on the interactive whiteboard. The teacher gave a short presentation and led a question and answer session on whether the success of D-Day relied on resources, tactics or technology (air superiority). The teacher used recall and open-ended questions to promote learning. Learners were then asked to formulate their hypotheses in pairs using the historical sources. TA Hayley provided one to one support for Jane, a higher attaining, autistic learner who had good verbal skills but struggled to structure her ideas and produce writing independently. The teacher provided a specially scaffolded grid to support the learning.

The key finding from this lesson was the teacher's approach to promoting inclusion by encouraging the participation of all learners, including Jane (learner) supported by Hayley (TA), in discussions and in the written task. This example has common features with the first in that the teacher initially presented from the front and followed this by setting learners to work in pairs on producing their written responses to the questions in preparation for the plenary. The TA and learner were also seated in a row of other paired learners and, once again, positioned in a tripartite, hierarchical position in

relation to teacher Ian, but this time with important differences, as illustrated in the following diagram:

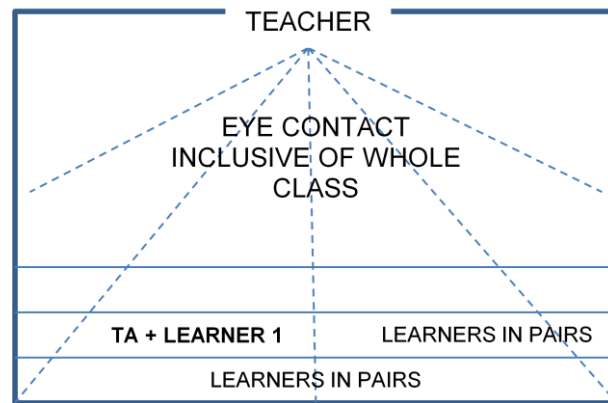


Figure 11 Model 1 B

As the diagram shows, the teacher's eye contact is an important element. As in the first example, Hayley (TA) and Jane (learner) were seated as a pair within the main body of the classroom. Other learners were also in pairs. A crucial difference was Hayley and Jane were not isolated from the main content of the lesson because Ian (teacher) was focused on all learners in the classroom, thereby promoting inclusion and encouraging the participation of all learners in the initial class discussion. Ian (teacher) evidenced his awareness of the ease with which learners can, potentially, become marginalised when working on a one-to one basis with TAs and the potential difficulty which may arise:

I mean, working with any TAs you get sucked into the rest of the class because they have got a TA you can kind of let them get on with it - and if you know the TA is good at keeping them focused, they will get engaged.

(Ian - Teacher - post lesson
observation - individual interview)

He indicated that 'it was nice to make sure at least once a lesson you get around - well, for every pupil.' The lesson observation showed that, to ensure inclusivity of all learners, the teacher had developed the regular practice of circulating the class during the paired work and by discussing individual learning outcomes with all members of the class, including Jane (learner). This individual attention had a positive effect on

motivating learners and in facilitating the clarification of their ideas for the hypotheses they were writing. Jane (learner) listened quietly in the first class discussion but did not contribute at this point.

Unlike Fiona (TA) in the first example, whose support role was to ask recall questions to enable the learners to reproduce factual information, the lesson observation showed that Hayley was able to provide effective interventional guidance as the expert adult. This was due, in part, to the hypothetical nature of the task - the success of D-Day relied on a) resources b) tactics c) technology. This provided Hayley with an opportunity for developing independent thinking by asking Jane to justify her ideas. It also demonstrated her skill in using a range of questioning strategies to promote Jane's intellectual independence. First she asked simple questions which could be answered from the historical sources but quickly moved on to 'why?' and 'how?' questions - for example, 'why have you chosen that as the most successful?' which involved the learner in justifying her hypothesis - a learning support strategy used by the TA and endorsed by the teacher:

(it's) a range of simple questions that Jane and pupils like her can answer - and then building up to more open-ended questions....

(Ian - Teacher - post lesson
observation - individual interview)

In the lesson observation, Hayley (TA) began by consolidating the learner's understanding of the historical sources and the worksheets by reading them through with her, explaining points where necessary. At interview, following the lesson, Jane (learner) indicated that this was essential in ensuring that she was able to formulate her responses on paper and keep up with the learning in the class. The TA's use of scaffolding (Wood et al, 1976) and carefully structured questions (Bloom et al, 1956) was evident in the pair work. To build Jane's confidence, Hayley began with recall questions based on the historical sources - 'do you remember what Mr. (teacher) said?' using praise and a 'thumbs up' sign as a signifier of Jane's success, thus reinforcing her self-efficacy (Bandura, 1991; 1986). As Jane became more assured, Hayley increased the number of open-ended questions and demonstrated skill in knowing when to withdraw her support. Their interaction led to Jane relating the resources to events based on her grandfather's experiences of the war. The lesson observation showed that these strategies stimulated interest and encouraged Jane to write her own independent responses in her hypothesis and to contribute these verbally in the plenary - key markers of independent or 'autonomous' learning (James et al, 2007) and

growing self-efficacy (Bandura, 1991; 1986). This lesson was characterised by its inclusivity and commitment to promoting learning. The TA worked together with the teacher to support active, independent learning; there were no behavioural issues and the lesson observation showed that the learner remained on task throughout the lesson.

4.1.1.3 Model 1 - Scenario C

As already noted, Vygotsky (1978) and, arguably, Piaget (Cole & Wertsch, 1996; Piaget, 1971) foreground the important role that social interaction plays in the construction and shaping of intellectual development. The next example provided examples of 'socially interactive frameworks' (Vygotsky, 1978) where learners worked with peers in the classroom and under the guidance of the more capable adult - the TA.

Lesson Overview

This example, from Mistfell, was of a Year 8 Mixed Ability English lesson on using questioning techniques in interviews. It was led by Leah, the teacher and supported by Katy, an experienced TA who was also a retired SENCO and involved a starter activity where learners worked in groups to construct five questions to ask David and Victoria Beckham at interview. One group of learners worked with the TA on a different activity - creating questions on a writing frame under the headings of What? When? Who? Where? and Why? Although the activity focused on questioning, it was unrelated to the interviewing activity. Next, learners were shown a brief clip of a newscaster discussing the use of open-ended questions, including 'How?' This was followed by a plenary. Different types of questions were demonstrated - 'is there a lot of litter in the park?' and 'why is there a lot of litter in the park?' Selected learners were enlisted to formulate a definition of open and closed question by moving sentences around on the interactive whiteboard. The last part of the lesson involved an activity entitled 'Bad News', in which groups had to construct a range of questions to ask the teacher and the TA, who were in role, about a fire in the school.

The patterns of interaction in this lesson were threefold. At the beginning, the teacher presented from the front and this was followed by group work. Towards the end of the lesson, the TA circulated the groups and supported learners more generally but for the majority of the lesson she was positioned to support a specific group of learners with perceived needs - Peter, Rachel, Stephen and Terry - whilst the teacher supported the other groups. The positioning for the main part of the lesson is shown in the diagram below:

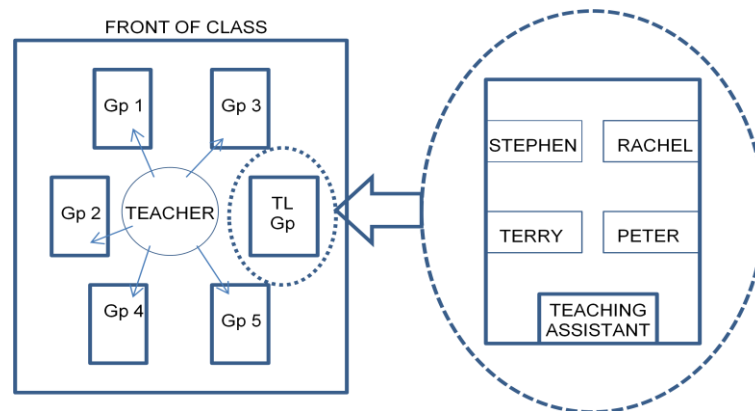


Figure 12 Model 1 C

To some extent this model is similar to Model 2, which is discussed on p.100 onwards, in that the side-positioning of the group of lower attaining learners with the TA situated on the periphery of the lesson suggests withdrawal from the main class. As with Model 2, a key finding from this lesson was that the skill and experience of the TA were important elements in promoting learning *despite the potential for marginalisation*. Katy, the TA, was based in the English Department and, being a retired SENCO, was able to function as the 'more knowledgeable other' (Vygotsky, 1978). She asked open-ended questions to enable them to construct questions relating to the header words, for example, 'do you agree with that? Why?' and 'what do you think?' Scaffolding (Wood, et al, 1976) was evident in the ways in which she promoted peer interaction by providing guidance at key points in their discussion - for example, 'is that a good question? Why? What does everyone think?' and withdrawing support as they responded to this and began to work co-operatively again to produce their questions.

Another finding showed the way in which the effective relationship between Leah (teacher) and Katy (TA) supported both teaching and learning (Thomas, 1992). Leah was an inexperienced teacher whose plan for the class was to construct interview questions to ask David and Victoria Beckham. Leah planned for Katy's group to work on different types of questions but without focusing on interviewing the Beckhams. This made it difficult for learners in this group to make a positive contribution as their questions were not related to the interview. At the post lesson observation interview, Leah reflected on the difficulties this might have had on learners' participation when role playing the Beckham interview. In this lesson, however, although Katy (TA), followed the direction of the teacher and used her experience to facilitate some participation by learners, she noted that 'asking the questions got a bit muddled for them

(learners).’ Where possible, she helped them adapt questions to focus on the Beckhams and, in so doing, she supported both the teacher’s lesson plan *and* learning outcomes for learners.

Katy’s professional status with learners was reinforced when her role was widened to provide guidance for other groups in the class across the attainment levels and again by her inclusion in the interviewing role play with Leah. The teacher’s overt endorsement of the TA’s professional status through wider deployment promoted inclusion in whole-class learning, both of the TA and the learners she was directed to support. Although the lesson observation showed Katy encouraging peer interaction (Vygotsky, 1978) by inclusive questions - for example, ‘do we all agree with that?’ a post lesson observation comment from Stephen (learner) in the group interview suggested that learning support was not always appreciated by learners. His comment - ‘sometimes we think we can do it without help’ was endorsed by Peter, Rachel and Terry, the other learners in the group. However, Katy’s ‘over-support’ of learners was not apparent in the lesson observation and it is possible that this negativity might stem from the stigmatisation that some learners experience when supported by TAs. (Howe et al, 2003). Nevertheless, the comment suggested that some TAs need to develop more awareness of when learners have mastered the tasks and are ready to learn independently. The post lesson interview with this group also highlighted the TA’s role in providing social and emotional support. All learners agreed with Rachel (learner) that the TA helped them in other ways - her comment:

if I am worried I can talk things through...was quickly followed by....(the TA) makes life in school happier.’

(Rachel - Learner, post lesson
observation group interview)

In the initial group work, the lesson observation showed Katy demonstrating skill in managing Peter’s potentially disruptive behaviour by strategic questioning - ‘what do we need at the end of a question?’ When he responded with the right answer, she provided praise and, as a result, he participated in reading aloud from the worksheet and contributing ideas for questions in the group work. His participation and self-efficacy were positively reinforced by Katy’s praise (Bandura, 1991; 1986) and by the end of the lesson he was able to produce independently a definition of open and closed questions by moving sentences around on the interactive whiteboard in front of the

class. In the post lesson observation interview, Leah (teacher) noted that Peter's interactive learning in the lesson had moved to independent question construction and culminated in his success in the whiteboard activity:

he was able to do that...he often finds it difficult to write a word - and I think that having him in a small group meant that he had the confidence to come up and do the interactive whiteboard activity, whereas normally he wouldn't join in.

(Leah - Teacher - post lesson
observation individual interview)

This lesson was characterised by the effective relationship between Leah (teacher) and Katy (TA). Katy's experience ensured that the learners she was supporting participated in the lesson even when the content that Leah, an inexperienced teacher, had planned did not fully facilitate the small group's participation in the lesson.

4.1.1.4 Model 1 - Scenario D - Teacher and HLTA Team Teaching

Mistfell provided a rather different, less hierarchical version of Model 1 where the teacher and HLTA jointly planned and supported learners with identical activities on an equal basis in the classroom. The team-teaching element created a different learning environment to that of Model 2 (see p.100 onwards) where a small group was withdrawn to work with the TA on a different activity to that of the remainder of the class. The lesson is described below:

Lesson Overview

This example from Mistfell was a Year 8 Bottom Set Maths Group lesson on measurement. It was led by Owen, the teacher, and supported by Mary, an experienced HLTA who had worked with the teacher in the subject department for eighteen years. The lesson content involved a starter activity where learners were given fifteen minutes to answer ten questions on measurement which were placed on the interactive whiteboard. During the starter activity, Mary was deployed in providing support according to need. Learners marked each others' responses and marks were recorded by the teacher and displayed on the interactive whiteboard. The main task was to estimate lengths of different objects and the height of a building just outside of the classroom. Whilst learners worked in small groups, half the class was supervised by the TA and the other half by the teacher. The last part of the lesson involved a plenary where learners reported their findings to the teacher, the HLTA and the other learners in the classroom.

In this model, the pattern of interaction between teacher, HLTA and learners was in two parts. The first was a starter activity set up by the teacher and supported according to need by the HLTA. For the main activity, the HLTA operated in a pedagogical and support role with half the class (Wilson et al, 2007). The main pattern of HLTA deployment is illustrated in the diagram below:

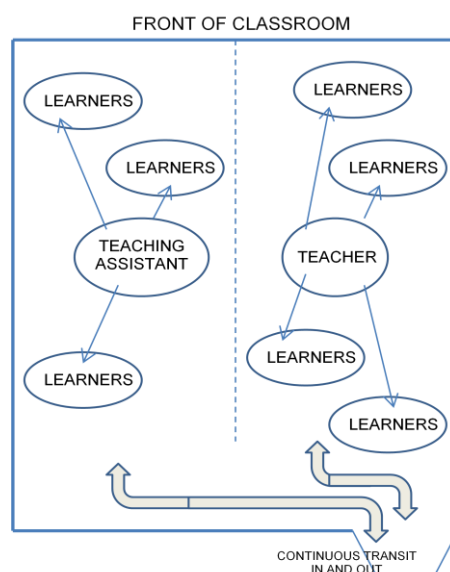


Figure 13 Model 1 D

In the lesson observation the teacher, Owen adopted a presenting role in the starter activity from a hierarchical position at the front of the class. Mary (HLTA), an experienced HLTA who accrued subject knowledge by working with the teacher in the Maths department for seventeen years, was positioned to the side of the classroom during the brief presentation. All learners were positioned in front of the teacher in rows. During the starter, the HLTA provided support according to need. When learners commenced the estimating and measuring tasks, Mary (HLTA) and Owen (teacher) were fully interactive with all learners, providing support during the kinaesthetic activity:

Learners were given tape measures, metre lengths and distance measurers - learning was kinaesthetic and both the teacher and the HLTA monitored progress by asking questions, prompting and giving support (with learning).

Researcher's Notes - lesson observation

Next, learners worked in small interactional groups on estimating and measuring different objects, including the height of a building in the school grounds. The class was divided equally between Owen (teacher) and Mary (HLTA) with each taking responsibility for half the class. This model of deployment is reminiscent of 'room management,' one of three models evaluated by Cremin, Thomas & Vincett (2005) in their research into working with TAs and noted as encouraging 'independence in the children, with children of lower attainment benefiting from not being seen as the only group in receipt of additional support' (Cremin, Thomas & Vincett., 2005; p422). A key finding from this lesson observation was that the team approach modelled by the teacher and the HLTA reinforced the co-operation between learners. Furthermore, although this was a bottom set, no learner was identified as being the specific focus for learning support.

During the main activity, learning was experienced kinaesthetically with learners moving around both inside and outside of the classroom. This freedom facilitated active thinking skills and co-construction of knowledge (Malaguzzi, 1998) as learners conducted measurements and discussed their findings with each other. At the pre-lesson observation interview, Owen (teacher) had said that, usually, his lessons 'were all pretty predictable.....we have done the same sorts of lessons for years' suggesting that the observed lesson was an atypical example. At the post lesson observation interview, he suggested that this lesson format had made him realise that 'he had 'under-estimated how weak they (the learners) would be at judging lengths'. In this lesson, both the teacher and the HLTA supported learners by demonstrating measuring strategies and used recall, prompt and open-ended questions to enable learners to use prior knowledge to build on their understanding on the use of the equipment and to arrive at correct measurements. This suggests that his understanding of learners' abilities was compromised by his routine lesson delivery and this might have an adverse effect on learning and the TA's approaches to supporting learning. One positive outcome was that Owen (teacher) recognised the value and advantages of the kinaesthetic approach and he would repeat it:

that was something I'm going to keep - and have the whole lot of them out there doing that - tomorrow, probably.

(Owen - Teacher - post lesson
observation - individual interview)

At the group interview, learners agreed that learning had taken place, saying:

When we walked around, we made different measurements. The TA and the teacher showed us different lengths and then we got to measure things for ourselves.....I understood what a kilometre was when the teacher and TA used a metre length to show me - then I could see how long it was.

(Stephen, Terry and Rachel - learners -
post lesson observation group interview)

This suggests that the learners' active participation in the learning process produced positive outcomes. As Mary (HLTA) said, 'for a class like that, it was a very good lesson.....because it was hands-on they will remember things they learnt like that.....' Her view was that learners had made learning progress and this was evidenced by the understanding they had gained of how to use the trundle measures. Here, the HLTA's comments demonstrated an appreciation of the role of 'discovery learning' (Bruner, 1973) and how guided discovery, through the use of objects of measurement and tools (Bruner, 1973; Vygotsky, 1978) and active learning can promote learners' visualisation of knowledge. Mary's training as an HLTA enabled her to support learning effectively; in view of the socially interactive, kinaesthetic strategies used in the lesson and the freedom it gave learners to conduct investigations inside and outside of the classroom, it seems doubtful that the lesson could have taken place without her support, skill and subject knowledge. She undertook an active pedagogical and support role with half the class and, as an additional resource, was deployed alongside the teacher managing learning and supporting inclusion.

4.1.1.5 Model 1 Scenario E - Classroom/ICT Support -TA Facilitating Reading and Writing Skills

A Year 9 English lesson, in Rushleigh and led by Claire (teacher) provided an example of a behaviour management strategy where task completion by the TA was the unintended negative reinforcer of passive behaviour rather than reinforcing engagement with learning. Negative reinforcers can also result in avoidance of behaviours which are likely to be repeated in situations which cause anxiety or irritation (Skinner, 1953).

Lesson Overview

This example from Rushleigh, was a Year 9 Bottom Set English Group lesson which was split into two parts. The lesson was led by Claire (teacher) and supported by Barbara (TA). In the first half of the lesson, the teacher set out a series of questions in bubbles (for visual learning) on the IWB which asked for descriptive words focusing on place, conditions, feelings and who they would meet if they were homeless. Learners made suggestions and wrote them down. Barbara, the TA provided individual in-class support for Paul, (learner) to complete a mind map.

In the second part of the lesson, the class moved to the ICT Suite where learners were positioned in blocks and supported by the teacher as they improved and edited their poems. Barbara and Paul were placed on the side of the room where Barbara word processed Paul's poem about the descriptions of his street and how he felt when he arrived at home. As Barbara completed the activity, Paul watched.

In this two-part model, the TA supported the learning by providing literacy and word-processing skills to ensure the learner had some access to the curriculum. The model is shown as:

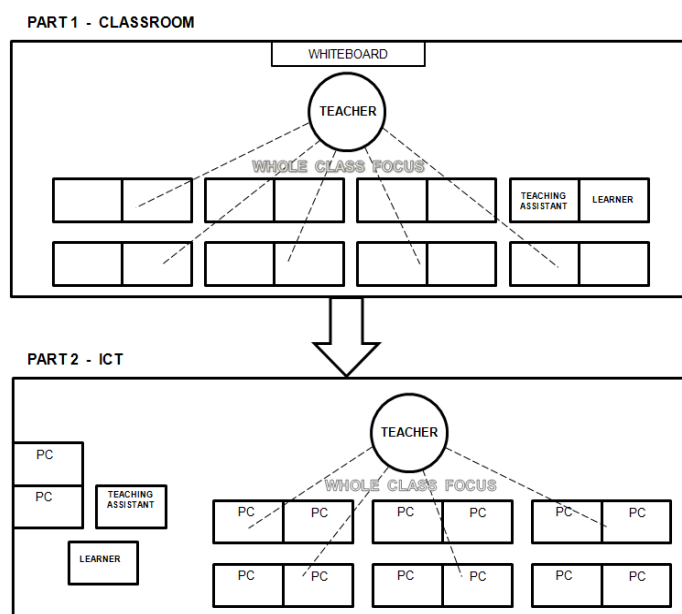


Figure 14 Model 1 E

For the first part of the lesson, Paul demonstrated some interest in providing answers to Barbara's questions. However, in the second part of the lesson, Paul was supposed to work with Barbara on contributing final comments on a poem he had written. Barbara was tasked with word-processing the results. In this activity, both the TA and the teacher unintentionally reinforced Paul's (learner) lack of interest or verbal

contributions by independently completing his work for him and not requesting his participation. As Skinner (1953) explains:

Neutral events which accompany or precede established negative reinforcements become negatively reinforcing. Thus we move to escape from an annoying or offensive person even though he is not annoying or offensive at the moment (Skinner, 1953; p.173).

In the post lesson observation interview, The TA voiced her concern about Paul's lack of attention, particularly in the second half of the lesson when she was completing the word-processing for him.

He can't read a sentence to me while I scribe or word-process so he just has to sit - and it was getting on for about twenty five minutes which is a long time for him. He did start spinning (on the chair).

(Barbara - TAs - post lesson
observation - individual interview)

The learner, on the other hand, had this to say:

It was really good. She did typing for me. She did the mind-map for me. I made suggestions and she wrote them down..... 'I would find it hard (without a TA). I would get detentions.'

(Paul - learner - post lesson
observation - group interview)

His comments illustrated his appreciation of the fact that his work had been completed for him in the lesson. He said that he had behaved well and, as a result, had avoided being told off or being given a detention and apparently regarded this as his major achievement in the lesson. Claire (teacher) also appreciated the TA freeing up her time to support the rest of the class and to complete other tasks. Without the TA's support she said that she would:

have spent all the time helping Paul and I wouldn't have been able to get round to all the pupils they way I did....I had to make parents' evening appointments. If Barbara hadn't have been there, I wouldn't have been able to do that because I would have had to stay beside Paul.

Claire - Teacher - individual post lesson
observation interview

Barbara had completed Paul's work which, by his own admission, also prevented him from being badly behaved and getting a detention. By doing so, she pre-empted any disruption he might have caused. In class, teachers have a choice as to whether or when to use consistently positive reinforcers (Skinner, 1953) such as praise, merits or commendations or whether to apply negative reinforcers (Skinner, 1953) such as excusing them from an unpleasant chore – for example, litter duty - if they behave well and complete their work. The key point here was that Paul was included in the learning but his needs were so high that he could not participate in the class activity.

The second point is that, in both parts of the lesson, the TA was primarily concerned with behaviour management, in the first lesson by occupying a learner with a topic which might result in a later reward and in the second by unintentionally facilitating the learner's passive behaviour.

This study looked at five scenarios of Model 1 - A, B, C, D and E. Although this model is one of the more typical models of learning support the five scenarios manifested very different characteristics. In Scenario A, the TA and learners worked in the classroom as a closed unit, isolated from interaction with the teacher and with their peers. The TA's role was to ensure that learners understood the information from the video on the Mexican Oil Slick, and could reproduce this on a mind map to create a newspaper article in the next lesson. There were no opportunities for independent learning, interaction or co-construction of knowledge (Malaguzzi, 1998) and part of the TA's function was to manage learners' potentially difficult behaviour. In Scenario B, the TA and the learner worked as a pair with the teacher and TA including the learner fully in the learning process. The lesson content, based on hypothesis, was geared towards independent learning. The TA facilitated learning through scaffolding (Wood et al, 1976) and questioning techniques (Bloom et al, 1976). The learner's achievements were positively reinforced by both TA and teacher. In Scenario C, the experienced TA ensured that group learning was sustained. She deflected potentially disruptive behaviour by asking the learner a question which he was able to answer. She also supported the (inexperienced) teacher to achieve the learning outcomes of the lesson by helping other groups in class and by participating in the role play. Scenario D provided an example of where the HLTA was involved in team teaching with the teacher and her experience and skill ensured that learners were involved in the active co-construction of knowledge (Malaguzzi, 1998) and positively guided to make discoveries for themselves (Bruner, 1973). In Scenario E the TA supported the

learner's inclusion in the lesson by discussing the work with him and focusing on managing his behaviour.

4.1.2 Model 2 -TA Working out of the Classroom as Directed by the Classroom Teacher

This model, identified on pp.36-37 of the literature review, was less common. The TA was present in class at the beginning and listened to the teacher introduce the task and explain the learning objectives and outcomes (James et al, 2007; DfES, 2006). The teacher explained the lesson plan to the TA who supported pre-selected learners in a withdrawal group for the remainder of the lesson.

Lesson Overview

This example, from Windihurst, was of a Year 8 Access (Bottom) Group in an English lesson. The lesson was introduced in class by Edward, the teacher and delivered in a separate location by Donna, an experienced TA. In the introductory session, all learners were instructed to write a response to the novel, 'Mortal Engines,' using the Point, Explore, Evidence (PEE) structure. Of equal importance was a focus on technical skills and, in particular, sentence demarcation and the use of capital letters. The withdrawal group consisted of four learners with learning needs - Catherine, Nigel, William and Barry. The teacher had provided informal, on-the-job training for the TA during the time they had worked together. Before the group withdrew, Edward reminded her of the learners' current targets. Edward had clear ideas as to how Donna (TA) should be deployed. She was to help learners plan their essays by supporting them to complete the writing frame and structural chart (see appendices) which he had provided. Learners had also been provided with individual whiteboards to use for spellings and setting down their initial ideas, a strategy which supported independent learning. Learners were also encouraged to develop their own learning independently by asking themselves the question 'do the sentences make sense?' when checking their work. The TA was asked to return to the group just before the end of the lesson so he could check their work.

Donna (TA) delivered the teacher's plan with the small group in the role of the 'knowledgeable other' (Vygotsky, 1978). Learners were positioned in pairs but not in a row. The spaces between each of the desks facilitated Donna's full access to each learner as she circulated the group. The layout of the small room is shown below:

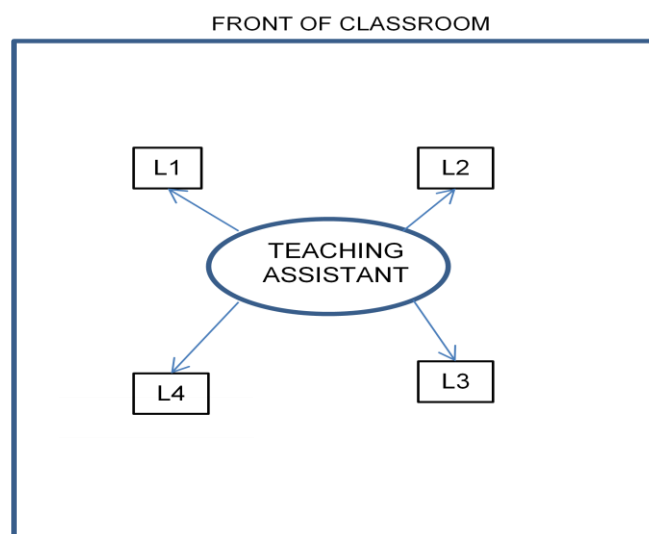


Figure 15 Model 2

The important finding from this withdrawal session was that the TA was enabled to support learning positively because key factors were in place. These stemmed directly from the collaborative relationship between the teacher and TA. (Devecchi & Rouse, 2010). Both Edward (teacher) and Donna (TA) said that they found some opportunities for voluntary, joint planning of lessons:

...if I am free at the end of the lesson and he's free we will sit down and he says to me "tomorrow we will be doing....."

(Donna - TA - pre-lesson
observation joint interview)

Donna had observed Edward modelling teaching approaches (Bandura, 1977) and had used this as on-the-job training to develop her own practice. She had received some informal, on-the job training in progression and assessment from Edward and, at the start of the lesson observation, was made aware of current targets before embarking on supporting learning. Donna is given learner's records by the teacher so that she can monitor progress:

(Edward) gives me the records so that I can see - how - when - they do their little tests...they have improved and I do get to see their targets.....sometimes we set targets together...so I do see their progress.

(Donna - TA - pre-lesson
observation joint interview)

In the lesson observation, Donna's skill in using one-to-one questioning to promote initial thinking and to focus learners on completing the writing frame and structural chart to support the construction of a detailed response to the novel, became apparent. She scaffolded her questions (Wood et al, 1976) beginning with recall questions - for example, 'do you remember what Valentine (the main character) was like?' As learners were able to respond to these affirmatively, they gained confidence and became more proactive. Donna then moved to questions which began with statements - 'Valentine is a caring person; why?' When reasoned answers were given, Donna's questions became more open-ended (Bloom et al., 1956) and began to focus on the task in hand – for example, 'how are we going to write this?' She gave thinking time to encourage to facilitate their responses. This procedure was repeated throughout the lesson on a one-to-one basis, with some learners making decisions as to what to write. Their responses provided evidence of the importance of questioning in promoting active thinking skills (Malaguzzi, 1998) and developing learning. For example, to the question, 'Is Valentine a good hero?' a learner replied 'yes' and supplemented his answer with 'Valentine saved a massive wolf.' Then he asked how to spell 'massive' and the TA encouraged him to spell it phonetically for himself. He did this correctly and then wrote the answer down.

Donna demonstrated how learning could be developed by the withdrawal of support (fading) at key moments with particular learners (Wood et al, 1976). Although Donna provided interventional guidance, she also understood when to withdraw her support to facilitate the learners' independent learning and access into the 'ZPD' (Vygotsky, 1978). This was exemplified when, observing the independence of one learner, Donna provided less support. She provided interventional guidance at regular intervals but only on request so as to encourage self-regulated learning (Bandura, 1986, 1991; Zimmerman & Schunk, 2003). When not providing guidance, she monitored the learners' output and kept them on task. The lesson observation provided an example of successful scaffolding by the TA which was instrumental in developing the learner's ability to restructure sentences and to widen the vocabulary used in the sentence.

The learner asked the TA to check her work. She had written 'as the novel develops we see that Valentine is a nice person because he is caring' – the last word was substituted after discussion to avoid repeating the word 'nice.' The learner reconsidered what she had written and asked 'does this make sense – Valentine is a kind, caring person?' Donna signalled approval and the learner wrote it down and continued to work.

(Researcher's Notes - lesson observation)

The lesson provided other examples of effective questioning and skilful withdrawal of support to promote learning. Another learner who found it difficult to maintain focus and had reading difficulties needed regular support in order to complete the work. Donna (TA) focused first on content, for example asking 'what happened then?' Her questions enabled him to produce half a side of writing. Next she focused on skills, asking, 'what does evil start with?' - and, by taking him through the word phonetically, he arrived at the correct spelling for himself.

This lesson observation provided evidence of how the use of 'psychological tools' (Vygotsky, 1978) can develop learning. Throughout the lesson, learners were encouraged to use 'psychological tools' such as writing frames and individual whiteboards to note ideas, construct sentences and check spelling (Vygotsky, 1978). When learners appeared to demonstrate over-dependence by waiting for help, Donna (TA) used phrases such as 'so you spent all that time waiting for me when you could have done this for yourself?' to discourage their over-reliance on learning support. To encourage self-sufficiency and active thinking skills (Malaguzzi, 1998) she had constructed an 'action chart' to enable a needy learner to assess for himself whether he could proceed independently (see Appendix 8). Donna made this change because, like Edward (teacher), she thought that learners should not become intellectually over-dependent on receiving help. Edward's view was that:

Those (TAs) who should be with a statemented pupil are better used on occasions on a more general basis - if the statemented pupil can do a task independently then using the TAs more generally will avoid over-dependence.

(Edward - Teacher - post lesson
observation - individual interview)

Edward's commitment to independent learning can be justified on two counts. Firstly, when the statemented learner is working independently, the re-deployment of the TAs with other learners who are struggling with tasks would promote inclusivity in the classroom. Secondly, in this study, learners from other lessons who received learning

support have indicated that there were times when they would appreciate more independence. This is summed up two comments:

Sometimes when I can do the task myself I would like to be left to do it. I prefer to have someone who can guess when I need help....it is irritating when I know what to do and they still want to help me.

(Simon - Learner (Model 1, Scenario A) - post lesson observation group interview)

Sometimes when I know the answers or think I can do the work on my own, it complicates things if the TA tells me one thing and I have thought of something different.

(Terry - Learner - Model 1, Scenario C - post-lesson observation group interview)

This suggests a need for greater vigilance from teachers and TAs in order to identify those occasions when learners have reached the 'discovery' moment (Bruner, 1973) and are able to function more independently with tasks.

Significantly, learning in Donna's withdrawal lesson was illustrated in the verbal feedback in her plenary and in the more independent approach to completing the work which suggested that the lesson had been a positive learning experience for learners. Learners' reading of their work suggested that progress had been made in terms of the quality, technical accuracy and the amount of writing produced. Throughout the lesson, in line with the teacher's instructions, Donna had reminded learners to use full stops and capital letters and to check their sentences to ensure they made sense and it seemed that learners had tried to do this well.

A key point which emerged from this lesson was that, despite the potential for marginalisation in class, withdrawal from the main class was not a marginalising experience for learners. This was because Edward (teacher) did not operate it as a fixed pattern of practice. The crucial element in the success of his approach was that groups of learners selected for working in the withdrawal groups *were different each time* and were not selected in terms of highest need and because Edward frequently taught the whole class with Donna (TA) who provided support with *different* groups of learners in class as specified by the teacher. Furthermore, the TA was skilled in approaches which promoted active, intellectual development. It suggests the withdrawal model in itself is not an issue providing it is underpinned by working

practices which actively support learning and do not remove learners from the expertise of the teacher on a regular basis.

Learners interviewed afterwards stated that they found working in a small group very helpful, although one said that he became confused if his answers were different to those of the TA, once again highlighting the importance of providing sufficient scaffolding of the task for learners and of not assuming the learner's understanding too quickly.

4.1.3 Model 3 - Independent Teaching by a TA

This model, as shown on p.37 of the Literature Review, is an example of an ordinary level TA in the role of teacher who planned for and directed the learning of a Year 10 timetabled group in a specially designated classroom - a role more officially intended for an HLTA rather than a TA (DfES, 2003; TDA, 2006). Learning support was also provided in different subject areas. The TA also provided in-class support in English and was aware of the needs of the learner from the English lesson.

Lesson Overview

In this example, the TA independently managed the Year 10 Option Group in Rushleigh. Here the TA worked autonomously to provide GCSE support for those learners who, after discussion with teachers, have opted for extra support in specified subjects. The TA, Anna, worked with two learners. Most of her attention was focused on Ellie, who had been sent to catch up on preparation for an English controlled assessment on Macbeth. The task was to access information on King James and the witches. Ellie has difficulties with speech and with understanding meanings of language. The other learner, Louise, worked independently on German vocabulary using the internet, a task for which Anna had no specialist expertise. This was followed by working on an unrelated project entitled 'Twenty Things To Do Before I Am Twenty.' This task was not subject specific and was unrelated to GCSE work. Nevertheless, it had been pre-prepared by the Learning Support Department as a way of enhancing literacy skills but mainly as a motivational strategy to support social, behavioural and pastoral learning. Sometimes the learners' suggestions were selected as an extra-curricular activity.

This example involved the TA in providing support for two learners in different subjects, English and German. They were located in a specially designated Learning Support room. The desk was slightly to one side of the room to accommodate the ICT facilities which were installed along the length of one wall. Learner one (Ellie) was sitting facing the TA discussing English. Learner two (Louise), who was studying German, worked on looking up vocabulary using the ICT facilities. This pattern of interaction remained

unchanged until the last five minutes of the lesson when both learners sat at the table and read aloud to Anna (TA). The room layout is shown below:

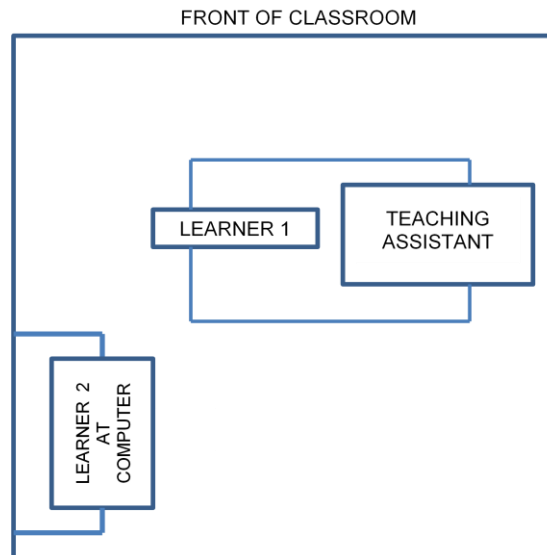


Figure 16 Model 3

Within this model Anna, in the role as the more knowledgeable adult (Vygotsky, 1978), was, nevertheless, restricted in the support she was able to provide. The lesson observation showed that even though Ellie (learner one) could read from the information sheet fluently, she needed simplification of the information before being able to answer questions in discussion. Anna worked collaboratively with Ellie by breaking the text down line by line to facilitate her understanding and by asking recall and prompt questions to scaffold the learning (Wood et al, 1976) and this elicited some accurate answers from Ellie. However, Anna recognised Ellie's difficulties:

Ellie needs things broken down into really small chunks - I can really only do one line at a time.....(Ellie) doesn't take in the meaning of words and she needs them explaining to her a lot.

Anna - TA - post lesson
observation individual interview

By the end of the lesson, Anna had resorted to task completion (Webster, Blatchford & Russell, 2013b) by writing some notes for Ellie to copy up. Anna also constructed a plan for Ellie to enable her to complete her homework. This lesson observation provided little evidence to suggest that Ellie had made developmental progress in her

learning either in independent written or verbal responses. In fact, she stopped work when Anna checked Louise's (learner two) progress. However, Anna felt that Ellie was a little more prepared for the class assessment task:

she is more ready for what she is going to get in class. And she did manage to get some of the sentences on her own but she does rely heavily on repeating what I say to her so....

(Anna - TA - post lesson
observation - individual interview)

Anna (TA) was unable to support the second learner (Louise) because she did not have specialist skills in German. During the lesson, when completing a second activity, Louise received less of the TA's attention partly because of her position on the periphery of the classroom where the ICT facilities were situated. When Louise had completed her German vocabulary, Anna provided her with a pre-planned, unrelated task to improve her literacy skills - Twenty Things To Do Before I am Twenty. This activity had been constructed by the Learning Support Department to improve the motivation of struggling or reluctant learners. As a positive reinforcer, these learners were promised an end-of-term trip based on one of the suggestions made.

The idea is that, at the end of term, we can take them on a trip to do one of the things on their list...it's nice for them to have a break from academic stuff - it's accessible - and a lot of learners are demotivated because they struggled a lot in school.

(Anna - TAs - post lesson
observation - individual interview)

Premack (Premack, 1965; cited in Woolfolk, 2013) proposed that a more attractive activity - in this case, the promise of a trip in the near future, acted as a positive reinforcer for a less attractive activity - defined here as the completion of the project. Skinner's view (1953) was that we are more likely to do things if they result in reinforcing consequences. In this lesson the learner, Louise, with little German work to complete and nothing else to do, seemed motivated to work independently on word processing her ideas for this topic. However, the task was not directly linked to a GCSE subject area. The task was planned to support literacy skills but was more likely to be used as a behaviour management strategy or, as in this lesson, as a 'filler' when no other work was available. This strategy appeared successful in terms of occupying the learner but the TA and both learners were restricted in advancing learning by not having access to teachers to provide the relevant subject specialist support.

4.2 Conclusion

The findings from lesson observations and interviews highlight several factors which affect the deployment of TAs to support learning and these are illustrated within the three models. In Model 1, Scenario A, the positioning of the TA with learners can have a negative, isolating effect on learners in terms of teacher support and peer interaction. However, Model 1, Scenario B demonstrates that this hierarchical, tripartite arrangement can work if the teacher supports the work of all learners, the lesson content provides opportunities for independent thinking and the TA is skilled in teaching and learning strategies which promote intellectual development. Model 1, Scenario C highlights the usefulness of the TA's experience in teaching strategies, supporting interactive groups, involvement in providing learning support across the attainment levels and participating in class activities. Model 1, Scenario D illustrates the benefits for the teacher and learners in working with an experienced HLTA within a subject department where accrued subject knowledge supports learning. Model 1, Scenario E foregrounds the difficulties encountered when attempting to support learners with significant literacy difficulties in the mainstream classroom. Model 2 shows how voluntary joint planning, on-the-job training and skills in teaching and learning strategies can support independent learning in a withdrawal lesson which operates with different learners in different lessons whilst Model 3 illustrates the problems encountered in independently run lessons where the TA is tasked to support a specific learning need or a subject in which s/he has no training or expertise.

Overall, the findings from these models of deployment suggest that TAs can make a positive contribution to supporting learning but that this depends on a number of factors which include training, joint preparation and planning, consistency/regularity of the provision, positive professional relationships between teachers and TAs, and the extent to which TAs and the learners with whom they work are included in the lesson. TAs also need skills in teaching and learning approaches which actively promote independent learning and to take time to discuss lesson content, learners' progress and targets with the teacher. There are, however, other factors which shape the patterns of interaction between TAs, teachers and learners and these provide the focus for discussion in the next section.

CHAPTER 5 FINDINGS - FACTORS WHICH SHAPE THE PATTERNS OF INTERACTION

Introduction

This chapter presents a discussion of the findings based on those layers of the ecological conceptual framework which shape the patterns of interaction in the participant schools. The first section discusses factors primarily within the exosystem which determine whether TAs will be deployed within learning support or subject departments and the consistency and regularity of TA support. The next section focuses on the mesosystem, where teachers and TAs develop professional relationships and ways of working to support learning. The last section discusses the provision of training, preparation and planning from two angles - by schools and departments from within the exosystem and by teachers and TAs operating within the mesosystem. The ecological framework highlights the interaction between the systems and this is reflected in the findings.

5.1 The Location of Teaching Assistants

The findings from participant schools showed that TAs primarily supported SEN(D) learners. Those at Rushleigh and Windihurst were all located in the Learning Support Department and supported SEN(D) learners and bottom sets. In Mistfell, where there were fewer SEN(D) learners, some TAs were deployed in departments - for example, in English, Maths and Science. Research participants from English and Maths suggested that the departmental location supported the development of subject knowledge and facilitated subject based learning. Those TAs located in Learning Support departments developed understanding of SEN(D) through working with learners. The study found that opportunities for TAs to provide support across the attainment levels were limited.

In Mistfell teachers expressed a preference for departmentally based TAs because it facilitated accessibility for discussion and provided opportunities for planning and explaining resources. Owen (teacher) suggested that it helped to cement departmental relationships. He said:

now we have a dedicated TA in the Maths Department, it helps enormously.....she is always here.....she knows exactly who the pupils are who she is programmed to be with - but at the same time she will help any of them.

We just work together with them...we get on together on a personal basis and that helps an enormous amount.

(Owen - Teacher - pre-lesson
observation - joint interview)

The TA agreed, saying:

The nice thing about being in a department is that you get to know all the teachers and the ways in which they work.....knowing how each other works and the fact that I am always in Maths means that I can see when the pupils and have learnt something or retained it for the next lesson.

(Mary - HLTA - pre- lesson
observation - joint interview)

Another teacher also from Mistfell appreciated the TA's expertise:

Because she (Katy - TA) works in through the English Department, I know she is familiar with the schemes of work - I know that she has already got resources prepared on Much Ado About Nothing and Romeo and Juliet.

(Leah - Teacher - pre-lesson
observation - joint interview)

Ian, the Head of Humanities in Windihurst who did not have a departmentally based TA regarded it as a priority because of their accessibility and the opportunity this would provide to develop specialist TAs:

...number one - we would have a TA or assistants based purely in our faculty. They would be specialists, if you like....number two - I think if you have got TAs working within your faculty, because you have got that proximity, you have got more chance to talk on a daily basis about what you are doing and why.

(Ian - Head of Humanities - post
lesson observation - individual
interview)

Conflicting findings emerged on the issues of workspace and staffroom facilities. In Mistfell, TAs shared the same departmental workspace and general staffroom with teachers. This suggested a more equitable, professional environment and made it easier for teachers and TAs to discuss and share information which was appreciated. However, Rushleigh and Windihurst provided separate workspace and staffroom for TAs. Findings suggested that this was advantageous because it provided easier

access to TAs for teachers and learners and facilitated the sharing of learning support resources and joint TA monitoring of learners' progress. One disadvantage emerged:

It has the potential to be a 'them' and 'us' situation - a very different culture and context - although that is not the case here.

(Ian - Head of Humanities - post
lesson observation - individual interview)

This raised the possibility that separate locations for teachers and TAs could result in teachers being 'out-of-bounds' for TAs who might feel too intimidated to enter the teachers' space. Potentially, this could physically reinforce the innate hierarchy existing between teachers and TAs and present a barrier to informal discussions or joint pre-planning of lessons in a climate where planning opportunities are already problematic.

In summary, findings show that TAs were located mainly in the Learning Support Department as LSAs, supporting SEN(D), School Action Plus or School Action learners. This was also the case where TAs were deployed in subject departments, provided support in specific subjects or undertook a pedagogical role with a separate group. This case study found only one example where the TA - a retired teacher located in a subject area - supported learners more generally in a mixed ability classroom but this occurred only after spending the first half of the lesson with a group of lower attaining learners.

5.2 Consistency of Learning Support

Teachers' interviews highlighted a lack of consistency in the provision of learning support. Windihurst, had a high proportion of SEN(D) learners and this was reflected in the number of TAs they employed. At KS4, some TAs were deployed across several subject areas to meet the extra demand for learning support. Thus, some learners were supported by different TAs for the same subject and this made it difficult for a TA to understand individual learning needs and detracted from the quality of learning support.

Edward (teacher - Windihurst) asserted:

Consistency is important and it is important that the same TA works with the same class and learners on a regular basis. This makes the very best use of support. Feedback from other teachers on the way TAs work with classes on a less regular basis seems to suggest that support is less effective as they don't know the learners properly or understand their needs

(Edward - Teacher - pre-lesson
observation - individual interview
(planned as joint but TA unable to attend)

Edward also emphasised the regularity of the provision as an important factor in promoting learning and foregrounded the relationship between the consistency of support and the building up of learners' trust, suggesting that the TA's knowledge of their strengths and weaknesses was of equal importance to that of the teacher. Anna (TA) from Rushleigh also agreed, basing her view on her own experience of managing the Year 10 Option Group where learners relied on the frequency and regularity 'to focus in a way they probably wouldn't do in class.' In the post lesson observation group interview, both learners from this group said they always found the support they received there a 'positive experience.' The consistency and regularity of learning support or the location of the TA within a subject area was also seen as instrumental in ensuring the TA was familiar with the subject. In the pre-lesson observation joint interview, Mary (HLTA) in Mistfell said that 'knowledge of the syllabus and what is expected from that particular year group' was a key factor underpinning the quality of support. Leah (teacher) in Mistfell said of the English TA:

...the second thing is that, because she works throughout the English Department, I know that she is familiar with the schemes of work - I know that she has already got resources prepared on Much Ado About Nothing and Romeo and Juliet.

(Leah - Teacher - pre-lesson
observation - joint interview

5.3 Professional Relationships

Thomas (1992) has suggested that the quality of professional relationships between teachers and TAs was found to be one of the main factors in providing successful learning support. An ineffective relationship was seen to have a negative effect on the

quality of support provided. In a problematic relationship, it was less likely that teaching and learning approaches were discussed and the level of co-operation between the teacher and TA was diminished. One TA illustrated the effect of relationships on the provision of learning support:

..there are certain teachers.....they work differently to me – sometimes when they stand at the front and do certain things - I think - oh, I wouldn't do it that way - and I, as a person, am not so relaxed when I am in that class.....whereas when I 'm with Edward (teacher) and I know how he works - and we know each other - I feel I am more relaxed as a TA to work with the pupils.

(Donna - TA - pre-lesson observation - individual interview)

Although some teachers are reluctant to share their classroom with a TA (Blatchford et al., 2009b), those interviewed said that they were happy to work with other adults in the classroom. However, the lesson observations demonstrated how TAs were sometimes restricted to working as a separate entity with one or two learners as a closed unit within the main body of the class or seated on the periphery without the expertise of the teacher. This suggested the need for teachers to be trained in how to manage and direct TAs to work in ways that positively support learning progress.

Edward (teacher - Windihurst) suggested that the creation of effective relationships depended on a number of features. He said:

having a good working relationship is one of the most important things and then knowing a lot about the learners is important when deploying them (TAs)...if you have those basics in place about knowledge and understanding how people work – well that's great – but in terms of building that and getting to the point where deployment becomes almost a telepathic – I think you obviously have to include quite a lot of time explaining how you want that person to work with people and ask them if they have got time to find out about their pupils' learning needs and, where possible, to involve them in the planning.

(Edward - Teacher - post lesson observation - individual interview)

Rather than providing instructions as to *what* the TA should do in the lesson, Edward's focus was on *how* Donna (TA) should be deployed to support learning effectively and, in the light of a prior understanding of learner's needs, the teaching and learning approaches she would use to enhance learning. The finding which arose from this was that the voluntary pre-planning which Edward (teacher) and Donna (TA) undertook ensured that she could work as the expert adult, scaffolding tasks (Wood et al, 1976)

and using a range of questioning strategies (Bloom et al, 1956). Edward's comments also highlighted the usefulness of frequent joint planning and the opportunities it presented for 'on-the-job' training of TAs; it also suggested that he envisioned the TA's role as professionally skilled and underlined the importance of communication between teacher and TA and of building relationships which were 'almost telepathic.' Their professional relationship was such that when time issues precluded pre-planning, as was the case for this lesson observation, he was able to plan her role and resources in the knowledge that she would deliver the withdrawal lesson effectively. He said:

My confidence in her and understanding how she works meant that I could plan for her and that allowed the 'pupils' again to make good progress.

(Edward - Teacher - post lesson
observation - individual interview)

This underlines the importance of building intuitive, confident relationships where both teacher and TA understand how each other works. It also contrasts the notion of TAs impeding the progress of learners which is a feature of some studies discussed in the literature review. Other examples of positive relationships were found at Mistfell where Owen's (teacher) and Mary's (HLTA) professional working relationship had developed over many years. Mary fully understood Owen's ways of working, the resources and teaching approaches he used and how he would structure lessons. The second example, from an English lesson, showed that, although Leah (teacher) was relatively inexperienced whilst Katy (TA) was a retired SEN(D) teacher, their professional relationship had developed in such a way that Leah felt able to use Katy's previous experience in positive ways. Leah's own experience as a TA and second in charge of a Learning Support Department in her NQT year provided useful experience in understanding relationships from both points of view. Thus, Leah could discuss strategies and take advice from Katy whilst Katy used her experience to support the learning outcomes of Leah's lesson, manage behaviour and use constructivist approaches to support learning progress. Crucially, the lesson observation showed that Katy supported Leah by adapting the task set for her group of learners when it became apparent that it did not allow them to participate fully in the class activity.

However, the teachers' post lesson individual interviews revealed factors which could negatively affect relationships. In Rushleigh the distracting behaviour of some TAs, particularly when teachers were presenting, leading class discussions or during silent working periods were cited:

It is difficult sometimes.... when you are leading a discussion from the front and the TA is talking because they have to - and I do sometimes lose my train of thought - for example, when I have asked the majority of the class to work independently which needs silence for part of the lesson - to have somebody chatting is very distracting for pupils.

(Claire - Teacher - post lesson
observation - individual interview)

In Mistfell concerns were raised about over-supporting learners:

We worked as a team - we were both doing the same thing at the same time basically...during the ten questions she was giving a little bit of help to one or two people. I tend to discourage that, to be honest ...they are so needy some of those pupils that sometimes she can't help herself.....and sometimes the marks little Teresa (the learner) gets are not what she would get if we sat her down on her own.....I want to know exactly how far they can get on their own.

(Owen - Teacher - post lesson
observation - individual interview)

Owen's concern about task completion or supplying answers is valid. As his last comment showed, learning is about developing understanding and working in the ZPD (Vygotsky, 1978) to enable learners to complete work independently. Although findings showed that professional relationships and communication between teachers and TAs were largely positive, these examples highlighted underlying issues concerning the TA in the classroom and their approach to learning support.

5.4 Training Preparation and Planning

5.4.1 Training

The onus is on schools to provide training to support the TA's entry and immersion into school policy and procedures. Findings from interviews confirmed that this was provided. Typically, schools provided a day's induction where policies and practices were introduced followed by a period of about two weeks' experiential learning, a process 'whereby knowledge is created through the transformation of experience' (Kolb, 1984; p.41). Initially, TAs observed lessons or shadowed other TAs and were gradually introduced to supporting learning in lessons. Although experiencing the classroom environment, observing teachers using teaching approaches and managing behaviour is useful, this training method is passive and relies on teachers exemplifying effective practices. It also depends on the TA's ability, to pick up and use these

approaches on an ad hoc basis rather than first receiving focused training followed by active participation in class at an appropriate level of competence. During interviews, TAs said they mostly gained their expertise in the classroom, thus demonstrating their flexibility and resourcefulness. TAs were invited to attend staff training days. There was no obligation to attend externally provided INSET either on specialist courses for example, on autism or on teaching and learning practices; these courses were not usually financed by schools. Relevant in-service training was available covering topics relating to the TA's role, for example, behaviour management and use of resources.

Classroom observation may provide examples of effective practices but it is difficult to see how these competencies could be acquired solely by this method. The induction method is insufficient on its own and, although joint pre-planning and timetabled support by teachers might go some way to providing this, statutory training on understanding and using social constructivist approaches to learning would enable TAs support learning more effectively. For those TAs supporting statemented learners with SEN(D), there was no specialist training other than voluntary, self-funded courses. TAs were primarily interested in receiving training for their current role rather than for career progression.

Findings from post lesson individual interviews showed that none of the case study schools provided any training for either experienced or newly-qualified teachers to manage the work of TAs or to develop their pedagogical role - either by developing their subject knowledge and understanding, or in implementing approaches which develop independent learning through scaffolding work (Wood et al, 1976) asking open-ended questions (Bloom et al, 1956) and encouraging social interaction or co-construction of learning (Vygotsky, 1978; Malaguzzi, 1998).

Some lesson observations highlighted the need for teacher training to avoid outcomes such as TAs and learner(s) working as a closed unit within lessons or TAs undertaking task completion. Observations and interviews also provided some evidence of TAs gaining expertise from observing the teacher's approaches to developing learning in the classroom.

In the post lesson individual interviews TAs agreed that teachers needed training to manage their work, Fiona (TA) from Windihurst said:

In terms of working with teachers, they probably ought to be trained to work with TAs because you can tell – sometimes you go into a lesson and they don't really know how to use you whilst others just seem to know – probably because they have been longer in the job.

(Fiona - TA - post lesson
observation - individual interview)

This illustrates that Fiona has little control over how she supports learning in lessons but suggests she can discern whether the tasks she is given will or will not support learning effectively. Teachers did not agree they required training to manage and develop TAs' skills. Gill (teacher) with whom Fiona worked said - 'I personally don't think I need training' - which confirmed Fiona's lack of control over how she provided learning support. Mostly, teachers did not pre-plan the work of TAs but relied on their experience to provide appropriate support for the learner(s). This is exemplified by Owen (teacher - Mistfell) who relied on his experienced TA to provide effective support as the lesson progressed. He commented, 'Mary is in my lesson all the time...she can take over if I am not in school.' Generally, teachers instructed the TA at the start of a lesson or, as in Rushleigh, at the end of the lesson in preparation for the next:

What we normally do, is at the end of a lesson, I tell Barbara where we are going next. I explained that would be doing themed writing...so the first part of the lesson is something new that Barbara hasn't seen.

(Claire - Teacher - pre lesson -
observation - joint interview)

These practices rely on TAs' adaptability and experience as shown in Claire's lesson where Barbara was provided with a previously unseen mind-map to discuss with learner, Paul. Gill (teacher - Windihurst) also relied on Fiona (TA) to adapt to new situations:

I am confident that, if (the learner) needs something different or is not getting what I want (them) to do from the lesson plan, Fiona will have the skills to do something a bit different....or (she) might say to me, (the learner) really needs to do this.

(Gill - Teacher - pre-lesson
observation - individual interview)

This consolidates the view that TAs do not require training but can effectively implement instructions using their classroom experience. Gill's response shows she relied on Fiona to identify learning needs and to understand and use her teaching

approaches - in this lesson, scaffolding questions - in ways which promoted learners' intellectual development and enabled them to make independent contributions to discussions. It also evidenced her reliance on the TA to 'do something a bit different' on the assumption that she was competently skilled in learning approaches and was able to modify these and resources independently depending on learners' needs.

Findings showed that teachers did perceive a need for TA training in assessment frameworks, progression and targets. It was felt that this would enable them to properly understand the levels at which learners were working and use this to build on their skills and achievements. Edward (teacher - Windihurst) commented:

If they had a better knowledge of progression and assessment – if they could really know what the learner needs to do next – if they could spot something...

(Edward - Teacher - post-lesson
observation - individual interview)

Teachers also thought it would:

help TAs maybe if they had training on the assessment we are doing - the levelling - so they are more confident - to say 'at this point this is what the learner is working at or towards'.....(it) would be good if they could join us when we moderate work.

(Gill - Teacher - post-lesson
observation - individual interview)

These comments highlighted teachers' understanding of what learning is and how it can be measured to meet schools' and governmental targets. Overall, however, teachers thought that learning support could be improved by providing training and demonstrated their willingness to develop the TAs' skills and advance professional relationships.

Research by Blatchford et al (2009b) suggests that:

More needs to be done to prepare newly-qualified and in-service teachers with the necessary skills and to help them manage the growing number of support staff with whom they work (Blatchford et al, 2009b; p.10).

Blatchford et al (2009b) also suggest that no teacher training in how to manage and develop TAs' work is available. Potentially, however, teachers could support TAs to use resources and approaches which positively support learning - for example questioning

techniques (Bloom et al, 1956) managing peer interaction and working with the learner in the ZPD (Vygotsky, 1978) and scaffolding learning (Wood et al, 1976). Teachers could also help TAs to understand formative assessment and progression, particularly useful when, like Anna (Option Group), they are deployed in pedagogical roles (Wilson & Bedford, 2008) outside of the classroom where they cannot observe these skills and approaches in action.

5.4.2 Preparation and Planning

This case study found that there was no time provision for preparation and joint planning; therefore, TAs often arrived at lessons unprepared or having to use prior knowledge of the previous lesson to proceed. As Katy (TA) from Mistfell said, 'most of the time, to be honest, I just wing it.' However, she and Leah (teacher) had planned for the lesson observation which Leah (teacher) said had enabled them both 'to be more effective and versatile.' During joint interviews both teachers and TAs said that it was difficult to find time to plan together even though it was seen as an important element in providing effective learning support. A plethora of other studies (Blatchford et al., 2009b; DfES, 2000a; Dixon, 2003; National Centre for Excellence in the Teaching in Mathematics, 2011; Spencer & Edwards, 2011; Wilson & Bedford, 2008) have also found that schools rarely make provision for planning time. However, dedicated planning time could foster effective classroom relationships and improve communication between teachers and TAs. The DfES paper on Supporting the Teaching Assistants (DfES, 2000a) states that:

Good planning and preparation of work in accordance with clear objectives are essential conditions for success in team working generally. It follows that teaching assistants should be involved by teachers in their planning and preparation of the work.....The virtuous circle of 'plan, prepare, do and review' will be familiar to many teachers. It is for schools to ensure that TAs are fully part of all aspects of that sequence (DfES 2000a; p.25)

The data showed that teachers and TAs sometimes planned together voluntarily - for example, in Windihurst. Joint planning and discussions on schemes of work was facilitated by a TA's location within a subject department but still did not always take place. There was no evidence of joint planning in Rushleigh, although the Assistant Head stated that some voluntary discussion might take place. However, in the case of lesson Model 3, Anna, (Option Group), a TA not an HLTA, had been proactive in planning for her teaching role by obtaining resources from Ellie's (learner) English Teacher. For Louise (second learner), who required MFL support, Anna provided a

non- subject specific, pre-prepared topic, unrelated to GCSE, as a motivational strategy to support social, behavioural and pastoral learning. The primary function of the Option Group was to provide support with Year 10 coursework but this example showed that it was sometimes used to support learning *other than* prescribed topics at KS4.

Overall, the case participant schools did not provision for statutory joint planning. It only occurred where the teacher and TA undertook it voluntarily - for example, Edward and Donna (Windihurst). It sometimes occurred on an ad hoc basis during the school day under quite difficult circumstances. For example, Ian (Windihurst) stated that, to make arrangements for Jane (autistic learner) to complete a previously missed controlled assessment, he and the TA:

had to bump into each other in the corridor to hand over resources that Jane needed and have a ten minute chat after school and say 'Jane needs to focus on that in her spare time - to do notes on this - and these are the questions and these are the materials' so there is a lot of joint work in that.

(Ian - Teacher - pre lesson
observation - joint interview)

Lack of planning opportunities has led TAs to develop other coping mechanisms for supporting learning, such as using previously unseen lesson plans as a formula for understanding their role in helping the learner(s) to achieve the learning outcomes. During interview, Owen (teacher, Mistfell) indicated that he relied on Mary's (departmental HLTA) subject knowledge and their long, mutual experience of working practices to understand the lesson and provide effective learning support:

We don't always talk about a lesson before we get there - I still teach - well, you can, especially with a bottom group, get away with teaching pretty much on the hoof - and so, therefore, they have short spells of sorts of different things in the lesson and this seems to suit them.

(Owen - Teacher - pre-lesson
observation - joint interview)

The level of predictability in the content and structure of Owen's lesson (Model 3) lent weight to the confidence both he and Mary (TA) had in this practice. During the interview, Owen (teacher) said that planning could be important, particularly if a new TA was appointed. Given his and Mary's combined experience, however, his opinion was that:

It is all pretty predictable what is going to happen because we have done the same sorts of lessons for years - that doesn't mean that it is not interesting and diverse and fun - we are able to run things fairly well in an organised way without enormous amounts of planning.

(Owen - Teacher - pre-lesson observation - joint interview)

Owen's focus on predictability and the little account it appeared to take of how learners learn suggested that it might impede the development of learners' independent learning.

Time constraints often precluded preparation or joint pre-planning of lessons. Interview data showed that an impending lesson observation for research purposes underlined the importance of joint planning for Leah (teacher) and Katy (TA) in Mistfell. Lack of time meant that they had to pre-plan by email for the lesson observation (Model 1, Scenario C). In the retrospective interview, the Leah said that an unexpected outcome of pre-planning was the realisation that it made the classroom work more effective.

I should make more use of their (TA) expertise – and by having a short conversation....I could use them in a more useful way – for myself as well as the learners.

(Leah - Teacher - post lesson observation- individual interview)

Leah's post lesson observation, individual interview showed that she recognised that Katy's (TA) skill in scaffolding questions for Peter (the learner) was a key factor in his making progress, noting the part that planning had played in this:

The time he had focused on the particular skill he needed - it is as simple as that - rather than just being general and helping with his work. It was - 'he needs to know this in order to be able to take part in the main part of the lesson.' So that's something I am definitely going to take on board - using that starter time to bring the weaker learners up to speed so that they can take part in the main part of the lesson.

(Leah - Teacher - post lesson observation - individual interview)

Katy's (TA) experience was also apparent when she helped learners to adapt the task so they were all able to contribute and in her involvement in supporting around the class and participating in the role play. An inexperienced TA may have found these activities more difficult.

In Windihurst, the willingness to participate in informal preparation and planning sessions demonstrated joint commitment to the quality of learning support which Edward (teacher) and Donna (TA) provided as a team. It also had a 'knock-on' effect on their professional relationship and Donna's training and development, both implicitly, through the TA's observation of the teacher's practices in the classroom and explicitly through the frequency of planning discussions where they discussed deployment strategies. This 'on-the-job training' helped the teacher to capitalise on the TA's input whilst reinforcing the TA's mediating role in supporting learning. Furthermore, Donna appreciated her inclusion in planning and the responsibility it gave her to fulfil her role, thus enhancing her professional status. In her pre-lesson (individual) observation interview, however, she said, that she was not always deployed by 'certain teachers' so effectively and asserted that, in an ideal world, she would like to operate in a similar way with other teachers in their lessons.

5.5 Summary

The study has shown that the physical location of TAs by schools is an important factor relating to their deployment and contribution to learning. Most TAs were located in the Learning Support Department, managed by an Assistant Head who deployed TAs to support SEN(D), School Action Plus or School Action learners. There was little opportunity for TAs to work across the attainment levels. Some TAs were located within subject departments. There was one example of a TA working independently in a teaching role, planning and preparing resources to support learners and with less opportunity to liaise directly with teachers. Consistency and frequency of support were valued because of the opportunities these provided in terms of building relationships between teachers, TAs and learners. The lack of formal provision for planning resulted in little joint planning taking place and although some TAs remained after school and occasionally met to pre-plan support, they had no professional obligation or financial incentive to do so. This was in spite of the information set out in the NJC/LGS's document (2003) that support staff 'should be paid for all hours worked whether in or outside the pupils' day' (NJC/LGS, 2003; p.1) and the fact that these hours could be used for the formal provision of planning time - a point which did not seem to have filtered down to the institutions.

Some teachers found time to have an informal chat on a voluntary basis during breaks or to make brief contact via email. They reflected that TAs located within departments

might be more useful because of the availability of the TA to all departmental teachers, the opportunities it would provide for increasing subject knowledge and opportunities for planning, training and strengthening relationships. The provision of teacher training on how to manage TAs was not available in the schools. Training for TAs after the induction period appeared to be voluntary. TAs were invited to attend but were under no obligation to do so. Overall, the findings from the three case study schools were somewhat similar. The implications are discussed in Chapter 6.

CHAPTER 6 DISCUSSION AND CONCLUSION

Introduction

This chapter begins with a summary of the responses to my research questions. These are:

- In what ways are TAs deployed in the classroom?
- How does the model of deployment affect teaching and learning?
- How are deployment practices affected by policy level and institutional factors?

The study has identified three generic models of TA deployment which are located within an ecological framework of governmental policies, school practices and interaction between teachers, TAs and learners (see p.59-60). The differences in school practices account for some of the variations in the way each model works in different schools. Other factors include the ways in which the TA is positioned within each model, their skills and training, particularly in teaching approaches, the tasks they are given and their relationships with teachers.

The first model is where the TA provides learning support in the classroom under the direction of the teacher (Model 1, p.35). There are five configurations of Model 1, labelled A-E which are concerned with different arrangements for in-class learning support, the second is where the TA works with a small group of learners withdrawn from the classroom to complete tasks and activities provided by the teacher (Model 2, p.36). In the last model the TA undertakes an independent pedagogical role (Model 3, p.37-8) which is designated HLTA status in the national agreement (2003). The models are discussed under research question one. The second research question focuses on how these models affect teaching and learning and the third research question examines how deployment practices are affected by policy level and institutional factors. This is followed by an overview of the main findings, my contribution to knowledge and my development as a researcher.

6.1 Discussion of Research Questions

6.1.1 Research Question One: In What Ways are Teaching Assistants Deployed in the Classroom?

As suggested by other research (Blatchford et al, 2009a), the findings show that there are three models of TA deployment, the most dominant being Model 1 (p.35) where the TA provides in-class learning support. This is characterised by the hierarchical, tripartite relationship between the teacher, the TA and learners. The preponderance of this model in schools and the considerable variation in the ways in which TAs are deployed within it are important factors in determining whether the TAs' contribution to learning is enabled or impeded. For example, where TAs are given the opportunity to work with learners on speculative tasks or to manage or teach collaborative groups and are fully integrated into the learning process, learners can be seen to make useful contributions in class discussions and in written responses (as in Models 1B, p.87, 1C, p.90 and 1D, p.93). In contrast, where the teacher provides closed tasks and TAs support one or two learners whilst the teacher focuses exclusively on the rest of the class (as in Model 1A, p.83 and 1E, p.96), it is less successful.

The research found one example of Model 2 (p.36) where TAs are deployed to manage or teach individual or small groups of learners withdrawn from the classroom. In this model, the TA works under the initial direction of the teacher who plans and provides tasks and resources and explains the learning outcomes to the TA before or at the start of the lesson. A characteristic of this model is that it provides the TA with some freedom to decide on the learning approach but it relies heavily on the skill and experience of the TA to make a contribution to this, a factor which has implications for training particularly in constructivist approaches to learning (Vygotsky, 1978; Wood & Bruner, 1976) and questioning techniques (Bloom, 1956). As Blatchford et al (2009a) found, learners who work solely with a TA become separated from the teacher's expertise. However, in this particular example, the rota system operated by the teacher for learners' withdrawal from class and the skill and expertise of the TA prevented this from happening.

Also found was one example of Model 3 (p.37) where a TA was deployed to manage a Year 10 GCSE Option Group in a separate, specially designated location with no direction from teacher(s). One notable feature of this model is the deployment of the TA in an independent, pedagogical role, despite not being trained as an HLTA. This

contravenes the terms of the national agreement (2003) which emphasised the need for relevant HLTA training when support staff worked in a class without a teacher. However, governmental cuts in funding have done little to encourage HLTA course applications. The role provides the TA with opportunities to plan or locate resources and to decide on approaches to learning but the pedagogical responsibility has significant implications for training provision in constructivist teaching strategies (Vygotsky, 1978; Wood & Bruner, 1976) and relevant subject knowledge.

6.1.2 Research Question Two: How Does the Model of Deployment Affect Teaching and Learning?

As noted, the three dominant models of deployment are located in an ecological system which provides the framework in which TAs are enabled or constrained in making a contribution to learning and this raises the question as to how the model of deployment affects teaching and learning. The answer begins with a contextualisation of what is meant by learning. In the NC (2014) it is assumed as the attainment of final KS3 targets and GCSE grades, a notion which finds its roots in Piaget's developmental stages (Piaget, 1964; Gauvin & Cole, 1997). The literature review has shown that constructivist theorists have developed a wider concept of learning and how it is achieved. James et al (2007) have highlighted the problem of assuming that there is a universally agreed meaning of learning and point to the difficulty in conceptualising and defining it. Instead they identify a range of perspectives from which it can be viewed, explained and assessed. Social constructivist theory emerges as a major perspective and it is this approach to learning which not only underpins the Government's Assessment for Learning Strategy (DCSF, 2008-00341) but is seen in the findings where teachers and TAs have used scaffolding (Wood et al, 1976), open-ended questioning (Bloom, 1956) and peer interaction to enable learners to work within the ZPD (Vygotsky, 1978).

The findings show that the model of deployment is important in framing and positioning what the TA can or cannot do and this is highlighted in the five variations which emerged from Model 1 where the TA worked in the classroom under the direction of the teacher. Some forms of this model show how the provision of learning support by the TA has limited or prevented other forms of learning through paired or peer interaction. This is shown in Model 1A (p.83) where the position of the TA between two learners was seen to prevent the opportunities for learning with peers (Vygotsky, 1978). These factors foreground the importance of teachers and schools deploying TAs

in ways which positively support and advance learning, for example, by managing collaborative group and pair work and by supporting whole-class learning. In this lesson, the closed task of supporting learners to extract points from the video was seen not to go beyond the accessing of new facts, reproducing and memorising them (Watkins & Mortimore, 1999; Marton et al., 1993; Saljo, 1979), or to promote the developmental thinking considered necessary for the assimilation or accommodation of new learning (Piaget, 1964; Gauvain & Cole, 1997; Gross, 1997). Neither was the TA enabled to scaffold the work (Wood et al, 1976) or provide support as a more knowledgeable other to encourage learners to work in the ZPD (Vygotsky, 1978). There were no opportunities for learners to learn through peer interaction.

In Model 1B (p.87), TA, the teacher positioned the TA and learner as a pair, like other learners. However, the teacher's strategy was not seen to place the TA in a less important position in the class; rather, the strategy supported the learner to learn in the same way as other learners and integrated her fully in the class activity. The task required hypothesising and speculative skills and the TA's use of open-ended questions (Bloom, 1956) and scaffolding (Wood et al, 1976) were seen to encourage active thinking skills (Bandura, 1989; Malaguzzi, 1998) and to draw out theoretical responses from the learner in writing and in the final class plenary.

In Model 1C (p.90) the task involved constructing open-ended questions for use in interviews. Learners worked in groups and the TA was initially positioned to work with a group of lower attaining learners on a modified version of the task. This, together with the physical side-positioning of the group might have impeded learners' contribution to class learning. However, the TA's use of questioning techniques (Bloom, 1956), scaffolding (Wood et al, 1976) and working as a knowledgeable other in the group (Vygotsky, 1978) was seen to draw out responses from the learners. Furthermore, learning became more inclusive when the teacher later deployed the TA to support other higher attaining groups in order to support the lower attaining group and by the teacher, TA and learners participating together in an interviewing role play. These teaching and learning strategies were seen to promote active learning (Black & William, 1998). They enabled learners to explain the function of open-ended questions to the class and to demonstrate their understanding of how to construct and use open-ended questions in the role play.

Model 1D (p.93) provided a different framework where the HLTA, with higher qualifications and lengthy experience, was positioned as an equal partner in the lesson taking responsibility for teaching half the class in a fully inclusive activity which involved the use of psychological and cultural tools (Vygotsky, 1978, John-Steiner & Soubberman in Vygotsky, 1978). This provided a very different scenario from Model 1B where the TA was literally paired with a learner. The HLTA and teacher divided their learners into smaller groups and learners used different measuring tools to measure objects and record their results. Learners were actively involved in their own learning (Black & William, 1998) and the HLTA encouraged peer interaction and collaboration (Vygotsky, 1978). There was some evidence of 'discovery learning' brought about through the use of objects and tools to complete tasks with the HLTA guiding the learning (Bruner, 1973; Vygotsky, 1978). In Model 1E (p.96) the TA was positioned to support a learner who was unable to read or write. The lesson was in two parts. In the first half of the lesson the TA scribed his answers to questions on Homelessness and in the second half the class relocated to the ICT suite where the TA word processed the learner's poem for him. The lesson was difficult to adapt for this learner whose lack of basic literacy skills impeded his involvement and the TA had little choice but to focus on task completion, particularly in the ICT suite (Blatchford et al, 2009b; Webster, Blatchford & Russell, 2013b).

In Model 2, the task was identical for all learners and this, together with the regular changes in learners selected for the withdrawal groups and the deployment of the TA in as well as out of the classroom was seen to promote inclusive learning (Florian & Black-Hawkins, 2011). The key point was that the TA was enabled to choose independently how to deliver the teacher's plan and was seen to be skilled in choosing learning approaches which included scaffolding (Wood et al, 1976) and the use of open-ended questions (Bloom, 1956). The TA promoted independent learning by deliberately withdrawing support as appropriate to promote self-regulated learning (Bandura, 1986). The TA used praise when independent learning was perceived and this was seen to support learners' self-efficacy (Bandura, 1991, 1986) and encourage further participation in discussions. However, it is important to recognise that the success of Model 2 relies on the skill of the TA in encouraging learners to participate in the planned tasks by using teaching approaches which promote learning. Other factors include the development of good relationships between colleagues and learners and, as in this case, the use of inclusion strategies which avoid labelling the learners. However, in Model 3, the TA undertook a completely autonomous pedagogical role

with learners requiring support in different subjects and was prevented from supporting one learner through lack of relevant subject knowledge. The TA supported the second learner but the negative responses resulted in task completion by the TA (Blatchford et al, 2009b; Webster, Blatchford & Russell, 2013b). The management of the Option Group was determined by school policy and the TA's task was to provide learning support as required. This model illustrates how the exosystem, mesosystem and microsystem of the ecological, conceptual framework interact to effect the TA's contribution to learning (p.61-2).

These research findings show that TAs can positively support learners to become involved in a process of learning whereby they obtain knowledge, acquire skills, are encouraged to actively construct meaning and become changed by what they have learnt (Watkins & Mortimore, 1999). They also show that, in the role of a more knowledgeable other, TAs can support collaborative groups and enable learners to gain new insights and understanding by working in the ZPD (Vygotsky, 1978). They are seen to encourage discovery learning (Bruner, 1977) by using open-ended questions (Bloom, 1956) and scaffolding work (Wood et al, 1976).

6.1.3 Research Question Three: How are deployment practices affected by policy level and institutional factors

Government policy substantially increased the numbers of TAs working in schools but provided little structured guidance as to how they should be deployed. No statutory entry qualifications were indicated and head teachers were given discretionary power over role specifications, appointment criteria and departmental locations. Evidence from one school suggested that some schools required basic entry qualifications when appointing TAs. However, the lack of guidance has resulted in schools constructing TAs' roles to meet institutional needs (Brown & Devecchi, 2013) and deploying them accordingly. This is not an issue in itself but it does not easily facilitate career progression or development which may be a demotivating factor for TAs in seeking either subject based or SEN(D) training. In the research schools, TAs were variously deployed in Learning Support Departments, across or within subject areas or located in specific subject departments in line with the needs of individual schools. Sometimes this involved managing learners with behavioural problems.

This study found that Windihurst School with the largest number of SEN(D) learners prioritised the location of TAs in the Learning Support Department. The number of

SEN(D) learners in Rushleigh School was well below average. In this school, although TAs were managed by the Learning Support Manager, they were usually allocated and deployed within a specific subject area. Where there was a greater need for literacy development or extra support to understand or complete coursework at KS4, a TA was deployed in an independent, pedagogical role without the support of a teacher. Mistfell School with the lowest number of SEN(D) learners located some TAs in subject departments where they provided support usually for lower attaining learners.

The Government cuts in funding for the HLTA qualification or specialist SEN(D) training has limited opportunities for TAs to obtain national qualifications and those in the participant schools did not appear to be enrolling for them, although one TA had achieved HLTA status and had completed a course in mentoring. The lack of governmental policy on providing teachers with training to manage TAs (Blatchford et al, 2009a; Spencer & Edwards, 2011) or for providing statutory joint planning time seems to have limited opportunities for TAs to obtain informal training or for teachers and TAs to work together on improving deployment practices. However, one participant school was using experienced TAs to provide this training for NQTs. Findings showed that planning was voluntary and time constraints meant that it did not often take place. Teachers directed TAs' deployment, planned tasks, learning approaches and the location and structure of learning support - within or outside of the classroom with individuals, pairs or a small group of learners - by having a brief discussion, usually at the start of the lesson. Professional development, particularly on teaching and learning approaches was mostly gained from classroom observation and, if time permitted, voluntary joint planning. These findings suggest that the Government could do more to improve opportunities for improving training and planning opportunities for teachers and TAs, possibly by re-introducing funding for TAs to access higher qualifications and for the provision of in-service training relevant to TAs' roles.

This study found that teachers and TAs would welcome formally provided time for joint planning of learning support with teachers. As in other studies, (Blatchford et al., 2009a) it also showed that TAs were not timetabled for preparation and planning and their workload rarely permitted time during the day to meet and plan with teachers. Provision of time after school carried with it the implication of extra pay which schools could not or did not afford. In each school, however, some voluntary, joint planning did sometimes take place and lesson observations showed that this enabled the TA to support learning more effectively. At Interviews participants agreed that pre-planning

improved the quality of learning support. However, this was more likely to happen where teachers and TAs worked together consistently in specific classes, or within departments where colleagues had easier access to each other. Overall, these findings have shown that TAs can be deployed in ways that support learning but the picture is not consistent because policies and practices sometimes militate against it.

6.2 Contribution to Knowledge

As already noted, there have been several studies on the impact of TAs in schools and the findings overall have been mixed. Some researchers have found that TAs have little or no impact (Blatchford et al., 2009a; Gray et al., 2007; Higgins et al., 2011) or that their impact is negative (Ofsted, 2004). Other findings suggest that TAs can have a positive effect on learning (Brown & Harris, 2010, Ofsted, 2008; Wilson et al., 2007). However, most of these research findings have been based on quantitative data or mixed methods whereas this study is wholly qualitative.

My first claim to knowledge is the recognition that models of TA deployment need to be conceptualised within an ecological framework (p.60) as the different layers affecting deployment practices and the TAs' contributions to learning cannot be discussed in isolation from these. The ecological perspective stands in contrast to studies based on quantitative data or mixed methods because these approaches might not adequately capture learning or fairly assess the contribution of the TA whose support for learning is dependent on factors which include gaps in governmental and school policies and the ways in which TAs are deployed.

Using a qualitative research methodology has highlighted the value of the case study approach and enabled me to deconstruct the intricate relationships between TAs' deployment and the ways in which they contribute to learning in schools. It has provided insights into the detail of deployment practices within the different contexts in ways that other methodologies would not have allowed and which add to our understanding of the complexities of the interactions between the teacher, TA and learner - and the connection between planning, deployment, teaching approaches and learning. This has enabled me to make a contribution to the debate around the TAs' support for learning. The study has highlighted the ecological, conceptual framework as important in defining the concept of deployment.

My second contribution to knowledge is that, in identifying the different models of TA deployment and the variations in Model 1, I have shown that the model is important in providing the framework and positioning of what the TA can or cannot do to make a positive contribution to learning. I have also shown that the deployment strategies used within the models are important factors in determining whether TAs are enabled to contribute positively to learning. The findings also show that within the models, the learning support provided by TAs is also dependent on their professional relationship with teachers, the opportunities given for reflective practices, the tasks provided, training and the opportunities provided for the TA to use constructivist approaches to encourage independent learning.

Lastly, this thesis provides new knowledge in the ways I have applied constructivist learning theories to the deployment of TAs within and across the layers of the ecological, conceptual framework, highlighting how these are interrelated and showing how teaching and learning is related to deployment across the larger framework. I have shown that the macrosystem and the exosystem are linked by the need for formal joint planning time and the restoration of funded training to ensure that teachers can deploy TAs in ways that support learning and enable them to apply those constructive learning approaches which are explicit in the HLTA standards (2006) and The Assessment for Learning Strategy (2008). Within the mesosystem of the ecological, conceptual framework (p.62), this research shows that these approaches to learning have been enabled when teachers and TAs engage in discussions and TAs are trained, perhaps in modelling and observation of these practices (Bandura, 1977).

The lack of time for formal joint planning and training reflect on the mesosystem, where teachers and TAs operate. However, the findings show that where teachers provide open-ended tasks, where pre-planning has taken place and TAs are trained, albeit informally, to use constructivist approaches, they are able to make a positive contribution to learning with learners in the microsystem.

6.3 Implications for Policy and Practice

The implications for policy and practice are presented under the headings which form the ecological, conceptual framework, (see p.60). Although these factors are in separate layers which are labelled Macrosystem (structural/government), Exosystem (institutional/departmental), Mesosystem (Teacher/TA) and the Microsystem (TA) - as the ecological framework illustrates, they are not self-contained and the issues

highlighted in one factor impinge on others. Thus, governmental policy has a knock-on effect on institutions, departments, teachers, TAs and, ultimately, learners.

6.3.1 Macrosystem - Implications for Governmental Policy

Implications for Government policy include the introduction of statutory entry qualifications for TAs which would contribute to an improvement in 'pupil' standards and would help to secure professional status for the TAs' roles. In 2003, the Government promised that TAs would be given greater choice and recognition for their roles and offered opportunities for career development (Raising Standards and Tackling Workload - A National Agreement, DfES; 2003), a promise which does not appear to have come to fruition. This may be because TAs' roles are determined by head teachers whose institutions have specific needs and who construct job descriptions in accordance with these (Brown & Devecchi, 2013). TAs have scant access to career development or progression and an implication for governmental policy is to make career choices and paths explicit to avoid the situation where TAs who seek career advancement are trapped in role.

Research by Wilson & Bedford (2008) highlights the need for teachers and TAs to participate in joint training to develop good practice. However, time constraints often make this difficult to arrange. Blatchford et al (2009a) suggest that the preparation and training of TAs is an important element in effective TA deployment. This is particularly pertinent in the classroom where TAs are supporting learning or operating in a pedagogical role. There are several implications for the Government. Firstly, TAs are deployed to undertake a range of support roles, and funded training programmes are required to enable schools and TAs to tailor provision to individual requirements and further enhance TAs' professional status. Furthermore, TAs who support SEN(D) learners require specialist training in a range of needs to ensure that the Government's stated intention to improve standards for all learners is implemented. However, the Government is no longer providing finance for training asserting that 'Heads and local authorities will no longer be given any specific budget to pay for employees to become higher level assistants or to attend courses' (TES Career; published 17.1.2012; updated 14.3.14).

A further implication is that the withdrawal of funding further impedes career development for TAs who hope to become HLTAs and for HLTAs to become teachers (DfES, 2003). The HLTA standards (TDA; 2006) require TAs to understand and use

learning approaches, to provide formative assessment and make a contribution towards lesson preparation and planning. Developing these skills would facilitate an improvement in the provision of learning support and learners' progress. Furthermore, teachers need additional training in order to manage the work of TAs to support learning. As Blatchford et al (2009a) suggest, this training could be included in Initial Teacher Training but the Government is currently moving the responsibility for this to schools. This means that institutions will need to provide training to develop teachers' expertise in managing and training TAs.

Higgins et al (2011) have highlighted the low pay that TAs receive - that is, on average, about £16,000 p.a. pro rata. If this is a reflection of their worth to the Government then it suggests that TAs are poorly valued and have little professional status. This is particularly so in the case of those TAs undertaking teaching and who are not paid in accordance with the rate for the duties they undertake. The importance of paying TAs for all the hours they work is reflected in the fact that the Government has laid down that contracts for support staff should include payment for their work both in and outside of the school day (School Support Staff - The Way Forward (NJC/LGS, 2003). This case study found that TAs were not paid to remain in school after hours and that this policy is not being adhered to with the result that TAs either leave at the end of the school day or remain voluntarily for school related work. The lack of compliance with the pay policy once again suggests that TAs have little professional status and that their voluntary services are likely to be taken for granted. If TAs are to be given proper recognition for the roles they undertake, whether HLTA or TA, full-time or part-time, the Government needs to ensure that their contracts include payment in line with their individual responsibilities.

6.3.2 Exosystem - School and Departmental Policy

6.3.2.1 Implications for School Leaders

Schools are responsible for deciding on the job profile and the baseline qualification for the role as outlined. They carry out the interviews and the appointment of TAs. Schools also decide where TAs are located and their line management. This study showed that the majority of TAs were based in the Learning Support Department managed by an Assistant Head who was in charge of Learning Support. Other TAs were located in a core subject area and managed by the Head of Department. One implication for policy is that the different location of TAs might, potentially, make a

difference to the kind of support the TA provides. In a subject department the TA might support across the attainment levels and be familiar with departmental, subject schemes of work. Those based in the Learning Support Department could then support SEN(D) learners with specialist needs. The TAs' location also has an effect on their availability to teaching staff for informal planning discussions and training as well as for developing their subject knowledge or understanding of specialist needs.

The study provided an example of an institutional policy decision to deploy an ordinary level TA, although with an unrelated degree, to manage a Year 10 Option Group in a separately designated location with no involvement of teachers (lesson M4). This model of deployment finds its roots in the governmental policy of School Workforce Reform which promised 'expanded roles' for TAs (Raising Standards and Tackling Workload: A National Agreement, DfES, 2003; p.3). The implications are twofold. Firstly, school-based TA training is required in planning, teaching and learning approaches, progress, assessment and appropriate syllabuses. The withdrawal of funding for the HLTA course means that the policy of HLTA deployment cannot be properly implemented in schools. Secondly, a TA lacking specialist subject knowledge makes it difficult for this model of deployment to function effectively. The major implication is that the teacher must remain primarily accountable for the learning outcomes of the lesson and for directing the learning (DfES, 2003).

6.3.2.2 Implications for Departments

Responsibility for the deployment of TAs with learners or within lessons rests with the appropriate Head of Department. In the Learning Support Department, those statemented SEND learners will be prioritised, followed by those with perceived needs. The implication for the Head of Department is provide training for a wide range of SEN(D) to ensure learners' needs are properly met. However, this can only be done with the support of the institution and if there are relevant training courses made available. The subject Head of Department can, potentially, deploy the TA with settled or mixed ability learners but both policy and practice is driven by the number of learners not meeting targets and who require extra support to bring them up to their individual target level. This focus on age-norm targets does nothing to support the learning of those unable to reach the required level. The difference between meeting targets and developing learning has huge implications for policy and practice in terms

of understanding and catering for those unable to meet those age-referenced targets set by Government and institutions.

Heads of Department are responsible for team building to ensure the development of professional relationships, the creation of positive learning environments and shared resources. This has implications for providing inclusive departmental training, making time available for discussions and facilitating joint planning. These factors require institutional support.

6.3.3 Mesosystem - Teachers and Teaching Assistants

6.3.3.1 Implications for Teachers

At this level, where the teacher and TAs work together in class to support learning, the implications already discussed, for example, voluntary joint pre-planning and the provision of informal training for the TA, remain applicable. This would be facilitated if statutory time was provided, although it may be possible during non-contact time if timetables permit and there was sufficient commitment to do this. This is more likely if the relationship between the teacher and TA is positive and professional. One implication for teachers is to develop a relationship with the TA which recognises their value and encourages them to support learning within an inclusive environment. An implication for practice is that TA training could emerge from teachers modelling approaches which develop independent learning and positive behaviour from learners. Findings have shown that some teachers tend to leave the TA and SEN(D) learner(s) to work together whilst they focus on the rest of the class. A further implication for teachers is to focus learning on *all* learners by ensuring that learning opportunities are fully inclusive and made available to everyone (Florian & Black-Hawkins, 2011) and to avoid transference of responsibility for SEN(D) learners to the TA. Teachers could re-examine their approach to TA deployment and, as appropriate, deploy them to support mixed attainment groups. This would provide opportunities for teachers to support SEN(D) learners, thereby facilitating equality of access to their expertise. The practice of setting up a withdrawal group to work with a TA can be a positive experience if the teacher ensures that withdrawal from the class is occasional, different learners are withdrawn each time and the TA is skilled. This strategy can provide inclusive access to the teacher's expertise and focused, small group work with the TA.

6.3.3.2 Implications for Teaching Assistants

The TA deployed in the classroom is required to work under the teacher's direction and, if a good working relationship is in place, this makes a significant contribution to the creation of a positive learning environment. However, there are some key implications for TAs. These include being proactive in using training, observation and joint planning opportunities to gain expertise in using constructivist approaches which promote learning and learners' independent completion of their work - for example, as in Model 2, (p.100). This study has shown that some TAs tend to ask closed questions, over-support and complete tasks for learners. This is partly due to the types of tasks provided by teachers but also due to a lack of understanding of how learning can be developed. For TAs, the implication is to observe and learn from teacher modelling and to use scaffolding and open-ended questions to support learners' independent learning. This relies on the teacher teaching lessons which model these practices. The findings have shown that TAs can support independent learning if given the opportunities. However, these factors alone are insufficient. Formal training and joint pre-planning with a trained teacher are also required. Once again, this relies on institutional support and the provision of training courses.

One factor emerging from this case study was the extent to which learners relied on TAs as confidantes, for organisational support or help with personal difficulties. Findings show that learners appreciated this but would like more independence, particularly in attempting tasks initially without help. The findings also highlight some learners' over-dependence on this kind of support. In some cases, as Giangreco & Broer, (2005) suggest, the result of this dependency may be to impede learners' future emotional or social development, and make it difficult for them to take responsibility or get on with their peers. This over-dependence may also have implications for the teacher to intervene and ensure the level of support matches the requirement of the learner(s). However, TAs were valued by learners for the pastoral, social and emotional support they provide and they made it clear at interview that this support was important to their well-being.

6.4 Development as a Researcher and Final Reflections

My skills as a researcher developed considerably throughout the research process. By choosing to conduct a case study using qualitative methods, I appreciated before I embarked on the research that my data would result in a 'nuanced view of reality'

(Flyvbjerg, 2006; p.223). However, as the research progressed, I gradually learned the value of using context-based knowledge to develop an understanding of the complex lived experiences of the participants - the pressures under which they worked, the obstacles they encountered and the successes they achieved. These are aspects which cannot be easily 'measured' but which can be explained and understood through the qualitative process of collecting the perceptions and observing the relationships of participants through conducting face-to-face interviews and observations. This case study has highlighted the ecological framework within which TAs operate. It has demonstrated how the TAs' variable positioning within this framework influences the quality of learning support. It has also provided evidence of the TAs' versatility, adaptability and commitment to the role. Whilst acknowledging that this is a small-scale case study, the findings suggest that it could provide a springboard for further large scale studies to investigate more fully the deployment of TAs and ways to enhance the quality of learning support they provide.

REFERENCES

- Alderson, P. and Morrow, V. (2011) *The Ethics of Research with Children and Young People. A Practical Handbook*. (2nd ed) (New York, Sage Publications)
- Altrichter, H., Posch, P. & Somekh, B. (1993) *Teachers Investigate their Work* (New York, Routledge).
- Anderson, J. (1995) *Learning and Memory. An Integrated Approach*. (New York, Wiley).
- Assessment Reform Group (1999) *Assessment for Learning: beyond the black box*. University of Cambridge School of Education. Available online at http://www.nuffieldfoundation.org/sites/default/files/files/beyond_blackbox.pdf (accessed 17 August 2014)
- Bandura, A. (1977) *Social Learning Theory*. (Englewood Cliffs, NJ: Prentice-Hall)
- Bandura, A. (1986) *Social foundations of thought and action: A social cognitive theory*. (Englewood Cliffs, NJ: Prentice-Hall)
- Bandura, A. (1989) *Social Cognitive Theory*. In R. Vasta (Ed.), *Annals of child development. Six theories of child development*. 6, 1-60. (Greenwich, CT: JAI Press).
- Bandura, A. (1991) Social Cognitive Theory of Self-Regulation. *Organizational Behaviour and Human Decision Processes* 50, 248-287
- BBC (2001a) *Classroom assistants to relieve pressure*. Available online at: <http://www.news.bbc.co.uk/1/hi/education/1229351.stm> (accessed 20 Mar 2009).
- BBC (2001b) *Teachers promised support staff*. Available online at: <http://news.bbc.co.uk/1/hi/education/1649854.stm> (accessed 20 Mar 2009).
- Bell, J. (2007) *Doing your Research Project* (Maidenhead, OUP).
- Black, P. and William, D (1998) Inside the black box: raising standards through classroom assessment. *PhiDelta Kappan* 80 2, 139-148.
- Blatchford, P., Bassett, P., Brown, P., Koutsoubou, K., Martin, C., Russell, A., Webster, R., Rubie-Davies, C. (2009a) *Deployment and Impact of Support Staff in Schools: The Impact of Support Staff in Schools (Results from Strand 2, Wave 2)*, (Research Brief DCFF-RR148, Institute of Education, University of London).

Blatchford, P., Bassett, P., Brown, P., Martin, C., Russell, A. & Webster, R. (2009b) Deployment and impact of support staff project. Report no DCSF-RB148, (London, Institute of Education, University of London).

Blatchford, P., Bassett, P., Brown, P. & Webster, R. (2009c) The effect of support staff on pupil engagement and individual attention, *British Educational Research Journal*, 35(5), 661-686.

Blatchford, P., Webster, R., Basset, P., Brown, P., Martin, C. & Russell, A. (2010b) The deployment of teacher aides/assistants and their impact on students' academic progress. Research Findings, *International Conference on Interpersonal Relationships in Education, 28 -29th April, 2010, Boulder, Colorado ,USA*.

Bloom, B., Engelhart, M. D., Furst, E. J. & Hill, W. (1956) *Taxonomy of educational objectives: the classification of educational goals* (New York, David McKay Co Inc).

Boddy, J. (2014) Research across cultures, within countries: Hidden ethics tensions in research with children and families? *Progress in Development Studies*, 14(1), 91-103.

British Educational Research Association (BERA) (2011) *Ethical Guidelines for Educational Research*. Available online at: <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2011> (accessed Feb 2015).

Bronfenbrenner, U., (1979) *The Ecology of Human Development. Experiments by Nature and Design*. (Cambridge, Massachusetts, Harvard University Press).

Brown, J. & Devecchi, C. (2013) The impact of training on teaching assistant's professional development: opportunities and future strategy, *Professional Development in Education*, 39(3), 369-386.

Brown, J. & Harris, A. (2010) Increased expenditure on Associate Staff in schools and changes in student attainment. (Report for the TDA and SSAT), (London, Institute of Education).

Bruner, J. S. (1973) *Beyond the Information Given. Studies in the Psychology of Knowing* (New York, Norton).

Bruner, J. S. (1977) *The Process of Education: a landmark in educational theory* (Cambridge MA, Harvard University Press).

Bruner, J. S. (1978) *Toward a Theory of Instruction* (Cambridge, Mass., Harvard University Press).

Bruner, J. S. (1996) *The Culture of Education* (Cambridge, Mass., Harvard University Press).

Bruner, J. S. (2006) *In Search of Pedagogy Vol 1. The selected works of Jerome S Bruner*. (Oxford, Routledge).

Bruner, J. S. & Haste, H. (1987) *Making Sense: The Child's Construction of the World* (London, Routledge Revivals).

Cajkler, W., Tenant, G., Tiknaz, Y., Sage, R., Taylor, C., Tucker, S., Tansey, R. & Cooper, P. (2007) A systematic literature review on the perceptions of ways in which teaching assistants work to support pupils' social and academic engagement in secondary classrooms (1988-2005). Report No 1505T, *Research Evidence in Education Library* (London, EPPI-Centre, University of London).

Campbell, D. (1975) Degrees of Freedom and the Case Study, *Comparative Political Studies*, 8(1), 178-191.

Campbell, D. & Stanley, J. (1966) *Experimental and Quasi-experimental Designs for Research* (Boston, Houghton Mifflin Company).

Clough, P. & Nutbrown, C. (2007) *A Student's Guide to Methodology* (London, Sage Publications).

Cohen, L., Manion, L. & Morrison, K. (2007) *Research Methods in Education* (Oxford, Routledge).

Cole, M. (1985) The zone of proximal development: where culture and cognition create each other, in: J. V. Wertsch (Ed) *Culture, Communication and Cognition: Vygotskian Perspectives* (Cambridge, Cambridge University Press), 146 -162.

Cole, M. & Wertsch, J. V. (1996) Beyond the Individual-Social Antinomy in Discussions of Piaget and Vygotsky, *Human Development*, 39, 250-256.

Collins, J. & Simco, N. (2004) The emergence of the Teaching Assistant as reflective practitioner: a well-established norm, a new reality or a future aspiration?, *British Educational Research Association Annual Conference, University of Manchester, 2004*.

Cremin, H. & Thomas, G. (2005) Maintaining Underclasses via Contrastive Judgement: Can Inclusive Education Ever Happen?, *British Journal of Educational Studies*, 53(4), 431-446.

Cremin, H., Thomas, G. & Vincett, K. (2005) Working with teaching assistants: three models evaluated, *Research Papers in Education*, 20(4), 413-432.

Dawson-Tunik, T., Fischer, K. & Stein, Z. (2004) Do stages belong at the centre of developmental theory? A comment on *Piaget's stages*, *New Ideas in Psychology*, 22, 255-263.

Dearing, R. (1997) Higher education in the learning society, (Leeds, UK, The National Committee of Inquiry into Higher Education).

Devecchi, C. & Rouse, M. (2010) An exploration of the features of effective collaboration between teachers and teaching assistants in secondary schools, *Support for Learning*, 25(2), 91-99.

DeVries, R. (1997) Piaget's Social Theory, *Educational Researcher*, 26(2), 4-17.

DCSF (2008) *The Assessment for Learning Strategy*. Document No DCSF-00341-2008. Available online at:
<http://webarchive.nationalarchives.gov.uk/20130401151715/http://www.education.gov.uk/publications/eOrderingDownload/DCSF-00341-2008.pdf> (accessed Sept 2014).

DfE (2010) *Performance Tables 2010; Secondary School KS2 - KS5 Progress Measures*. Available online at:
http://www.education.gov.uk/schools/performance/archive/schools_10/s11.shtml
 (accessed Nov 2013).

DfE (2011) *Including all Learners*. Available online at:
<http://www.education.gov.uk/schools/teachingandlearning/curriculum/b00199686/inclusion>
 (accessed May 2013).

DfE (2012) *The effective deployment of classroom-based support staff*. Available online at:
<http://webarchive.nationalarchives.gov.uk/20140107110748/http://education.gov.uk/schools/leadership/deployingstaff/b00205472/support-staff-deployment> (accessed May 2014)

DfE (2013a) *The National Curriculum in England*. Framework document Sept 2013.

DfE (2013b) *Assessing without levels*. Available online at:
<http://webarchive.nationalarchives.gov.uk/20130904084116/https://www.education.gov.uk/schools/teachingandlearning/curriculum/nationalcurriculum2014/a00225864/assessing-without-levels>

DfE (2014a) *Special educational needs and disability code of practice: 0 to 25 years*. Doc ref: DFE-00205-2013, updated Aug 2014 (accessed Nov 2014).

DfE (2014b) *The National Curriculum in England: secondary curriculum*. Available online at: <https://www.gov.uk/government/publications/national-curriculum-in-england-secondary-curriculum>

DfE (2014c) *P scales: attainment targets for pupils with SEN*. Available online at :
<https://www.gov.uk/government/publications/p-scales-attainment-targets-for-pupils-with-sen>

DfES (2000) *Working with teaching assistants: a good practice guide*. Report 0148/2000, (Nottingham, DfES).

DfES (2002) *Time for Standards: Reforming the school workforce*. Report DfES/0751/2002, (DfES Publications).

DfES (2003) *Raising standards and tackling workload: a national agreement*, (Nottingham, DfES).

DfES (2006) *2020 Vision*. Report of the Teaching and Learning in 2020 Review Group.

Dixon, A. (2003) Teaching assistants: whose definition?, *Forum*, 45(1), 26-29.

Drake, P. with Heath, L. (2011) *Practitioner Research at Doctoral Level* (Oxford, Routledge).

Driver, R. (1978) When is a stage not a stage? A critique of Piaget's theory of cognitive development and its application to science education, *Educational Research*, 21(1), 54-61.

Dunne, M., Prior, J. & Yates, P. (2010) *Becoming a researcher: a research companion for the social sciences* (Maidenhead, OUP, McGraw-Hill Education).

Durant, D. & Kramer, J. (2005) What do teaching assistants really do? , *The British Educational Research Association Annual Conference 14th-17th Sept 2005*.

Eder, D. & Fingerson, L. (2002) Interviewing Children and Adolescents, in: Gubrium, J. & Holstein, J. (Eds) *Handbook of Interview Research. Context and Method*. (Thousand Oaks, CA, Sage), 181-201.

Florian, L. & Black-Hawkins, K. (2011) Exploring inclusive pedagogy, *British Educational Research Journal*, 37(5), pp 813-828.

Flyvbjerg, B. (2006) Five Misunderstandings About Case Study Research, *Qualitative Inquiry*, 12(2), 219-245.

Garner, R. (2010) Gove cuts to end training for teaching assistants, *The Independent*, 6th July 2010.

Gewirtz, S., Shapiro, J., Maguire, M., Mahoney, P. & Cribb, A. (2009) Doing teacher research: a qualitative analysis of purposes, processes and experiences, *Educational Action Research*, 17(4), 567-583.

Giangreco, M. & Broer, S. (2005) Questionable Utilisation of Paraprofessionals in Inclusive Schools: Are we Addressing Symptoms or Causes?, *Focus on Autism and other Developmental Disabilities*, 20(1), 10-26.

Gilgun, J. (2010) Reflexivity and Qualitative Research, *Current issues in Qualitative Research*, 1(2), 1-4.

Gillies, V. (2005) Raising the 'Meritocracy': Parenting and the Individualisation of Social Class, *Sociology*, 39(5), 835-853.

Ginsburg, H. & Oppen, S. (1988) *Piaget's Theory of Intellectual Development (3rd Ed)* (New Jersey, Prentice Hall).

Gray, C., McCloy, S., Dunbar, C., Dunn, J., Mitchell, D. & Ferguson, J. (2007) Added value or a familiar face? the impact of learning support assistants on young readers, *Journal of Early Childhood Research* 2007, 5(3), 285-300.

Gross, R. (1997) *Psychology. The Science of Mind and Behaviour (3rd Ed)* (London, Hodder & Stoughton).

Hammett, N. & Burton, N. (2005) Motivation, stress and learning support assistants: an examination of staff perceptions at a rural secondary school, *School Leadership and Management*, 25(3), 299-310.

Hargreaves, D. (1980) The occupational culture of teachers, in: P. Woods (Ed) *Teacher strategies: Explorations in the sociology of the school* (London, Croom Helm).

Higgins, S., Kokotsaki, D. & Coe, R. (2011) Toolkit of Strategies to Improve Learning. Summary for Schools Spending the Pupil Premium, (Durham, The Sutton Trust, Durham University).

Howes, A., Farrell, P., Kaplan, I. & Moss, S. (2003) The impact of paid adult support on the participation and learning of pupils in mainstream schools, (EPPI-Centre, Institute of Education, University of London).

Humphrey, C. (2007) Insider-outsider: activating the hyphen, *Action Research*, 5(1), 11-26.

James, M., McCormick, R., Black, P., Carmichael, P., Drummond, M.J., Fox, A., MacBeth, J., Marshall, B., Pedder, D., Proctor, R., Swaffield, S., Swann, J., Wiliam, D. (2007) *Improving Learning. How to Learn. Classrooms, schools and networks*. (London, Routledge).

Jarvis, M. & Chandler, E. (2001) *Angles on Child Psychology* (Cheltenham, Nelson Thomes).

John-Steiner, H. & Mahn, H. (1996) Sociocultural approaches to learning and development: A Vygotskian Framework, *Educational Psychologist*, 31(3-4), 191-206.

Kolb, D. (1984) *Experiential learning: experience as the source of learning and development* (New Jersey, Prentice Hall).

Kvale, S. (1996) *Interviews: An Introduction to Qualitative Research Interviewing* (London, Sage).

Lee, B. (2002) *Teaching Assistants in schools: the current state of play* (Slough, Berks, National Foundation for Educational Research).

Lewis, J., Mooney, A., Brady, L.-M., Gill, C., Henshall, A., Willmott, N., Owen, C., Evans, K. & Statham, J. (2010) Special Educational Needs and Disability. Understanding Local Variation in Prevalence, Service Provision and Support. Research Report No DCSF-RR211, (Dept for Children, Schools and Families).

LGC (2001) *£400M to fund more teaching assistants in classrooms (Local Government Chronicle 19th March 2001)*. Available online at: www.lgcplus.com/400M-to-fund-more-teaching-assistants-in-the-classroom-england/1348636.article (accessed Nov 2013).

Lindsay, G., Sulochini, P. & Strand, S. (2006) Special Educational Needs and Ethnicity: Issues of Over-and-Under-Representation. Research Brief No RB757, (London, DfES).

Loftland, J. (1971) *Analysing Social Settings* (Belmont CA, Wadsworth).

Lourenco, O. & Machado, A. (1996) In Defense of Piaget's Theory: A Reply to 10 Common Criticisms, *Psychological review*, 103(1), 143-164.

Lunt, I. (1993) *The Practice of Assessment*. in: Daniels, H. (Ed) *Charting the Agenda. Educational activity after Vygotsky*. (London, Routledge) 145-168.

Mahto, A. & Hawkins, P. (2006) *Classical Conditioning and Operant Conditioning: Potential Tools for Classroom Management*. Available online at: <http://mrdwab.com/works/2006-03-25-classical-conditioning.html> (accessed Mar 2013).

Malaguzzi, L. (1998) History, ideas and basic philosophy. In Edwards, C., Gandini, L. & Forman, G. (Eds) *The hundred languages of children: advanced reflections* (2nd ed.) 49-97, (Greenwich CT, Ablex Publishing Corp).

Marton, F., Dall'Alba, G. & Beaty, E. (1993) Conceptions of learning, *International Journal of Educational Research*, 19(3), 277-300.

Mason, J. (2002) *Qualitative Researching* (London, Sage).

Matusov, E. & Hayes, R. (2000) Sociocultural critique of Piaget and Vygotsky, *New Ideas in Psychology*, 18, 215-239.

Mitchell, S. (2009) *Daily Life in Victorian England (2nd Ed)* (Westport, CT, Greenwood press).

Moran, A. & Abbott, L. (2002) Developing inclusive schools: the pivotal role of teaching assistants in promoting inclusion in special and mainstream schools in Northern Ireland, *European Journal of Special Needs Education*, 17(2), 161-173.

Muijs, D. (2003) The effectiveness in the use of learning support assistants in improving the mathematics achievement of low achieving pupils in primary school, *Educational Research*, 45(3), 219-230.

National Centre for Excellence in the Teaching in Mathematics (2011) *Intervention Resources, John Blow Primary School, Collingham*. Available online at: <http://www.ncetm.org.uk/resources/32015> (accessed 2010).

NFER (2012) *NFER Teacher Voice Omnibus 2012 Survey. The Use of the Pupil Premium*. Available online at: <http://www.nfer.ac.uk/nfer/publications/91062/91062.pdf> (accessed May 2013).

NJC/LGS (2003) School Support Staff - The Way Forward. (*Report for the National Joint Council for Local Government Services*)

NUT (1998) Associate Staff Support for teachers, (London, National Union of Teachers).

Ofsted (2003) *Leadership and Management. What inspection tells us. Report No HMI1646*. Available online at:

http://dera.ioe.ac.uk/4746/1/Leadership_and_management_-_what_inspection_tells_us_%28PDF_format%29.pdf (accessed May 2014)

Ofsted (2004) *Remodelling the School Workforce Phase 1. Report No HMI 2298, Paras 50-51*. Available online at: <http://www.ofsted.gov.uk> (accessed 2010).

Ofsted (2008) *The deployment, training and development of the wider school workforce. Report No 070222*. Available online at: <http://www.ofsted.gov.uk> (accessed 2011).

Palincsar, A. S. (1998) Social Constructivist Perspectives on Teaching and Learning, *Annual Review of Psychology*, 49, 345-375.

Patton, M. Q. (2002) *Qualitative Research & Evaluation Methods (3rd ed)* (Thousand Oaks, Sage Publications Inc).

Pavlov, I. (1927) Conditioned reflexes: an investigation of the psychological activity of the cerebral cortex. Lecture III, *Classics in the History of Psychology* (Toronto, York University).

Piaget, J. (1964) Development and Learning, reprinted in: M. Gauvain & M. Cole (Eds) *Readings on the Development of Children (2nd Ed, 1997)* (New York, Freeman & Co).

Piaget, J. (1971) *Structuralism* (London, Routledge and Kegan Paul).

Piaget, J. (1995) *Sociological Studies* (London, Routledge).

Premack, D. (1965) Reinforcement theory, in: D. Levine (Ed) *Nebraska Symposium on Motivation (Vol 13 p123-180)* (Lincoln, University of Nebraska Press).

Richards, K. (2003) *Qualitative Enquiry in TESOL* (Basingstoke, Palgrave Macmillan).

Robson, C. (2011) *Real World Research (3rd ed)* (Chichester, John Wiley & Sons).

Saljo, R. (1979) Learning about Learning, *Higher Education*, 8(4), 443-451.

Skinner, B. F. (1953) *Science and Human Behaviour* (New York, Macmillan).

Skinner, B. F. (1978) *A Brief Survey of Operant Behavior*. Available online at: <http://www.bfskinner.org/bfskinner/surveyoperantbehaviour.html> (accessed Feb 15th 2009).

Spencer, P. & Edwards, J-A. (2011) Promoting Mutual Professional Development and Deeper Mathematical Understanding through Teacher and Teaching Assistant Collaboration, (University of Southampton, School of Education).

Srivastava, P. & Hopwood, N. (2009) A Practical Iterative Framework for Qualitative Data Analysis, *International Journal of Qualitative Methods*, 8(1).

Stake, R. (2005) Qualitative Case Studies, in: N. Denzin & Y. Lincoln (Eds) *The Sage Handbook of Qualitative Research (3rd Edition)* (Thousand Oaks, CA, Sage).

Swan, W. & Loxley, A. (1998) The impact of school-based training on classroom assistants in primary schools, *Research Papers in Education*, 13(2), 141-160.

TDA (2006) *Professional standards for higher level teaching assistants*. TDA document 0059/11-06/FMP. Available online at: webarchive.nationalarchives.gov.uk (accessed July 2013).

Thomas, G. (1992) *Effective classroom teamwork: support or intrusion?* (London, Routledge).

Thomas, G. (2011) *How to do your Case Study: A Guide for Students and Researchers* (London, Sage).

Thomas, G. (2013) *How to do your research project. A guide for students in education and applied social sciences*. (London, Sage).

Thornton, M. & Hedges, C. (2006) The active engagement of teaching assistants in teaching and learning, (Plymouth, commissioned for the National Teacher Research Panel (NTRP)).

UNISON (2007) *School Remodelling - the impact on support staff. A report on roles, deployment, pay and training* (London, UNISON Labour Research Dept).

van de Pol, J., Volman, M. & Beishuizen, J. (2010) Scaffolding in teacher-student interaction: A decade of research, *Educational Psychology Review*, 22, 271-296.

Vincett, K., Cremin, H., Thomas, G. (2005) *Teachers & Assistants Working Together*. (Maidenhead, OUP)

Vygotsky, L. S. (1978) *Mind in Society. The Development of Higher Psychological Processes* (Cambridge, Massachusetts, Harvard University Press).

Vygotsky, L. S. (1934, 2012) Thought and Word (Chapter 7), in: E. Hanfmann & G. Vakar (Eds) *Thought and Language (orig pub 1934)* (Mansfield Centre, CT, Martino Publishing).

Walker, R. (1983) Three Good Reasons for not doing Case Studies in Curriculum Research, *Journal of Curriculum Studies*, 15(2), 155-165.

Warnock, H. (1978) Special educational needs: Report of the committee of enquiry into the education of handicapped children and young people, (London, HMSO).

Watkins, C. & Mortimore, P. (1999) Pedagogy: What do we Know?, in: P. Mortimore (Ed) *Understanding Pedagogy and its impact on learning* (London, Paul Chapman).

Webster, R., Russell, A. & Blatchford, P. (2009) A help or a hindrance?, *Every Child Journal*, 1(2), 65-67.

Webster, R., Blatchford, P., Bassett, P., Brown, P. & Russell, A. (2010) Double standards and first principles: framing teaching assistant support for pupils with special educational needs, *European Journal of Special Needs Education*, 25(4), 319-336.

Webster, R., Blatchford, P., Bassett, P., Brown, P., Martin, C. & Russell, A. (2011) The wider pedagogical role of teaching assistants, *School Leadership & Management: Formerly School Organisation*, 31(1), 3-20.

Webster, R. & Blatchford, P. (2013a) The Making a Statement project Final Report. A study of the teaching and support experienced by pupils with a statement of special educational needs in mainstream primary schools, (London, Institute of Education, University of London).

Webster, R., Blatchford, B. & Russell, A. (2013b) Challenging and changing how schools use teaching assistants: findings from the Effective Deployment of Teaching Assistants project, *School Leadership & Management: Formerly School Organisation*, 33(1), 78-96.

Wertsch, J. V. (1991) *Voices of the Mind: Sociocultural Approach to Mediated Action* (Cambridge MA, Harvard University Press).

Wertsch, J. V. (1994) The primacy of mediated action in sociocultural studies, *Mind, Culture and Activity*, 1(4), 202-208.

Wilson, E. & Bedford, D. (2008) 'New Partnerships for Learning': teachers and teaching assistants working together in schools - the way forward, *Journal of Education for Teaching*, 34(2), 137-150.

Wilson, R., Sharp, C., Shuayb, M., Kendall, L., Wade, P. & Easton, C. (2007) *Research into the deployment and impact of support staff who have achieved HLTA status* (London, National Foundation for Educational Research (NFER)).

Wood, D., Bruner, J. S. & Ross, G. (1976) The Role of Tutoring in Problem Solving, *Journal of Child Psychology and Psychiatry*, 17, 89-100.

Woodward, M. & Peart, A. (2005) *Supporting education; the role of higher level teaching assistants* (London, The Association of Teachers and Lecturers).

Woolfolk, A. (2013) *Educational Psychology (12th Ed)* (New Jersey, Pearson).

Yin, R. (1989) *Case Study Research: Design and Methods (2nd ed)* (Beverly Hills, California, Sage).

Yin, R. (2012) *Applications of Case study Research* (London, Sage).

Zimmerman, B., Schunk, D. (2003) *Albert Bandura: The Man and his Contributions to Educational Psychology* in: Zimmerman, B. and Schunk, D. (Eds) *Educational Psychology: One-Hundred years of Contributions*. (Mahwah, NJ, Lawrence Earlbaum).

APPENDICES

APPENDIX 1 - A Practical Iterative Framework for Qualitative Data Analysis

Questions that served as the framework for the data analysis

Q1	What are the data telling me?	→	Explicitly engaging with theoretical, subjective, ontological, epistemological and field understandings
Q2	What is it I want to know?	→	According to research objectives, questions and theoretical points of interest
Q3	What is the dialectical relationship between what the data are telling me and what I want to know?	→	Refining the focus and linking back to research questions

from: Srivastava and Hopwood (2009; p78)

APPENDIX 2 - Pre-lesson Joint Interview with Teacher and Teaching Assistant

CODES

CF	-	Consistency and Frequency
WMD	-	Ways of Working and Models of Deployment
REL	-	Relationships
JPL	-	Joint Planning
TRA	-	Training
LPRO	-	Learning Progress
ASS	-	Assessment

How long have you worked together in the classroom?

Two years and six months (**consistency of support**) → **CF**

How often do you work together with this particular class?

18 periods per fortnight (**frequency of support**) → **CF**

In your view, is there any relationship between learning progress and the frequency of support?

Absolutely – the amount of the support is important to the progress of the pupils because it builds up **consistency and trust** with the pupils. The frequency is important in terms of ensuring that **learning progress** is made. Supplementary or of equal importance is a knowledge of **pupils' strengths and strength gaps**. (Three important features outlined to support consistency and frequency) → **CF**
→ **CF**
→ **CF**

Does the way of working differ from lesson to lesson?

Sometimes the TA works with a **small group** and will **take them out or to one side to support** their work. At other times **she will work more generally, giving support** where it is needed. Occasionally, if **we divide the class into two groups** the teaching assistant will use similar content responding to ability range. **Whatever I need her to do she will do it and do it well.** (relationships - trust in TA's abilities), (models of deployment - flexibility in provision of learning support - implication - all learners work with TA and/or teacher - no-one singled out as SEN). → **WMD**
→ **WMD**
→ **WMD**
→ **WMD**
→ **WMD**
→ **REL**

What types of opportunities do you have for joint planning?

We meet to discuss quite regularly – often on an ad hoc basis and this allows for some feedback on pupils (**voluntary joint planning**). There is no formal time set aside for planning (**planning time - none**). However, because the TA knows the pupils and my way of working quite well (**informal training**) she → **JPL**
→ **JPL**
→ **TRA**

knows and understands what we will be doing so she can support the pupils easily – so in this particular case, lack of planning opportunities does not impact negatively on pupil engagement and progress (**proactive in taking time to plan**) → JPL
 (**Relationships - values the TA's input and of gaining feedback on learners' progress**). Given the chance to sit and plan, opportunities might well emerge to support CPD. (**Open to use of planning time for training**) → REL
 → TRA

Why might planning time be considered as important?

It is important as it supports the needs of the group and to enable the teacher and teaching assistant to make maximum use of the support in the lesson. It also helps to identify gaps in knowledge for the teaching assistant and to enable her to develop subject knowledge. (**Teacher is aware of all the advantages to be gained by making time for planning**) → JPL

How did you decide on the form the learning support will take in your lesson?

This is a lesson that we have done before so the teaching assistant will know what to do. **We have not had an opportunity to plan** this morning because the teaching assistant was taken off for examination invigilation. (**This highlights a conflict of need - school versus class - reliance on experience of TA**). → JPL

What do you understand by learning progress? – give examples.

Well, there is APP – I will also know from previous lessons what skills they have achieved and will see if they have managed to build on it. Learning progress is really about their progress towards skills and understanding – academic progress. (**Learning Progress defined as target driven - imposed by school/Government**). → LPRO

Do you have more than one definition of learning progress? Give examples.

Well, there are organisational skills and independence, learning to work together, developing effective relationships and developing emotional intelligence. (**Teacher considers 'whole child' in respect of learning**). → LPRO

How will you assess learning progress in this lesson?

By revisiting the lesson objectives and learning outcomes during the plenary. When pupils can explain to me what they have learnt, I can assess their progress (**Teacher uses assessment criteria based on what he wanted them to learn**). → ASS

How will you record learning progress?

Cross reference with APP sheets, mark book. It will also involve revisiting pupils' current targets and, if necessary, setting new targets. **(holistic view - as outlined above - plenary to ascertain individual learning on a wider basis - but focused, too, on target setting and building on learning to achieve new targets).** → ASS

What factors affect the quality of support?

It is important that the teaching assistant is well trained. **(training).** It is also beneficial if they have intuition and an understanding of the teacher's methods, the work and the pupils they work with **(professional relationships - teacher/pupils),** Consistency and understanding methods is important and so it is important that the same teaching assistant works with the same class and pupils on a regular basis. This makes the very best use of support. Feedback from other teachers, of the way teaching assistants work with classes on a less regular basis seem to suggest that support is less effective as they don't know the pupils properly or understand their needs. **(frequency and consistency - verbal evidence from other teachers) (training - learning approaches) (implications for (informal) training).** → CF
→ TRA

END OF INTERVIEW - 30 MINUTES

(I WILL BE ASKING FOR CLARIFICATION AND AMPLIFICATION OF RESPONSES WHERE NECESSARY. IN THE LIGHT OF RESPONSES SUPPLEMENTARY QUESTIONS MAY BE ASKED)

APPENDIX 3 - Post-lesson individual semi-structured interview with Teaching Assistant

SHOWING USE OF SUPPLEMENTARY QUESTIONS - (SQ) AND SUPPLEMENTARY COMMENT BY INTERVIEWER (SC1)

In your view, what aspects of the lessons went well?

Well, the learning intention which was to learn full stops – which was the learning intention – which was to do a sentence that made sense – full stops and capital letters and I think that went well for all of them – well, Catherine struggled a bit but then she worked independently - quite a bit on her own, whereas I gave quite a bit of support to Derek and Connor so I think this went well.

Did your role change as the lesson progressed? If so, what was the reason for this?

No I think it more or less stayed the same – just positive.

The thing is, because you were withdrawn from the lesson, some of these questions (SCI) will be less relevant - but yes, you were doing the same thing which was supporting pupils.

It stayed the same because the pupils had been withdrawn from the main class. No, it didn't change – just the same things, keeping them on task and supporting and encouraging them really.

If it didn't, were there were there advantages in not changing your role?

What – withdrawing from the class and taking small groups – well it's nice because you get more one to one with the group and with people like Derek and Catherine they are easily distracted. So, if something else is going on in the group then I haven't got their full attention – they are looking at what (another pupil) is doing over there – and so when I have got them in the little group - so if I've got them in that little room they are focused completely on what I am telling them to do and they are not distracted by anyone else – and they all want to do well in that little group.

So when you are doing your one to one there your role doesn't change – do you find that is an important thing when giving them help – or does that get in the way of their independence? (SQ)

That's why I did that little chart for Derek – I do feel that they can be too dependent on me and when I go into class - it's Ms X, Ms X - so I do feel that they do rely on me a bit too much but I think you have got to help them out otherwise they would sit there and do nothing – so you do have to give them that little bit of encouragement and that little bit of help but I do say to them – 'you can do it – I'm sure you can do it – I am here to help you but I am sure that you can do it - I'll give you two minutes to think about and then I will come back and see – and if you still can't do it I will help you out.' But I don't think that stops their independence but it is hard because they do rely on Ms X – Ms X is here – she can help me.

And you are there – in a very enclosed environment – so you do have to guard against that? (SQ)

Yes.

I did hear you say to one of them that they had waited two minutes for you to come and help them with that question when they could have done it for themselves! (SCI)

Yes, sometimes they do that – they are too dependent because they say to themselves – I'll just wait until Ms X can help me when she has finished over there – and they don't actually think that – oh, perhaps I might be able to answer this for myself. It's like Derek with his sentence – because he can read it perfectly and when he re-read it himself when I asked him to he said - 'oh no – that doesn't really make sense – whereas he could have actually, physically done that for himself. He could have actually read it and said – 'does that make sense? - oh no.' But, they're getting there – their independence has grown since they first started at the school.

So you think they've improved? (SQ)

Yes, definitely improved.

So – I know you didn't plan for this lesson – so how did that lack of planning impact on this lesson?

Basically sentence structure – a sentence that makes sense and a capital letter and a full stop – basically, that is all I needed to know so I thought – right – and they knew that – I said do you know what you are supposed to do? – have you got the capital letter, have you got the full stop? So I think – planning the lesson wouldn't really have helped with that small group. Well, as soon as Edward told them the learning objectives - the group, I knew and they knew what they had to do.

Do you think that the content part of it – the fact that they were analysing the novel was subsidiary to the sentence structures and the use of the full stops and capital letters? (SQ)

Yes, I suppose so. But it is something that they can write a sentence about - that they can relate to because they have been reading the book in class – otherwise we give them words on the board and get them to write a sentence using them – so today they could make a sentence about their knowledge of the book – it wasn't just about writing sentences but about what happened in the book – so they could say – 'no this didn't happen and that didn't happen' so....

So what is the title of the book – Mortal Engines? I've never heard of it! Who wrote it? (SQ)

Philip Reeves.

I've never heard of it – is it good? (SQ)

Not my sort of book. It's futuristic ...set in a town...

Can you give an example of how a particular pupil made progress with your support?

Er – Derek, I'd say – little Derek – because he does really struggle with his reading and his writing and I did just speak to him about his sentences – even though I had written down some - but there was one – I don't know if you noticed – at the very beginning – and I said 'what have you written down here?' Because he had done a lesson with Edward prior to this – and I said 'well that makes sense and if you put that bit with that bit you will have made a sentence.' And when I came back to him he had actually written those two bits together and I said – 'Wow – you have actually put those two words together.' Now that is learning progress because I actually thought he would just write it as it is – but he had put them together so that was good.

Why do you think this was?

I don't know really – perhaps it was luck - perhaps it was our input at school telling him to look and me having a little chat with him afterwards.

Do you think that anything you did helped him come to that? (SQ)

Yes, well by reading a little bit with him and asking him whether we could put these two bits into a sentence and he said 'yes' and then I left him to do it independently – so, yes, it did help.

Can you give an example of a particular pupil who responded less well to your support?

No, obviously only Ben, but he was only in there five minutes before he elected to go back into the main class – I knew that he was never going to work well in there – but he made the choice because I would never say to a pupil that I didn't want them in there but he said he knew what he was doing and chose to go back into the class with Edward.

Would he have been disruptive if he had stayed? (SQ)

Yes, I think he would have. Probably – he would have been OK but he was getting the knock from Connor because he was shaking the desk and he is quite loud. And that is why he wanted to go in Edward's class because he said 'Connor is very loud – I understand what I am doing – I can't think as he is loud...'

He did actually say to me that it was quieter in the main classroom so that is why he was going. So I think what you've told me confirms that. (SCI)

So I do understand when he says that to me – he is a lovely boy – and it is hard for him – but he does need the support – Ben does find it really difficult to write sentences – and he does love me sitting next to me – he says 'oh, Ms X, come and work with me' – so he does actually like the support but he doesn't want ...because that puts him off – when Catherine and Derek are going – 'Ms X, Ms X. And he's a bit, 'Oh, stop; leave her alone, I want her to myself.'

So he did – probably – do what was right for him? (SQ)

Yes

What factors made it easier to support in this lesson?

I suppose, good pupils who wanted to learn, my whiteboards and marker pens – all the equipment and the writing structure and they actually had a little plan of what they were going to write about so they had their little notes to use – some sentence starters – they had some sentence starters and keywords such as ‘Valentine, happy, sad..’

Yes, and Edward had actually put two essay starters on the whiteboard. Will it end in any essay? (SQ)

Yes, it will.

What factors made it more difficult to support in this lesson? I know that it was not a difficult lesson but were there any factors which you felt that you could change and it would be better?

Yes, for example, if I am working with Connor and we are talking – then Catherine will interrupt and say ‘Ms X, Ms Xs’ and maybe I could have said ‘right, I am going to spend five minutes with Connor and five minutes with you and while I am doing this try and get on and think if you get stuck. Maybe I could then think that I am going to give five minutes to each pupil – because I did find that a bit difficult today because I didn’t know I was going in the little room and it was a bit rushed and I didn’t know and usually I have it planned out and I put the chairs out and I have my whiteboards to hand – so it was a bit muddled in that way. I think I would have liked it better if I had said ‘right, I am going to spend five minutes with Catherine and start Catherine off, and then I’ll come over and spend five minutes with you, and five minutes with you.

In an ideal world, what would a teaching assistant’s role be like? How would they work with teachers – with pupils and with each other?

Well, I don’t know. Well, I suppose like it is now actually – well, for the teacher to give me responsibility as well – obviously, not to give me full responsibility but to give some responsibility to me and rely on me – make me feel part of the lesson – like I am a member of staff in there with Edward and include me in the lesson and in discussions – and ask me questions in the plenary, ask me ‘what do you think, Ms X?’ and ‘what’s your take on that Ms X?’ and for more teachers to do that, I suppose.

END OF INTERVIEW

Code: SQ = Supplementary Question

Code SCI = Supplementary Comment by the Interviewer

(I WILL BE ASKING FOR CLARIFICATION AND AMPLIFICATION OF RESPONSES WHERE NECESSARY. IN THE LIGHT OF RESPONSES SUPPLEMENTARY QUESTIONS MAY BE ASKED)

APPENDIX 4 - Windihurst School - English Year 8 - Lesson Observation

Colour Code -

WMD	-	Ways of Working and Models of Deployment
CONST LT	-	Constructivist Learning Theory
OAL	-	Other approaches to Learning
LP	-	Learning Progress
FORASS	-	Formative Assessment
PLA	-	Planning

Initially the teaching assistant and I were present in the whole class while the teacher set up the lesson. The content of the lesson involved writing a response to a novel using PEE. Two starter sentences were offered on the IWB to enable pupils to begin work. These were:

- In this essay, I will look at how Valentine's character changes during the course of the book, *Mortal Engines*. It discusses whether Valentine is a good or bad person.
- In this essay I will look at how Valentine's character changes during the course of the book, *Mortal Engines*, and whether he can be called a 'goodie' or a 'baddie.'

The teacher explained the task in detail to the class. After this, he made it clear to me that, whilst he and the teaching assistant often planned the lesson jointly, **(planning)** as the teaching assistant had been called upon to invigilate an examination first thing, on this occasion it was not possible. However, he soon made her aware of the requirements. He also explained to me that the six learners at the back would work independently in class, whilst the five other learners (four boys and one girl) would work with the teaching assistant in a separate room. However, one learner (a boy) withdrew from the withdrawal group **(model of deployment)** after discussion with the teacher – leaving four learners (three boys and one girl).

→ **PLA**

→ **WMD**

The most important skill to look for apart from the responses to the novel and for which a writing frame and structural chart had been provided **(learning theory - constructivism/Vygotsky/tools)** was sentence demarcation – as the teacher puts it: 'do the sentences make sense?' The TA knows that Levels 2/3 are the appropriate targets.

→ **CONS TL**

The TA and I, together with four learners, then left the room. The TA settled the learners to work. Each learner was provided with an individual whiteboard to support independent learning **(learning theory - constructivism/tools/independent learning - Vygotsky/expert adult)**.

→ **CONS TL**

The TA uses questioning techniques to get them started. She begins with recall questions – do you remember what Valentine was like?

Questions also started with statements – for example, ‘Valentine is caring person – why?’ The learner with whom the TA was working answered correctly. The questions became more open-ended, focusing on the task in hand - ‘how are we going to write this?’ ‘Why do you think that?’ Give reasons. **(learning theory/questioning techniques/Bloom et al).** → **OLP**

This procedure was repeated throughout the lesson, on a one-to-one basis with each learner **(learning theory/constructivism/Vygotsky /expert adult)**. The girl demanded and got slightly less attention because she was more able to proceed independently. The TA monitored her progress and provided feedback periodically **(AfL - James et al)**. → **CONS TL**
→ **FORASS**

The one-to-one questions moved from answers to applying the comments to the writing frame – for example, ‘at the start of the novel, Valentine is a good hero.’ One learner was provided with a chart to encourage him to use thinking time before asking for help. When he asked how to spell ‘massive’ the TA encouraged him to do this phonetically. At no point did the TA give answers but encouraged the learner to get to the answer himself. The learner then completed the sentence - ‘Valentine saved a massive wolf’ **(learning theory/ encouraging self-regulated learning/ Bandura - also active thinking/Malaguzzi)**. → **CONS TL**

Another learner had a problem with reading and focusing on the work, but with one-to-one support was encouraged to answer the questions and write up answers. Periodic return to this learner was necessary because he did not work unless the one-to-one support was present. When he answered a question, the TA expressed surprise as to why he had waited for her help when ‘he could answer the question for himself.’

Nevertheless, reminders were given about the use of full stops and capital letters. Spelling was developed phonetically where possible and this meant that learners arrived at spelling certain words for themselves **(learning theory/constructivism/Vygotsky - expert adult/independent learning)**. → **CONS TL**

The girl seemed more independent and showed what she had written at periodic intervals so that it could be checked. She wrote: ‘As the novel develops we see that Valentine is a nice person because he is caring – this last word substituted in order to avoid repeating ‘nice.’ She then asked, ‘does this make sense’ and adds ‘Valentine is a kind, caring person. The TA approved so she wrote it down.

Throughout the lesson, the TA used individual whiteboards to support learning. She also used phrases to encourage independence ‘so you spent all that time waiting forwhen you could have done this for yourself!’ (The TA has constructed a chart (see Appendix 8) to use as a device to encourage more independence and active thinking skills **(learning theory/constructivism/Vygotsky/Malaguzzi - discovery learning/Bruner)**. → **CONS TL**

The lesson was characterised by a positive learning ethos. Clear progress was made with all learners writing a good amount for their ability. They were able to read their work out and it was structured in line with the writing frame. Learners had a low attention span but the TA's support and questioning re-stimulated interest throughout. On return to the classroom the teacher checked their work individually → **LPRO**
(learning progress/teacher demonstrates responsibility for learning outcomes.)

END – ONE HOUR

APPENDIX 5 - Questions for Group Semi-Interviews with Learners (another adult present)

Can you give me any examples of how the teaching assistant worked with you in this lesson?

Did you find this helpful?

Can you give me any examples of what sort of classroom support works really well?

Can you tell me whether there are times when you do not enjoy having classroom support or when you find it unhelpful? When? Why?

Can you give me an example of progress that you made because of the extra support in that lesson? In other words, something you learnt or understood which you did not know before?

Are there any other ways in which working with a teaching assistant helps you or affects you?

What would a school without teaching assistants be like?

In an ideal world, what would a teaching assistant's role be like? How would they work with teachers – with pupils and with each other?

APPENDIX 6 - Ethics Clearance and Approval

UNIVERSITY OF SUSSEX SUSSEX INSTITUTE RESEARCH GOVERNANCE AND ETHICS

ETHICS CLEARANCE AND APPROVAL FORM

Please attach this to the completed research proposal/research plan and the Sussex Institute Ethics Checklist, when requesting clearance for a research project.

The researcher should keep a completed copy of this form. If the process progresses to Stage 2 approval, copy of the completed form should also be lodged with the Secretary of the Sussex Institute Research Governance Committee

STAGE 1 Ethical Clearance

Name of student: Edwina Slater	
Name(s) of other UoS staff working on project: None	
Name of supervisor (for students): Louise Gazeley/Pat Drake	
Name of any external staff working on project: None	
Title of research project: Can teaching assistants be deployed in ways that maximise the impact on teaching and learning	
Start and end dates of project: May 2010 – September 2011	
Overall aim of project: To draw out the most effective deployment and working practices of teaching assistants to improve standards	
Who are the participants? Three schools, three teaching assistants paired with three teachers working specifically in core curriculum departments	
What main material collection/literature reviewing methods will be used? Interviews, classroom observations followed by reflective discussions. Documentation on training needs and gaps in training may also be used	
Researcher /student supervisor to complete:	
I attach a completed Ethics Checklist and	
<i>Please tick as appropriate</i>	
I confirm that the Sussex Institute Standards for Research Ethics have been met. I will monitor the progress of the project and let the ethics committee know if any difficulties arise.	<input checked="checked" type="checkbox"/>
The Sussex Institute Standards for Research Ethics have not yet been met and the proposal should go to Stage 2 for ethical approval.	<input type="checkbox"/>
Signed <i>Pat Drake</i>	Date 24/05/10

APPENDIX 7 - Ethics - Letter of confirmation from Supervisor



Reference: Edwina Slater, Ethical approval for doctoral research

Date: December 16th 2014

To whom it may concern

This is to confirm that Edwina Slater was granted ethical approval under the paper based system operating in the Department of Education of the University of Sussex at the time when she was seeking approval to progress to fieldwork (see appendix for a copy of the original documentation). The paperwork was signed off by Dr Pat Drake in her capacity as first supervisor at that time. It was agreed at a subsequent tutorial involving both supervisors that the research would be strengthened if young people working with the teaching assistants and teachers observed were given an opportunity to express their views on their own learning. It was also agreed during the course of this tutorial that both the young people and the school would provide verbal consent for their participation and that a member of staff would remain present in the room while they met with Edwina. While these arrangements were consistent with the ethical practices in place at the time of field work, the ethical review process has now been strengthened and other criteria would apply.

Dr Louise Gazeley

Current 1st Supervisor and original 2nd supervisor of Edwina Slater's doctoral thesis.

contact us

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APPENDIX 8 - Resource produced by TA to encourage independent learning