

Does Provision Management Improve
Outcomes for Pupils with
Additional Learning Needs
in Spelling, Reading and Maths?

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This thesis is submitted to Cardiff University in partial fulfilment of the requirements for the degree of Post-Qualification Doctorate of Educational Psychology.

2012

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree

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Dedication

A massive thank you to my parents for their never ending love, support, help and encouragement to follow my dreams and aspirations.

A massive thank you to Kam for his undying love and support and for motivating me when the going got tough.

Thank you to Dr Simon Griffey for his advice through out the three years.

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Abstract

This study investigated the effectiveness of the provision management system through the use of provision maps in improving outcomes for pupils with additional learning needs in spelling, reading and maths compared with pupils on individual education plans. The study used quantitative methods to compare pupils aged from year 2 to year 6 on their end of year spelling, reading and maths standardised scores. Two schools were used for the comparison; they were matched within the local authority for socio-economic status, urban location, size and similar number of pupils identified as having additional learning needs. One school had been using provision maps for the academic year 2010-2011 and the other school had been using individual education plans for the academic year 2010-2011. Both schools had used individual education plans in the academic year 2009-2010 and had recorded standardised scores for spelling, reading and maths for that year for all of the pupils whose data were used in this research. The study also used qualitative research through use of a case study design and also semi-structured interviews, which were tape-recorded. The transcripts were analysed using thematic analysis. The study involved triangulation through looking at the perceptions of learning support assistants, the SENCO and head teacher on the effectiveness of provision maps compared to individual education plans. All of the interviews were conducted on an individual basis. Due to the small sample and case study approach the results were not generalizable to the whole population of pupils with additional learning needs who currently have provision maps. The quantitative results indicate that provision mapping is more effective than individual education plans at improving learning outcomes for pupils with additional learning needs based on an analysis of standardised scores in spelling, reading and maths. The qualitative data results indicate that all the staff involved in organising and providing the provision map interventions perceive it as being more effective than the system of individual education plans both in the outcomes of individual pupils and also through increases in self-esteem and the level of engagement pupils are having now with their learning, which in turn is motivating the pupils to want to learn more. Future research possibilities are discussed and implications for schools and educational psychologists are also discussed.

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Chapter 1 - Introduction

1.1. Outline of Title

This study investigated the effect of using provision mapping, rather than individual education plans on pupils' outcomes in spelling, reading, and maths. Provision management or, as it is sometimes referred to, provision mapping, is a system of accountability providing additional support to pupils with additional learning needs (ALNs). It is felt that provision mapping cuts down the bureaucracy of individual education plans and therefore provides a more manageable system, due to not writing “..a whole volume of individual education plans” (Cheminais, 2010, p.38). It is believed that provision mapping improves learning outcomes for pupils with special educational needs (SEN)(SENJIT, 2004).

Provision management was being trialled by one primary school in the local authority where the research was undertaken. The pupils identified with ALNs in the school had previously had individual education plans, which identified their specific special educational needs. The provision management system had been running for the academic year 2010-2011. The comparison group school continued as in previous years with their individual education plans. The local authority and in particular the educational psychology service within the authority were interested in knowing whether provision management was an effective pedagogical approach to be implemented across the local authority's schools to improve the learning outcomes of pupils with ALNs.

1.2 Justification for Study

Provision management is a recognised system (Hrekow, 2010) for reducing the bureaucracy of SEN planning within schools. Within government literature, it is being promoted as a tool that will replace individual education plans for the majority of pupils with additional learning needs, as it will cut down on paperwork and improve learning outcomes for pupils.

There is research (SENJIT, 2004; Cheminais, 2010; DCSF, 1997; Edwards, 2011) on how to undertake provision management and how to reduce bureaucracy and the workload of the special needs co-ordinator (SENCO), but a literature search using PsychInfo, Eric and Google Scholar on the first of September 2011, resulted in a nil return for any scientific research that focussed on the learning outcomes for pupils through the use of provision maps or provision management. If local authorities are to develop more effective strategies for pupils with ALN then they will require evidence that a new system is proven to make a positive difference based on scientific research, rather than e.g. unsupported claims about the benefits of provision management in articles such as SENJIT (2004), Cheminais (2010) and Edwards (2011), where reference to improvements are made but not supported by any scientific research. This research aims to add scientific knowledge to the body of the research on provision management and new information on the effectiveness of the system for improving learning outcomes for pupils with additional learning needs.

1.3. Main Aims of the Study

This study aims to investigate whether provision management can improve outcomes in reading, spelling and maths for pupils with additional learning needs. A recent

ESTYN inspection in the local authority in which the study was conducted identified that literacy and numeracy scores for key stage 2 (KS2) indicated underachievement by pupils.

Given the lower than national frequency of free school meals (FSM) in the authority, (Child Poverty Solutions – Wales, 2011) more pupils should be attaining the national average and more schools would be expected to be in band 1 (Jenkins, 2011). If the evidence of this study supports an improvement in outcomes, then it could possibly be an appropriate system for the local authority to adopt in all schools, as a possible way of improving learning outcomes in reading, spelling and maths.

This research may also be of benefit for educational psychology and education as it will explore if there are more effective ways of supporting pupils with additional learning needs or whether the current system of individual education plans is still the most effective. The Welsh Government is looking at ways of improving learning outcomes for pupils in Wales who currently still underperform compared to their peers in England (PISA results, 2010) and this research could also support a pedagogy for improving learning outcomes and ensure that Welsh pupils are gaining the level of education that is appropriate for their needs as well as the level that is commensurate with their peers in England.

In the following chapter the study reviews the important domains of theory and research related to provision mapping. These are additional learning needs, special educational needs, poverty, the roles of teaching assistants/learning support assistants, literacy and numeracy development, inclusion, Choice Theory, Social Constructionism,

Self-efficacy, system change and renewal, raising low attainment, auditing and provision management, to determine what is good practice for improving learning outcomes for pupils with additional learning needs.

Additional learning needs are an important element of provision management as these needs are the primary reason for having provision maps. The provision maps are designed to increase the learning outcomes for pupils with additional learning needs and special educational needs. Special educational needs are steeped in theory and research and this chapter will focus on what special educational needs are and how to improve learning outcomes for this group of pupils. Poverty is closely linked to learning outcomes for pupils and special educational needs. The schools in this study come from areas with relatively high levels of socio-economic disadvantage and therefore it is important to look at the effects of poverty on pupils' learning.

Teaching assistants or learning support assistants are often the key people in schools delivering additional to and different from provision to pupils with additional or special educational needs. It is therefore critical to know what current research and literature says about the role of teaching/learning support assistants and the effectiveness of their roles when supporting some of the most vulnerable pupils. The qualitative analysis in this research also focuses on the role of the teaching/learning assistants. Literacy and numeracy development are key areas of learning in the National Curriculum and regarded as the core curriculum subjects. Literacy and numeracy levels in Wales are a concern;

we already know Wales is at the bottom of the United Kingdom league table for literacy and numeracy (Burns, 2012).

Estyn (2012) found that 40% of pupils arrive at secondary school with reading ages below their actual age and therefore it is crucial that we identify effective strategies to raise the literacy and numeracy levels of pupils. It is reported “that a 5th of teenagers leave school so illiterate and innumerate they are incapable of dealing with the challenges of everyday life...”(Shepherd, 2010). It is reported that there is a strong correlation between lack of numeracy and multiple disadvantages (Humphries, 2012, cited in Garner, 2012). Ofsted (2012) report that in England one in five children still leave “..primary school.. with a reading ability insufficient to access the secondary school curriculum” (Garner, 2012).

Auditing enables staff to identify the areas of additional learning needs that will need to be targeted and provide evidence-based planning to improve the learning outcomes of the pupils (Gross, 2008). Auditing is a key element of provision management and determines what resources are available to enhance learning through different funding streams (Gross, 2008). It also determines where training is required, which is important as part of system change and renewal. Once an audit has been undertaken then resources can be identified and provision maps written.

Provision management is the system that surrounds provision maps and facilitates the writing of the provision maps. Without the system of provision management in place then provision maps would not be considered to be as effective.

Chapter 2: Literature Review

2.1. Contextual Issues

This chapter will look at the contextual issues, relevant research studies and the relevant theoretical issues that inform this research. It is important to look at the contextual issues of additional learning needs and special educational needs as this is the main context of the study, as the pupils within the study have additional learning needs and provision management is perceived as a tool to support the development of pupils with special educational needs and for reducing the bureaucracy for special educational needs coordinators.

The schools in this research are located in an area of relatively high social deprivation and therefore it was important to look at the links between socio-economic disadvantage and special educational needs in order to set the context for this study. The literature on inclusion is important to be explored, as provision management is a system that aims to promote inclusion and provide schools with a mechanism to further enhance their inclusivity.

Provision Management is a system that assists schools in the management of their Special Educational Needs and Addition Learning Needs budgets and it is therefore important to look at the literature for raising low attainment with a particular focus on the literature for improving mathematical and literacy attainment, because Provision Management claims to improve learning outcomes for pupils on the SEN Code of Practice. Interventions in primary schools are predominantly carried out by Teaching Assistants or Learning Support Assistants and therefore research on their role and the effectiveness of their role are important to the discussion.

The inclusion of literature on Individual Education Plans enables comparisons and contrasts to be made between Individual Education Plans and Provision Maps, which are the outcome of using a Provision Management system. An integral part of Provision Management is the audit of need. Research on auditing has been discussed to help determine if this is an effective element of the Provision Management system to help raise attainment. As there is no literature on the effectiveness of either Provision Management or Provision Maps then this could not be included but literature on what Provision Management and Provision Maps are and how the system could be developed have been included.

Relevant theoretical issues have been discussed that the author felt were pertinent to the discussion of Provision Management and that may highlight any psychological underpinnings of Provision Management. Self-Efficacy was considered to be an important concept to discuss as it could help to explain the perceived improvements made by pupils when they receive additional to and different from provision as part of a Provision Map. It could also help to explain successes and or failures of learning outcomes from a teaching perspective. Self-Concept was also important concept to discuss to determine whether improvements in Self-Concept were an outcome of using Provision Management system. Glasser's (2001) Choice Theory was deemed by the author to be a core psychological theory in explaining some of the possible reasons why pupils make improvements in their learning. Glasser (2001) also claims that the type of management in schools determines how successful pupils are. Social Constructionism was discussed to help understand different discourses that surround

the relevant research in the literature review and also the discourses that developed through the qualitative research.

Literature on system change and renewal was included to determine whether Provision Management is also a system of change and renewal and also because Levin and Fullan's (2008) Theory of Action claims that any change needs to start with literacy development as this is fundamental to improvements in learning and motivation.

Relevant research studies will be discussed in the succeeding sections of this chapter, to determine what other researchers believe the key issues are that impact on pupils' learning through examination of the literature on the role of teaching assistants and the special educational needs coordinator, raising low attainment and a specific focus on raising literacy and numeracy attainment. Also the literature on provision management and auditing will be discussed, as these are key elements of this research.

The final section of this chapter will look at the relevant theoretical issues of self-efficacy, choice theory and social constructionism in order to explore the psychological domains that may be influencing provision management.

2.1.1. Additional Learning Needs (ALNs)/ Special Educational Needs (SENs)

Definitions of ALNs and SENs have been included to ensure that everyone understands the characteristics of the pupils' in the study in order to determine whether provision management was effective in raising the pupil' attainment in spelling, reading and maths.

Children are defined as having additional learning needs if they;

a) have significantly greater difficulty in learning than the majority of children of the same age ; or b) have a disability which prevents or hinders them from making use of educational facilities of a kind generally provided for children of the same age in schools within the area of the local educational authority.

(DfES, 2001, p.8).

Children are defined as having special educational needs;

... if they have a learning difficulty which calls for special educational provision to be made for them. Children have a learning difficulty if they:

a) have a significantly greater difficulty in learning than the majority of children of the same age; or

b) have a disability which prevents or hinders them from making use of educational facilities of a kind generally provided for children of the same age in schools within the area of the local education authority.

c) Are under compulsory school age and fall within the definition at (a) or (b) above or would so do if special educational provision was not made for them.

(Welsh Assembly Government, 2004, p.1).

Croll & Moses' (2003) findings supported the Warnock Report (1978) that between one in five and one in six children had some form of SEN, and that between 1981 to 1998 there had been an increase in SEN identified by teachers from 18.8% to 26.1%.

This demonstrated that,

The proportion of pupils in mainstream primary schools with perceived learning difficulties had increased by exactly fifty per cent between 1981 and 1998.

(Croll & Moses, 2003, p.735).

ALN and SEN are enshrined in legislation through the Code of Practice (2004) to ensure that those pupils with learning difficulties are identified and supported through additional educational provision (Lupton, Thrupp & Brown, 2010).

Schools are allocated additional money for pupils with SEN, which is dependant per school on factors such as the degree of need, the local authority's own budget and its formula for SEN funding allocation (Lupton, Thrupp & Brown, 2010). As identified SENs are not evenly distributed in the population, but related to socio-economic disadvantage, it is more likely that schools with high levels of SEN will also be the schools with higher levels of Socio-economic disadvantage (Lupton, Thrupp & Brown, 2010). It is possible that some schools and some pupils will be disadvantaged by the funding formula for their school if identified SEN and deprivation are not addressed in funding formulas. Pupils with SEN will not always access the necessary provision to support their learning difficulties in schools with high levels of SEN and social deprivation without adequate funding formulas. Some evidence supports the view that in schools with high levels of SEN, the pupils with SEN receive less support due to "the relatively low levels of extra resources these receive" (Lupton et al., 2010, p.279). This would support the view that "...a greater increase in resources for more disadvantaged schools" (Lupton et al., 2010, p.281) would ensure increased support for the most needy. If education is to be equitable then SEN must be regarded as a key aspect of school context and its identification and funding needs to be de-individualised and linked to the broader issues of socio-economic inequalities (Lupton et al., 2010).

Some formulas may take socio-economic status into account and the SENCO and head teacher determines the allocation of the resources to pupils with SENs in a school. In some cases the funding is not appropriately allocated for the benefit of all the pupils on the SEN register. If some pupils in the school have a much higher level of need

then sometimes the funding is used for this purpose at the expense of those pupils with lower levels of special educational need.

2.1.2. Socio-Economic Disadvantage and Special Educational Needs

Due to the close links between socio-economic disadvantage and SEN the author felt it was important to include this literature as pupils in the study came from an area of relatively high deprivation and the raising of pupil attainment was a key research question.

Special educational needs significantly impact on young people's learning SEN, are also "...closely associated with deprivation" (Lupton, Thrupp & Brown, 2010, p.268). It would appear that high levels of special educational need and low achievement in a school are the same thing, particularly when there are high levels of socio-economic disadvantage. Croll and Moses (2003) found that there is a high correlation between free school meals (FSM) and the proportions of children with SEN. Croll and Moses (2003) claim there is little point having separate achievement policies and special needs policies at the school's level "...when both low achievement and high levels of special needs are experienced as strongly associated with social deprivation" (p.745).

Lupton et.al., (2010) claim that

...schools with high SEN numbers are also likely to be those which face the additional challenges of disadvantaged socio-economic contexts such as material poverty, social and emotional problems, and reluctant participation by students and parents. (p. 272).

From this perspective it would be very difficult to disagree with Croll and Moses (2003) as it would appear that SEN and low achievement in socio economic

disadvantaged areas is the same thing. Therefore, the focus needs to be on what can be done to improve the outcomes for the young people, rather than categorising them.

Duckworth, Akerman, Morrison, Gutman and Vorhaus (2009) claim that primary schools have more impact on a pupil's final outcomes than the secondary school and, if this claim is true, it would be essential that we get the teaching and learning correct at the primary school level in order to maximise children's life chances. Research shows that;

Most of the schools in the top (most deprived) group on deprivation were also in the top group for SEN. Less deprived schools had a wider spread of SEN.
(Lupton et al., 2010, p.271).

This supports the view that there is a strong correlation between deprivation and special educational needs, both of which impact on the learning outcomes of pupils. The pupils with special educational needs and who also come from deprived backgrounds generally perform less well than those children with SEN from less deprived backgrounds.

...boys,... children from low socio-economic backgrounds and children with poor home learning environments do substantially worse on average.
(Duckworth et al., 2009, p.1).

This is not true for all pupils as Duckworth et al. (2009) found. When other factors are controlled for, many minority ethnic groups perform better than white British children on average despite possibly coming from low socio-economic backgrounds.

White British children are most likely to remain low achievers if they start from that position, they are least likely to remain high achievers

(Duckworth et al., 2009, p. 2).

It would appear that white British children from low socio-economic backgrounds enter school already disadvantaged, but their profiles for requiring support to enhance their learning are not being addressed unless they get identified as having a SEN. It would seem that, deprivation indicators need to be considered when looking at individual pupil's learning profiles. Children from impoverished backgrounds will often start school already delayed, especially in the areas of basic skills such as literacy, numeracy and speech and language (Duckworth et al., 2009, p.3). If early intervention is not put in place to help the pupils overcome their early difficulties then the learning delay is likely to follow the pupil through secondary school and into adult life.

Children's achievement test scores are strongly related to prior cognitive functioning and levels of literacy and numeracy and there are strong and persistent links between attainment in primary school & GCSE results 9 years later.
(Duckworth et al., 2009, p.2).

A priority in our primary schools should be to raise literacy and numeracy levels for all our low attainers regardless of whether they have a label of SEN. We need to make a difference at the primary level of education to break the cycle of socio-economic disadvantage in order to increase the life chances and outcomes for all pupils.

Students make less progress in schools with a high proportion of boys, students entitled to FSM, students with English as a second language and schools with a low average baseline of achievement.
(Duckworth et al., 2009, p.2).

If all these factors are evident in a school then resourcing of the education budget to boost attainment should not be seen as a separate issue for SEN and should be seen as

“...resourcing to mitigate inequalities in levels of achievement more generally” (Croll, 2001, p.52). With pupils eligible for FSM falling behind pupils with non-FSM at each key stage (Duckworth et al., 2009), we need to ensure that all pupils with literacy and numeracy difficulties are receiving additional support to help them to overcome their difficulties.

Children from impoverished backgrounds do less well than their peers in the early years, particularly in the areas of “communication, language, literacy, mathematical development and personal, social and emotional development” (Coghlan, Bergeron, White, Sharp, Morris and Rutt, 2009, p.3). Poor literacy has been linked with low achievement and is a risk factor for children from disadvantaged backgrounds but not for all pupils from disadvantage backgrounds (Cassen & Kingdon, 2007). “Poor reading and writing scores at primary school are significantly associated with later low achievement” (Cassen and Kingdon, 2007, p.1).

There appears to be a lack of aspiration among pupils from low socio-economic backgrounds and that is a key factor in underachievement (Sharples et al., 2011).

Parental aspirations and attitude to education are also important.

Parental attitudes and behaviours also strongly determine a child’s own attitudes and aspirations towards learning.
(Sodha and Margo, 2010, p.60).

Parental aspirations are an important factor in lower educational attainment (Sharples et al., 2011). Maternal aspirations are more important in determining key stage 2 results than previous attainment and family background (Sodha and Margo, 2010). Interventions that involve parents are key strategies for closing attainment gaps

through initiatives such as family reading projects, booster classes, regular communication with parents and parent forums (Sharples et al., 2011).

Mittler (1999) reports that, “many pupils never recover from early failure in basic skills” (p.5). Mittler (1999) views academic failure as part of complex social problems and argues that interventions to raise low achievement need to be part of a strategy that reduces poverty and addresses social inequalities.

2.1.3. Inclusion

The concept of inclusion is an important element of provision management and therefore determining what processes in schools facilitate inclusion is important. Also whether staffs perceive that inclusion is an effective element of provision management in their school.

Provision management aims to enable staff and schools to meet the inclusion agenda.

Internationally there is a significant move towards the inclusion of all children within a mainstream setting as an undeniable right (Szwed, 2007, p.147).

In many cases pupils are integrated in a mainstream school and professionals in that school will perceive the pupils as being included, but inclusion is very different to integration. Inclusion is about appropriate provision for all pupils through an innovative curriculum and specialised teaching (Sebba & Ainscow, 1996).

Inclusion can mean different things dependant on your viewpoint and on the discourses of the time. The DfEE make reference to policy about children categorised with SEN rather than general educational policy (Ainscow et al., 2006).

We want to see more pupils with SEN included within mainstream primary and secondary schools. We support the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Salamanca World Statement on Special Needs Education 1994. This calls on governments to adopt the principles of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise. That implies the progressive extension of the capacity of mainstream schools to provide for children with a wide range of needs.
(DfEE, 1997, p.44).

This perspective of inclusion focuses on pupils with SEN being taught in mainstream schools and not being taught in special schools or provision unless there are compelling reasons for this. In contrast, the Index for Inclusion (Booth and Ainscow, 2002) makes reference to barriers to learning rather than special educational needs and refers to resources to support learning, and participation rather than special education provision (Ainscow et al., 2006). This definition of inclusion is much wider and focuses more on interventions to make a difference to individuals' futures rather than focusing on their disabilities. Another perspective looks at the broad features of inclusion in schools.

Inclusion is concerned with all children and young people in schools; it is focused on presence, participation and achievement; inclusion and exclusion are linked together such that inclusion involves the active combating of exclusion and inclusion is seen as a never ending process. Thus an inclusive school is one that is on the move, rather than one that has reached a perfect state.
(Ainscow, et al., 2006, p.25).

This notion of inclusion is important as it has a much wider emphasis than being just about the inclusion of SEN and ALN pupils, but is about everyone. The concept of an inclusive school is one that promotes the philosophy that the school is on the move rather than having reached a perfect state, emphasises the willingness to change and

adapt systems, teaching styles and additional provision to meet the needs of the pupils in the school, rather than fostering a belief that the school already does everything appropriately, which could lead to complacency.

It has been suggested that full inclusion is a challenge for many schools. It

...remains one of the biggest challenges facing education systems throughout the world.
(Ainscow, Booth, Dyson, Farrell, Frankham, Gallannaugh, Howes and Smith, 2006, p.vii).

Pupils with moderate learning difficulties achieve more when placed in mainstream classes (Carlberg and Kavale, 1980). Pupils with IQ scores of 75-90 do better both academically and socially when they are included in mainstream schools than when they are segregated or placed in specialist provision (Carlberg & Kavale, 1980). This research also supports changes in educational policies that recognise that SEN issues are synonymous with educational underachievement in general (Bines, 2000), and is likely to prevent pupils who are underachieving from not receiving additional support. Bines (2000) also highlights the important link between raising standards, improving literacy and numeracy, and how this link is equally applicable to issues of SEN and to school improvement. It is claimed that, there is

a potential conflict over competing policy goals with schools being asked at one and the same time, to raise standards and become more inclusive.
(Crowther, Dyson and Millward, 2001, p.96).

2.2 Relevant Research Studies

2.2.1 The Role of Teaching Assistants (TAs)/Learning Support Assistants (LSAs) / Classroom Assistants(CAs)

The role of the TAs/LSAs/CAs in raising the attainments of pupils with ALN/SEN is a key element of this research.

The number of teaching assistants in United Kingdom schools has increased in recent years and there is mixed evidence over the benefits of teaching assistants. Rubie-Davies, Blatchford, Webster, Koutsoubou and Bassett, (2010) report that in 2009 “TAs comprised nearly a quarter of the overall school workforce” (p.429).

It is reported that the majority of work now undertaken by TAs is “direct pedagogical interactions with pupils” (Rubie-Davies et al., 2010, p.430) and that most of this work involved working with pupils of low ability or those with special educational needs (SEN). Nationally, most SEN budgets go on funding learning support assistants whose roles can include supporting particular groups in class as needed, and/or running a small group of individual sessions outside the class, to help pupils with literacy, numeracy or social skills (Lupton et al., 2010). This change in the role of TAs came about through international developments such as the Salamanca Statement (UNESCO, 1994), which supported the use of TAs to work with pupils with SEN.

The concern for pupils with additional learning needs being taught by TAs is that

.. even today, most TAs have minimal educational attainment and little or no formal preparation for their work in the classroom.
(Gerber, Finn, Achilles & Boyd-Zacharias, 2001, p.137)

Russell, Blatchford, Bassett, Brown and Martin (2001) found that in years four to six, fifty per cent of TAs support individuals who have a statement of SEN for at least some of the time.

As a result of the type of work that TAs are now doing, Russell et al. (2001) found that forty three per cent of responses from TAs indicated that they undertake their work outside of the classroom. It would appear that some teachers delegate the support of pupils with ALN to their TAs who often remain untrained for this pedagogical role of supporting the often-neediest pupils. Muijs (2003) found that an improvement in maths attainments of low achieving pupils being taught by learning support assistants in primary schools was minimal.

The Scottish Council for Research in Education (SCRE) from 2000-2002 suggested that classroom assistants (CAs) can:

1. Have a positive effect on pupil attainment;
 2. Improve pupils' learning experiences
 3. Widen the range of activities available to pupils and increase participation;
 4. Boost pupils' motivation, confidence and self-esteem;
 5. Form excellent relationships with pupils;
 6. Help to instil good behaviour; and
 7. Be favoured by parents.
- (Woolfson & Truswell, 2005, p.64).

Woolfson & Truswell (2005) conclude from their research that CAs do have a positive effect on children's personal and social development as well as enhancing the quality of the children's learning experiences. Due to the improvements in social and emotional development and hence behaviour, it may be suggested that supporting pupils with social, emotional and behavioural difficulties (SEBD) enables all pupils to

learn more effectively rather than CAs' positive impact being limited to the learning of pupils with SEN.

In contrast Blatchford, Bassett, Brown, Koutsoubou, Martin, Russell, Webster and Rubie-Davies (2009) found that the more support pupils received, the less progress they made. TAs can provide support in many different ways and it may be that the type of support observed by Blatchford et al. (2009) is not the most effective to raise attainment.

In contrast Farrell, Alborz, Howes and Pearson (2010) argue that Her Majesty's Inspectorate (HMI) reports demonstrate that well trained and well managed TAs improve standards for all pupils, within an inclusive framework and that lessons with TAs present are better than lessons without.

Farrell et al. (2010) conclude that:

TAs are just as capable as teachers in providing effective targeted support to pupils with learning difficulties (p. 443).

Farrell et al. (2010) also state that whilst teachers deliver interventions at a higher quality level, the outcomes for the pupils in their literacy was not any better than the outcomes when a TA had delivered the literacy programme. They concluded that:

.. where properly trained and supported, TAs can have a positive impact on primary aged pupils' academic progress, particularly for pupils with literacy and language difficulties although the findings were less positive for pupils with numeracy difficulties.
(Farrell et al., 2010, p.445).

Results from non-targeted intervention studies suggest that TAs should only be appointed to perform specific tasks with pupils, or to work with individual pupils, as

simply having TAs in the classroom does not necessarily improve pupil attainment (Farrell et al., 2010).

Blatchford et al. (2009) found that the more contact pupils had with TAs the less they had with teachers and therefore the support offered by TAs should be regarded as alternative rather than additional to and different from provision.

DfES (2005) state that TAs who have received appropriate training and continuing professional development will be more effective at developing pupils' learning. As part of this training, TAs should have good standards of literacy and numeracy (DfES, 2005), (that is a minimum of GCSE grade of C or equivalent). Moyles (1997) raised the issue that classroom assistants should receive more training if they are being asked to take on new roles.

Research has shown that trained TAs have a positive impact on pupils' learning outcomes when using focused, group interventions providing that the following conditions are met;

- The programme selected is based on evidence of its effectiveness and it is matched to children's needs
- It has a time-limited focus.
- There is planned time for the TA to feedback to the class teacher on progress and also to discuss any issues that have arisen.
- Its impact and use is regularly assessed as part of provision mapping to identify whether TA time is justified in running particular programmes each year.
- It is part of a whole school provision to raise standards (DfES, 2005, p.13).

Ofsted (2004) also found similar outcomes and demonstrated that when TAs used well-structured programmes with identified groups of pupils, the outcomes of pupils were measurably improved.

Gray, McCloy, Dunbar, Dunn, Mitchell and Ferguson (2007) studied the impact of trained LSAs using a Linguistic Phonics approach on lower ability readers. Although their study was small, they did not find a statistically significant difference “in the reading performance of pupils who did and did not receive support” (p.293). They concluded that over time, LSA support had no impact on lower ability readers. Gray et al. (2007) also concluded that “irrespective of additional support, no difference was observed in the reading performance of middle ability readers” (p.293). In contrast Savage and Careless (2005) found that LSAs can provide effective additional support through the development of phonic programmes for pupils ‘at risk’ of literacy difficulties. The LSAs were only given brief training and this indicates that LSAs can be very effective in the role of early intervention and also in working with pupils with ALN if they have received training.

Similar findings were also reported by Muijs and Reynolds (2003) in the Gatsby numeracy project.

“.. low attaining children in years one and two (age range five to seven years), who were supported by a teaching assistant, did not make greater progress than the control children who were not supported.”

(Gross, 2007, p.146).

Muijs and Reynolds (2003) stated that LSAs had all received training in numeracy that was more expensive than most LSAs in the United Kingdom but they could not verify that the training was of a high quality or met the needs of the LSAs. These are

important variables that may have resulted in the pupils not making more numeracy progress when taught by the LSAs. It is clear that training needs to be of a high standard and meet the needs of the LSAs.

Gray et al. (2006) conclude that the “qualitative dimensions of the research” (p.297) show that teachers and head teachers perceive that LSAs have a positive impact on reading performance, which is in contrast to the quantitative data. It is clear that the discourse of teaching staff identifies improvements in the reading performance of pupils but this is not supported through statistical analysis.

Moyles (1997) states that classroom assistants are working from an inadequate knowledge base due to not being involved in the planning process. It was felt that classroom assistants needed to be involved in the planning cycle in order to support both pupils and teachers. This view was also supported by Rose (2000) who stated that, teachers and teaching assistants should be planning and discussing activities together in order to maximise the efficiency and the benefit to pupils. Russell, Blatchford, Bassett, Brown and Martin (2001) also argue the need for feedback time from the teaching assistants to the teacher to discuss pupil progress and share difficulties and successes. It is also reported that;

Without planning and liaison time, the authors of the report suggest, the benefits from an ‘extra pair of hands’ in the classroom will be limited.
(Woolfson and Truswell, 2005, p.65).

Teamwork is believed to be a critical strategy for creating successful learning experiences for all pupils (Moran and Abbott, 2002). It is argued that within a school, teaching assistants should be valued members of the team. As a valued member of the

team they should then be included in the planning cycle and feeding back to teachers. Through joint planning and evaluation “..a relationship built upon mutual respect and confidence and a shared purpose” (Rose, 2000, p.194) can be developed. For the teaching assistants to succeed in the team they require a “..clear definition of role, classroom tasks and activities” (Moran and Abbott, 2002, p.170). This needs to be part of a whole-school approach to maximise effectiveness.

...the most fundamental aspect of the development of schools that are effective in meeting the needs of all children is the way teachers and assistants together consider teaching and learning processes and the strategies used for the management of the classroom to support these. (Balshaw, 1999, p.22).

Butt and Lance, (2005) report that teaching assistants often do not have clarity of their role or their job specifications. They report that it is essential that there are regular channels of open communication to ensure the views of teaching assistants and teachers are heard. The role of learning assistants has moved from “skilled parental helpers to educational professionals in their own right” (Mistry, Burton and Brundrett, 2004, p.125). Despite teaching assistants now being regarded as educational professionals they “have no nationally recognised career structure, pay scale or qualification...” (Dew-Hughes, Brayton and Blandford, 1998, p.179).

2.2.2 The Role of the Special Needs Coordinator (SENCO)

The SENCO is an important person in the organisation and implementation of provision management within a school. It was important to outline perceptions of the SENCO role to determine whether provision management effectively fitted into the SENCO role.

The 1994 Code of Practice on the Identification and Assessment of Special Educational Needs (DfEE, 1994) saw the key introduction of the SENCO role into schools. This new SENCO role was a statutory obligation. "... all mainstream schools are expected to have such a designated teacher." (Szwed, 2007, p.148). Mackenzie (2007) remarks that the Teacher Training Agency (TTA) in 1998 published national standards that identified the core role of the SENCO and also the need for them to audit SEN provision within their schools. The key roles identified by the TTA were:

... strategic direction and development of special educational needs provision in the school ; teaching and learning ; leading and managing staff ; and efficient and effective deployment of staff and resources. There was an assumption within the TTA guidelines that the SENCO would be the agent for achieving a whole school approach to special educational needs
(Mackenzie, 2007, p.212).

The role of the SENCO is not just simply a teacher with specialist knowledge in teaching children with SEN, but is also expected to be an effective manager of LSAs and of the change process. Gerschel (2005) recommends that the SENCO's views need to be heard at a senior management and decision-making level in order for them to effectively manage the teaching assistants. The DfES (2004) reinforced the need for SENCOs to be part of the senior management team. They see the SENCO as having

... a pivotal role, coordinating provision across the school and linking class and subject teachers with special education needs specialists to improve the quality of teaching and learning.
(DfES, 2004, p.58).

The SENCO's role was further expanded to also include the ability "... to influence the development of policies for whole school improvement" (DfES, 2004, p.58). In order for the SENCO to assist in whole school improvement, they not only need to see the holistic picture of SEN, but also the strategic planning of the school (Szwed, 2007).

The high expectations of the role of the SENCO may be difficult to attain due to a lack of hours available to do the role and an unrealistic expectation by policy makers of a SENCO's ability to be involved at a strategic level due to many SENCOs not being on the senior management team. It is also reported that many SENCOs feel they are "unable to deliver what is expected" (Lingard, 2001, p.190), due to the lack of time available and the bureaucracy of the Code Of Practice (Lingard, 2001).

One of the main increases in workload came about from the introduction of individual education plans (IEPs). The Code of Practice on the identification and assessment of special educational needs (DfEE, 1994) introduced individual education plans

...as a tool for managing the education of children and young people with special educational needs in school.... The IEP was the tool that brought together identification, provision and review for pupils with SEN.
(Frankl, 2005, p.77).

The requirements for individual education plans to be "...regularly written, reviewed and shared with parents"(Frankl, 2005, p.77), have led to the high increase in paperwork for SENCOs and an increase in the bureaucratic nature of the individual education plans process.

Schools were left to discover how to map prescribed IEP practice on to their existing school procedures for SEN...
Subsequent developments sought to reduce the burden on Special educational needs coordinators (SENCOs) by delegation of the task of target setting to class and subject teachers.
(Tod, 1999, p.184).

There is a risk that there is an emphasis on the format of the individual education plans but not on the purpose of the individual education plans (which is to improve learning

outcomes for pupils with special educational needs). The focus needs to be on the teaching and learning and not on the bureaucracy (Pearson, 2000). If individual education plans do not form part of the whole school system for assessment and record keeping they are unlikely to be successful (Ofsted, 1999). They are likely to be most effective when they are part of detailed educational planning (Ofsted, 1999). It would appear that the effectiveness of individual education plans is dependant on the criteria used to assess the number of targets accomplished and the quality and effectiveness of the school's approach (Pearson, 2000).

A disadvantage of individual education plans is that they can focus on the deficits a pupil has rather than focussing on the learning conditions and thus see the pupil's difficulties as being within-child and therefore ignoring any contextual issues that may be contributing to the difficulty (Asp –Onsjö, 2004). This can cause problems for the SENCO if the teacher or LSA can only see the difficulties from a within-child perspective as it is likely then that the individual education plans will not be effective in improving the learning outcomes of the pupil with SEN, which therefore invalidates the purpose of writing individual education plans.

The revised special educational needs code of practice (DfES, 2001) attempted to reduce the bureaucratic nature of the individual education plans process. There was no longer a requirement to write individual education plans for all pupils on the Code of Practice at school action (SA), school action plus (SAP) or for pupils with statements unless their needs were additional or different from other pupils on a differentiated curriculum (Frankl, 2005). The revised code also introduced the concept of group educational plans (GEPs). It was believed that GEPs would reduce the bureaucratic

nature of individual education plans as the GEP can be used for pupils with similar special educational needs (Frankl, 2005), rather than writing an individual education plan for each of the pupils in the group. Also class teachers rather than the SENCO write GEPs. If GEPs are to be used more widely, then research needs to be carried out into

.... how they impact upon the role of SENCOs and whether or not such plans enable pupils to reach their targets more effectively (Mackenzie, 2007, p.215).

2.2.3 Raising Low Attainment

Research into the best practices for raising low attainment is important to determine whether these practices can be employed in a provision management system to raise the attainment of pupils' with ALN.

Norwich and Lewis (2001) state that the current assumption underlying recent government documents is that an effective curriculum is a curriculum for all pupils. Pupils with ALNs often require provision that is additional to and different from the mainstream curriculum which would indicate that a common curriculum for all pupils is not effective and that what is required is a 'pedagogy for special educational needs' (Norwich and Lewis, 2001). Pupils with ALNs require examples to attain mastery and also explicit instructional priorities (Norwich and Lewis, 2001). In order to attain mastery, pupils with ALN require more practice than their peer groups. It is claimed that a special educational needs – specific pedagogy has two distinctive features, which are,

..the use of empirically validated procedures and an intensive, data-based focus on individual students which they group under the term 'curriculum based measurement' (CBM). (Fuchs and Fuchs, 1995, 1998, in Norwich and Lewis, 2001, p.322).

This type of approach is similar to that of provision management in which the mainstream National Curriculum is followed by those individual pupils who require additional provision as identified by standardised tests and receive specific individualised interventions in either small groups or on their own. Norwich and Lewis (2001) refer to this “..pedagogical position as one of a common pedagogy underpinned by this individual-orientated approach” (p.322).

The unique differences position (Norwich and Lewis, 2001) is a rejection of distinctive SEN teaching strategies and an acceptance of common pedagogical principles which are “..relevant to the unique differences between all pupils” (p.324).

The unique differences position argues that,

...all pupils have unique learning needs which call for decisions about teaching to be informed through individual assessment.”
(Norwich and Lewis, 2001, p.325).

The unique differences position also fits in with provision management, which relies on an audit of need being undertaken to identify which pupils require additional support and through individual assessment the type of intervention they require.

It is also important.... to remember that some pupils with SEN might need more of common teaching approaches at some times, but some distinct kinds of teaching at other times.
(Norwich & Lewis, 2001, p.325).

The unique differences position emphasises the need for a continuum of teaching approaches. One area that lies along such a continuum is practice time, as many slow attainers never reach mastery as the teacher moves the lesson on too quickly (Norwich and Lewis, 2001).

It is important that schools invest money in interventions that are proven to raise pupil outcomes.

In order to significantly narrow the achievement gap, interventions must be wider than changes in school resources and must also go beyond schools policy.
(Chowdry, Greaves and Sibieta, 2010, p.82)

It is important to remind educationalists of the notion that all pupils can learn when specific strategies are applied (Fullan, 2010). There are many interventions available to schools, but they do not all have a sound research base that demonstrates a proven ability to raise outcomes. It is also important to target children who need them most and to ensure that pupils' progress is monitored, especially those in vulnerable groups (Sharples et al., 2011). It would appear that it is the quality of the interventions employed by schools that aids raising low attainment and not just simply "...assigning more resources to schools, or reducing class sizes..." (Duckworth et al., 2009, p.2).

A different perspective on raising low attainment is through the use of professional learning communities (PLCs). PLCs improve teaching and learning (Foord and Haar, 2008). PLCs are described as a learning community paradigm that

...is central to the development of an improved pedagogy, and...that improved teaching, learning, and educational outcomes for students can be achieved when teachers come together to collaboratively search for and resolve the problems of practice in their schools.
(Roberts and Pruitt, 2003,p.xi).

The concept behind PLCs is that by improving teaching practice you improve learning outcomes. PLCs are regarded as a way of transforming schools and improving student achievement, which results in quality teaching through continuous professional learning. (Hord, Roussin and Sommers, 2010). The claim that PLCs raise pupils' attainments and improve teaching practice is based on the belief:

That knowledge is situated in the day to day lived experience of teachers and best understood through critical reflection with others who share similar experiences. The active engagement of teachers in a PLC, with a focus on the learning needs of students, raises their levels of professional knowledge about student learning. (Scott, Clarkson and McDonough, 2011).

Therefore, critically reflecting on teaching practice and focussing on the needs of pupils can raise the attainments of pupils.

2.2.4 Improving Mathematical Learning Outcomes

Mathematical attainment of pupils with ALN was one of the areas targeted by the school on their provision maps. Research that indicates the effective strategies for raising mathematical attainment are important in helping to determine whether the provision management system can accommodate highlighted techniques through the schools provision map.

Mathematical learning is regarded as a determinant of one's position in society. There are a high percentage of people with poor numeracy in prison (Garner, 2012). It is therefore crucial that the mathematical learning of pupils is increased in order for their life chances to be increased and their potential for employment maximised. This in turn could help to reduce the likelihood of pupils with poor numeracy and other corelatory factors becoming involved in criminal activity providing other risk factors are also addressed. It is therefore important to discuss how to improve mathematical learning outcomes for young people. Mathematics is a core subject in primary and secondary schools and deemed an important qualification to gain for future employment prospects. The improvement of mathematical learning outcomes was an area targeted by the provision maps used by the school in this research and the

research surrounding the improvements of mathematical learning outcomes, are an important element of the literature review.

Macnab (2000) sees the biggest problem for improving mathematical learning as one of vision. Currently there is no shared understanding of the key components of a vision

...a principal component of the problem underlying poor performance by school pupils in mathematics lies in the nature, coherence, and concordance of the beliefs and attitudes of education officials, teachers and others responsible for the construction and implementation of school mathematics curricula, regarding the place and purpose of mathematics in the educational process, and in the impediments to the translation of these into a worthwhile, meaningful, and productive learning experiences of school pupils. (Macnab, 2000, p.70).

Macnab (2000) claims that thinking mathematically is more important than mathematical knowledge and successful mathematics teaching should use “child-centred developmental psychology” (p.61). From Macnab’s (2000) perspective it would appear that recent mathematics teaching has not taken into account developmental psychology and as a result mathematical attainments appear to have declined since the mid 1980’s (Macnab, 2000) and teaching styles have not reflected evidence from developmental psychology on effective practice. In contrast to this, Gross (2007) reports that in 2003 the TIMSS (Trends in International Mathematics and Science Study) reported that mathematics progress in England since 1995 was larger than in any other country. Gross (2007) also reports that whilst there has been an increase in pupils’ achieving the nationally expected levels at the end of Key Stage 2, there has not been a decrease in the number of pupils attaining very low levels. The TIMSS (2011) study found that seven per cent of year 5’s and twelve per cent of year 9’s in England failed to reach the lowest benchmark for mathematics. TIMSS also

demonstrated the proportions of year 5 and year 9 pupils' in England attaining the top two benchmarks mathematics had not changed since the 2007 study, which demonstrates that there continues to be a problem with mathematical pedagogy in the United Kingdom.

Evidence from Scotland supports the view that the decline of mathematical performance may be due to the curriculum that is being experienced by pupils, differing from the intended curriculum. Secondly, the intended curriculum is inadequate to produce the desired pupil outcomes and it is believed that the curriculum is not designed to meet all the goals of the vision (Macnab, 1999). Currently mathematics education lacks "...a shared understanding of what the essential nature of the vision should be" (Macnab, 2000, p.70). There is also evidence in England that a complex pedagogy complicated the teaching role making it difficult to attain a common goal (Macnab, 2000).

Teachers play a key role in the education of pupils. It is a teacher's role to actively engage pupils with the learning material and to ensure that they are not simply passively receiving it (Macnab, 2000), as teachers will implement curricula based on their "...own particular views, professional abilities, and professional standards" (Macnab, 2000, p.66) and therefore may differ from the intended curricula presented by the Government.

The role of the teacher is also to ensure that

.... pupils engage effectively with the learning material so as to acquire and be able to use and apply appropriate mathematical knowledge and processes.
(Macnab, 2000, p.76).

Macnab (2000) speculates that one of the failings of mathematics teaching in the UK compared to higher performing countries in the Third International Mathematics and Science Survey (TIMSS) is the lack of active engagement, which in turn results in low interest and motivation for the subject. A teacher's role is to ensure he or she is seeking to help pupils understand, removing misunderstandings and seeking to meet required standards (Macnab, 2000). Macnab (2000) speculates that one of the failings of maths teaching in the UK is the lack of active engagement of the pupils. The PISA (Programme for International Student Assessment), 2012, found that across OECD (Organisation for Economic Co-operation and Development) countries only 53 per cent of students agreed or strongly agreed that they were interested in their maths learning and that therefore, across the OECD countries there is low intrinsic motivation for mathematical learning. The students in the United Kingdom also reported low levels of intrinsic motivation with only 56 per cent of students agreeing with the statement that they are interested in learning mathematics. Macnab (2000) implies that the lack of intrinsic motivation in the UK is due to the failings of the teaching, but this lack of motivation appears to be of international concern and not specific to the UK as Macnab (2000) implies. Hodgen, Brown, Kuchemann and Coe (2010) report that,

there is no evidence that the quality of teaching in mathematics is any better now than in the 1970s...The quality of teaching materials being used is, with some exceptions, poorer than in the 1970s. (p.9).

Muijs and Reynolds (2003) claim that the quality of teaching is a key feature in the enhancement of pupil achievements at all ability levels. (Muijs and Reynolds, 2003) claim that connectionist teachers are more effective.

These teachers believed that being numerate involves being both efficient and effective; being able to choose an appropriate problem-

solving or calculation method; and being able to make links between different parts of the curriculum.
(Muijs and Reynolds, 2003, p. 228-229).

Connectionist teachers also use collaborative group work which enables the low achieving pupils to learn from their peers through peer tutoring which is proven to benefit both the low achieving peers as well as their more able peers (Muijs and Reynolds, 2003).

It is agreed that at the heart of any vision for mathematics education should be clarity and also to

be the development of mathematical ability and expertise. Mastery of mathematical ideas, concepts and processes, and the ability to put them into practice....
(Macnab, 2000, p.77).

Countries across the OECD (2014) put a lot of focus on mastery of skills being acquired through hard work, but only 53 per cent of teachers across OECD countries are presenting pupils with extended problems that promote the pupils' "...drive and willingness to engage with complex problems" (Borgonovi, 2014, p.4). Therefore the mathematics curriculum and the teaching of mathematics should move beyond just the mathematical ability, expertise and mastery of skills as Macnab (2000) recommends, and focus further on learning goals that teach strategies (Dweck, 2000). The PISA (2012) results show from pupils' self-reports that

"...drive and motivation are essential if students are to fulfil their potential; but that too many students lack the levels of perseverance, drive and motivation that would allow them to flourish in and out of school" (Borgonovi, 2014, p.1).

The PISA (2012) self-report data supports the view that teachers who set clear goals for learning and provide feedback on the pupils' strengths and weaknesses through formative assessment and use of cognitive activation strategies

...such as giving students problems that require them to think for an extended time, presenting problems for which there is no immediately obvious way of arriving at a solution
(Borgonovi, 2014, p.2).

promote pupils drive for learning and perseverance when tasks become more challenging and an openness to problem solving. In addition to a clear vision for the development of mathematical development, there must also be a clear priority for addressing mathematical difficulties in school. Gross (2007) reports that a DfES (2002) survey found that schools perceived mathematical difficulties as a lower priority than literacy difficulties and this was partly due to there being fewer published mathematical programmes for developing underachievement than those per literacy (Gross 2007).

The National Numeracy Strategy (NNS) was introduced in the United Kingdom (UK) in 1999 with

... the explicit aim of narrowing the gap between higher and lower attaining children.
(Gross, 2007, p.146).

The 2012 PISA data provides further evidence that pupils who perceive that if they put enough effort on they can succeed in maths, perform better than pupil who do not believe that. Pupils who hold this belief have a

“...performance advantage of 36 score points over students who did not agree with the statement”
(Borgonovi, 2014, p.4)

Educational psychologists have a role to play in supporting schools to develop a system for the effective management of additional provision (Gross, 2007) which, from a mathematical perspective, involves:

... a coherent whole school approach.. systematic, targeted and time limited support informed by data and evidence on what works. There is a need for good systems for tracking and regular review of pupil progress, close connections between the intervention and the work of the class as a whole, the positive engagement of parents and carers, and rigorous evaluation.
(Gross, 2007, p.153).

It is argued later (2.2.7) that this effective provision description is what provision management aims to offer, providing that the whole school take it on board and work together to ensure the best learning outcomes for pupils.

2.2.5 Raising Low Literacy Attainment

Spelling and reading were two of the areas of literacy targeted by the schools in the author's study. Research into raising low literacy attainment were important for this study to help determine whether a provision management system was facilitating effectively the raising of the spelling and reading attainment of pupils with ALN within the school.

Raising low literacy attainment is being covered because it is a fundamental skill that pupils require in order to succeed in employment and life. Many pupils still under attain in their acquisition of basic literacy skills. The school in this research also targeted low literacy attainment as part of their provision management.

In order for improved literacy attainment to be sustained then it

...requires a sustained effort to change school and classroom practices, not just structures such as governance and accountability.

The heart of improvement lies in changing teaching and learning practices in thousands and thousands of classrooms and this requires focussed and sustained effort by all parts of the education system and its partners.

(Levin and Fullan, 2008, p.291).

Reading and writing are a fundamental skill (Levin, 2010) that pupils need to acquire to enable them to access the world of work when they leave school. Teachers, schools and their local authority partners need to ensure that attention is being given to evidence about what works well for literacy in order to ensure that we are maximising pupil attainments.

Estyn (2001) reports that weak spelling is the most common weakness of pupils' work in English. This is clearly an area that requires targeted intervention to improve learning outcomes for pupils. Spelling is an important skill for pupils to master.

Overall weak spelling can damage pupils' self-confidence as writers and 'turn them off' writing. It can limit the complexity of their writing through fear of making mistakes. It can limit their life-chances later especially in education and employment, due to the importance that society attaches to correct spelling.

(Estyn, 2001, p.1).

It is essential that schools place the same importance on spelling that society does in order to maximise pupils' life-chances.

It is important that pupils receive the same information about spelling as they move between classes as this enables them to make better progress in spelling (Estyn, 2001).

Good spellers are able to broaden their knowledge and understanding of spelling as they move through the school. They learn that the sound of a word is only one guide to do spelling and they use their knowledge of exceptions, simple and complex rules and their visual memory to help them master spelling.

(Estyn, 2001, p.1).

The role of the teacher and LSA must be that of enabling the pupils to reach a level of mastery and fluency in the spelling so that they can generalise the skill to all areas of writing.

In order for pupils to succeed at spelling they also require their teachers to plan together and not in isolation (Estyn, 2001) in order that the teaching and learning of key concepts is carefully planned throughout the pupils' primary schooling.

Like spelling, reading is a key skill that pupils need to acquire to maximise their life-chances.

where schools use exciting, interactive approaches and multi-sensory work to teach early reading skills, they ensure high levels of pupil interest and engagement.
(Estyn, 2007, p.6).

In order to ensure high levels of pupil interest and engagement then learning needs to be fun which is what Glasser's (2001), Choice Theory states as one of our five basic needs. The teaching of phonics or any element of reading is no different,

Successful teaching of phonics recognises that learning needs to be motivating and enjoyable.
(Estyn, 2007, p.6)

If the pupils have need satisfying learning pictures (that is images that serve as a guide to their behaviour) within their heads of spelling and reading, then they will be motivated to learn and therefore it is crucial that teachers and LSAs help pupils establish these need satisfying learning pictures in their heads. The development of reading is not just about the development of need satisfying learning pictures, but is also dependant on the pupil's expressive language skills.

Early progress in reading depends on the learner's oral language development.
(Estyn, 2007, p.12).

This is a key area of concern especially in areas of socio-economic deprivation as the pupils often start school with a delay in their oral language and are already delayed in their learning compared to their peers from more affluent areas. Pupils who have difficulty in speaking and listening will have limited progress in learning to read (Estyn, 2007).

., over the past 5 years, inspection evidence also shows that an increasing proportion of pupils start school with difficulty in speaking clearly and listening carefully to each other and to adults.
(Estyn, 2007, p.12).

This will be impacting on the reading attainments of pupils and will be much more evident in areas of socio-economic deprivation. It is essential therefore that teachers' develop pupils' phonological and phonemic awareness in order for them to learn to read in either English or Welsh (Estyn, 2007).

It is argued later (2.2.7) that provision maps enable appropriate levels of assessment to be undertaken to determine the level of pupil needs and therefore schools using provision management will already be ensuring that they are supporting the development of early reading through the provision management system.

Assessment systems need to be purposeful and used regularly, providing information to help staff to match new work to pupils' learning needs as well as analyse pupils' progress over time. Importantly, assessment information should help staff to know when to intervene to help pupils make better and faster progress.
(Estyn, 2007, p.21).

Good assessment systems are required for all areas of literacy development and also across all areas of the national curriculum. Provision management aims to ensure that assessment informs learning as to when interventions should be employed and which type of interventions are required to increase progress.

In addition to good teaching and learning practices and assessment systems, schools require good leadership and management to develop and enhance literacy attainments for pupils.

A key feature of high performing schools is the way that leaders and managers work well together, tackle low and inconsistent performance as well as drive forward improvements to raise standards.
(Estyn, 2007, p.24).

A whole school approach to literacy development is a key and this is attained through good quality leadership and management

...effective leaders and managers secure consistency in learning and teaching practices and build a whole-school commitment to achieving good standards.
(Estyn, 2007, p.8).

2.2.6 Individual Education Plans (IEPs)

Individual Education Plans are the main format for recording provision for pupils' with ALNs. Provision Management replaces IEPs with provision maps for pupils on the Code of Practice other than for pupils' with a statement. In order to determine if Provision Management is an effective system for supporting pupils' with ALNs a clear outline of IEPs was essential.

The 1994 DfEE Code of Practice made individual education plans a requirement for all pupils with special educational needs. The procedures of an IEP were regarded as an outline for providing instruction and related services for pupils with SEN (Tod, 1999).

The IEP should include information about:

- the short term targets set for or by the child
 - the teaching strategies to be used
 - the provision to be put in place
 - when the plan is to be reviewed
 - success and/or exit criteria
 - outcomes (to be recorded when IPE is reviewed)
- (DfES, 2001, p.54).

IEPs were designed to use the SMART acronym; that is the targets must be specific, measurable, achievable, relevant and timed (DfES, 2001) Through the use of SMART targets the IEP provides a written document that accounts for the resources and provision a child will receive in order to meet their specific special needs (Burns, 2006). It is important that the child is the focus of the IEP (Burns, 2006).

“The IEP should only record that which is additional to or different from the differentiated curriculum plan that is in place as part of the normal provision.”
(DfES, 2001, p.37).

Reviews of IEPs need to be held at least three times a year. Parents’ and pupils’ views should also be sought as part of the review process (DfES, 2001).

Criticism of IEPs is that they are documents written to comply with statutory requirements and not for the benefit of providing the pupil with an appropriate educational programme and are therefore meaningless (Burns, 2006). IEPs are also

mainly written by one person or are computer generated and these are inherently flawed (Burns, 2006) as the IEP is not taking into account the views of other professionals, the child and the parents. Burns (2006) also states another criticism of IEPs is that during their development too much emphasis is placed on “Form over substance” p.7). That is too much time is spent on the writing of the IEP rather than focussing on the development of a logical and integrated plan for best meeting the pupils’ needs (Burns, 2006). IEPs are part of the theme for “inclusive educational practice” (Tod, 1999, p.184). Tod (1999) claims that IEPs are not a necessary feature of inclusion but they do reflect the conditions cited as necessary for inclusion.

Tod (1999) claims that SEN provision should be systematically evaluated with regard to pupil outcomes and value added weightings. This would then require schools to use reliable and valued assessments and recording for individual pupils (Tod, 1999). Tod (1999) claims there is no evidence that IEPs are being systematically integrated into classroom practice and therefore IEPs are not underpinning effective inclusion. It is claimed that,

More work needs to be done with mainstream practitioners in the field of setting appropriate targets, involving pupils, parents, LSAs and peers; using appropriate teaching strategies; and most importantly, monitoring the effect of provision on individual student progress. (Tod, 1999, p.187).

This is one of the key differences between IEPs and Provision Maps, as reliable and valid monitoring and assessment of pupil progress is at the heart of provision management.

2.2.7 Provision Management

The focus of this research is on the effectiveness of Provision Management and understanding that the system is and how to administer it are important elements in determining the effectiveness of the system.

Provision management is the system used by the school in this research to reduce the bureaucracy of paperwork from individual education plans for the school. Provision Management is also regarded as a system for improving learning outcomes for pupils with SEN and ALN. This research is looking at whether provision management does in fact improve learning outcomes for pupils compared with individual education plans and therefore an understanding of what it entails and the theory underpinning it is important.

Provision management is a strategic management approach, which is:

..both a means of accounting for additional to and different from provision, evaluating effectiveness in terms of pupils' outcomes and an approach, which supports inclusive practice.
(SeNJIT, 2004, p.4).

Provision maps are an:

“At a glance way of showing the range of provision the school makes for children with additional needs through additional staffing or peer support”
(DCSF, 1997, p.1).

Provision maps are also:

...a form of SEN 'audit' tool which is useful to those with a leadership and management function (for example, special educational needs coordinators or head teachers) in respect of SEN.
(Gamer, 2009, p.123).

Provision maps are a proactive management tool, that aims to enable the management team of a school to ensure,

...that vital, but often scarce, resources are directed to appropriate areas of need within a school.
(Gamer, 2009, p.123).

Another claim of the strategic benefit of provision mapping is that it allows the SENCO and senior managers to work together to make the best use of funding and to direct the resources where they are most needed (Edwards, 2011). Not only should the provision be managed at a managerial level but also it requires all staff to be

...involved in providing data to support the identification of needs on which additional provision will be based.
(Edwards, 2011, p.80).

Provision management is a system for schools to manage the learning of pupils who require additional provision in addition to quality first teaching (Edwards, 2011). Provision management is not just a system for pupils with SEN, but is also a system that aims to identify and deal with under achievement (Ekins, 2010).

Provision mapping aims to provide a strategic view which allows for evidence based planning of pupils' predicted needs and avoids reactive planning on an individual level (DCSF, 1997). One of the possible benefits of provision mapping is that different funding streams can be combined to target areas for development in different year groups other than, funding that is required to be ring fenced for example, from a Statement of Special educational need then,

...funding streams should be combined so as to achieve the best possible fit to the priorities identified in the audit. Coherently planned provision which draws together a range of funding sources is more likely to achieve positive outcomes than piecemeal use of pockets of money.
(Gross, 2008, p.124).

Provision maps;

..record provision that is additional to everyday class teaching and involves extra adult staffing or peer support.

(DCSF, 1997, p.3).

Individual education plans are the main system in SEN for recording provision that is additional to and different from. Mary Hrekow, SENJIT (2010), who has produced and provides training nationally on how to undertake provision management in local authorities and schools states,

Most IEPs are handled twice in their lifetime, once when written and once when reviewed. The more children there are with IEPs, the less likely the document is to be handled. IEPs are not live documents.

(Personal communication, 2010).

If the only time the individual education plan is handled is when it is written and reviewed, it is possible that the pupils are not accessing sufficient additional to and different from provision. Provision maps aim to overcome this problem by taking away the responsibility of the provision from the class teacher and making it a whole school approach and this is therefore more likely to ensure that provision is provided for the pupils who require it most, namely those with ALN. Provision maps are live documents that aim for good interventions to be put in place for low level common needs with high incidence for example literacy and numeracy,

The provision map is a working document to support day-to-day planning to meet the needs of all pupils and deal with under achievement: it is not simply a written record to be filed.

(Ekins, 2010, p.64).

Provision maps aim for all pupils in the education system to have their needs met and not just those pupils identified on the special educational needs register. Hrekow (2010) claims that; ‘ a provision map is a gold star for inclusion not just SEN and

therefore should be seen as an essential requirement within schools in the United Kingdom.’

Provision maps aim to enable schools to ensure that the provision received by pupils is “coherent over time” (DCSF, 1997, p.3), and that the pupil is not receiving the same provision from one year to the next and also that it is developmentally appropriate.

Copies of highlighted maps showing the provision the child has received each year can be kept in a child’s file to provide a useful record of interventions over time. This can be matched to evidence about the child’s learning.
(DCSF, 1997, p.3).

Children on individual education plans may have the same provision from one year to the next without any analysis of whether the provision is effective for the pupil or providing value for money for the school.

Provision maps also aim to enable schools to cost out the provision being employed and ensure they are effectively using their inclusion budget and “representing the best value for money” (DCSF, 1997, p.8). Whole school provision management aims to ensure that,

funding for additional needs is used fairly, and transparently, to develop personalised outcomes.
(Edwards, 2011, p.80).

Mapping provision aims to enable teaching assistants to be targeted to areas of need so that literacy and numeracy attainments can be increased and the needs of particular cohorts of pupils can be met (DfES, 2005). Provision mapping should be used strategically to analyse the needs of learners and the resources required to meet them (Etkins, 2010).

Effective targeting of intervention and support in this way can lead to a significant reduction in the need for individual education plans with a subsequent reduction in paperwork. (DfES, 2005, p.7).

Given the workload of many teachers and SENCOs, the reduction of paperwork and bureaucracy will always be welcomed:

A robust management and mapping process, accompanied by an assessment for learning and assessing pupil progress to monitor and track pupil progress as well as a SMART target-setting procedures, will reduce the need to write a whole volume of individual education plans. (Cheminais, 2010, p.38).

The provision management process aims to be a complete whole-school system that aims for pupil targets and outcomes to be met and pupil attainment to be raised.

While this is an important area of concern for SENCOs and teachers, the most beneficial impact of provision mapping must be on increasing the learning outcomes for pupils.

The many claims for the benefits of provision mapping have already been discussed. Edwards (2011) claims that if provision maps are effective then the benefits are that they:

- enable schools to check on going provision and change track if a particular intervention is not promoting a learner's enjoyment or achievement;
- support conversations with parents and may contribute to improvement in parental satisfaction;
- could incorporate IEPs;
- enable additional provision to be tracked and monitored;
- stimulate debate about what works best as part of pedagogical discussions;
- provide a complete record of intervention and progress; and
- help to avoid TA overlap, for example, three teaching assistants in one classroom (each supporting one child) but none in another. (Edwards, 2011, p.81).

In addition to this, provision management aims to support the role of the SENCO as it enables them to

...demonstrate to the governing body, parents/carers, Ofsted, The School improvement partner and the local authority how the SEN budget is being used in order to improve SEN pupils' progress and outcomes.
(Cheminais, 2010, p.38).

Schools are required to provide more accountability for how they spend their budgets and provision management aims to provide a mechanism for accountability for SEN and ALN.

It is argued that the effectiveness of a provision management system does depend on the quality of the staff and in particular their,

Confidence and consistency, especially if different members of staff deliver the same programmes.
(Edwards, 2011, p.86).

The key to the success of the provision appears to be in the successful training and monitoring of staff in their delivery of the intervention programmes. Provision maps are mainly used for planning time-limited targeted interventions rather than planning for in-class support (Gross, 2008). Therefore staffs need to be trained in a variety of interventions. The management team of the school, which should include the SENCO, need to ensure the programmes are delivered with fidelity and finesse.

Provision management is a completely new system in comparison to individual education plans, predominantly because of the focus on a whole-school approach.

Claims about the rewards of provision management include:

- learners making better progress;
- improved attendance of behaviour;

- classrooms becoming more relaxed working environments;
 - improved Ofsted results;
 - staff engaging in discussions about pedagogy and personalisation;
 - learners taking greater responsibility; and
 - parents increased confidence in the system.
- (Edwards, 2011, p.88).

Provision management appears to aim to be a system for forward thinking schools that have quality teaching and learning at the core of everything they do and who are happy to be held accountable for the decisions they make in ensuring the success of the young people under their care.

2.2.8 Auditing

Auditing is embedded in a Provision Management system and as such helps determine the effectiveness of the system from the inside of the organisation to the outside. It is also part of the system that is not embedded within an IEP system and is therefore a unique feature of Provision Management.

Internal auditing “is primarily concerned with all systems of control that enable organizational objectives to be met” (Spencer Pickett, 2011, p.34) It is also “a service to management” (Spencer Pickett, 2010, p.xv) and for an internal audit to be successful it is essential that there is “...management support and acceptance...” (Ridley, 2008, p.xxvi). Auditing is a discipline to measure those factors that determine success or failure (Cornwell, 1995). Within education systems there is an increased demand for accountability of the provision provided and for the quality of the provision (Holmes and Brown, 2000). Organisations are required to assess and manage any risks that may prevent objectives being achieved (Spencer Pickett, 2010). This is also true for schools. Headteachers are becoming more accountable to Governors, local authorities and Estyn/Ofsted and to provide evidence that “...outputs

of products or service have been achieved as economically efficiently and effectively as is practicable” (Spencer Pickett, 2010, p.xv). Internal auditing is

“...a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes” (Moeller, 2005, p.3)

therefore making the finance within schools more accountable.

Provision management has an audit of need embedded within its system that aims to assist in determining the quality of provision provided for pupils within SEN and ALN and the success or failure of the provision.

Of particular importance is a move towards internal audit through which institutions can track and record process and outcomes. (Holmes and Brown, 2000, p. 3).

Provision management aims to provide schools with an internal audit that tracks the progress of pupils for the pupils, teachers, LSAs, parents/carers, governors and local authority to see. The types of interventions used (or the processes) are recorded along with the outcomes.

Internal financial auditing within a school organisation is meant to provide a system of self-checks. (Thompson, Wood and Crampton, 2008, p.126).

Provision management aims to enable staff to check on the pupil’s progress and the success of the additional provision on a daily, weekly, termly and yearly basis. It aims to provide schools with a comprehensive view of their financial commitments and helps to break down the cost of provisions into staff running costs and programme costs which ensure that any SEN or ALN funding is being spent appropriately and stops the school going into a deficit budget.

Auditing, as with every other profession, needs to look at consistently measuring new factors that impact on bottom line performance. To do so will require rethinking the tools we use and the way in which they are used.

(Cornwell, 1995, p.5).

This is also true of education, and provision management aims to provide the tools to do this. Provision management aims to provide the audit to determine the success and failure of intervention programmes and requires staff to be innovative and look for new programmes and strategies when the current interventions no longer work for pupils.

Learning to innovate is like learning to do anything else, it requires knowing what steps are necessary to promote innovative thinking, identifying the barriers we face in generating innovations, and simple practice.

(Cornwell, 1995, p.5)

Part of being innovative in education is initially recognising where change is required.

Knowledge management methodology suggests that a knowledge audit is critical

(Liebowitz, Rubenstein-Montano, McCaw, Buchwalter and Browning, 2000).

A knowledge for audit assesses potential stores of knowledge and is the first part of any knowledge management strategy.

(Liebowitz, et al., 2000, p.3).

Provision management is a form of knowledge audit as it aids staff to evaluate which changes need to be introduced and captures 'tacit' knowledge (Liebowitz, et al., 2000).

...a productive knowledge audit need only concentrate on answering the following question; 'In order to solve the targeted problem, what knowledge do I have, what knowledge is missing, who needs the knowledge and how will they use the knowledge?'

(Dataware Technologies, 1998, p.6).

The provision management system encourages the SENCO and senior managers to address these questions and this involves a whole-school approach as teachers and LSAs are involved in providing the SENCO and senior managers with the missing

information, namely those pupils who require additional provision based on their standardised scores or their difficulties within the classroom.

Auditing is the process of investigating information that's prepared by someone else to determine whether the information is fairly stated. (Loughran, 2010, p.9).

The head teacher and SENCO will look at the paper work produced by teachers to audit the current level of need for the pupils and determine the priorities for the coming year. "A quality audit is a critique of a quality system." (Moeller, 2009, p.95).

The use of provision management aims to improve the quality of teaching and learning for pupils with SEN and ALN and ensure that pupils' learning outcomes show value for money, so that all those concerned with the pupils can see that barriers to their learning have been removed. Auditing may also identify barriers that need a more informal approach (Edwards, 2011). It aims to ensure that schools map the appropriate provision to the appropriate needs based on their audit, which could be argued to be a definition of a quality school and system.

2.2.9 Developing Provision Management

It is important to understand how provision management is developed in a school in order that this is completed with fidelity. Different people may have a variety of ideas on what Provision Management is, but by outlining how Provision Management is developed using the SENJIT (no date) guidelines enables the effectiveness of the system in raising pupils attainment in reading, spelling and maths to be analysed.

Provision management starts with the school auditing the needs of the pupils.

Auditing the projected need in each year group in the next school year means listing types of provision you could make: literacy, mathematics, language, social and emotional, motor coordination, EAL/EMA, attendance and gifted and talented provision. (Gross, 2008, p.122).

This also assists in identifying where staff skills will need to be developed and then planning for their continued professional development (CPD) (DCSF, 1997). This system aims to ensure that provision is matched to the needs of the pupils.

Once the audit of need has been completed the next step is to determine for which of the pupils additional provision is essential. This group would include those pupils with statements, children at an early stage of English – language acquisition and possibly those children at school Action Plus on the SEN code of practice (Gross, 2008). Then you would look at pupils

whose difficulties impact very significantly on their own or others' learning or those who have the potential, with very little help, to catch up with their peers and achieve age-related expectations. (Gross, 2008, p.123).

The last categorisation is for those pupils who require additional provision if the budget allows but “for whom the priority is lower.” (Gross, 2008, p.123).

Thirdly you need to compare your projected needs with your current provision to determine any staff development or training needs and identify any changes to the current system (Gross, 2008).

The fourth stage held to be an important step in determining the success of provision management is the identification of the available school budget.

This means

...pulling together different funding streams, such as a core amount from the school's base budget, delegated SEN funding, EMA funding, specific Government grants for personalisation, and local authority funding for priorities such as early intervention of behaviour support.
(Gross, 2008, p.124).

The next step is to consult the evidence from national interventions, the local authority, the school's own research and also the school's own evaluations of interventions previously used, to determine which interventions will be put on next year's provision map (Gross, 2008).

The final step is to draw up the provision map and then ensure that the provision and pupils' progress is tracked. In order to match pupils to the appropriate provision clear entry and exit criteria for each provision used is required.

'Before' and 'after' measures can serve to track children's progress as a result of the interventions, and this information used to evaluate the impact of each provision.
(Gross, 2008, p.124).

It is important to know the impact of provisions on pupils' progress to determine whether they are cost-effective.

This in turn feeds back into the provision-mapping cycle, helping to inform your choice of interventions for the future.
(Gross, 2008, p.124).

When writing provision maps it is argued, that this is best undertaken in year groups although Gross (2009) states that in smaller schools it may be better to map by phases. It is also important to map by types of provision for example literacy, mathematics and language skills interventions. Gross (2008) also recommends that in England literacy and mathematics should be divided into 'Wave 2' and 'Wave 3' interventions to ensure that appropriate provision is made for the target groups. In Wales the Welsh

Assembly Government did not adopt the Waves interventions but the same principle can be applied. Gross (2008) refers to ‘Wave 2’ interventions being targeted at pupils just below the age related expectations i.e., those who are considered to be able to catch-up with their peers. ‘Wave 2’ interventions would be administered by TAs in small groups using tightly structured programmes. ‘Wave 3’ interventions are for pupils where the gap is wider and who generally require one-to-one or very small group support with a specialist teacher or highly trained TA, using interventions that are tailored to the individual learning needs of the pupil.

Individual education plans are formally reviewed on a term by term basis and provision maps also need to be monitored and kept under review on a term by term basis. This is important to ensure pupils are correctly placed on the SEN Code of Practice and Common Assessment Framework (CAF) processes as children progress and need their successes noted (Cheminais, 2010). It is also recommended that provision maps are reviewed annually in consultation with

...multiagency professionals, key school staff, parents/carers and pupils.
(Cheminais, 2010, p.38).

Some schools choose to do the annual review via a provision mapping day in the summer term (Cheminais, 2010) which ensures that all stakeholders are included in the process and are also clear about whether any additional provision will be required in the next academic year.

Provision maps aim to ensure that pupils’ progress is tracked by using before and after assessments so that the impact of the specific provisions and pupils’ progress is evaluated (DCSF, 1997). The evaluations can then “lead to plans for improving

provision -and sharing with other schools those interventions that have worked well” (DCSF, 1997, p.2), which should be an integral approach as part of professional learning communities (PLCs). This data will also feed into the school’s self-evaluation as well as informing the local authority about the resource use and how the achievement of pupils with SEN is being raised (DCSF, 1997).

Although provision management is supported by reasoned arguments for its potential for better meeting the needs of pupils with additional and/or special educational needs, there is no research investigating the possible psychological benefits of this new model.

It is important when looking at a new model to highlight any theoretical domains that may explain how provision management improves learning outcomes for pupils with additional learning needs. The theoretical domains of self-efficacy, choice theory, social constructionism and system change have been covered to potentially highlight the psychological mechanisms possibly underpinning provision management.

Provision management has important possible psychological effects which educational psychologists, teachers, parents and local authority officers need to be aware of. If provision management helps staff and pupils to improve their perception of their abilities through the delivery of the interventions for the staff and the learning outcomes of the pupils, then the psychological concept of self-efficacy will be important in determining possible reasons for the perceived effectiveness of provision management. If the pupil is feeling more confident about their abilities this in turn will increase their self-esteem and academic self-concept, which then ultimately increases academic attainments (Zimmerman, Bandura and Martinez-Pons, 1992). These

psychological domains are key areas within educational psychology that educationalists need to be aware of if they are to improve the learning attainments of young people. The research of Glasser (2001), Bandura (1977, 1994), Schunk (1983), Burr (2001, 2003) and Levin and Fullan (2008) will be examined to determine key psychological domains that may be underpinning provision management.

Choice theory states that

“all we do is behave, that almost all our behaviour is chosen, and that we are driven by our genes to satisfy five basic needs: survival, love, and belonging, power, freedom and fun”.
(William Glasser Institute, 2010, p.1).

A central aspect of Choice Theory (Glasser, 2001) is that these basic needs motivate us internally to do what is most important and satisfying to us. Choice Theory (Glasser 2001) purports that all human beings choose how to behave and are constantly self-evaluating their behaviours to choose the best way to assist them in achieving their goal. Crawford, Bodine and Haglund (1994) claim that we fulfil the basic psychological needs as follows;

1. We fulfil the need to belong by loving, sharing and cooperating with others.
 2. We fulfill the need for power by achieving, accomplishing, and being recognized and respected.
 3. We fulfill the need for freedom by making choices in our lives.
 4. We fulfill the need for fun by laughing and playing.
- (p.46)

Provision Management fulfils the need to belong and have power by providing some of the additional to and different from provision in small groups, which promotes sharing and co-operation with others and facilitates the pupils' achievements through focussed and directed work in a respectful environment. The need for freedom will still be dependant on the pupils' choosing to participate and engage in the

learning activities presented to them, and if the learning environment is tailored to meet the pupils' academic and psychological needs, as should be the case if the school has undertaken the audit of need and embedded this in the Provision Management system, then it is more likely that pupils' will engage.

Through the use of enjoyable learning activities and games in small groups the pupils' need for fun should be met and whilst this would not be directly attributable to Provision Management and more to directly related to learning strategies it is more likely to an outcome of teaching and learning styles in Provision Management systems due to staff having a specific focus on the needs of the pupils' and being trained in interventions to maximise learning in specific areas. As human beings we all need things that satisfy us in order to succeed.

If provision management through quality provision and interventions enables pupils and LSAs to feel satisfied with their experiences then this should lead to success and the pupils' feeling motivated to learn and progress. Also, if learning is rewarding, as should be the case through the use of provision maps which are embedded in the Provision Management system, then the pupils are more likely to succeed due to having their basic psychological needs met. These are important psychological concepts that should be prevalent in our education system.

Provision management is likely to develop peoples' knowledge through the process of the management team, LSAs, teachers and pupils working together and therefore has important psychological effects from a social constructionist perspective. Through the system of provision management different discourses will be developed, which in turn

helps to develop individuals' identities within the education system which are either accepted or refuted by the individual and will determine the outcomes of the research.

System change and renewal is an important concept underpinning provision management as it requires teaching staff to possibly change their current practice in order to bring about and sustain improved learning outcomes for pupils with ALN, It is therefore important to understand the theoretical issues underpinning system change and renewal to ensure that it is being applied to the system of provision management.

The new model could be explored by examining the psychological domains of self-efficacy, choice theory, social constructionism and system change and renewal.

2.3. Relevant Theoretical Issues

The psychological domains of self-efficacy, self-concept, Choice Theory, social constructionism and system change and renewal are being examined as they may possibly highlight the psychological benefits of provision management for the pupils and staff of the school.

2.3.1 Self-Efficacy

Self-efficacy is a key psychological theory that outlines some of the possible reasons for pupil's attainment or underachievement in academic situations. This theory may have some explanatory power in understanding any effects on the learning of pupils' with ALN in this study.

Self-efficacy was defined by Bandura as,

People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes. (Bandura, 1994, p.71).

Self-efficacy is an important factor in academic achievements. People who have low self-efficacy on a particular task will tend to avoid it while those with high self – efficacy will actively engage in the task.

Self-efficacy beliefs are influenced by four instructional and social influences namely “enactive attainment, vicarious experience, verbal persuasion and physiological states” (Zimmerman, 2000, p.88). Enactive attainment is based on the outcomes of one's experiences and therefore is the most influential source of self-efficacy.

Pupils own successes and failures allow she or he to appraise him or her own performance which in turn develops their own conviction as to whether he or she can successfully execute the behaviour required to produce the outcomes.

Successes raise mastery expectations; repeated failures lower them, particularly if the mishaps occur early in the course of event. After strong efficacy expectations are developed through repeated success the negative impact of occasional failures is likely to be reduced. (Bandura, 1977, p.41).

Therefore the stronger the pupils' perceived self-efficacy are, the more likely they are to continue to persevere in their learning and deal with the occasional failure without it having a negative impact on their psychological well being and damaging future learning.

Vicarious experience is based on the outcomes attained by a model as well as one's self-comparison. Vicarious experience relies on inferences from school comparison and therefore the efficacy expectations are much weaker as they rely on modelling alone and are not as dependable as direct evidence of personal accomplishments (Bandura, 1977). Observing similar peers performing a task can convey to the observer that they are also capable of accomplishing the task. Vicarious experiences have a weaker effect on self-efficacy than enactive attainment. Any vicarious increase in self-efficacy can be negated if the pupil later experience failures (Schunk, 1991) in similar tasks. Observation of peers failing on a task can lower pupil's self-efficacy and dissuade them from attempting the task (Schunk, 1991).

Exposing low-achieving children to models explaining mathematical division increased these children's motivation (persistence), combining modelling with attributional feedback stressing ability and effort led to the greatest increase in self efficacy. (Schunk, 1991).

Where pupils have good models then self-efficacy can be increased. Vicarious experience is more effective in increasing self-efficacy when combined with verbal persuasion.

Verbal persuasion only influences self-efficacy if the outcomes prescribed are by a credible persuader. Teachers and learning support assistants (LSAs) will provide pupils with persuasory information about their abilities to perform a task, that is providing the pupil with information that they are able to complete a task.

Positive persuasory feedback enhances self-efficacy, but this increase will be temporary if subsequent efforts turn out poorly. (Schunk, 1991).

Dweck (2000) supports the view that certain types of feedback enhance self-efficacy when the pupil experiences success, but has no effect when the pupil experiences

failure. In other words certain types of feedback lead to the helpless responses that Schunk (1991) has identified. Dweck (2000) claims that person-oriented praise not only produces lower persistence on tasks and poorer affect, but that if you learn

..from person praise that success means you're a good or able person, then you also seem to learn that failure means you are a bad or inept person. If you learn from praise that your good performance merits wholesale pride, you also seem to learn that poor performance merits shame.

(Dweck, 2000, p.114).

Rather than developing pupils who will cope with obstacles not just in their academic learning but also in all aspects of their life, the person-oriented feedback appears to lead to the development of a sense of contingent self-worth in which, the pupil feels worthy when they have success and worthless when they fail (Dweck, 2000).

Efficacy expectations developed purely through verbal persuasion are less effective than comparison of one's own achievements because the verbal persuasion does not "...provide an authentic experiential base for them" (Bandura, 1977, p.43).

Pupils' who hold an entity theory of intelligence that is, a belief that their intelligence is fixed within them and can't be changed (Dweck, 2000) gain a boost from success and confidence, but these are not enough to fortificate against failure and do not breed a desire for challenge (Dweck, 2000). Dweck (2000) purports that pupils' whose positive feedback focussed on effort or strategy were most able to cope with obstacles. Equally when negative feedback that focussed on effort or strategy also developed mastery-oriented responses when they encountered difficulties. The work of Dweck (2000) looked at what happens when successful pupils experience failure, which is a

stage further than the work of Shunk (1991) who looked at the effect person praise had on learning outcomes, but not at how the pupils would cope if they experience failure.

Physiological reactions such as fatigue and stress influence self-efficacy as they are often interpreted as incapability (Zimmerman, 2000). As a result of these influences, self-efficacy is not stable across time and is responsive to changes in outcomes and personal context (Zimmerman, 2000).

Bodily symptoms signalling anxiety might be interpreted to indicate a lack of skills.
(Schunk, 1991).

Arousal and anxiety are known to debilitate performance and therefore when aversive arousal is not present the pupils are more likely to expect success and have increased self-efficacy (Bandura, 1977).

Therefore, when pupils perceive they are experiencing success in their learning then their motivation increases and in turn they “work on tasks and become more skilful, they maintain a sense of self-efficacy for performing well” (Schunk, 1991). Dweck (2000) would support this view providing that the pupils are experiencing success. Pupils who receive person-oriented praise such as “you’re a good boy/girl” or “you’re really good at this” are the “ones who are most vulnerable to the effects of failure” (Dweck, 2000, p.113). Dweck’s (1999) research shows that the students who received the most praise were the ones later most affected by failure, which in turn had a negative affect on their academic achievement. Pupils with a helpless response will be pleased with their success but once they experience failure, Dweck (2000), claims that they report feeling bored on the task that minutes before they had been happily

engaged in. It appeared that pupils' experience of failure despite the previous successes led them into a helpless response.

Schunk (1985) found that encouraging pupils verbally to set proximal goals provides the pupil with evidence of their increasing capability, which in turn improves their efficacy beliefs and achievements. It would therefore appear that in order to raise pupil attainment we should be encouraging pupils to set their own goals. Bandura's (1986) social cognitive theory claims that goals are important as they specify the requirements for personal success. Dweck (2000) claims that performance goals are about measuring ability from the pupils performance and that if they do poorly they are more likely to condemn their intelligence and fall into a helpless response. "Pupils with a helpless response inflate their failures and shrink their success" (Dweck, 2000, p.8). Whilst

...some classrooms emphasise evaluations and ability and foster performance goals in students. Others emphasise progress and mastery on valued tasks and foster learning goals.
(Dweck, 2000, p.16-17).

Whilst goal setting is important it would seem that the type of goals being set for pupils is of greater importance and that learning goals which focus on mastery of new concepts and finding strategies for learning will encourage students to persist and even succeed at a task when they find it getting difficult as opposed to using avoidance tactics and attributing failure to low intelligence.

The setting of demanding targets for pupils is not enough on its own to foster academic success. Pupils need enhancement of their academic efficacy also, in order to develop academic success:

...perceived efficacy to achieve motivates academic attainment both directly and indirectly by influencing personal goal setting. Self-efficacy and goals in combination contribute to subsequent academic attainments.
(Zimmerman, Bandura and Martinez-Pons, 1992, p.674).

It is claimed that attributions also play an important role in the development of self-efficacy beliefs. Pupil performance on tasks is indirectly influenced by self-efficacy through attributional factors such as how easy or difficult the task is and the amount of effort required to succeed in the task (Schunk, 1991).

In achievement – related contexts the causes perceived as most responsible for success and failure are ability, effort, task difficulty, and luck.
(Weiner, 1979, p.4).

Success experienced on a task perceived, as being more difficult will raise self-efficacy more than on a task perceived as easy (Schunk, 1991).

It is also claimed that attributional feedback that is linked to a pupil's prior achievements with effort will result in increases in perceived self-efficacy, and "promotes task involvement and skill development" (Schunk, 1982, p.553).

...children's perceptions of their capabilities bore a significant relationship to subsequent skilful performance...also...expectations for success are one of the best predictors of later performance.
(Schunk, 1983(a), p.517).

Knowledge was further developed about attributional feedback by discovering that

...providing attributional feedback to children in the context of competency development constitutes an effective means of promoting rapid problem solving, self-efficacy, and achievement.
(Schunk, 1983(b), p.853).

Dweck (2000) supports the view of Schunk (1991) that attributional feedback linked to a pupil's effort is important for helping a pupil overcome failures. Alongside the

approval of the pupils' effort, teachers should focus attention on the strategies that led to success. Pupils' who have special educational needs require the skills

...to interpret setbacks and what to do when they occur. Because they will be confronted with challenge upon challenge, they must learn that challenge is something that promotes learning, not something that indicates their ability
(Dweck, 2000, p.122).

Self-efficacy is an important determinant of pupil success.

Given appropriate skills and adequate incentives however efficacy expectations are a major determinant of peoples' choice of activities, how much effort they will expend and how long they will sustain effort in dealing with stressful situations.
(Bandura, 1977, p.39).

If we wish to raise a pupil's self-efficacy it appears that we not only need to encourage them to set his or her own goals but also to provide verbal feedback about his or her ability. Zimmerman (2000) claims that self-concept is one of the closest constructs to self-efficacy.

2.3.2. Self-Concept

Peoples' perceptions of themselves also impact on levels of academic attainment and this psychological domain may provide some theoretical explanations for why Provision Management may not increase pupil attainment in spelling, reading and maths.

Self-concept, broadly defined, is a person's perceptions of him-or herself. These perceptions are formed through one's experience with and interpretations of one's environment and are influenced especially by reinforcement, evaluations by significant others....
(Shavelson and Bolus, 1982, p.3).

Like self-efficacy, self-concept is influenced and reinforced by important people around the person, which can have a positive or negative effect.

Self-concept is multidimensional and comprises self-esteem, self-confidence, stability, and self-crystallization.
(Schunk, 1991).

Self-concept is a hierarchical construct with global self-concept at the top, subcategories such as academic self-concept in the middle and academic domain-specific self-concepts at the bottom (Marsh and Shavelson, 1985). The subcategories of academic domain-specific combine to form the overall academic self-concept (Schunk, 1991).

Marsh's (1984) big-fish-little-pond effect (BFLPE) argues that when pupils of the same academic ability are educated in a school with peers with high average ability their academic self-concept reduces. In comparison those pupils with similar academic abilities who are educated alongside pupils with lower academic averages have higher self-concept as they

“...receive more positive feedback and develop greater confidence about their abilities, such that they are ‘big fish in little ponds’”.
(Hay, Ashman and vanKraayenoord, 1997, p.312).

Long (2000) also reports that Hayes et al., (1997) also found that,

... pupils' academic self-concept was affected by the general academic context of the class that they were in. There was a substantial overall correlation of 0.46 between pupils' self-concept and a difference between their achievements and the average of the class they were in.
(Long, 2000, p.120).

Long (2000) claims that academic motivation comes from pupils' academic self-concept and this in turn comes from their self-efficacy beliefs. The skill development

model implies “that academic self-concept emerges principally as a consequence of academic achievement” (Trautwein, Lüdtke, Köller & Baumert, 2006, p.42).

Self-concept is regarded by the self-enhancement model as a primary determinant of academic achievement (Trautwein, Lüdtke, Köller and Baumert, 2006). Trautwein et al. (2006) found that the meritocracy principle was supported by their research and that academic self-concept has a larger impact on self-esteem in meritocratic learning environments; that is learning environments with a high focus on effort and social comparison.

Differentiations between global constructs of the self typically cited as self-esteem and specific abilities cited as specific self-concepts have been discussed by researchers (Trautwein, Lüdtke, Köller and Baumert, 2006). Self-esteem can be defined as “the degree to which one values oneself” (Penguin Dictionary of Psychology, 2009, p.702). “Self-esteem is relatively synonymous with the term self-concept” (Daniel and King, 1995, p.1). Self-esteem does seem to be linked to academic success and failure. Daniel and King (1995) found that there is a positive relationship between self-esteem and achievement. Friedland (1992) claims that pupils with a healthy self-esteem are less likely to drop out of school.

Zimmerman (2000) reports that a perceived positive relationship between a pupil’s perceptions of himself or herself influences his or her academic performance and also his or her motivational processes. Therefore pupils who feel good about themselves and their abilities are those that are most likely to succeed. This view was further supported by Shobhna and Rekha (2009) who report that, self-esteem both influences and is influenced by successful academic performance. It has also been found that

definitions of the self are formed through one's interactions with others, which supports self-esteem theories and that self-esteem is maintained through "...positive self-perceptions in non-academic dimensions of self-concept" (Peiroto and Almeida, 2010, p.173). Social comparisons are an important part of self-concept, as we make comparisons with people we see as similar to ourselves. As a result of social comparisons a pupil's self-esteem and self-efficacy can vary throughout life (Bandura, 1994) and even from one lesson to another.

In contrast Ross and Beckett (2000) report that it is not high self esteem that leads to academic success but an internal locus of control. They purport that merely feeling good about yourself does not improve your attainments. Instead they perceive that people who have academic success are those

Who think that their efforts shape outcomes and that their successes and failures are a consequence of their own actions.
(Ross & Beckett, 2000, p.271)

Ross and Beckett (2000) concluded that it is control that influences academic achievement and not self-esteem. School success shapes pupils' perceptions that they are doing well and in control of their lives, which shapes future academic success. Whilst self-esteem can be increased, high self-esteem does not increase academic attainment (Ross and Beckett, 2000).

School based self-esteem programmes such as Head Start and Upward Bound in the United States of America concluded that boosting self-esteem had no discernible effect on academic achievement and if one wants to improve at maths for example, then one should do more maths (Baumeister, Campbell, Krueger and Vohs, 2003). In contrast in the United Kingdom, Wave 3 interventions in Maths have resulted in

attitudinal changes, which included the raising of pupils' self-esteem and more active involvement in the numeracy lesson (Gross, 2007). There appears to be conflicting evidence about whether school based intervention programmes improve self-esteem. It may be that a narrower focus on academic self-esteem is required or that self-efficacy would be a more appropriate measure. Ross and Broh (2000) report that doing well in school does improve self-esteem, but is not related to subsequent academic achievement. Instead Ross and Broh (2000) claim that students "who feel in control of important outcomes in their lives, who think that their efforts shape outcomes "(p.271) will achieve academically.

If we want pupils to do well in education then we need to foster their self-esteem as it is "...an important part in developing psychological health" (Hayes, 2000, p.16). We need to be looking beyond academic development in order to ensure that pupils are developing as rounded individuals.

2.3.3. Choice Theory

Choice Theory claims that we all have five basic needs that drive our behaviour and these needs may have some explanatory power in understanding any effects of Provision Management on children's learning.

Choice theory is founded on the premise that all human beings need things that satisfy them in order to succeed. In schools pupils find things to satisfy them, for example, those pupils who find academic success satisfying will work hard to fulfil this need. For those pupils who do not feel success, then they stop working (Glasser, 2001).

It is claimed that pupils in primary schools are less likely to stop learning than secondary aged pupils if they do not feel success, as their primary needs to be satisfied are for care and belonging.

Therefore, most young students try to learn, especially in the early grades because they love their parents and want to please them. If they spend the school day with a caring teacher; they get love both at home and at school.
(Glasser, 2001, p.11).

Glasser (2001) claims that modern education remains focussed on discipline and meeting targets through the National Curriculum, but neglect what is satisfying to pupils, that is the need for fun, power and a sense of belonging to aid their learning and this is when disaffection and pupils not wanting to learn may arise.

Discipline is only a problem when students are forced into classes where they do not experience satisfaction. There are no discipline problems in any class where the students believe that if they make an effort to learn, they will gain some immediate satisfaction.
(Glasser, 2001, p.13).

Glasser goes on to argue that schools need to look at how they motivate pupils. Currently in our schools external control theory may be more prevalent, which advocates the use of punishments rather than rewards. Punishment only works for brief periods as it is not need fulfilling and therefore we need to look for alternative motivators that will have a long-term effect (Glasser, 2001). Pupils who do not want to learn will not learn unless we make learning need satisfying. It does not matter what “we do that is to or for them” (Glasser, 2001, p.14) as human beings only do what they are told if it satisfies them to do it (Glasser, 2001). Pupils will attempt to fulfil any need they feel is unsatisfied (Glasser, 2001).

Choice Theory claims that at any one time our behaviour is the result of us attempting to satisfy at least five forces, which are built into our genetic structure, and form basic needs (Glasser, 2001). The needs that drive us are

(1) to survive and reproduce, but also (2) to belong and love, (3) to gain power, (4) to be free and (5) to have fun.
(Glasser, 2001, p.25).

The third need to gain power may be difficult to satisfy in cultures that condemn “...those who openly strive for power” (Glasser, 2001, p.26). Within all parts of society, such as families, education and the work place there is a need for power. Power has no morality and it is up to the individual to determine whether they use their power for the good or bad of others (Glasser, 2001).

..If students do not feel they have power in their academic classes, they will not work in school.
(Glasser, 2001, p.29).

Whilst students are striving for power so are teachers and at times conflict arises because neither teacher nor pupil will back down for fear of losing the power.

The basic need for fun is an important element in learning.

So, driven by the need for fun, we always have a powerful genetic incentive to keep trying to learn as much as we can.
(Glasser, 2001, p.31).

Without fun we would not learn as much. Even if our primary aim is to have fun we will still have learned something through having fun.

It is the immediate fun of learning that keeps us going day by day, especially when we are young and have so much to learn.
(Glasser, 2001, p.31).

When we decide to stop learning then we are no longer having fun (Glasser, 2001).

Boring is the opposite of fun. It always occurs when we have to spend time without learning: A monotonous task is always boring. (Glasser, 2001, p.32).

Happiness develops from having fun and is intrinsically motivating. Students are able to learn when they are happy (Wubbolding, 2007, p.254). Happiness not only comes from having fun but also through healthy interpersonal relationships and that is why a successful school will focus on the school's environment and the relationships within that community (Wubbolding, 2007).

Students need to meet their needs in academic environments in order to “apply themselves to what is to be learned” (Glasser, 2001, p.33). Choice Theory states that in order to learn pupils need to believe that learning is satisfying. Pupils who have difficulty with learning often put minimal effort into their learning as they do not perceive that the effort required is worthwhile as it will not satisfy their needs (Glasser, 2001). Motivation and self-concept are key elements in determining academic success. When pupils experience failure in their learning they no longer get the need for love and attention satisfied and they then lose their sense of belonging. They still need to belong and will seek to belong and so tend to befriend other pupils with learning difficulties,

..so that when they disrupt they get applause and a great deal of attention (power).
(Glasser, 2001, p.36).

The pupils then start having fun again due to the disruptive behaviour and attention from some of their peers rather than being frustrated and feeling the pain of failure and eventually they then give up on learning, because the need for power (attention) and sense of belonging is greater than the need for learning.

From the time we are two or three years old, we find that criticism real or implied, is the most destructive blow to our ego that we encounter.
(Glasser, 2001, p.37).

This then creates a negative picture of learning in pupils' minds and as a result they find the effort to learn too great and that other needs are more easily met and a vicious cycle begins (Glasser, 2001).

What Choice theory teaches is that everything we do is initiated by a satisfying picture of that activity that we store in our heads as a pleasant memory. Therefore, a child who makes an effort to learn in school does so because he has a picture in his head that learning is satisfying.
(Glasser, 2001, p.38).

Glasser (2001) claimed that those pupils who are learning in school have a need satisfying picture of learning that is a pleasant memory of learning that motivates the pupil to succeed in school, as it is satisfying to do so. There is no right or wrong need satisfying picture in an individual's head "one man's meat may indeed be another man's poison" (Glasser, 2001, p.41).

Glasser (1998) goes on to theorise that, pupils who come from more disadvantaged areas often receive 'boss-management' at home and school. Boss-management is about giving the message that is

Always coercive, be it reward or punishment, because the bosses think that this is the best way to "motivate" workers.
(Glasser, 1998, p.44).

Boss-management prevents people from developing and learning need-satisfying behaviours. Children from disadvantaged homes already come to school less willing and able to do the work which leads to frustration (Glasser, 1998). In addition to this, they get bossed more by teachers who assume this will motivate them to learn. The

pupils then feel more oppressed by being pushed and punished and then refuse to work even more and develop negative learning pictures in their head and hence start to hate school.

According to Choice Theory, instead of boss-teachers or managers what schools require are lead-teachers. Lead-teachers are constantly looking for new ways to teach and encourage all pupils to succeed, as no task is impossible for anyone. The emphasis is on how to do a task, not just getting it correct. Also, lead-teachers explain that low grades are not a sign of failure, but merely that the pupil has not learned enough (Glasser, 1998). Lead-teachers encourage fun, and pupils set their own rewards for hard work (Glasser, 1998). Lead-teachers help de-motivated and disaffected pupils to learn, and help prevent pupils with learning difficulties feeling like failures, which in turn leads to pupils experiencing success.

For pupils to produce quality work they need to see the work as being for their benefit and not the benefit of their teachers, parents or school system (Glasser, 1998). Lead-teachers do not accept any pieces of work from pupils that are not quality work.

Pupils are made aware of what quality work is and that it is a goal of the school that is achievable by everyone through hard work. Once quality is achieved in class, then academic quality will become contagious (Glasser, 1998).

From a Choice Theory perspective we need to move away from boss-teachers and managers to lead-teachers and managers that empower pupils to feel good about themselves and their learning. This approach to teaching and learning is likely to stop pupils with SEN and ALN becoming disaffected and improve outcomes not only for

the individual pupil but also for the school and the local authority. Quality schools are those where there are good interpersonal relationships between all members of the school community (Wubbolding, 2007). These relationships are developed through lead managers.

2.3.4 Social Constructionism

Social Constructionism identifies different discourses within language and this theoretical domain may help to explain the perspectives of the participants in the study on the effectiveness of Provision Management.

Social constructionism insists that we do not take knowledge for granted and that we should be critical of our observations of the world (Burr, 2001). Social constructionism is in

...opposition to what are referred to as positivism and empiricism in traditional science – the assumptions that the nature of the world can be revealed by observation, and that what exists is what we perceive to exist.
(Burr, 2001, p.3).

Social constructionism also highlights that the way we perceive the world is dependant “upon where and when in the world one lives” (Burr, 2001, p.4) and is therefore historical and culture specific. Social constructionists believe that our knowledge of our understanding of the world comes from our interactions with other people through our daily lives which, constructs and fabricates our versions of knowledge according to cross-cultural and historical specifics (Burr, 2001). Social constructionism states that our constructions of the world can have a variety of different forms and therefore we have different social constructions of the world (Burr, 2001). Each construction of the world “...invites, a different kind of action from human beings” (Burr, 2001, p.5).

Social constructionists believe that there are no 'essences' inside people that make them what they are and therefore "...there cannot be any given determined nature to the world or people" (Burr, 2001, p.5) as the social world is the product of social processes. Therefore social constructionism is in contrast to essentialism. Social constructionism is also anti-realism as "we construct our own versions of reality" (Burr, 2001, p.6). Knowledge is derived from our view point of the world from different perspectives and as a result "...there can be no such thing as an objective fact" (Burr, 2001, p.6).

Social constructionists see language as a necessary pre-condition for thought as the way people think gains meaning through language (Burr, 2001).

When people talk to each other, the world gets constructed.
(Burr, 2001, p.7).

Language is a form of action and social constructionists refute traditional psychology's view that regards "...language as the passive vehicle for our thoughts and emotions" (Burr, 2001, p.7).

Social constructionists perceive that social phenomena are not found in the individual psyche or in social structures but through interactive processes taking place between people (Burr, 2001, p.8). The dynamics of social interaction from a social constructionist point of view places emphasis on processes not structures.

Knowledge is therefore seen not as something that a person has (or does not have), but as something that people do together.
(Burr, 2001, p.8).

Social constructionists believe that personality is socially constructed and that we use words to describe personality such as ‘friendly’, ‘shy’ etc as though they are part of the person being described (Burr, 2001).

..but once the person is removed from their relations with others the words become meaningless.
(Burr, 2001, p.27).

Therefore the words used to describe personality refer to a person’s behaviour toward other people and only exist in the relationship between the people not within the individual through traits and characteristics (Burr, 2001).

The person cannot pre-date language because it is language which brings the person into being in the first place.
(Burr, 2001, p.33).

Our constructions of our world and ourselves are made possible by language. It is through language that alternative constructions of one’s self and the world are developed (Burr, 2001). We use arbitrary categories to define our world e.g. we label a particular animal as a cat or dog and everyone within our culture and time uses that word and as long as everyone uses the word it becomes a convention. In other cultures they use a different word for a cat or a dog which signifies our world has been divided up into arbitrary categories (Burr, 2001).

Language produces and constructs our experience of ourselves and each other, and is not the simple reflecting mirror belonging to our traditional (Western) humanist philosophy.
(Burr, 2001, p.44).

Within language there are different discourses. Discourses are “ a particular picture that is painted of an event, person or class of persons,..”(Burr, 2003, p.64).

A discourse refers to a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events.
(Burr, 2003, p.64).

Different discourses can surround the object in question with each discourse telling its own story (Burr, 2003). Discourses help us to see different perspectives on any given topic of discussion. It is through discourse that identities are built as social constructionists do not believe that identities reside within the person. All individuals are either accepting or refuting the identities on offer through society's prevailing discourses (Burr, 2003).

Our identity therefore originates not from inside the person, but from the social realm, a realm where people swim in a sea of language and other signs, a sea that is invisible to us because it is the very medium of our existence as social beings.
(Burr, 2003, p.109).

Individuals in society are constantly battling to construct and negotiate their own identities and to either "...claim or resist the images available to us through discourse" (Burr, 2003, p.110). Social constructionists would refute that concepts such as self-concept and self-esteem exist other than within the discourses in the prevalent society and that these concepts do not form part of a person's identity.

Social constructionism does pertain that discourse provides individuals with subject positions, which produce their identities, for example, class clown or teacher's pet. Therefore from a social constructionist point of view the only choice is whether to accept or refute the given subject position (Burr, 2003). Groups and individuals on the margins of mainstream society appear to have the greatest difficulty constructing and negotiating their identity (Burr, 2003, p.110).

No matter how hard you try to break out of the discourses maintaining your relatively powerless position in the world, the whole discourse system closes in around you and you end up caught in it again sooner or later.
(Burr, 2003, p.110).

Within society people are constantly engaged in power battles and this is very evident within the education system where pupils and teachers are constantly trying to position themselves and each other in different discourses (Burr, 2003). Identity negotiation and power grasping occur through discourses operating through social interaction (Burr, 2003). “..knowledge increases a person’s power” (Burr, 2001, p. 63). The concept of grasping power to help construct identities is similar to the basic need for power in Choice theory. Choice theory in contrast sees power as part of our genetic structure and something we are predisposed to work for rather than a construct that develops through the language of social interaction. Social constructionism believes that,

An individual emerges through the processes of social interaction, not as a relatively fixed end product but as one who is constituted and reconstituted through the various discursive practices in which they participate. Accordingly, who one is, that is, what sort of person one is, is always an open question with a shifting answer depending upon the positions made available within one’s own and others’ discursive practices and within which we make sense of our own and others’ lives.
(Davies and Harre, 1999:35, cited in Burr, 2003, p.114).

The social constructionism view that objects have no reality other than through language (Burr, 2003) causes difficulties for educationalists. If there are no absolute truths then we would as educationalists have to accept past constructions in education such as some pupils are unable to learn and therefore do not require formal education. We know in education today that this is factually incorrect and therefore could not accept this construction. In defence of social constructionism it would probably be

argued that the above construction or discourse was prevalent at a different time in history and that the discourses have therefore changed and will be likely to change in the future. Therefore, as there are no facts or truths in society social constructionists can only look at phenomena in society and the prevailing discourses of the time to bring about change (Burr, 2003).

2.3.5. Effective and Substantial System Change and Renewal

Provision Management involves system change when it is initially set up and the continual renewal of the system to ensure its effectiveness. The theoretical underpinning's of system change and renewal may have explanatory powers in determining whether Provision Management is an effective system raising the attainment of pupils' with ALNs as well as providing any explanatory power in understanding any effects of provision management on children's learning.

In order for theories of action to be successful they need to consider the conditions required to facilitate continuous improvement and how cultures are changed (Fullan, 2006).

Effective change in education with sustained improvement in learning outcomes for pupil occurs when there is a

...Sustained effort to change teaching and learning practices in thousands and thousands of classrooms, and this requires focussed and sustained effort by all parts of the education system and its partners. (Levin and Fullan, 2008, p.289).

Levin and Fullan (2008), claim that effective change on learning outcomes does not occur through “...changing funding or policies or information or governance structures” (p.292) as these often fail to produce results. Instead educational reform should focus on seven areas of attention in order to get the results of better outcomes for pupils. The seven premises are:

- (1) A small number of ambitious yet achievable goals, publicly stated.
 - (2) A positive stance with a focus on motivation.
 - (3) Multi-level engagement with strong leadership and a ‘guiding coalition’.
 - (4) Emphasis on capacity building with a focus on results.
 - (5) Keeping a focus on key strategies while also managing other interests and issues.
 - (6) Effective use of resources.
 - (7) Constant and growing transparency including public and stakeholder communication and feedback.
- (Levin and Fullan, 2008, p.292).

In order to fulfil Levin and Fullan’s (2008) seven premises change needs to start with goals that are most pronounced in the public domain such as literacy because it is also fundamental to success in other areas such as, the domains of motivation and learning (Levin and Fullan, 2008).

Any educational change must avoid demotivating educators as “the general tone underlying much reform is negative” (Levin, 2010, p.132). Therefore, education change will require the school staff to make a commitment to change.

..improvement is only possible if people are motivated, individually and collectively, to put in the effort necessary to get results.
(Levin and Fullan, 2008, p.293).

Implementation of any new programme that requires change needs to be carefully thought through and planned. Fullan (2001) states there are 3 dimensions that require consideration when implementing a new programme.

- (1) the possible use of new or revised materials, instructional resources such as curriculum materials or technologies.
 - (2) the possible use of new teaching approaches (i.e. new teaching strategies or activities), and
 - (3) the possible alteration of beliefs (e.g., pedagogical assumptions and theories underlying particular new policies or programmes).
- (Fullan, 2001, p. 39).

Sustained attention from all partners in the education system is important to bring about educational change. For the change to be successful all parts of the system need to be in agreement on the main purposes and then “..pursuing strategies that promote mutual interaction and influence” (Levin and Fullan, 2008, p.294) across the system. Levin and Fullan (2008) refer to this as ‘permeable connectivity’.

If enough leaders across the same system engage in permeable connectivity, they change the system itself.
(Levin and Fullan, 2008, p.294).

Capacity building that focuses on results is an important concept in sustained educational change.

Capacity building is defined as any strategy that increases the collective effectiveness of a group to raise the bar and close the gap of student learning.
(Levin and Fullan, 2008, p.295).

Levin and Fullan (2008) perceive capacity building as encompassing the concepts of knowledge and competencies, resources and motivation to develop the individual.

Levin and Fullan (2008) report from their theory of action that change will not be long lasting unless people develop new capacities as it is the new capacities that build motivation. “The more one invests in capacity building, the more one has the right to expect greater performance” (Levin and Fullan, 2008, p.296).

When introducing any new educational programme the practice must be linked to pupil achievement. “Instruction and assessment operate as a two-way street, one informing the other” (Fullan, 2011). This process involves a focus on individual needs, that is personalization (Fullan, 2011).

Sustainable improvement does not just occur through one individual school bringing about changes but is more likely to occur when ‘lateral capacity building’ is applied which involves schools and different localities learning from each other.

When this happens two change forces are unleashed, namely, knowledge (best ideas flow), and motivation (people identifying with larger parts of the system).
(Levin and Fullan, 2008, p.296).

Lateral capacity building is an important concept for sustained improvements in learning outcomes for young people.

Capacity building does need to be linked to the results in order to ensure accountability and continued improvement. Schools, local authorities and

Governments

...should focus on (1) how well they are progressing (comparing themselves with their own starting points, (2) how well they are doing compared to other similar groups (comparing apples to apples), and (3) how well they are doing relative to an absolute standard (e.g. 100% success).
(Levin and Fullan, 2008, p.297).

If these areas are focused on then continued and sustained change should be possible.

Accountability enables transparency of the system and staff working together and across schools to promote lateral accountability as positive pressure can be applied to enable the schools “to improve in measurable ways” (Fullan, 2011, p.8). When joined

up thinking and working is applied across schools it causes what Fullan (2011) refers to as the ‘moral imperative realized’ that is, realization becomes the force for continuous improvement and to enable continued positive change.

There is no greater motivator than internal accountability to oneself and one’s peers. It makes for a better profession, and it makes for a better system.
(Fullan, 2011, p.8).

Sustained changes involves effective use of resources through the management of existing resources as well as the provision of new money for training, new resources and possible salary increases, which demonstrates a commitment to change for the people in the system and builds motivation for improvement (Levin and Fullan, 2008).

In order to bring about effective change there needs to be a change in beliefs and understandings (Fullan, 2001). The implementation of effective change involves the learning of something new through interaction, which “is the basis for social learning” (Fullan, 2001, p.84). The interaction enables people to learn by “thinking about what they are doing” (Fullan,2006, p.10). Collegiality and the quality of working relationships between staff is strongly related to the implementation of change (Fullan, 2001). Learning in context actually changes the context itself and improves the context (Fullan, 2006).

People learn best through doing, reflection inquiry, evidence, more doing and so on.
(Fullan, 2006, p.10).

Levin and Fullan’s (2008) theory of action can be applied to the processes of provision management and may help to explain why provision management is successful in bringing about improvements in learning outcomes for young people.

The theoretical domains of self-efficacy, choice theory, social constructionism and system change have been covered because each of the domains may potentially illuminate the under-pinning psychological mechanisms of provision management that lead to the learning gains for pupils that provision maps claim to provide.

Theorists claim that self-efficacy beliefs are important in explaining why some pupils succeed academically and why others fail, as those pupils with low self-efficacy will avoid tasks and ultimately will be unsuccessful. Enactive attainment is very important in explaining the possible effect provision management has on learning. The interventions used aim to enable the pupils to experience success, which raises their sense of self-efficacy. Pupils being supported in small groups with their peers who are a similar ability level are likely to succeed more as they are motivated to succeed and this is the model often used in provision management. Provision management aims to foster the development of learning and therefore academic self-concept is likely to be raised along with self-efficacy.

Choice theory aims to explain what motivates pupils to learn and as a result may explain why provision management is perceived as beneficial in improving learning outcomes. From the perspective of choice theory it could be concluded that provision management is beneficial in improving learning outcomes as the pupils are finding academic success satisfying, due to them receiving tailored provision, which means the pupils will work harder to fulfil this need. As the pupils in the study are primary aged then ensuring they find learning satisfying by feeling that they belong within the school and the classroom is important to keep them learning.

Provision management also encourages schools to look at how they motivate their pupils to get the best learning outcomes and to move away from boss-managers to lead-managers, which Glasser's (2001) choice theory claims is important for developing need-satisfying behaviours. In order for learning to be satisfying then pupils need to be having fun (Glasser, 2001). Provision management encourages staff through the recognition of quality provision as part of the audit of need to ensure that learning is enhanced by facilitating fun, through the implementation of interventions that are run with fidelity, and found to be enjoyable. Ultimately provision management appears to produce quality teaching and learning for pupils with additional needs.

Provision management can develop good interpersonal relationships between all members of the school community, good interpersonal relationships, due to a whole school approach to SEN, which is an important concept in choice theory and for the formation of a quality school. IEPs could also support good interpersonal relationships if shared with all professionals and parents on a regular basis but this whole school approach is not embedded in IEPs.

Social constructionism offers a perspective to help understand the different points of view and constructions of events and situations that arise when people talk especially through interviews. Social constructionism claims that different discourses can surround any object in question and with each discourse telling its own story.

Social constructionism might potentially illuminate the influence of provision management on children's learning as it helps to develop new identities for the pupils so that they no longer see themselves as 'stupid' or 'thick' but through discourse see themselves as learners.

Social constructionism might also illuminate the changes in the LSAs perceptions of their own identities, which may have come about through changes in their roles as a result of provision management. The LSAs then develop new identities where they are facilitators of learning rather than an extra body in the classroom and therefore new subject positions are formed. As the LSAs gain more knowledge they also become more powerful which is facilitated in provision management through all key members of staff, including the LSAs being involved in the writing of new provision maps and target setting.

System change has been discussed as it potentially illuminates why provision management may be effective in improving learning outcomes for young people through the use of personalisation, the link between instruction and assessment and the internal accountability to oneself and one's peers. System change is also linked to Choice Theory (Glasser, 2001) and theories of self-concept through the development of staff motivation. Effective system change through capacity building also links in with the development of staff motivation. System change also links in with the theory of social constructionism as language helps to build and sustain change through thinking and doing.

This chapter concludes with the justification for this study and highlights why research on the impact provision management has on learning outcomes for pupils with additional learning needs is important.

2.4 Justification for this Study

A thorough search using PsychInfo, Eric and Google Scholar failed to locate any scientific journal articles on provision management. The only literature available on provision management was chapters in books explaining what provision management is and how to undertake it. Governmental literature also mentions provision management and its benefits but none of the literature provides any scientific validation for the claims made. This study therefore aims to explore the claims of provision management and provide both quantitative and qualitative data to determine whether provision mapping improves outcomes for pupils with additional learning needs in spelling, reading and maths. The Welsh Government and the local authority in which the study occurred are looking for ways to improve the learning outcomes for pupils. This study could add to the body of literature on ways to raise low attainment.

The hypothesis for the quantitative study is:

H₁:Pupils will have made more progress on standardised scores in spelling, reading and maths when their learning is underpinned by provision management rather than individual education plans.

The null hypothesis for the quantitative study is:

H₀:Pupils will not make more progress on standardised scores in spelling, reading and maths when their learning is underpinned by provision management rather than individual education plans.

The research questions for the qualitative study are:

1. Is provision management considered to be more effective for raising the attainment of pupils with ALN in spelling, reading and maths?
2. If provision management is effective what do staff believe are the reasons why it is more effective?
3. Do the theoretical domains of self-efficacy, choice theory, social constructionism and system change and renewal provide any explanatory power in understanding any effects of provision management on children's learning?

Chapter 3 -Design of the Study

3.1 Case Study Design

A case study is the investigation of an individual or a group in order to answer specific research questions (Gillham,2000b). The

...use of multiple sources of evidence, each with its strengths and weaknesses, is a key characteristic of case study research.
(Gillham, 2000b, p.2).

A case study design was selected as it involved “gathering detailed information about one individual...”(Coolican, 2005, p.125) and their views on provision management.

The value of a case-study design is that

Being a somewhat unstructured, probably un-replicable study on just one individual or group, the case-study design would seem to be of the rich but not generalisable type.
(Coolican, 2005, p126).

The case study allows much richer data to be collected which helps to gain a clearer picture of the thoughts and feelings of those involved in the provision management process. This type of data could not have been obtained through a questionnaire as respondents would have been focussed on just that specific question and the richer data would not have come through as the case study approach “...allows researchers to go into greater depth when studying responses than would be allowed when survey research”(Naumes and Naumes, 2006, p.64).

The disadvantage of the case study is that the results cannot be generalised to the wider population. Although the research uses several cases within the design, which can make generalisations between cases slightly more possible, it is still “extremely

difficult to establish their comparability. Each case has too many unique aspects. (Blaikie, 2010, p.192). Therefore due to the low numbers of participants used it is not possible to generalise the research findings. Case studies are generally subjective which "...opens up the research to potential bias" (Naumes and Naumes 2006, p.65). This involves the effects of observer interaction during data collection due to interpersonal variables (Coolican, 2005). Interpersonal variables include gender, ethnicity, formal roles, personal qualities and social desirability. All of the participants were female and so was the interviewer so it is unlikely that gender affected the interviewer. Similarly with ethnicity as the participants and interviewer were all white. Due to the interviewer being the School's Educational Psychologist this may have effected the participants perception as the interviewer may have been deemed to be an authority figure and as a result

Interviewees' answer, then may lack fluency because they are constrained by a search for 'correct' language or content. (Coolican, 2005,p.137).

This disadvantage could also be construed as an advantage as the personal qualities may be such that the participants felt more relaxed and open, and if this was the case the data could have been richer as a result. Social desirability may also have affected the discourse between interviewee and interviewer as the interviewees' may have felt there was a particular ethos in the school that required them to give a specific response.

People usually know what they ought to say to an interviewer and may keep real views well hidden (Coolican, 2005, p.137).

It would be difficult to measure this unless the interviewer had heard conversations outside of the interview that suggested the interviewees had different points of view to those shared in the interview.

Demand characteristics; that is the interviewee using cues from the questions asked or directly from the interviewer in order to behave according to perceived research aims (Coolican, 2005), may have influenced the qualitative data collected and is a disadvantage of a case study approach. In this study the LSAs, head teacher and SENCO represent the case studies. Reliability in a case study is also difficult to demonstrate because it is difficult to replicate the circumstances surrounding the research (Naumes and Naumes, 2006). Part reliability can be gained if multiple researchers look at the cases and draw the same conclusion (Naumes and Naumes, 2006). The other concern around liability is the common discrepancy between "...what people say about themselves and what they actually do" (Gillham, 2000, p.13). The case study was the main method used with interviews and the recording and analysis of the interviews as sub-methods (Gillham, 2000b). Validity within a case study can be increased through the use of triangulation (Cohen, Manion and Morrison, 2000).

3.2 Interviews

It was felt that interviews were a better format for validation despite the risk of interviewer bias, as focus groups "are more subject than interviews to participation biases" (Bloor, 1997, p.47). The author also felt that individual interviews provide greater depth and detail about the individual participants, which is not always obtained from group interviews (Morgan, 1997). The focus of the research was to ascertain the individual participant's views on provision management and therefore focussed interviews were the appropriate methodology.

The use of focus groups can lead to difficulties with group dynamics.

“Participants may simply agree with one another (For different reasons), they may be influenced by social pressure within the group to express socially acceptable responses, or a hierarchy may be evident within the group...which will inhibit open responses.”
(Hennick and Diamond, 1999, p.116).

This was a concern for the author as it was evident from working with the LSAs in the school that a hierarchy was already established and that several of the LSAs rarely expressed their views in the presence of the others. Individual interviews therefore offered the benefit of allowing individuals to share open responses and therefore the data would capture their views.

When interviewing it is important to remember that you are not merely collecting data but constructing a social and interpersonal encounter (Cohen, Manion and Morrison, 2000).

An interview is a conversation usually between two people. But it is a conversation where one person; the interviewer is seeking responses for a particular purpose from the other person; the interviewee.
(Gillham, 2000a, p.1).

When undertaking interviews it is important to not assume you know what the answer will be in order to ensure the richness of the data can be collected.

Researchers who ‘know’ what they want to find out are like the doctors who ‘know’ what a patient’s problem is; they may well be right. But they may equally well miss something.
(Gillham, 2000a, p.3).

Interviews require expert openness and not pre-conceived notions (Gillham, 2000a).

Pre-conceived notions can be a barrier to the collection of rich data.

The benefits of interviews is the richness of the data that comes from them but the drawback is that they are very time consuming both in undertaking the interviews and then transcribing the interviews (Gillham, 2000a).

Interview questions can be structured or unstructured. It was felt that unstructured interviews offer richer and more genuine responses (Coolican, 2005). The view of qualitative research is that interviewers construct their view of their world and their reality through the interview and that the interviewer is a human participant in the social interaction.

Regardless of the type of interview questions used they still provide richer data than questionnaires, which “aim to simplify phenomena” (Banister et al., 2002, p.50), as the interviews allow greater exploration of the key issues than can be obtained through questionnaires. The interview is also more likely to disclose information face-to-face than “in anonymous questionnaire” (Gillham, 2000a, p.62).

Closed questions are best used when undertaking a questionnaire and when the interviewer has factual questions (Gillham, 2000a). Alternatively, open questions allow for more expansion from the interviewee but the interviewee may

...need encouragement to say what they think and a bit of ‘steering’ to set them in the right direction.
(Gillham, 2000a, p.14).

In order to encourage the interviewee to expand or clarify their responses the interviewer may need to ask probes, which are supplementary questions (Gillham, 2000a).

Probes can be used for clarification but the interviewer should not ask for clarification as a 'device' (Gillham, 2000a). Instead the interviewer should use a probe such as "Can you tell me some more about....." or "I don't quite understand that".

Getting people to explain things to you is a simple but effective way to encourage them to work on their own material. Doing so often leads them to insights that they wouldn't achieve without the demand.
(Gillham, 2000a, p.47).

The use of probes also helps the interviewee to own the interview as it helps them to feel they have power in the interview. If the interviewee does not fully answer the interviewer's question the interviewer needs to ask a prompt. Prompts include phrases such as "What about....?" Prompts can be used within the natural dialogue of the interview.

For the purpose of this study no information was concealed from the participants and they were clear about the purpose of the interviews. This can have a negative effect on the data collected with participants not producing honest answers and trying to... "look good" if they know what exactly the focus of the study is" (Coolican, 2005, p.135). In this study participants were reminded that there are no right or wrong answers, purely the participants' own views and that the interviewer did not want the participants to give any answers they thought the interviewer wanted to hear, but to be open and honest about their thoughts and feelings.

The style of interview chosen for this study was structured but open-ended. This involved using a standardised procedure in which,

The interviewer gives pre-set questions in a predetermined order to every interviewee.

(Coolican, 2005, p.140).

This approach avoids “...looseness and inconsistency” (Coolican, 2005), which arises in unstructured interviews, but ensures greater consistency in the data gathered and minimises the interpersonal variables involved in the conversation (Coolican, 2005). Use of open-ended questions has ensured that participants can still provide richer answers, as well as enabling the interviewee to construct their own perspective (Coolican, 2005), but has provided reliability. The semi-structured interview allows the question to be reworded if the participant has not understood it.

When interviewing there are effects from prior relationships. As the interviewer was both the author and the schools’ educational psychologist the author was well known to the participants and therefore there may have been effects on the research due to these prior relationships. There can be both positive and negative factors from prior relationships. In this particular study the author believes the prior relationship had a positive impact as it

...facilitated greater disclosure and reflexive commentary...
(Bannister et al.,2002, p.66).

Trust and confidence are interpersonal qualities that are quite soon established, during an interview providing the interviewee feels that the environment and conditions are safe. “It is, in fact remarkable what people will disclose if they feel you are a person they can talk to.” (Gillham, 2000, p,16). It is the role of the interviewer “..to establish an appropriate atmosphere such that the participant can feel secure to talk freely.” (Cohen, Manion and Morrison, 2000, p.279). Active listening throughout the interview also enhances quality relationships (Payne, 1999). Good interpersonal relationships were already established with the interviewees due to the author regularly working

with the interviewees as colleagues over seven years. This could also have caused biases within the research through demand characteristics, interpersonal variables and social desirability.

Careful consideration needs to be given as to how to record the interview. If the interviewer relies on her memory then reliability of the data may be effected (Cohen, Manion and Morrison, 2000). The use of a tape recorder or dictaphone can 'cool things down' (Merton, Fiske and Kendall, (1956), in Cohen, Manion and Morrison, 2000, p.281), that is that the interviewees may be more cautious about what they say than if the interview was not recorded.

Chapter 4 – Methodology

4.1 Justification of Research Paradigm – Quantitative Analysis

A quantitative method was chosen in order to determine the difference between the means of the comparison schools. Quantitative methods enable you to infer;

Evidence for a theory through measurement of variables that produce numeric outcomes.
(Field, 2009, p.792).

A benefit of quantitative research is that it is fully replicable by another researcher who can then determine the validity of the research, that is “am I measuring what I intend to measure?” (Frankfort-Nachmias and Nachmias, 1996, p.165).

The quantitative data is a comparison of actual standardised scores and therefore there will not be any conflicting information that can occur in qualitative research such as a “..contrast between what people do and what people say that they do” (Atkinson, Coffey and Delamont, 2003, p.106).

This research uses between-participants design as there is an experimental group of pupils with ALN who have been undertaking provision management with provision maps to address their ALNs and a comparison group of pupils who had a individual education plan and accessed provision as per their individual education plans.

As this data is normally distributed which was determined by using Shapiro-Wilk test p-value which was above 10.05, then it was possible to use a parametric test. Also, the variances of the populations were approximately equal (the assumption of

homogeneity of variances) and there were no extreme scores. (Dancey and Reidy, 2002, p.148).

ANOVA allows us to assess the likelihood of having obtained an observed difference between some or all of the conditions by sampling error. Planned or post-hoc tests show us which conditions differ significantly from any of the other conditions. Eta² is a correlation coefficient that can be used as a measure of effect in ANNOVA. It lets us know, in percentage terms, how much variance in the scores of the dependent variable can be accounted for by the independent variable. (Dancey and Reidy, 2002, p.304).

As the design contains both within-and between-participant variables a mixed methods ANOVA using a repeated-measures design was selected. A repeated measures design was used due to looking at the pupils' scores pre and post the use of provision management and from one year to the next for the comparison group.

4.2 Justification of Research Paradigm – Qualitative Analysis

Qualitative research was selected as it forms a debate about the specified issue and is not a fixed truth (Banister, Burman, Parker, Taylor and Tindall, 2002).

Qualitative research is: a) an attempt to capture the sense that lies within, and that structures what we say about what we do; b) an exploration, elaboration and systematization of the significance of an identified phenomenon; c) the illuminative representation of the meaning of a delimited issue or problem (Banister et al., 2002, p.3).

The advantage of qualitative research is that it enables people's experiences to be made visible (Bannister et al., 2002). It was a way of enabling the voices of the LSAs, SENCO and head teacher to be heard with regard to their views on provision mapping.

In order to analyse the data thematic analysis was used because it

...provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data. (Braun and Clarke, 2006, p.78).

Qualitative methods enable you to

- ...to ‘get under the skin’ of a group or organization to find out what really happens – the informal reality which can only be perceived from the inside.
- To view the case from the inside out: to see it from the perspective of those involved.
- To carry out research into the processes leading to results (for example, how reading standards were improved in a school) rather than into the ‘significance’ of the results themselves. (Gillham, 2000b, p.11).

The qualitative research will compliment the “...quantitative research by adding descriptive depth” (Ponterotto, 2010, p.584). The descriptive depth will occur through the researcher “...seeking more flexible involvement with their respondents” (Allan and Skinner, 1991, p.183) by gaining “inquiry from the inside” (Allan and Skinner, 1991, p.183). Inquiring from the inside (Allan and Skinner, 1991) can be effective at contributing to societal change as the “qualitative research is often effective at empowering participants to navigate complex and sometimes oppressive systems” (Ponterotto, 2010, p.583).

Another benefit of qualitative research is that it gives a voice to often disempowered, marginalised and silenced groups (Ponterotto, 2005, in Ponterotto, 2010) such as LSAs who have shared the experiences and are then able to express their views “...in their own words, in their own way” (Ponterotto, 2010, p.584).

Further benefits of qualitative methods are that they can be replicated that is;

the repetition of an investigation in exactly the same way either by the same or other scientist and researchers – is a safeguard against unintentional error, or deception.

(Frankfort-Nachmias and Nachmias, 1996, p.14).

Qualitative studies can not always be replicated in detailed procedures but they can in purpose.

That is while no two qualitative researchers will ask the same questions in the same order or observe exactly the same action, they can both study the same range of phenomena and generate analysis, which can each inform the other and of course lead to new studies which themselves may result in further modification to our understanding.

(Allan and Skinner, 1991, p.183).

Qualitative analysis ensures that the informal reality of the effectiveness of provision mapping is based on the views of the people carrying out the process rather than the views of researchers promoting the process. It is important to ascertain the views from the inside out to gain a fuller picture of whether provision management is of benefit to pupils and staff. The qualitative analysis also enables a deeper analysis of how the provision mapping is working rather than just an analysis of the significance of the results.

Thematic analysis allows one to identify, analyse and report patterns (themes) within data and it gives the data rich detail (Braun and Clarke, 2006). It is “a method that works both to reflect reality and to unpick or unravel the surface of reality” (Braun and Clarke, 2006, p.81).

Thematic analysis is a way of seeing. Often, what one sees through thematic analysis does not appear to others, even if they are observing the same information, events, or situations. To others if they agree with the insight, the insight appears almost magical. If they are empowered by the insight, it appears visionary. If they disagree with the insight, it appears delusionary.
(Boyatzis, 1998, p.1).

Thematic analysis means different things to different people dependant on their observational skills, which in turn affects their understanding.

Observation preceded understanding. Recognizing an important moment (seeing) preceded encoding it (seeing it as something) which in turn precede interpretation.
(Boyatzis, 1998, p.1).

At first observation is made of something that is of interest and which is occurring and then it is described.

Thematic analysis is a process for encoding qualitative information. The encoding requires an explicit 'code'. This may be a list of themes; a complex model with themes, indicators and qualifications that are causally related; or something in between these two forms.
(Boyatzis, 1998, p.4).

Thematic analysis can be used by anyone using qualitative traditions as it is a method to "...process, analyze, and/or interpret his/her information, regardless of his/her ontology or epistemology." (Boyatzis, 1998, p.5).

Thematic analysis allows researchers involved in qualitative analysis to communicate with each other as it "is a translator of those speaking the language of qualitative analysis".(Boyatzis, 1998, p.vii).

In order to use thematic analysis the only prerequisite is cognitive complexity.

Cognitive complexity involves perceiving multiple causality and multiple variables over time and other variations, as well as the ability to conceptualize a system of relationships.
(Boyatzis, 1998, p.8).

Being able to apply cognitive complexity and look at the data from a range of perspectives is important particularly when undertaking the coding element of thematic analysis.

4.3 Participating Schools

The experimental school in the study is in an economically deprived area of a rural local authority in Wales. The comparison study school was selected as they had a similar catchment group to the experimental group but were not using provision management and were still using individual education plans. Both schools have fifty percent of their pupils on the SEN code of practice. The author knew both schools. Both schools were matched according to the above criteria and were both within urban areas of the rural local authority.

The experimental group school in this study followed the SENJIT (2010) guidance explicitly and therefore anyone wishing to replicate this study needs to understand how to develop provision management. It was important for the experimental group school to follow the SENJIT (2010) guidance with fidelity, as this is the blue print for setting up provision management within UK schools. If the system had not been set up with fidelity then the measurement of pupils learning outcomes may have been inaccurate and possibly would not have been attributable to the provision management system.

4.4 Participants - Quantitative

For the purpose of this study only the data of pupils who were accessing provision maps for numeracy, reading and spelling were collected and analysed but it is acknowledged that other pupils were receiving provision maps for memory, social skills, behaviour and speech and language. There were 40 participants and 19 were

male and 21 female. There were 20 participants in the comparison group (which was provision management) and there were 20 participants in the control group (which were the IEP). The participants were aged between the school years of year two to year six. There were 8 participants in Year 2 (4 male and 4 female), 6 in year 3 (5 male and 1 female), 6 in year 4 (3 male and 3 female), 12 in year 5 (5 male and 7 female), and 8 in Year 6 (2 male and 6 female).

PARTICIPANT	GENDER	YEAR GROUP	CONDITION
1	MALE	2	Provision Maps
2	MALE	2	Provision Maps
3	FEMALE	2	Provision Maps
4	MALE	3	Provision Maps
5	MALE	3	Provision Maps
6	MALE	3	Provision Maps
7	FEMALE	4	Provision Maps
8	FEMALE	4	Provision Maps
9	MALE	4	Provision Maps
10	FEMALE	5	Provision Maps
11	FEMALE	5	Provision Maps
12	FEMALE	5	Provision Maps
13	MALE	5	Provision Maps
14	MALE	5	Provision Maps
15	MALE	5	Provision Maps
16	FEMALE	5	Provision Maps
17	FEMALE	6	Provision Maps
18	FEMALE	6	Provision Maps
19	MALE	6	Provision Maps
20	FEMALE	6	Provision Maps
21	FEMALE	2	IEP
22	FEMALE	2	IEP
23	FEMALE	2	IEP
24	MALE	2	IEP
25	FEMALE	3	IEP
26	MALE	3	IEP
27	MALE	3	IEP
28	FEMALE	4	IEP
29	MALE	4	IEP
30	MALE	4	IEP
31	FEMALE	5	IEP
32	FEMALE	5	IEP
33	FEMALE	5	IEP
34	FEMALE	5	IEP
35	MALE	5	IEP
36	MALE	5	IEP

37	FEMALE	6	IEP
38	FEMALE	6	IEP
39	FEMALE	6	IEP
40	MALE	6	IEP

TABLE 1- Sample information

The participants were recruited as an opportunity sample for the provision map group as the school were just starting provision management and were one of the author's schools and so the opportunity to study the impact of the provision was available.

The control study participants were selected according to their mean standardized scores across spelling, reading and maths, from the end of year assessments in 2010 and who matched the pupils in the experimental group from their mean standardized end of term scores from 2010. The primary criteria for matching participants were the mean scores of the academic performance (spelling, maths and reading) and school year and gender was a secondary criteria. There will be individual differences in the scores of each condition as the participants differ among themselves due to having different abilities, knowledge, IQ, personality and so on. Each group or condition is bound to show variability (Dancey and Reidy, 2002).

4.5 Participants - Qualitative

The sample was an opportunity sample as it used the LSAs, head teacher and SENCO of the school in which the provision mapping had taken place. There were seven female LSAs and both the head teacher and SENCO were female. All of the participants gave informed consent due to all elements of the research being fully disclosed, i.e. the purpose of the research, what was involved, how it was to be

conducted, the time it was likely to take and what would happen to the material collected. Informed consent is an important principle as,

It is this principle that will form the basis of an implicit contractual relationship between the researcher and the researched and will serve as a foundation on which subsequent ethical considerations can be structured.

(Cohen, Manion, Morrison and Morrison, 2007, p.53).

Each of the LSA's interviews were randomised by using different numbers rather than in order e.g. the first LSA interviewed could be assigned as LSA 3 and so on, so that no one other than the interviewer could identify them based on the order of the interviews to ensure confidentiality.

A research project guarantees confidentiality when the researcher can identify a given person's responses but essentially promises not to do publicly.

(Babbie, 2008, p.70).

All participants were guaranteed confidentiality within the study. The transcripts were then anonymised. "Confidentiality and anonymity are issues that are closely interwoven with projection" (Bannister et al., 2002, p.155).

A subject agreeing to a face-to-face interview can in no way expect anonymity. At most the interviewer can promise confidentiality.

(Cohen, Manion, Morrison & Morrison, 2007, p.64).

By excluding the names of the participants and any other forms of personal identification the principal means of anonymity has been adhered to (Cohen, et al., 2007). This process ensured that participants had both confidentiality for all and also anonymity for the LSAs. All of the interviews were transcribed.

4.6 Design-Qualitative

Semi-structured interview questions (LSAs)

1. Are there any differences in your role since provision management has been in place?
2. Do you have enough resources/training to provide the support necessary?
3. Which system do you think helps pupils learn more, old/new?
4. Which system do you prefer and why?
5. How can the school get better outcomes for reading, spelling and maths?
6. How do you think you improve pupils with ALNs learning?
7. What do you see as the benefits of provision mapping?
8. Are there any negatives to provision mapping?
9. Do you have any planning time with teachers to discuss pupil progress or any concerns?
10. Are you involved in reviewing the provision map?
11. Has your workload changed since doing Provision mapping? (in what ways)?

Semi-structured interview questions (SENCO/Head teacher)

1. Do the LSAs have the skills to provide the interventions?
2. Do you feel pupils are making more or less progress with provision maps than IEPs?
3. Do you think pupils would make more or less progress if the programmes were run by teachers?
4. How can the school get better outcomes for reading, spelling and maths?
5. What do you see as the benefits of provision mapping compared to IEPs?
6. Are there any negatives to provision mapping?
7. How do you think you improve pupils with ALNs learning?
8. Is the role of LSAs better now than before provision mapping?
9. What improvements do you feel need to be made?
10. Are these achievable?
11. Who reviews the provision maps and why in that way?
12. Has your workload changed since doing provision mapping? (in what ways)?

4.7 Design-Quantitative

The study used a 2 time (pre-vs.post-intervention) x 2 (intervention:provision mapping vs. individual education plan) design. Time was the within variable and the provision mapping was the between variable. The individual education plan group continued to have intervention as per their individual education plans as they had in previous years and in particular in the academic year 2009-2010. The provision management group in

the academic year 2010-2011 received provision as per their provision map rather than an individual education plan as they had in the academic year 2009-2010. This provision was mainly undertaken by LSAs but also by the SENCO.

The dependant variable is the academic performance of the pupils in spelling, reading and maths. The independent variables are the provision mapping and time.

4.8 Materials and Procedure - Quantitative

Both the provision management group and the individual education plans group were tested by their respective schools in May 2010 for the annual progress reviews in spelling, maths and reading to determine their standardized scores. The respective schools then repeated the standardized tests again in May 2011. The Provision Management group used the Parallel Spelling Test, NfER Maths test and NfER reading test. The individual education plan group used Single Words Spelling Test, NfER Maths test and All Wales Reading Test. The Provision Management group were withdrawn from their classes individually or in small groups mainly by LSAs and the SENCO for targeted interventions as identified by the audit of need. The individual education plan group received some additional support as identified by their individual education plans which was delivered by LSAs but these interventions were mainly within the classroom and mainly involved access to an LSA within the classroom.

4.9 Validity

Validity in quantitative research is measured from the accounts of the participants.

“...it is the meaning that subjects give to data and inferences drawn from the data that are important.
(Cohen, Manion and Morrison, 2000, p.106).

This study used concurrent validity that is the use of several instruments to determine if the data gathered from each instrument correlated highly with each other (Cohen, Manion and Morrison, 2000). The benefit of concurrent validity is that “..concurrence can only be demonstrated simultaneously with another instrument” (Cohen, Manion and Morrison 2000, p.112). Concurrent validity in this study was demonstrated through triangulation.

4.10 Triangulation

Triangulation is used in social science research methods because qualitative research advocates the use of multiple methods (Jick, 1979). The use of triangulation ensures the convergence or agreement between methods and ensures validity in research (Jick, 1979).

“Validity is claimed because replication of the findings by different methods minimizes the possibility that the findings may be the result of particular measurement biases”
(Bloor, 1997, p.38).

It is believed that by using several methods any deficiencies of any one method can be overcome by the strengths in other methods (Blaikie, 1991).

Triangulation yields

...new data that throw fresh light on the investigation and provide a spur for deeper and richer analyses.
(Bloor, 1997, p.49).

There are several forms of triangulation: data triangulation; theoretical triangulation; investigator triangulation; and analysis triangulation. Theoretical triangulation is defined as requiring “that more than one theory is applied to interpret the data (Boeije, 2010, p.176).

Validation techniques such as triangulation enable researchers to be reflexive and to see that research findings are created through the process of the research and do not imply pre-existing and awaiting discovery (Bloor, 1997).

This research used theoretical triangulation. Investigator triangulation is defined as;

...the use of more than two researchers in any of the research stages in the same study.
(Hussein, 2009, p.3).

This research did not use investigator triangulation.

Analysis triangulation is defined as

...the use of more than two methods of analyzing the same set of data for validation purposes (Kimchi, Polivka, and Stenvenson, 1991). In addition to validation purposes, analysis triangulation can be described further as the use of more than two methods of data analysis in qualitative and quantitative paradigms within the same study for both validation and completeness purposes.
(Hussein, 2009, p.3 - 4).

This research used both quantitative and qualitative methods to analyse the data.

As well as data triangulation there is methodological triangulation, which is defined as the use of “different methods of data collection” (Pitney and Parker, 2009, p.64). The usual form of methodological triangulation is using both qualitative and quantitative research methods to address the same research phenomena. This would form a between-methods triangulation and helps check validity. Within methods triangulation is the replication of a study to check for reliability (Cohen, Manion, Morrison and Morrison, 2007).

Triangulation allows illumination from multiple standpoints, reflecting a commitment to thoroughness, flexibility and differences of experience.
(Bannister et al., 2002, p.145).

Triangulation helps overcome the limitations and biases prevalent in all methods. This study used data triangulation which,

Involves collecting accounts from different participants involved in the chosen setting.....
(Bannister et al., 2002, p.147).

This allowed a range of accounts to be collected from the LSAs, SENCO and Head teacher.

This study used both quantitative and qualitative methods in order to develop greater understanding of provision management and to facilitate rich interpretations (Bannister et al., 2002). It also enabled the author to look at the “..initial analyses from a novel standpoint” (Bloor,1997, p.49) which, may have also altered the author’s perception of the initial data (Bloor, 1997).

4.11 Ethical Issues

The University’s ethics committee approved the research, as did the principal educational psychologist (PEP) in the local authority where the work was conducted. The school in the provision map group as well as the individual education plan group school were both asked via the head teachers if they were prepared to be involved in the study. Initially the only involvement of the schools was to provide the standardised scores of pupils from Year 2 to Year 6 in spelling, maths and reading for 2010 and 2011 (both schools annually collect this data in May).

4.12 Consent

Consent is important to obtain before conducting an interview, as often there are power inequalities within the relationship between interviewer and interviewee with

the balance of power normally weighted in favour of the interviewer (Payne, 1999). All participants have a “..right to freedom and self-determination” (Cohen, Manion and Morrison, 2000, p.51). By ensuring that informed consent is obtained from the participants then the author could certify that the participants had freely chosen to take part in the study knowingly and voluntarily and comprehended the nature of the research project. (Cohen, Manion and Morrison, 2000). The LSAs, head teacher and SENCO in the provision map school were then given a consent form (appendix 1) that informed them of all the elements of the research. This consent form contained details of the length of time the interview would take, the purpose of the study and that the information would be collected confidentially and then anonymised. The consent form also allowed participants to withdraw from the study at any time until the tapes had been transcribed and anonymised. Contact details of the author and author’s University supervisor were provided. This ensured that participants were given informed consent.

Only when prospective participants are fully informed in advance are they in a position to give informed consent.... It should be clear at the outset that initial consent is just that, and that participants have the right to with-draw at any time, even retrospectively.
(Bannister et al., 2002, p.153).

It is important for participants to have the author’s contact detail in case any queries are raised which need responding to, or they wish to withdraw their consent and/or data (Bannister et al., 2002).

4.13 Anonymity and Confidentiality

All of the participants were informed that the data would be collected confidentially that is that only the author and themselves would be able to identify who the participants were. They were informed that once the interviews had been transcribed

their data would then be anonymised so that, their identity would not be known to others.

The essence of anonymity is that information provided by participants should in no way reveal their identity.
(Cohen, Manion and Morrison, 2000, p.61).

When undertaking a face-to-face interview it is not possible to offer the participant full anonymity as the interviewer clearly knows their identity, but anonymity can be offered so that no one other than the interviewer can identify the participant.

It is crucial that we as researchers are in a position to assure our participants of anonymity.
(Bannister, et al., 2002, p.156).

Anonymity was undertaken by ensuring the seven LSAs were not numbered according to the order in which they were interviewed and were therefore given a random number from one to seven.

The Data Protection Act requires that information obtained about a participant during an investigation is confidential unless otherwise agreed in advance.
(Bannister, et al., 2002, p.155).

It was important for the LSAs to have their confidentiality and anonymity respected as they were the main providers of the provision management interventions and they needed to be able to have an open and honest dialogue about their views without fear that the head teacher and/or SENCO would be unhappy with the responses they gave.

The principal means of ensuring anonymity then is not using the names of participants or any other personal means of identification.
(Cohen, Manion and Morrison, 2000, p.62).

Due to the need to tape record all the interviews, the participants were reminded of the confidentiality and that all tapes would be wiped once they had been transcribed and

that all transcriptions would be anonymised. Participants were told that if they were very uncomfortable with the tape recorder then it would be turned off and the interviewer would write the discussion. All participants agreed to have the tape recorder on. The author then checked that the participants were still happy to continue with the interview.

Participants need to know that at any time they can ask for the research to be halted for a while, or for the tape recorder to be switched off.
(Banister, et al., 2002, p.154).

Participants were also made aware that they could refrain from answering any of the questions at any point and ask for the tape recorder to be switched off or paused.

Participants do not

...have to answer all questions or comment or continue talking about an issue that becomes uncomfortable for them.
(Banister, et al.,2002, p.154).

All of the participants chose to answer all the questions. Three participants asked at various points to stop the recording so that they could rethink their answer and then agreed for the tape recorder to be switched back on.

4.14 Procedure - Qualitative

- A discussion was held with the head teacher of the school under taking provision management, to determine if she was happy to be part of the study.
- After the May 2011 reading, spelling and maths standardised scores had been collected then the LSAs involved in provision management, the head teacher and SENCO were given the consent forms to read and sign.
- All of the LSAs were interviewed in the 'time to talk' room at the school, which is a small quiet room. The confidentiality and consent was discussed (as

above). The dictaphone was switched on and the interview followed the interview schedule. Four of the LSAs were interviewed on a Thursday morning and three of the LSAs were interviewed the following Monday morning.

- The head teacher was interviewed in her office on the Monday morning. The confidentiality and consent was discussed and the dictaphone switched on.
- The SENCO was interviewed at a local leisure centre (at the suggestion of the SENCO due to having received some difficult news about her mother's health and currently being off work). Again confidentiality and consent was discussed and the dictaphone switched on.
- Within a week of each interview having taken place the tapes were transcribed on the computer.

4.15 Procedures - Thematic Analysis

Braun and Clarke (2006) refer to each stage of thematic analysis as a phase. In phase one the transcripts were read several times to familiarise the author with the depth and breadth of the content (Braun and Clarke, 2006). During the readings notes were taken of possible codes that could be revisited in the coding phase. Once the readings were completed then the next stage was the production of the initial codes from the data. Braun and Clarke (2006) state that codes identify a feature of the data (semantic content or latent) that appears interesting to the analyst, and refer to

...the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon.
(Boyatzis, 1998, p.63).

The codes are simply the organisation of your qualitative data into analytically meaningful categories (Ayers, Baum, McManus, Newman, Wallston, Weinman and

West, 2007). Coding is often inductive and codes are developed from the data to become the ideas about these data, namely the themes (Ayers, et al., 2007).

This research analysed themes at a deductive level as they were driven by the researchers theoretical interest in the area (Boyatzis, 1998). The codes were data-derived codes "...because they are based in the semantic meaning in the data" (Braun and Clarke, 2013, p.207). The semantic approach involved only looking for what the participants said and not looking beyond the surface meanings of the data, as would have been the case in a latent approach (Braun and Clarke, 2006).

Coding is the opportunity to apply cognitive complexity to your data by applying your knowledge of previous research and theories. The coding was undertaken manually using highlighter pens to colour code segments of data that formed repeated patterns (themes) or were interesting (Braun and Clark, 2006). "The code development process is typically better when it is done with others" (Boyatzis, 1998, p.11). The code development could not be undertaken with others during this research.

The third phase was searching for themes. This,

...involves sorting the different codes into potential themes, and collating all the relevant coded data extracts within the identified themes. Essentially, you are starting to analyse your codes and consider how different codes may combine to form an over reaching theme.
(Braun and Clarke, 2006, p.89).

Themes are patterns found in your data that describe and organise possible observations while their highest functions are to interpret aspects of the phenomenon (Boyatzis, 1998).

A theme may be identified at the manifest level (directly observable in the information or at the latent level (underlying the phenomenon). (Boyatzis, 1998, p.4).

Themes can be developed from raw information but they can also be generated from current theory and prior research in which conclusions are drawn by reasoning from the general to the specific (Boyatzis, 1998). It is important to know about current and prior theory and research related to the current study as it lays a foundation as it provides tacit knowledge (Boyatzis, 1998).

Identifying themes is never simply a matter of finding something lying within the data like a fossil in a rock. It always involves the researcher in making choices about what to include, what to discard and how to interpret participant's words. (King and Horrocks, 2010, p.149).

The themes that emerge from the interviewee's stories, are then pieced together by the researcher to form a comprehensive picture of the experience of all interviewees, in that given context (Aronson, 1994).

Themes were then developed by the author using theoretical knowledge through the name of the code and a brief description of each being placed on different 'post-it' notes and then organising into theme piles. A thematic map was then produced (See figure 1). A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set (Braun and Clarke, 2006, p.82).

This phase was ended with

A collection of candidate themes, and sub-themes, and all extracts of data that have been coded in relation to them. (Braun & Clarke, 2006, p.90).

In phase four the author looked closely at the themes to determine if there was enough data to support them and whether other themes could be merged together or needed to be broken down into separate themes (Braun and Clarke, 2006). See figure 2.

Data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes.
(Braun and Clarke, 2006, p.91).

Next the thematic map was analysed to determine if the themes were accurately reflecting the meanings evident in the whole data set and therefore ensuring their validity (Braun and Clarke, 2006). Then re-coding was undertaken.

The need for re-coding from the data set is to be expected as coding is an on going organic process.
(Braun and Clarke, 2006, p.91).

A final thematic map was then produced. See figure 3.

Phase five started by defining and naming the themes. Braun and Clarke, (2006), regard this phase as the time to ‘define and refine’ your data.

By ‘define and refine’, we mean identifying the essence of what each theme is about (as well as the themes overall), and determining what aspect of the data each theme captures.
(Braun and Clarke, 2006, p.92).

The collated data were then organised for each theme and put into “a consistent account with accompanying narrative” (Braun and Clarke, 2006, p.92). The story of each theme was identified and related back to the research questions. Themes were also finally named for the final analysis and write up.

When undertaking thematic analysis it is important to be aware of three major obstacles or threats to using thematic analysis in your research (Boyatzis, 1998).

They are the researcher's (a) projection, (b) sampling, and (c) mood and style.

(Boyatzis, 1998, p.12).

Projection is important to avoid as it can influence the outcome of your data.

Projection is described as,

... simply "reading into" or "attributing to" another person something that is your own characteristic, emotion, value, attitude or such"

(Boyatzis, 1998, p.13).

Familiarity with the phenomena being researched can lead to projection at two levels.

It can be difficult for the researcher to avoid responding using her own typical response to a situation. Researchers who have no or little familiarity with the phenomena "tend to direct their attention to the manifest level" (Boyatzis, 1998, p.13).

Familiarity was a concern for the author due to knowing the school and the staff very well. Steps can be taken to lessen the contamination of projection by,

- (a) Developing an explicit code;
 - (b) Establishing consistency of judgement that is reliability;
 - (c) Using several people to encode the information and a diversity of perspectives – perhaps even by having the participants (i.e, subjects) examine the raw information themselves and
 - (d) Sticking close to the raw information in the development of the themes and code. The researcher is also helped if he or she practices being open to sensing themes and interpreting them in a wide range of types of source material.
- (Boyatzis, 1998, p.13).

The author overcame the issue of contamination by projection by ensuring that an explicit code was developed. The author used a consistent approach when making judgements that was informed by the data and previous research in the phenomena, which should have provided reliability. A key focus was on ensuring that the raw data

were read and re-read and becoming immersed in the data when developing the themes and codes. The author attempted to remain open through out the process of coding to sensing the codes and interpreting them.

Another obstacle to effective thematic analysis is sampling. It is important to be aware of “The law of ‘garbage in, garbage out’..” (Boyatzis, 1998, p.14) which states that if the raw data being analysed is contaminated by variables or factors being analysed then the subsequent interpretation of the data will also be irrelevant. The author of this study ensured that the sample was relevant to the topic being researched as only the LSAs who had been involved in provision management and in particular involved in the provision of spelling, reading and mathematics were interviewed. A thorough research design was used (Boyatzis, 1998).

The researcher’s mood and style can also be an obstacle to effective thematic analysis.

There are some key factors to consider reducing the effects of mood and style.

1. Being rested and not preoccupied when conducting thematic analysis
2. Developing or finding a clear code.
3. Establishing consistency of judgement among ‘multiple perceivers’.
4. Having the self-control to stop coding if you find yourself preoccupied or worried about something else and to return to the research at a later time when you are in a different state.
5. Suspending analytic frameworks and rational judgements to ‘go with’ the raw information developing the ‘inner game’ of coding. (Boyatzis, 1998, p.16).

The author ensured that the above factors were adhered to when undertaking the thematic analysis.

4.16 Limitations to the Methodology

Limitations of the methodology used in this study were that no encoding with others took place and this reduces the reliability of the study. Reliability within quantitative research is difficult due to the "...unique perspective of the individual researcher" (King and Horrocks, 2010, p.162) which will shape to analysis of the data and two researchers may interpret the data differently. The use of independent coding through colleagues in the Educational Psychology service or the adult participants in the quantitative research would have provided a quality check and provided greater reliability than single coding. Lack of independent coding could mean that the author was blinkered "...to alternative readings of the data" (King and Horrocks, 2010, p.162), or maybe the author's knowledge of the topic area might have showed the definition of overarching themes (King and Horrocks, 2010). The qualitative analysis could also have been validated through use of respondent feedback or member validation (King and Horrocks, 2010) in which, the participants were asked how well the author's interpretation fitted their own experiences. These methods should all be considered in future research and are significant limitations within this research.

The use of the IEP school as a comparison group also had limitations as it did not provide a direct comparison of whether it was the Provision Management system that had resulted in improved outcomes for the pupils compared with those on IEPs, or whether it was the result of the Hawthorne Effect and doing something different and possibly something new and more exciting that facilitated the change. The skills and training of the staff were not analysed in the two schools and this could explain the difference in results.

Another limitation to the study is that the two schools used different reading and spelling tests than each other in the pre and post testing. Whilst all tests were normed and standardised on the United Kingdom population and purport to measure the same domains, results can differ across tests. Whilst the tests were normed in the same population the sampling will have been different, which could cause a difference in the standardisation of the data. Use of the same tests in both schools would have added to the reliability of the qualitative data. It is possible that the schools may have administered the tests in different ways, which could have confounded the data.

Chapter 5 - Results

5.1 Qualitative Results

5.1.1 Thematic Maps

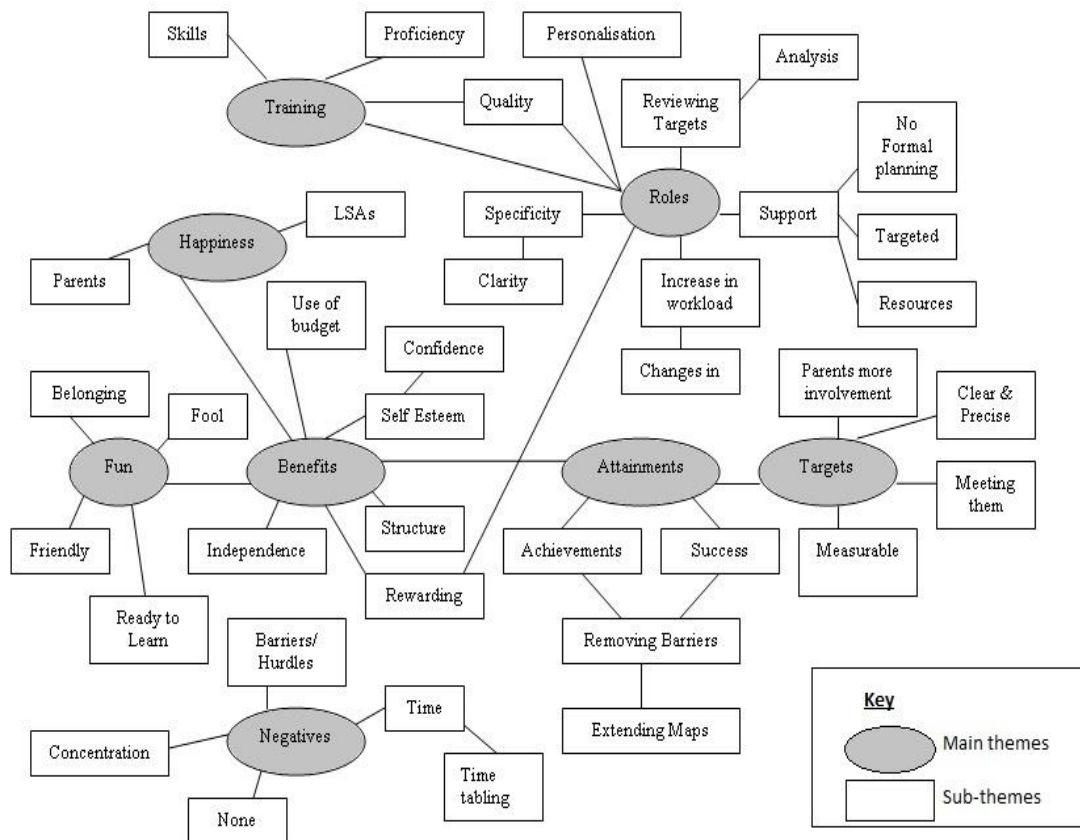


Figure 1: Initial thematic map, showing 8 main themes.

The initial coding of the data highlighted eight main themes, which were; training, roles, happiness, fun, benefits, attainments, targets and negatives. These themes were directly taken from the semantic meaning of the data.

Happiness as a theme came mainly from the semantics of the management, but one LSA also mentioned it.

Um but all this negativity that I've just spoken about, um is kind of balanced out really easily with the fact that staff are

really happy with the provision mapping, um, LSAs are happy with it and it seems to be that the children are all kinda quite confident and happy in being withdrawn from class... (Management 1).

Um parents seem to be really happy with the provision map as it sets out exactly what their child is to have.... (Management 1).

.... because I understand if they are not happy they won't learn. (LSA 4).

As there was not enough data to support this theme it was removed in the second stage as can be observed in Figure 2.

Benefits were a main theme in the initial coding as a variety of the semantics mentioned the benefits of Provision Management.

Eh I think the benefits of provision mapping are that it does improve children's scores well at least from uh what I've carried out myself ... (LSA 2).

I think the benefits of provision mapping um you take the child out and you can you show them where they are even um they could be level 2 back in the winter time and they could have been on a level 2 and they then just move up and they can see themselves getting better (LSA 5).

the benefits far out way the negatives so there is no contest. (Management 2).

Within the main theme of benefits were several sub themes that were connected to the main theme for example self-esteem and confidence.

... that gives them confidence and self-esteem as well. (LSA 5).

... their self-esteem was important ... (LSA 3).

While self-esteem is an important concept in the benefits of Provision Management there was not enough evidence for it to stand on its own as a sub-theme. Also there was not evidence for confidence to be a main theme, but it was important as a benefit of provision management.

... they can see themselves getting better you know and that gives them confidence ...
(LSA 5).

.. I feel their confidence grows, ..
(LSA 3).

.. if you've have had a training course and you feel quite confident um,
(LSA 1).

... they really have got a handle on the programmes that they're using with these youngsters, and they seem to be gaining confidence all the time in knowing where to take them next.
(Management 1).

.. it seems to be that the children are all kinda quite confident and happy in being withdrawn from class, to receive support which is targeted especially for them.
(Management 1).

...if you've have had a training course and you feel quite confident um, ...
(Management 1).

Figure 2 shows how the thematic map was developed so that some themes were merged together, but the themes still had clear and distinguishing features between them.

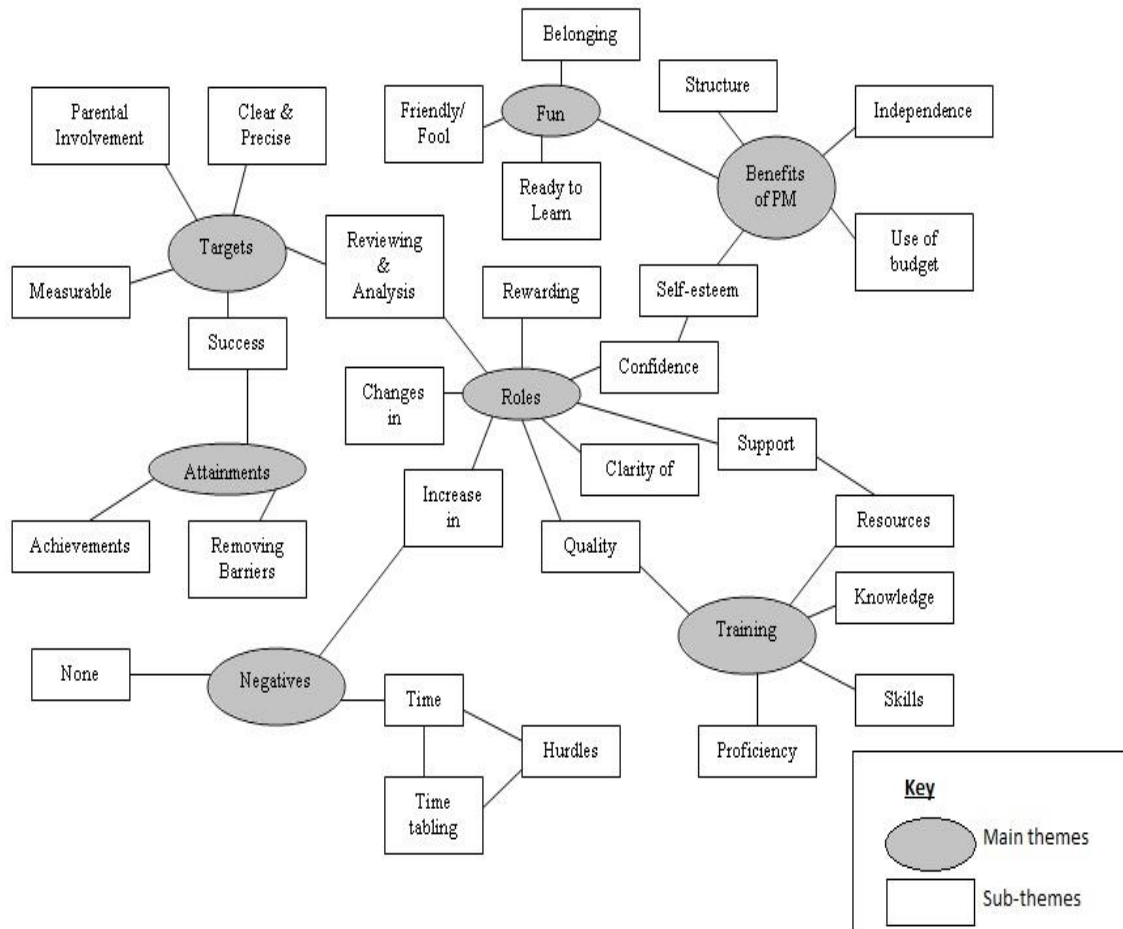


Figure 2: Developed thematic map showing 7 main themes.

The main theme of negatives was initially considered to be important. In the final thematic map it was merged with benefits of provision management to form a new main theme as can be observed in figure 3.

... one of the main negatives we've come across during provision mapping is the amount of time that needs to be put into the actual maps at the beginning of the term. (Management 1).

... I am concerned the only negative is, the management time it takes up, not the class teacher's time for that's improved, but, certainly from the management point of view it's heavy. (Management 2).

Um as I really said I don't think there is a lot of negatives but the one area I said was um, that we are all doing individual um areas with them and I don't suppose that we see an overall picture at the end we are all putting our final assessments in but we don't see how that child has progressed in all areas I suppose. (LSA 1).

The main negatives came from the management team and were related to time taken to implement the system. Therefore the sub theme was not effective on its own as it lacked evidence. The other main themes remained throughout the analysis.

In Figure 3 the final thematic map can be seen, which highlights the themes that were reflecting the meanings evident in the whole data set (Braun and Clarke, 2006). The themes were re-coded to produce the final six themes of Provision Management, roles, targets, training, fun and attainments.

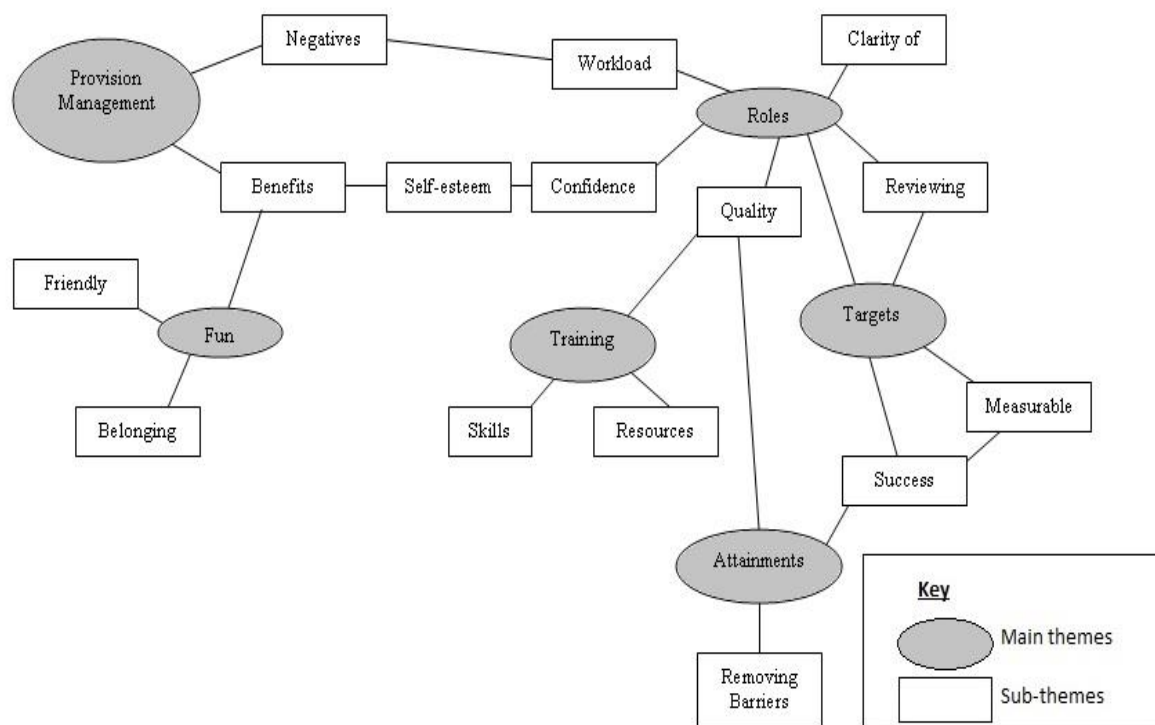


Figure 3: Final Thematic map, showing final 6 main themes.

Fun was linked to the benefits of provision management as well as being something that staff and pupils enjoyed.

I've found doing the games before he's ready and focussed to learn the fun part of it and mixing games up and things and I think he they enjoy it more then, and don't get so bored...

(LSA 7).

I've found doing the games before he's ready and focussed to learn the fun part of it and mixing games up and things and I think he they enjoy it more then, and don't get so bored...

(LSA 5).

I think it's just being a sort of friendly face as well really and you talk to the children when they come because you have time for the children really.

(LSA 1).

Roles were important in the setting up and delivery of provision management and there have been changes within the day-to-day workings of staff. Roles remained a main theme throughout the analysis.

The LSAs are far um better trained than they have ever been, their role in the school is far better understood, they are far happier with um their roles ..

(Management 2).

The role of LSAs is much much better now um, we really feel that the girls are....they really know what they are supposed to be doing, they are much more informed ..

(Management 1).

I think that the role of the head teacher, and the role of the SENCO, and all staff involved, um they need to be flexible, they need to work together,

(Management 1).

Um Yeh the roles have changed um I find that the provision mapping that your role is far more structured and is much easier to um work throughout your day because you've got proper um structured programme to follow and there far more specific than the old IEP used to be.

(LSA 2).

The role appears seems to be slightly different but I think the outcome and the feed back is more intense and clear, um, we have more check list available and I just feel that I can revert back to any problems, on a one to one basis, in a clearer form than it would have been in the general class.

(LSA 3).

5.2. Qualitative Findings

5.2.1 Roles

The LSAs feel more empowered as a result of doing provision mapping and feel that they have more clarity and structure within their role and are no longer simply ‘supervising’ pupils in the classroom.

“I find that the provision mapping that your role is far more structured and is much easier to um work throughout your day because you’ve got proper um structures programme to follow and they’re far more specific...”
(LSA 2)

Specificity of role is important to the LSAs as it not only provides the structure for their day-to-day routine, but also enables them to have a clear structure to the intervention they are using with individual or groups of pupils. The LSAs then know exactly what they need to support and enhance the learning of pupils with ALN.

“Rather than supervise the groups in the classroom I’ve been withdrawing them into another room and carrying out specific programmes”.
(LSA4).

The LSAs are too valuable a resource to be purely used as supervisors within the classroom. The role of supervisors indicates that the pupil or pupils in a group were not being educated but monitored and probably supported if they got stuck which, is very different to the LSAs’ current role of running interventions that develop and enhance pupils learning in literacy and numeracy.

This is an important change in their roles which allows them to experience more job satisfaction and fulfilment in their roles as they now observe the

difference they are making to pupils' learning outcomes and this motivates them to motivate the pupils.

“I've seen my results they have improved and I think they have improved um more than they would have if they had just had a general IEP.”
(LSA2).

The LSAs are seeing the benefits of provision management not only for themselves but also for the pupils through greater gains in the results being recorded between pre and post assessments.

“It's rewarding for myself as well as the child”.
(LSA3).

LSAs are experiencing the rewards of doing provision management as they are feeling a sense of achievement and success through enabling the pupils to also feel success and achievement.

The management team has also observed this change.

“They are far happier with um their roles and responsibilities it's now given them a huge boost in self-esteem because they know they are able to lead learning”
(Management 2).

It is important for all staff to feel happy in their roles and with their responsibilities and helps develop good staff morale.

“LSAs have become more confident in what they do.”
(Management 1).

Confidence is an important part of the self and a key quality in successful teaching and learning not only for the LSAs but also all the staff and the pupils.

Not only are the LSAs more involved in measuring the learning outcomes of the pupils but they also are now actively involved in target setting for the pupils as well because they know exactly what the learning targets for each pupil are so that they can then actively work with the pupil to achieve that.

“...You know exactly what you’re targeting, and your um catering your lessons to just those specific targets then.”
(LSA 1).

It would appear that the LSAs have not been clear about the individual education plan targets for the pupils they have previously worked with, whereas now they know exactly what the provision maps are targeting and ensure that their lesson objectives are aimed at meeting the targets on the provision maps.

“..The programmes we’ve been implementing really meet the children’s targets.”
(LSA 4).

The LSAs feel clearer about where the pupils are currently functioning due to the use of a check list which informs the LSA about the areas of learning they need to focus on to enable the pupils’ to meet their targets.

“...you can see from the different check lists that we use exactly where that child stands at that moment in time.”
(LSA 3).

This approach to working with pupils who have ALNs appears to the LSAs to be more effective as it aims for programmes to be tailored for individual needs rather than generic programmes that work on the principle of ‘one size fits all’. LSAs believe that pupils are clearly now receiving provision that enables their learning targets to be met to improve their learning outcomes in spelling, reading and maths. Now that the LSAs are clear about the targets they can support pupils to achieve their learning targets and

the LSA role may be more effective. The LSAs in the research seem to have a much clearer understanding of their role and what they are working to achieve. The morale and motivation of staff has a significant impact on the effectiveness of any school (Levin and Fullan, 2008), and therefore with LSAs feeling more valued and effective in their roles they may be more able to motivate the pupils to succeed and keep trying even when the work gets difficult.

5.2.2 Training

Training is a key element in the effectiveness of the LSA role (Farrell, Alborz, Howes and Pearson, 2010). If LSAs are to undertake the delivery of interventions then they need to receive the relevant training in order to be successful in their delivery of the intervention and also to ensure it is delivered with finesse and fidelity. Some of the LSAs felt they needed more training than they had currently received.

“Sometimes you feel that you could do with um some training um it might not need to be um a great deal of training just simply someone sitting with you going through the programme...”
(LSA 2)

The school, EP and local authority need to ensure that LSAs have had training in the interventions that the LSAs are being asked to deliver, as for many of the LSAs this is a completely new element to their job.

“...due to the varied extent of these courses and um the intensity of them, I don’t feel that I have had enough training.”
(LSA 5)

The LSAs are now undertaking a variety of interventions and in order for them to run the interventions with fidelity and finesse then they need an appropriate level of training otherwise the effectiveness of the interventions may be lessened which will impact on the learning outcomes for the pupils.

One LSA felt that her training had come through a part time degree she was doing rather than the school or Local Authority and therefore identified that further training for LSAs is required to skill them up to undertake interventions with pupils.

Management have recognised that the LSAs need help and support to develop their skills and that the updating of training and the development of new skills is an on going process and part of the LSAs continued professional development.

“The LSAs are far more skilled now than they ever have been um its due really to the training that is provided at the beginning of the programmes, but they still need to update and up skill...”
(Management 2).

“The LSAs needed some support and help in um developing their skills....”
(Management 1).

The management team in the school also feel that further training on interventions that the LSAs will deliver is important. The management team perceive that the LSAs have received a level of support and training that is higher than ever before to enable them to carry out the interventions in the provision maps. LSAs appear to have become more skilled in the last twelve months than previously but from the LSAs' perspective they still require more training to enable them to ensure the pupils they work with fulfil and maximise their learning outcomes. It would appear that training is an on-going requirement for the staff and would be regarded as good practice from the perspective of Continual Professional Development (CPD).

5.2.3 Planning

The LSAs report that they are much more involved with the planning cycle since provision management has been in place than they were with individual education plans. All of the LSAs report that they are now involved in the reviewing of the provision maps where as previously they would not have been involved in the reviewing of individual education plans. It is important for LSAs to be involved in the reviewing process as they are often the educationalists undertaking the interventions and therefore in conjunction with the class teacher they are appropriately placed to add to the information the teachers already know about the pupils' learning and progress to ensure appropriate targets are set for the pupils. Goddard and Ryall (2002, cited in Butt and Lance, 2005) state the importance of teaching assistants being given time to feedback on pupil progress. This team work approach facilitates the learning of pupils and informs the planning cycle which is a key to quality teaching and learning. The LSAs in the study felt that they had an important role to play in discussing outcomes with teachers and being involved in the writing of new targets.

I actually set a target which I feel is achievable, and sometimes I feel I know, in this area only, the child better than maybe the actual class teacher does, and I would set a target that is achievable.
(LSA 3).

The LSAs are not only involved in reviewing the provision maps but also in setting the new targets.

I do set the target for the next term.
(LSA 2).

Some of the LSAs appear to set the new provision map targets for the pupils on their own and seem to be confident doing this while other LSAs appear to work alongside the class teacher to produce the new targets.

We work together then to work on to the new target.
(LSA 5).

For one of the LSAs they mainly work on their own to produce the new learning targets but they then check clarification and accuracy with the class teacher.

I do a lot of the reviewing. I talk it over with the class teacher but mostly I do it myself then show it to her.
(LSA 6).

It is important for the LSAs to confirm future targets with the class teacher to ensure there are open channels of communication (Goddard and Ryall, 2002, cited in Butt and Lance, 2005).

The management team have also noticed that since the implementation of provision management in the school there has been more joined up thinking which has led to the development of teamwork, rather than an 'us and them' culture, which is much more effective for improving learning outcomes.

...better relationships are being set up with individuals and there's just more joined up thinking, and team work I guess.
(Management 1)

The management team recognise that since provision maps have been in place there has been a decrease in the role of the teacher in the reviewing of targets. LSAs now have a much more central role in the review process than previously. The SENCO and the head teacher are also involved in the reviewing of targets, which they previously were not.

..LSA staff review the provision maps... The class teachers are then involved in that, in that they will sit with the LSAs where possible to discuss those improvements and look at new targets and evaluation outcomes then um myself and the XXXX are involved directly in ensuring that we have a good overview of what the children have achieved.
(Management 2).

The management team have ensured that there is now a whole-school approach to the teaching and learning of pupils with ALN. The whole-school approach has ensured that all staff work as a coherent team, which has led to the successful learning of pupils. The development of good working relationships and collegiality (Fullan, 2001) is important.

Allocated time for LSAs to feedback on pupil progress, discuss future targets and raise concerns is important. Russell et al. (2001) and Woolfson and Truswell (2005), claim that LSAs need to be given time to feedback and to be involved in planning. None of the LSAs had any formal planning time with the class teachers. All of the LSAs do have ad hoc planning time with the class teachers, SENCO and head teacher.

We make time whether it's five minutes here or five minutes there.
(LSA 6).

All of the LSAs imply that it is their responsibility to seek out the class teacher, SENCO and head teacher if they wish to discuss pupil progress or clarify any concerns or issues.

So it is more sort of ad hoc that you go to them rather than, oh yeah, if there is any problems I just randomly go and it can be sorted out.
(LSA 7).

This system can be problematic for LSAs especially if they lack confidence or feel they are disturbing the class teacher or managers.

I didn't really like to disturb the teacher half the time so it was a bit of an issue.
(LSA 5)

This is why it is important for LSAs to have designated time to talk with either the class teacher, SENCO or head teacher so that they do not feel they have to resolve issues themselves as being part of a team. Also if LSAs do not have protected time

with key members of staff they may be delivering interventions incorrectly which impacts on the quality of learning for the pupils.

Due to no formal planning time with teachers the LSAs are generally left to use their break times to track down key members of staff to have their discussions.

I will go back to see the teacher at break time or lunch time.
(LSA 1).

I can approach the teacher or the head teacher during any break time of the school.
(LSA 3).

This system may not be ideal as it can lead to resentment on both sides due to staff having to resolve issues or discuss progress in their break times when maybe they want to unwind or get on with other activities. Two of the LSAs also mentioned that they could see colleagues at the end of the school day.

I do feel that I can approach the teacher or head teacher..., or even after school if there was a major problem.
(LSA 3).

Despite the LSAs all noting that they do not have planning time, they all felt that they were able to speak to class teachers, the SENCO or the head teacher when required and they seemed to be happy with this system.

We are all aware that we can speak to any of the teachers if and when we need to.
(LSA 4).

It is clear from the discourse of the LSAs that they believe they have good working relationships with the class teachers, SENCO and head teacher and that there are clear and open channels of communication. To make the provision management system even more effective then the LSAs may require some protected planning time rather

than having to catch colleagues on the run, when focussed discussions are not always possible and instead result in piecemeal conversations that are not always effective.

5.2.4 Perceived Benefits of Provision Management

Provision mapping has enabled the LSAs to believe they have a clearer understanding of what they are targeting with the pupils and they all felt it was a much more effective system than using individual education plans.

Provision mapping.....gives a clearer, better, judgement....
(LSA 3).

The new system it's a lot clearer what they have got to do and the results much, much easier than IEPs.
(LSA 6).

It would appear that from the point of view of the LSAs the individual education plans have been documents that have not been actively used to inform planning of required interventions to meet the learning needs of pupils on the SEN Code of Practice. In context the provision maps are documents that are actively used by the teachers and SENCO, but also for the LSAs.

The LSAs also feel able to interpret the data they are collecting on the pupils' learning and therefore they can use the data to inform future planning and learning, which adds credibility to the LSA's work and also may enhance their confidence and self-esteem.

One of the LSAs also felt that the provision maps benefitted the pupils by enabling them to see how they had improved across the period of the intervention, which improved their self-esteem.

...you can show them where they are even um they could be level 2 back in the winter time...they then just move up and they can see themselves getting better...
(LSA 5).

Pupils often do not see improvements in their learning other than the number correct on a spelling or times tables test or moving up a section on a reading scheme.

Provision management allows pupils to see their progress very clearly and this may have a positive impact on their future learning.

The management team also believe that provision management has had a positive impact on how parents perceive the additional provision their children are having and that parents are happy with the change from individual education plans to provision maps.

“...Parents seem to be really happy with the provision maps as it sets out exactly what their child is to have, what programmes they are to follow and the timings...”
(Management 1).

From the management’s perspective the parents seem to be happier for their children to be on provision maps than individual education plans because they have a much clearer idea about what provision is being received, its duration and frequency, which was not always clear on an individual education plan. The provision maps also provide parents and all agencies working with a child the information to know exactly where a child is functioning at anytime in the school year.

...from the head teacher, from the SENCO, to the LSA, to the child, to the parent, to the EP, they all have got a really really specific idea and a really good understanding of where that child is at that particular time.
(Management 1)

From the management's discourse a key benefit of provision management is the targeted support for pupils, which is made possible from undertaking the audit of need at the end of the academic year in preparation for the new academic year.

...provision mapping is certainly focussing at targeted support at the child.
(Management 2).

A key element of a good target is that it should be SMART (specific, measurable, attainable, and relevant/realistic, time bound). This has always been a requirement for individual education plan targets, but the management team felt that provision mapping has allowed the staff to make the pupils' targets a lot more SMART than was previously achieved on the individual education plan targets.

..IEP targets are a bit more woolly and not really directed um entirely at what the child was going to achieve...
(Management 2).

Ensuring that the targets were truly SMART has enabled the outcomes to be fully measurable and this information then informs the teaching and learning.

...the targets are so focussed... and they are um measurable...
(Management 2).

Provision management appears to have facilitated the managements' team approach to how they spend their delegated SEN funding and any other funding that can be utilised for SEN. The provision management appears to have enabled the management team to target support much more effectively to those pupils who genuinely require it. This ensures that the additional learning support can be costed for the whole academic year increasing the likelihood that the budget is used efficiently and can be accounted for.

..ensure that the monies that come into school are used efficiently and effectively and all children that need additional learning support will get it ...
(Management 1)

The provision management system appears to provide the management team with a whole school perspective on additional to and different from interventions and learning, which was not possible with individual education plans as they were owned generally by the teachers. Provision management has allowed transparency across the school.

From a head teacher and SENCO point of view, um we just have a much better handle on what is going on as a whole school.
(Management 1).

This in turn can facilitate good quality leadership and management and hence good quality teaching and learning.

5.2.5 Negatives of Provision Management

Some of the LSAs did identify areas of the provision management that they perceive as negatives. One LSA felt that now they are working on more focussed interventions they only see how the pupil is developing in that one area. When they were in the classroom the LSA got a much more holistic picture of how the pupil was developing across the curriculum.

...we don't see how that child has progressed in all areas.
(LSA 1).

Whilst the LSA perceives this as a negative of provision management if a system is put in place that allows the LSA to see the overall development of the pupil this would counteract the perception of negativity.

One of the LSAs also felt that the resources are not always available in one place and if they have not had time to check they have everything prior to the session starting then the time spent with the pupil is reduced whilst resources are collected.

...resource wise you haven't got everything you need and you're in the middle of um a session then it can cut down the time that you get to spend with the child.
(LSA 2)

Whilst this is a perceived negative of provision management it seems to be more an organisational or systems issue that could be easily resolved by ensuring that the resources for an intervention are stored in a labelled box alongside the lesson plans. Staff could be given time at the beginning or end of a term to gather and organise the resources.

Another concern raised by an LSA was that pupils were missing elements of their class learning by being withdrawn to do activities on their provision map.

..it can be a problem...because you have to go out and if they miss anything in class.
(LSA 7).

If the provision maps are carefully planned then pupils are less likely to miss out on learning opportunities in class as they are undertaking learning activities that enhance their knowledge and understanding, which they would not get if they remained in class.

Despite some of the LSAs perceiving there to be some negatives with provision management they all prefer it to the individual education plan system and see more benefits than negatives.

I don't think there are any real negatives.
(LSA 2).

I like it now.
(LSA 6).

I think it works really well and I don't think there's any problems.
(LSA 7).

The management team perceives more negatives than the LSAs. Both members of the management team felt that the time required at the beginning of the term to produce the maps is time consuming for the head teacher and SENCO.

..head teacher and SENCO spend at least two if not three days solidly just working out the provision maps, working out the money, working out the time tabling.
(Management 1).

Despite the initial high level of time allocation to provision management at the start of the term both managers felt that the benefits of provision management far outweigh the negativity of additional time requirements.

the benefits you get from that are far greater than we would have expected and that you know outweighs any negatives there are.
(Management 2).

It was also felt that the time demands were worse due to a high percentage of the school population being on the SEN Code of Practice and therefore requiring interventions as part of a provision map. It was felt that in a school with a smaller cohort of pupils or where there were fewer pupils on the SEN Code of Practice the provision management system would not require as much time. This could also be the case in a smaller school due to the audit of need which is embedded in provision management resulting in quality first teaching, which in turn should reduce the amount of pupils requiring additional to and different from provision

...bearing in mind that with a smaller cohort of children I think it would be more manageable.
(Management 1).

Despite provision management requiring an increase in workload for the management team to set up and organise it is regarded as a valuable system for improving the learning outcomes of pupils and for increasing pupil and LSA self-esteem and confidence.

5.2.6 Attainments

Provision management aims to allow pupils with ALN to succeed much more than they did with individual education plans due to the LSAs knowing clearly what the learning objectives are.

...the old system of IEP um you weren't looking at that in depth I find, um it was just written down in a file and you know you probably forgotten about it.
(LSA 5).

A key success of provision management appears to be that the maps are live documents being regularly accessed to inform teaching and learning. Clearly if a document is being used in the way it is intended it will be much more effective. If the individual education plans were mainly sitting in files on a shelf then they were not live documents and were not informing teaching and learning, which is likely to have impacted on the attainments of the pupils with ALN.

Provision management has reinforced for the school the benefit of using interventions that are known to be effective in raising pupil attainments.

...the programmes we've been implementing really meet the children's targets.
(LSA 4).

Specific targeted interventions have become key terminology in the school in order to meet the needs of pupils with ALN. It is the use of specific targeted interventions that is felt to have mainly contributed to the increase in attainments for pupils with ALN within the school.

..it was obvious their progress was far um exceeding that under IEPs.
(Management 2).

The school also analysed their own data by comparing the percentage of pupils attaining their targets when they had individual education plans compared to provision maps.

there was far less percentage of children achieving IEP targets at that time compared to provision map targets.
(Management 2).

The data analysis by the management team is also supporting staff perceptions that children's attainments in reading, spelling and maths have greatly improved for the majority of pupils using a provision management system.

5.2.7 Fun

Five of the LSAs have mentioned the benefit of 'having a laugh' with the pupils to enhance their learning. This is a key concept and one that is often forgotten in the classroom. The LSAs recognise the importance of having fun combined with learning activities so that the element of fun enhances the learning.

I've found doing the games before he's ready and focussed to learn, the fun part of it and mixing games up and things..... they enjoy it more then, and don't get so bored...
(LSA 7).

As Glasser's (2001) Choice Theory states boredom occurs when we are not having fun and not learning so clearly from the perspective of the LSA the pupils with ALN are not getting bored and instead are having fun and ultimately learning.

Another LSA recognises the importance of pupils' learning through play. The LSA uses language and maths games to teach key concepts related to the subjects but in a way that is fun and more likely to be retained in the pupil's working memory thus enhancing their learning. The LSA feels that this approach does not put pressure on the pupils and because they feel more relaxed they are able to learn more. Research on maths anxiety (Ashcraft and Moore, 2009) indicates that when pupils are anxious then they are unlikely to be learning. It is therefore important that the LSA can recognise the need to make the pupils feel relaxed and happy, as pupils can learn when they are happy (Wubbolding, 2007).

...also they don't feel so pressurised, because it's supposed to be fun after all I mean playing games are fun aren't they if it's not so...intensive....for the children and that's how they learn through play.
(LSA 5).

Two of the LSAs recognised the importance of building relationships with the pupils and making them feel special and to nurture a sense of belonging. Happiness not only develops from having fun but also through healthy interpersonal relationships (Wubbolding, 2007), which the LSAs are nurturing in their daily work. These positive relationships are important as pupils also have a basic need to be loved and to belong (Glasser, 2001) and if the pupils have this need met then they will feel able to learn.

The pupils seem to enjoy having one to one or small group time with the LSAs.

...the children that I do take out of class appear to be quite excited and look forward to their special time.
(LSA 3).

The management team also recognise the importance of pupils being happy and feel that the pupils are happy when being withdrawn for interventions through provision management.

..the children are all kinda quite confident and happy in being withdrawn from class to receive support which is targeted especially for them.

(Management 1)

Another important element that allows the pupils to have fun and learn is through the LSAs being friendly and easy going. One of the LSAs describes her role as getting on well with the pupils and finding fun ways to enhance their learning. This description of herself is that of a lead-teacher regarded by Glasser (1998) as a facilitator that shows the pupils how to complete the task through modelling and encouraging input from the pupil, and ensuring that the correct work environment is provided for the pupil to learn rather than a boss-teacher which Glasser (1998) refers to as teachers who set the tasks and standards for what the pupils do, telling rather than showing the pupils and the use of coercion, usually punishment when the pupils don't respond. This demonstrates that lead-teaching is an effective way to promote learning, develop inclusion and ensure quality education.

...I'm quite easy going, get on well with the children, well and sometimes you've got to have a bit of a laugh with them and think of silly ways to help them, help them learn.

(LSA 2).

5.3 Quantitative Results

In order to ensure that there was no significant difference between the schools using different standardised spelling and reading tests the standardised scores were saved as variables and an independent samples t test was run. On both the spelling and reading variables Levenes test was non-significant ($p > .05$) and therefore there is not sufficient

evidence to reject the null hypothesis that pupils will not make more progress on standardised scores in spelling, reading and maths when receiving provision maps rather than individual education plans and the difference between the variances is zero, in other words, it can be assumed that the variances are roughly equal and the assumption is tenable. Assumption of homogeneity of variances is met.

Condition	Mean Pre Spelling	Mean Pre Maths	Mean Pre Reading	Mean Post Spelling	Mean Post Maths	Mean Post Reading
IEP	86.83	86.46	92.84	89.00	87.69	95.23
Provision Map	91.15	94.30	92.07	96.84	96.53	102.53

Table 2. to show IEP and Provision Map pre and post mean scores.

Analysis revealed that there was no significant difference between the Provision Map spelling mean ($M=.227$, $SE=.285$) and the IEP spelling mean ($M=-.225$, $SE=.266$) in the pre-intervention. $t(24)=-1.16$, $p>.05$. On average, participants in the Provision Map group experienced a greater increase in spelling scores in time 2 than in time 1 ($M=.395$, $SE=.323$). In contrast the IEP group did not have a greater increase in scores in time 2 compared to time 1 ($M=.395$, $SE=.173$). This difference was significant $t(24)=-2.16$, $p<.05$.

Analysis also revealed that there was no significant difference between the Provision Map reading mean ($M=-0.35$, $SE=.261$) and the IEP reading mean ($M=.035$, $SE=.303$) in the pre-intervention $t(24)=.176$, $p>.05$. On average, participants in the Provision Map group experienced a greater increase in reading scores in time 2 than in time 1

($M=.286$, $SE=.274$). In contrast the IEP group did not have a significantly greater increase in scores in time 2 compared to time 1 ($M=-.286$, $SE=.268$). The difference between the Provision Map and IEP scores after the year was significant $t(24)=-1.49$, $p>.05$.

The spelling, reading and maths scores were combined into academic performance rather than analysing them separately because when the data were analysed across time, condition and subjects it was found that it was non-significant suggesting that the pattern of results was consistent across all three subjects therefore there was no need to split up each of the subjects $F(1,28)=.933$, $p=.342$, $\eta^2_p=.35$.

The main effect of time on academic performance was significant $F(1,38)=20.75$, $p<.001$, $\eta^2_p=.35$. The main effect of condition on academic performance was significant $F(1,38)=9.33$, $p<.004$, $\eta^2_p=.20$.

This was qualified by a non-significant interaction between time and intervention. $F(1,38)=.84$, $p=.366$, $\eta^2_p=.20$. Further analysis revealed that there was no significant difference between the IEP mean ($M=92.2$, $SE=1.55$) and the Provision Map mean ($M=91.4$, $SE=1.55$) in the pre-intervention. $F(1,38)=.122$, $p=.729$, $\eta^2_p<.01$. This was the effect that was being looked for to demonstrate the subjects were well matched in the IEP and Provision Map group at the start of the study prior to any interventions.

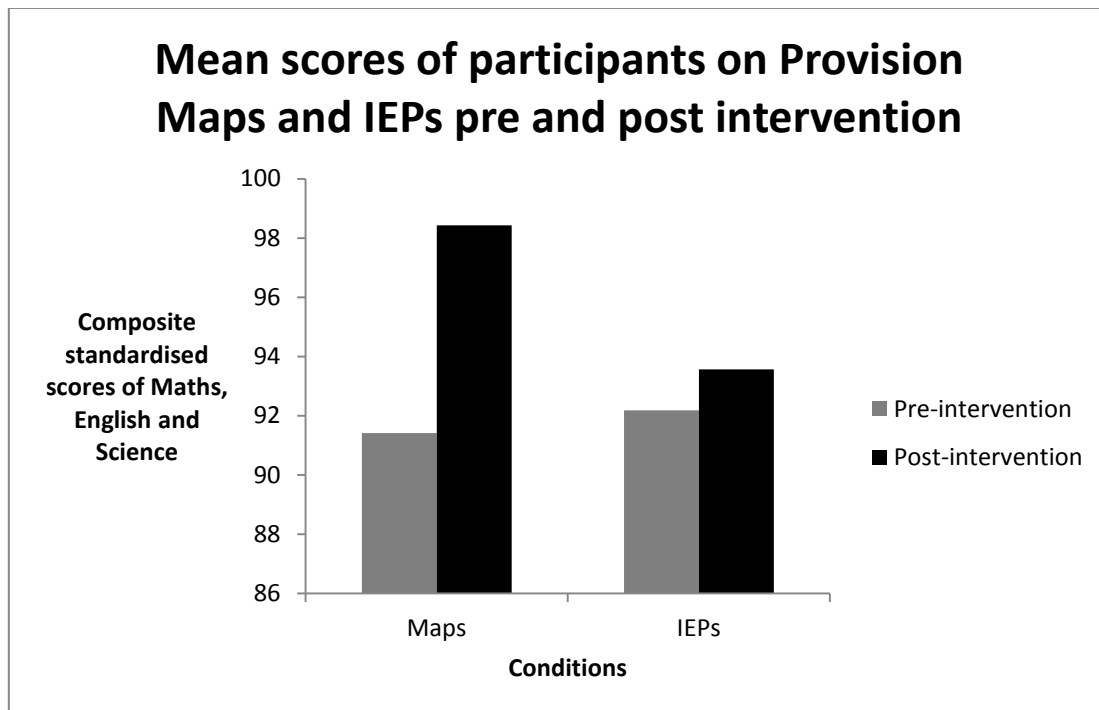
When looking at the estimated means through the Pairwise comparison the IEP group had made more progress at post intervention than pre intervention but were not significantly greater in the post intervention than the pre intervention. For the IEP

group, there was no significant difference between the mean academic performance at pre intervention ($M=92.18, SE=1.55$) and post intervention ($M=93.57, SE=1.86; p=.295$).

In the provision mapping group the effect of time shows that the provision mapping group also got better in the post intervention than in the pre intervention and their results were marginally significantly different. For the provision mapping group, there was a marginally significant difference between the mean academic performance at pre intervention ($M=91.42, SE=1.55$) and post intervention ($M=98.43, SE=1.86; p<.001$).

There was a marginally significant greater difference between the IEP mean ($M=93.567, SE=1.86$) and the map mean ($M=98.43, SE=1.86$).

$F(1,38)=3.428, p=.072, \eta^2_p=.08$ indicating that the map group made marginally significantly more progress than the IEP group.



Graph 1: Mean Scores of participants on provision maps and IEPs pre and post intervention

Chapter 6 - Discussion

6.1 Limitations of the Research

This is a small sample from one primary school in a deprived area of a rural LA in Wales and therefore not generalisable to the population of primary pupils in the United Kingdom. Despite this being a small-scale study the statistical results are marginally significant and indicate that there is a favourable difference in the amount of progress pupils make when undertaking provision based interventions, which is greater than when pupils receive their provision through individual education plans.

This research occurred in a small primary school with a high ratio of pupils coming from families with low socio economic status. It is possible that provision mapping would be less effective in areas of high socio economic status and this study has not examined this.

There is only a small sample of teachers and pupils and only one head teacher and SENCO in the study due to there only being one school in the local authority fully implementing with fidelity a pilot study of provision management.

Another limitation of this research is that it does not ascertain the perceptions of the pupils and of their parents/carers on the effect that provision management has on their learning outcomes and whether their views of learning have changed over the year. It also does not directly measure pupils' self-esteem and self-efficacy other than through the discourse of the LSAs and the management team.

This research was also limited to a primary school with the individual education plan group also being a primary school. Therefore the views of secondary school aged pupils, their teachers and LSAs have not been ascertained. It might be that provision management is not as effective in improving learning outcomes in secondary schools as primary schools, or it could be better. Also, older pupils should be better able to articulate their views, therefore the qualitative data might have been much richer and hence more insightful.

Due to the sample being opportunistic and the cultural background of both schools' populations being predominantly white, there were no ethnic minorities included in this sample and therefore their views have been missed, as well as the opportunity to observe the possible effectiveness of provision management on their learning outcomes.

6.2 Discussion of Findings

The findings of this study supported the experimental hypothesis that pupils will have made more progress on standard scores in spelling, reading and maths when receiving provision maps rather than individual education plans. There are several reasons why this increase may have occurred.

Due to the small scale nature of this research caution should be taken with the results, as it is possible that the Hawthorne effect may have had an effect on the results. The Hawthorne effect is

“...a phenomenon whereby workers improve or modify an aspect of their behaviour in response to the fact of change in the environment, rather than in response to the nature of the change itself”.
(Wikipedia, 2014).

6.2.1 Learning Outcomes

One of the reasons why provision management may be increasing learning outcomes in reading, spelling and maths for pupils is the ‘big fish-little pond (BFLP) effect’. When the pupils were withdrawn for their provision map intervention, they would either be in small groups with other pupils who have similar difficulties or individually with an LSA. The work was then appropriately targeted for the pupils’ needs and ability level. This may then facilitate the development of their self-concept, which in turn leads to increases in motivation, effort and success (Long, 2000). Also pupils were being given interventions that were known to make a difference and improve learning outcomes and were appropriately targeted for the skills the pupils needed to reinforce as identified by the audit of need embedded in the provision management system. These interventions were delivered by the staff with fidelity, thus ensuring that the requirements of the intervention were adhered to, in order to obtain the same level of results that the intervention designers gained in this research when they validated the learning outcomes for the intervention.

This research indicates that the pupils who had provision maps made more progress in spelling, reading and maths than the pupils with individual education plans, which is possibly due to the pupils experiencing success in their learning rather than failure, which was then raising their self-efficacy through enactive attainment (Zimmerman, 2000) that is mastery of a task which is a strong determinant in raising self-efficacy. Vicarious experience may also have impacted on the pupils’ self-efficacy if they were working in small groups as they would be grouped similarly for ability, which would then allow them to observe similar peers performing a task which would encourage and motivate them to complete the task (Schunk, 1991).

In contrast to this it is possible that it was not vicarious experience impacting on the pupils self-efficacy, but the mere fact the pupils' provision management interventions was taking place in small ability groups and this allowed the staff to instruct the pupils within their zone of proximal development (ZPD). The ZPD is the area between the pupils' level of actual development and their level of potential development (Vygotsky, 1978 cited in Daniels, 2005). Small group instruction encourages active engagement from the pupils, which enhances learning, and the staffs has greater opportunity to identify and tailor activities to work in the pupils' ZPD based on performance (Children's Progress, 2001). Pupils working within their ZPD have greater learning capacity and this could therefore explain the improvements in scores for pupils receiving their provision through a provision map rather than IEP

If the pupils are having fun and are relaxed in their environment during the interventions then they are less likely to experience anxiety and stress and therefore will not be misinterpreting physiological reactions as a lack of skills (Schunk, 1991), which in turn will lead to them experiencing success. The qualitative data from the LSAs indicates that they were having much more fun with the pupils when undertaking the interventions than in class. Choice Theory indicates that when pupils are not having fun they stop working (Glasser, 2001) and if the pupils started having fun again which then facilitated them being able to learn, which in turn may have resulted in the increases in standardized scores for spelling, reading and maths. Because having fun is intrinsically motivating then the pupils were motivated to learn and to succeed. Further research would need to be undertaken to determine if fun was an important element in the success of the pupils from the pupils' perspective. From

the perspective of the LSAs, fun was believed to be an important variable in the success of provision management or should this be just about pupil learning.

Trautwein et al. (2006) claim that academic self-concept emerges through academic achievement. The pupils in the provision mapping group were experiencing success and it is likely that their self-concept and in turn their self-esteem were increased, which would have made the pupils feel good about their learning and themselves and would have made them more likely to succeed (Zimmerman, 2000). Although there is conflicting evidence on whether intervention programmes improve self-esteem, this study indicates that from the perceptions of the LSAs and the management team the self-esteem of the pupils increased. In order to fully determine and validate the views of the LSAs and management team that provision management improves the self-esteem of pupils, and improves learning outcomes for the targeted pupils, then further evidence would need to be gained. This could be explored through the use of questionnaires that measure self-esteem; which could be collected pre and post intervention, or through individual interviews, or the use of pupil focus groups. To improve the reliability of the study a combination of these could be employed to explore the concurrent validity of these views.

The current research supports the views of Woolfson and Truswell (2005), SCRE (2000-2002), Farrell et al., (2010), DfES (2005) and Ofsted who state that, when LSAs are well trained and use validated group interventions, these factors do have a positive impact on the learning outcomes of pupils with ALN. Unlike the research of Gray et al. (2006), the quantitative data in this study does support the discourse of the LSAs and the management team that the pupils have made progress in reading, spelling and

maths through interventions predominantly undertaken by the LSAs. This adds further evidence to the research that LSAs provide value for money if they are well trained and delivering with fidelity interventions that are proven to increase learning outcomes for pupils.

This research further supports the work of Norwich and Lewis (2001) that pupils with ALN require provision that is additional to and different from the mainstream curriculum. The provision management system has ensured an additional to and different from provision and both the quantitative and qualitative data have shown that this approach has led to an increase in the attainment of pupils which was greater than for those pupils on individual education plans. Pupils with IEPs in schools often have targets that are classroom related and do not always involve provision that is additional to and different from the mainstream curriculum. This research shows that by planning and managing a school's extra provision through provision management then the attainments of pupils in spelling, reading and maths can be increased, which is the right of all pupils with additional learning needs.

The school undertaking provision management have also adopted a unique differences position with continua of teaching approaches (Norwich and Lewis, 2001) that is consideration is given to the approaches with regard to how much they are used in practice. They allow pupils to reach mastery of key skills by providing practice time. They also ensure that they use interventions that are proven to raise the outcomes of pupils not only with ALN but also those from low-income backgrounds as the achievement gap can only be narrowed when interventions are “wider than changes in school resources and must also go beyond schools policy” (Chowdry, Greaves and

Sibieta, 2010, p.82). This study supports the view that purely assigning more resources to schools and reducing class sizes will not be effective on their own in raising low attainment and the key to success is the quality of time limited interventions employed by the school (Duckworth et al., 2009).

Within this study the discourse of the staff and the quantitative analysis support the increase in attainments of spelling, reading and maths scores for pupils with ALNs. A direct comparison cannot be made with the school using IEPs as it is possible that the change in system in the provision management school was only an effect within their school and that the IEP school could have been using the IEPs more effectively to monitor and raise teaching and learning of pupils' with IEPs. Also the degree to which the IEP school was using evidenced based interventions compared to the provision map school was not addressed in this study and therefore if more effective interventions were being administered in the provision management school could explain the improvements in the school

The audit of need has resulted in the school using evidence based planning of pupils' predicted needs (DCSF,1997), which is also likely to have had an impact on the improvement in spelling, reading and maths standardised scores. As the audit of need is part of the provision management system then this further supports the research question that provision management is effective for raising the attainment of pupils with ALN in spelling, reading and maths.

This research provides further evidence for the view that provision management is not just a system for pupils with SEN, but is also a system for identifying and dealing with under achievement (Ekins, 2010).

6.2.2 Staff Roles

Provision management appears to have provided staff, in particular the learning support assistants with a clearer identification of their roles. This clarity of role appears to have led to an increase in their self-esteem and self-confidence when undertaking the role. It is really important for LSAs to feel confident and have good self-esteem so that they can model this for the pupils. For the LSAs to feel that they can now lead learning is an invaluable outcome from the implementation of provision management and demonstrates that the school is becoming a quality school with management setting high expectations and standards for all.

Not only did six of the learning support assistants make comments about feeling more confident or being able to talk through any issues with their senior managers but, also both managers had noted increases in the self-esteem and self-confidence of the learning support assistants. Increased self-confidence and clarity of role has probably led to improvements in the quality of teaching and learning and thus demonstrates that provision management is effective in improving learning outcomes.

The provision management system appears to have not only raised the self-efficacy of the pupils but also the LSAs. The LSAs now have a stronger belief about their capabilities and are therefore more motivated to help the pupils succeed as they now believe they can. The LSAs are getting a sense of fulfilment in their roles and they are

also experiencing success, especially when they see the pupils reaching and attaining their learning goals and targets.

The majority of staff seem to have a different emphasis on their roles under a provision management system than an individual education plan system, which appears to be an important factor in the success of the provision management system for raising pupil attainment.

For the management team, which consisted of the head teacher and SENCO, there had been a noticeable change in their roles. Provision management has given them an audit tool to determine the needs of the pupils and what resources are required in order to meet those needs. The audit of need has enabled the management team to prioritise the needs of individual pupils and identified which pupils have the same needs making the implementation of interventions much more effective but, it does require more organisational time for the management team. This approach has meant that the SENCO and head teacher work more closely together to make the best use of funding which supports the view of Edwards (2011), that there is a strategic benefit of provision mapping.

Although provision maps are designed to reduce the bureaucracy for SENCOs in writing lots of individual education plans, the SENCO in this study found that she was spending more time organising the timetables of the LSAs and providing training on interventions. For the SENCO provision management has initially been more time consuming, but this is partly due to the class teachers being responsible for writing the individual education plans of pupils with ALN in their classroom and therefore the SENCO had not lost but gained responsibility with the provision management. The

SENCO in this study reports that despite the additional consumption of her time she felt that the benefits of provision mapping outweighed this one negative, and the additional time spent was worthwhile when considered in the light of the day the attainments of the pupils. The management team did feel that in future years the system would be less time consuming as they now had all the systems and paperwork in place.

Two of the LSAs did not feel there had been any significant changes in their role since the change over to provision management. This is mainly due to the fact that they were already working with small groups of pupils on specific interventions such as Catch-Up (Caxton, Trust, 1997).

For the majority of staff interviewed, there was a general feeling that workloads had changed as a result of provision management being employed in the school. Although some of the staff do feel that there have been increases in their workload, they do not mind this as they feel the increases in learning outcomes for the pupils outweigh any slight increases in workload. For the majority of the staff and in particular the LSAs the workload increase was due to changes in the way that they worked and as they are no longer 'supervising' in class and they are required to plan for the interventions that they are running which has not been a previous requirement. The LSAs support the research question that provision management has increased the learning attainments of pupils with ALN.

Therefore for the majority of the staff, it is not so much about increases in the workload as a different way in working. Initially this may have been constructed as an

increase in workload but, as constructions are historically dependent, it maybe that over time the discourse will change to the workload being different (as opposed to the workload being increased) since using provision maps compared to when using individual education plans.

The LSAs and the management team felt that provision management has provided the LSAs with greater specificity of their roles. The LSAs now have greater awareness of what they are required to do, whereas under individual education plans their roles tended to be woollier. This has been an important change in roles and has allowed the LSAs to feel more confident and happy in their position in the school and allows them to feel more valued, as parents, teachers and managers are all recognising the success they are achieving in helping pupils with ALN increase their attainments. From a theory of action (Fullan, 2001) perspective, this change in staff awareness and motivation is likely to be due to the development of internal accountability to oneself, peers, local authority representatives and governors. There is also a stronger sense of collegiality (Fullan, 2001), which appears to have had a positive impact on system change.

The role of the LSAs has also changed from that of boss-teachers to lead-teachers (Glasser, 2001). Instead of being in a punitive supervisory role they are now encouraging pupils to succeed and ensuring that the pupils with the ALN are not feeling like failures, which in turn allows the pupils to experience success (Glasser, 2001). By becoming lead-teachers the LSAs are developing better interpersonal relationships with the pupils. This change in role as emphasised in Choice Theory from boss-teachers to lead-teachers can also lead to part of the reason for the increase

in academic attainments as the LSAs are empowering the pupils and facilitating feelings of success. Good relationships throughout all members of the school are an indication of a quality school (Wubbolding, 2007). It is not only an indication of a quality school but also an inclusive school as it is a school on the move through system change rather than one that has reached a perfect state (Ainscow, et al., 2006).

6.2.3 Training

Training for staff is an important aspect of provision management. If staff are not clear about how to run certain types of interventions, then they will not be able to do so with clarity and finesse and therefore the outcomes for pupils are likely to be less effective. Training of staff is a key requirement for the effectiveness of provision management. The management team in this research gives training a high priority within the school, but this can often be hampered by time limitations and funding.

Four of the LSAs felt they required further training on interventions especially where the interventions were new to the school. One of the LSAs recognised that it is not always possible financially for a school to send every LSA on a formal training course and that sometimes they needed to wait for in-house training. This can be disempowering for some LSAs if they feel they are being asked to undertake an intervention that they do not feel skilled to do. This can also have a knock on effect on pupils' attainment and result in lower attainments due to the intervention not being delivered with clarity and finesse.

The LSAs all valued the training they had received so far and felt that this enabled them to carry out their role more effectively. The confidence and consistency of staff

in delivering programmes is a key to the effectiveness (Edwards, 2011) and therefore staff training must be a priority in any provision management system. Further training for the LSAs would enhance their confidence in undertaking the interventions and ensure fidelity in the programmes that is that; the programmes are being run as they were designed to be.

The management team regard the current investment in staff training as a key factor in the happiness of the LSAs and the success of the interventions in the improvement of the learning outcomes for pupils. Staff training is part of capacity building, which is deemed as a core premise for Fullan and Levin's (2008) theory of action. Not only is the staff training important but, it is the influence that the training has on ensuring interventions are undertaken with fidelity and as a result have a focus on the improvement of learning outcomes for pupils. It would appear that provision management encompasses some of the core premises for theories of action.

6.2.4 Fun

As Choice Theory states the basic need of having fun has to be satisfied. Choice Theory states that if people are having fun then this is a pre-requisite for learning. This view is also shared by five of the LSAs. These LSAs clearly believe that by making their sessions fun or enjoyable, the pupils want to come back for further sessions which has aided their motivation to learn and also the enjoyment in the sessions has aided the pupils learning and possibly enhanced their memory retention of key concepts from the session which can be applied to future sessions and ultimately be generalised across all areas of learning.

Glasser's (2001) Choice Theory claims that if we are having fun then we are learning. Part of the increase in pupil attainment could also be attributed to the pupils with ALN having fun in their learning. As Glasser (2001) states boring is the opposite of fun and occurs during a monotonous task and when learning is not occurring. Pupils with ALN often do not experience satisfaction in the mainstream classroom and then stop working and may become disaffected.

Whilst the discourse that emerged from the staff in the school commencing provision management highlighted the importance of fun in pupils' learning we cannot be sure that this was a direct difference to the school using IEPs as there was no measure of the levels of fun within the lessons in either school pre or post intervention. Whilst this study highlights the possibility of the provision management system making learning more fun through the lessons and approaches used by staff we cannot categorically say that this approach was not used in the school using IEPs.

6.2.5 Targets

More pupils have met their provision map targets than met their individual education plan targets the previous year based on an analysis of percentages by the management team in the school. This suggests that provision maps are a more focused, targeted system for improving learning outcomes than individual education plans. The targets being used in the provision maps are measurable so the pupil, teacher, LSA and parent/carer are all clear on the expected learning outcomes. In contrast, individual education plan targets were more vague and not as easily measurable even though they should have been SMART (specific, measurable, attainable, realistic and time limited). LSAs were not always clear about what each pupil's targets were and therefore were not directly working on them. LSAs have also reported that they find the provision

maps are clear and easy to follow and allow them to see clearly what the targets are they are working towards with the pupils.

The LSAs also report that they are now involved in setting the targets for the next provision map. The advantage of LSAs being involved in target setting is that they know what the desired learning outcomes for the pupil are and therefore can ensure they are specifically targeting that area. Also, a lot of the intervention work is being undertaken by LSAs, so they will often have a clearer understanding of what the pupils' future learning needs are and are therefore appropriately placed to work alongside the teacher in the target setting. It is important to make sure that target setting is not left solely to LSAs and that they are working alongside teachers to determine pupils' individual requirements.

Some of the pupils' end of year standardised scores in spelling, reading and maths had shown significant improvements to the degree that they no longer met the requirements for being placed on the SEN Code of Practice. These pupils are now regarded by the school as being part of their basic skills group. This has also demonstrated the success of provision mapping further and reinforces the need for time-limited interventions to allow pupils to meet their targets. The quantitative data demonstrated that the pupils on provision maps made significantly more progress than the pupils with individual education plans and therefore if more schools in the local authority were using provision management then it is possible that pupils' literacy and numeracy scores would increase, which are important targets at the local authority level and also at the Welsh Government level. The focus on capacity building within the core subjects of literacy and numeracy through raising attainment are proven to be

effective in theories of action, as they demonstrate accountability and validity of the system. It would appear that provision management is an effective system for not only improving learning outcomes for pupils but also providing an effective system of change with good validity and accountability for schools, local authorities and governments.

This research indicates through quantitative and qualitative data that provision management does improve outcomes in literacy and numeracy and therefore is a worthwhile system for schools to put in place to ensure they are maximising the learning of all their pupils.

The LSAs have been trained to analyse the pre and post assessments in order to discuss with the class teacher the most effective targets for the next term for the pupils. This ensures continued learning and prevents repetition of activities that can lead to a lack of fun, boredom and ultimately to the pupil stopping learning.

6.2.6 Benefits of Provision Mapping

The staffs report that provision management helps pupils to learn more, which is a major benefit of the system within this study. One of the main claims of provision management is that it improves learning outcomes for pupils and this study supports that discourse through the discourses of the staff and also through the quantitative analysis. This study appears to be the first to demonstrate the effectiveness of provision management through quantitative analysis but caution should be made when drawing direct comparisons to the school using IEPs as the testing, teaching styles and approach and the Hawthorne Effect could be the reasons for the differences between

the two schools and not the use provision management. Further research would be required to enable analysis of this.

The benefit of provision management for the school and local authority other than the raising of attainment is the accountability of finances and resources. The provision maps provide a clear format for demonstrating how additional to and different from provision is financed and will provide evidence that the school have used their budgets effectively to meet the needs of pupils with ALN. DCSF (1997) stated that different funding streams can be combined (other than that from a Statement of Special Educational Need) in order to meet the needs of pupils, and this was the case for the school undertaking provision management. This is a key difference between IEPs and Provision Maps and provides accountability for all members of the school's community. The audit of need focuses whole school attention on the learning requirements of pupils and the fact that interventions should be more effectively targeting needs than would be necessarily be the case with IEPs has to be a major benefit of provision management over IEPs.

As was observed through the learning outcomes and the discourse of the LSAs the provision maps were live documents and being regularly handled by the LSAs and SENCO. This is an important benefit of provision management due to the provision maps requiring regular revisiting due to them being working documents for the staff under taking the additional to and different from provision. As many IEPs are only handled twice in their lifetime, once when written and once when revised (Hrekow, 2010), despite not being designed this way they appear to lack ownership by LSAs and therefore are not regularly used to inform teaching and learning as provision maps are.

The IEPs are also not embedded in a whole school approach and this possibly contributes to making individual education plans a less effective tool for the raising of low attainment.

The pre and post assessments ensure that pupils' progress is regularly monitored and that pupils received the appropriate intervention to meet their current needs. The interventions can also be monitored through the provision maps, which ensure that the pupils do not receive the same intervention over and over again. This is a positive step forward for pupils as it ensures that the provision is meeting their needs and that they are not getting bored and losing need satisfying pictures of learning in their heads (Glasser, 2001).

Other than the additional time requirements on the management team to implement provision management it would appear there are no negatives and only benefits to implementing the system in any school. It would appear that if you wish to have quality schools with quality teaching, learning and pupil attainment, then the implementation of provision management will be a step in the right direction to lead to that.

Chapter 7- Concluding Comments

7.1 How the Methodology answered the research questions

The quantitative data analysis through ANNOVA allowed examination of the question whether the improvement in spelling, reading and maths standardised scores was the result of the pupils getting a year older or whether it was due to the use of provision management. This was an effective tool to use as it provided evidence that provision management appears to increase learning outcomes through the measurement of variables, rather than through people's thoughts and opinions developed through discourse but consideration must be made of the Hawthorne effect and that doing something different can bring about temporary positive change for the provision management group.

A thorough search using PsychInfo, Eric and Google Scholar did not reveal any journal articles on provision management and only chapters in books that described what provision management is, how to undertake it and claims about the benefits of it. No prior research has produced any statistical evidence on the impact of provision management on pupils' academic attainment.

Collecting quantitative data about the impact of provision management may be helpful to the local authority in evaluating the potential benefits of rolling out provision management to all schools in the authority. It was important to triangulate the data so that the quantitative data helped to support the qualitative research and hence analyse whether the variance in the scores of the dependent variable could be accounted for by the independent variable.

The additional use of qualitative data allowed the experiences of the staff implementing provision management to be made visible (Bannister et al., 2002). It also allowed for triangulation of the data to determine if all elements of the data were producing the same or similar conclusions. Through the use of semi-structured interviews a much more detailed and rich account of the data was attained than could ever have been attained from the quantitative data alone.

The semi-structured interviews with individual staff were effective as they ensured that each member of staff was able to give his or her perspective on provision management in a safe and confidential environment without any fear of recriminations from colleagues on what was said. Whilst focus groups may have provided more interesting discussions around the topic, the lack of confidence of several of the LSAs may have resulted in their views not being ascertained in a focus group, whereas all the LSA views were ascertained in the semi-structured interviews. The advantage of semi-structured interviews allowed the key questions to be asked, but also for further exploration of ideas if required.

Triangulation improved reliability and validity in the research which was essential as the aim of the research was to inform the local authority on the benefits of provision management in raising the level of pupil attainment in spelling, reading and maths and in particular for those pupils with ALN.

For this particular study the research methods were beneficial in helping to answer the research questions but, other approaches such as focus groups with a wider range of LSAs, Head teachers, SENCOs or parents/carers and the use of self-esteem/self-

concept questionnaires with the pupils would provide much richer data. Focus groups could also be used with the pupils to compare and contrast their discourse with that of the management team and the LSAs and could be used in future research to gain further insight. Purely having a larger sample, which was also more geographically dispersed would be beneficial in providing a richer source of data both for the quantitative and qualitative analysis, and allowing for greater confidence in the generalisability of the results.

7.2 Future Research

Future research needs to ensure that variables such as the interventions being used in the schools, the teaching strategies and the assessment tools are all the same to ensure that any improvements in attainments of pupils in schools using Provision Maps compared to schools using IEPs can be attributed to the provision management system.

A much larger scale study would need to be undertaken to ensure that the results of this small-scale study could be replicated and the results generalised to all pupils with ALN/SEN in the United Kingdom.

As this study only focussed on the outcomes of the provision maps for reading, spelling and numeracy it would be beneficial to study the outcomes for the other provision maps. Visual inspection of the school's data suggests that the other provision maps may also have had an impact on the pupils' reading, spelling and maths scores as well as the improvements in the specific areas of the maps, e.g. behaviour, social skills, memory and so on. It would be interesting to study whether it is the focussed intervention having an impact on the pupils' overall developments or whether the provision maps interventions have improved the pupils' attitudes and

ability to learn, which in turn has facilitated the increase in reading, spelling and maths standardised scores.

In further research it would also be interesting to capture the views of the pupils and their parents to determine whether they feel provision mapping has made a difference to their learning outcomes and what they perceive the advantages and disadvantages to be.

Given the comments in the qualitative research about the improvements in pupils' self-esteem it would be beneficial for future research to measure the self-esteem of the pupils' before and after the introduction of provision management. It would also be beneficial to look at pupils' self-efficacy pre and post intervention to determine if this also had an effect on the learning outcomes.

Research also needs to focus on secondary schools and whether provision management is an effective system for improving learning outcomes for secondary school pupils. This research would also need to include additional research questions such as self-esteem, different areas of learning, parental and pupil views and so on.

Future research also needs to encapsulate the effects of learning through the use of provision management for ethnic minority groups and also the pupils and parental views from ethnic minority groups.

Further research could also look at the outcomes for pupils over several years to determine if the current improvements in learning are sustained and whether provision management is an effective system of change and renewal that is sustainable.

For the management team in schools, provision management aims to provide a sound system of accountability for use of budgets and provision. It also helps to plan for the staffing ratio requirements to meet the needs of pupils with SEN and in particular those pupils who are statemented as well as those with additional learning needs. Therefore, gaining the views of Governors and local authority officers on whether accountability has improved as a result of provision management being employed would be beneficial.

7.3 Implications for Schools

This research provides some evidence that provision management maybe significantly more effective than individual education plans at improving the learning outcomes for pupils in spelling, reading and maths, but further research would need to be undertaken particularly through a longitudinal study to ensure that the Hawthorne effect was not influencing the results. Therefore it would make sense for all schools to look at the provision management system to determine whether they should be using it with their pupils with ALN and also those from low-income families. Estyn/Ofsted are constantly looking at how schools are improving learning outcomes, and it would appear that this system provides some demonstration that analysing the needs of pupils through a provision audit and referring to Government literature on what works well in literacy and numeracy can possibly improve pupils' learning outcomes. This in turn can sometimes result in the level of concern of the pupil being lowered so that he/she

can be moved down the Special Education Needs Code of Practice register or even off the register altogether.

The provision maps appear less bureaucratic than individual education plans for class teachers in schools where the class teacher writes the IEP, as they are no longer solely writing the maps as they did with individual education plans and instead the plans are part of the whole school approach with all staff who work with individual pupils taking ownership of the learning progression of pupils with SEN/ALN. The schools' management team may require some additional time for the planning and organisation of LSAs and resources, which this study shows in the first year is more bureaucratic for the management team and LSAs than the individual education plans.

Schools do need to ensure that the LSAs have received appropriate training at a high level in order to undertake the interventions with fidelity to ensure that the pupils are learning at an appropriate level.

Provision management appears to offer schools an effective system of change which is grounded in the core premises of theories of action (Fullan and Levin, 2010). If undertaken using all the recommended steps from SENJIT (no date), then there will be beneficial change for pupils through improved learning outcomes and a positive effect on staff morale and motivation, which has a cyclical effect on the improvement and quality of teaching, which ultimately feeds into the improved learning outcomes. The benefits for schools in developing provision management appear to outweigh any negatives and aid the development of a quality school, which ultimately aims to result in quality teaching and learning and inclusion for all pupils due to pupils having a

sense of belonging and stronger self-efficacy and hence feeling that they can access the curriculum.

7.4 Implications for EPs

Provision management and the production of provision maps may be a good way for EPs to be strategically involved in systemic work. EPs can support schools in undertaking the audit of need to identify what additional learning needs are prevalent within the school and the prioritisation of these needs. The EP can also assist the school in identifying interventions that are known to be effective in raising learning outcomes from psychological research, government literature and from what works well within schools. EPs can also ensure that the practice is embedded in psychological and educational theory, therefore allowing reflective practice.

Provision maps allow EPs to monitor with ease the additional to and different from provision that pupils with ALN are receiving ensuring pupils are receiving suitable interventions and making progress from one year to the next. There may be times when it would be appropriate for a pupil to continue on the same or similar interventions providing the pupil is making progress.

EPs can also support schools in choosing appropriate before and after measures to determine the effectiveness of the interventions on learning outcomes. EPs may also wish to undertake small-scale research studies using the data to make comparisons between schools and pupils across schools.

EPs could also work with schools to pilot and evaluate the provision management system (as was the case with this research) in order to feedback to the local authority

on effective ways to improve learning outcomes, as well as effective use of the school budget.

It would appear that provision management represents a good opportunity for joined up thinking and working through a multiagency approach to ensure we are providing the very best learning outcomes for our pupils and to maximise their future life opportunities. Provision management may be the way forward for ensuring accountability and attaining the best provision and learning outcomes for pupils with ALN and SEN in an inclusive learning environment.

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Appendices

Appendix 1: Consent Form

School of Psychology, Cardiff University

Consent Form - Confidential data

I understand that my participation in this project will involve an individual interview about my involvement in provision management in my school and my views on the maps I have been involved with.

I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time without giving a reason.

I understand that I am free to ask any questions at any time. I am free to withdraw or discuss my concerns with Dr Simon Griffey.

I understand that the information provided by me will be held confidentially, such that only the Experimenter Ceri Rees can trace this information back to me individually. I understand that my data will be anonymised by the end of July 2011 and that after this point no-one will be able to trace my information back to me. The information will be retained for up to 6 months when it will be deleted/destroyed. I understand that I can ask for the information I provide to be deleted/destroyed at any time up until the data has been anonymised and I can have access to the information up until the data has been anonymised.

I also understand that at the end of the study I will be provided with additional information and feedback about the purpose of the study.

I understand that the interview will last no more than 30 minutes.

I, _____(NAME) consent to participate in the study conducted by Ceri Rees School of Psychology, Cardiff University with the supervision of *Dr Simon Griffey*.

Signed:

Date: