

**DEPARTMENTAL DIFFERENCES IN  
ATTITUDES TO SPECIAL EDUCATIONAL  
NEEDS AND THEIR IMPACT ON  
PRACTICE IN THE SECONDARY  
SCHOOL**

by

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## **ABSTRACT**

With increasing inclusion, mainstream teachers need to be sympathetic towards meeting the needs of those with special educational needs. Little previous research has considered the complex relationships between attitudes and practice and how the subject taught impacts on this. Consequently a case study approach was adopted using a Likert-type attitude scale and open-ended questions to determine the attitudes towards SEN of the teachers in one school. This suggested that teachers of the core subjects, English, maths and particularly science, were more likely to have less positive attitudes than those of other subjects. Of the core subjects, students with SEN made least progress in science at Key Stage 3. More in-depth studies, using interviews, structured and unstructured observation, of five teachers from two departments, science and English, revealed that attitudes to SEN did not necessarily relate directly to practice. Although teachers with less positive attitudes were less willing to use strategies to meet the needs of those with SEN, they did try to meet those needs. Success however, was probably more related to effectiveness as a teacher. The importance of attitudes to practice is probably related more to subtle messages effecting students' self-esteem and beliefs about their suitability for specific subjects.

## **DEDICATION**

For my mother who never had my opportunities

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## CHAPTER ONE - INTRODUCTION

The origins of this research lie in the dissertation towards my Master's degree. I carried out a small study on the nature of support for special educational needs in secondary schools and how the staff who delivered and received it viewed this provision. This involved a postal survey of fifty local secondary schools in two counties and a more in-depth study in two schools. Several issues were identified. One of these was the attitude of science teachers to special needs children in their classes and a second issue concerned the way support for these children was organised. Many science teachers seemed to feel that these children should not be in their classes, they were not their responsibility. They also felt that the support department was inadequate for not taking full responsibility for meeting special needs in class or removing the children completely. Support teachers, perhaps not surprisingly, reported difficulties in supporting science classes. This stemmed, not only from the attitude of staff to special needs, but also from the way in which science was taught. Support teachers' and assistants' lack of specialist knowledge when not science trained, as most were not, was also a problem cited by both support and science teachers. Having to pass on, quickly and accurately, large amounts of highly factual information and concepts was blamed for making teaching styles less than special needs friendly. Chalk and talk and copying from the board or books were favoured teaching methods.

It was this issue of attitudes to special educational needs that I wished to study further. Do attitudes vary on a departmental basis? Does the nature of the subject and the prescribed curriculum have any bearing on attitudes? How do attitudes affect the interactions of teachers with children with difficulties?

## **1.1 MEDICAL/SOCIAL MODELS**

Within the last twenty or so years there has been a general change in attitudes away from the belief that learning difficulties are the result of problems with the child, the medical model. The view has moved towards the idea that, due to political factors, the education system has failed to educate all children (Thomas 1997). Individual intervention strategies are therefore no longer seen to be the only answer. The education system needs to change. This view is allied with a social model of special needs.

The social model sees the experiences of disability as being the product of social, economic and cultural factors rather than arising from personal difficulties (Corbett 1996). It is seen to be diametrically opposed to the medical model (Hall 1997) from which special educational needs have traditionally been viewed, although Corbett and Norwich (1997) argue that this is not necessarily the case. It looks for features outside the child and emphasises their rights (Allan, Brown and Riddell 1998), thus promoting more positive attitudes towards people with disabilities. Disability is presented in positive and assertive terms in opposition to the medical model's notion of deficit (Corbett and Norwich 1997). The categorisation of learning difficulties, as found in the medical model, is seen to be damaging in that it groups together children with many differing needs. The categorisation can lead to overgeneralization and negatively valued stereotypes (Harris 1995). Corbett (1998) however, argues that the medical model is not all bad nor the social model all good. Both the medical and social models of disability can be inhumane and unacceptably detached in their most intense forms. The autocratic doctor can view the patient as a body with little thought

for the person inside and the social model can neglect personal needs and feelings whilst addressing broad economic, political and social issues.

Hall (1997) considers that the medical model is responsible for much of the existing, inappropriate practice that has created much of the disability experienced by these children. The medical model is an individualistic model attributing difficulties to within-child factors. It has been associated with medical and charity discourses (Allan, Brown and Riddell 1998) and benevolent humanitarianism. The medical model is one of deficit and the patriarch (Corbett 1994) focussing on pathology rather than normality (Bailey 1998). The doctor diagnoses, states the prognosis and specifies the treatment. The patient, or parents of the patient, listen, accept and do as s/he is told. Specialists give the treatment (Corbett 1994).

The medical model is apt to see the child and his/her impairments as the problem. Solving the problem involves adapting the child and his/her circumstances to be able to cope with the existing world. This may lead to various provisions including a separate educational environment and the transport necessary to reach it. The child has and is the problem and therefore there is no need to change the world in which s/he is situated. It may well be the case that the child has a problem, but to view the child as the problem is to devalue him/her as a person and such a perception certainly needs to change. Psychologists, whilst not accepting the medical model as such, have developed a similar, psychological model (Hall 1997). This relies very much on the use of intelligence testing to quantify children and is based in the behavioural school of psychology. The child may be placed in a special



school or class after a single test, often carried out in an alien setting (Bailey 1998) and is still categorised.

Since the expectations for the child are based on the category and not on his/her own strengths and weaknesses, stereotyping may result. Many children may be underestimated and undervalued as the whole group may be considered to be at the level of the most impaired, possibly those who in the past have been considered either ineducable or of limited educability. Farrell (2001) believes that categories will remain. Since all aspects of life are categorised, such as jobs, ethnic groups etc, he does not see SEN escaping from them and he considers them of use when used responsibly. A category can represent a clearly defined set of conditions facilitating an overall picture of the child. Used with care they can help in describing a problem, indicate the cause and predict the long-term future. Making decisions about educational provision and planning interventions are, in his view, areas where much greater caution is required.

The social model is thought to offer a better analysis of the oppression that is experienced by disabled people (Hall 1997). It is the oppression and rejection by the able bodied that turn physical or intellectual impairment into disability. This philosophy has developed from the perspective of human rights and social justice (Forlin 1995). However, Corbett and Norwich (1997) argue that such dichotomous thinking oversimplifies matters. The perspectives of both psychology and sociology can be complementary.

The social model is wide and variable. The social constructionist view is against the use of labels and categories that place the disability with the individual. The problem is seen as

being located within the minds of able-bodied people, often in the form of prejudice (Allan, Brown and Riddell 1998). Some people define others as disabled and treat them differently, terminology being the problem. Define the problem correctly then perceptions about disability are changed and the problems of disabled people will disappear (Oliver 1988). What constitutes the proper definition of the problem? Treating someone differently does not necessarily mean treating him/her less favourably, merely according to different circumstances, perhaps unrelated to their impairment. Changing people's perceptions of disability may well lessen the problems of disabled people but is unlikely to remove them all.

Teaching approaches and the attitudes of those who interact with the child are included in the social constructionist model (Allan, Brown and Riddell 1998). A child with special needs may be perceived as being of a lower social status and this limits expectations of what s/he can achieve. Styles of teaching aimed at higher achievers may emphasise this effect. However, is it physically and economically possible to effectively teach to the full diversity of needs at any one time?

The social creationist perspective is more abstract. Disability is viewed as the result of institutional practices of society (Oliver 1990). They link disability to the disadvantage created by society's treatment and views of disabled people. The idea of institutional discrimination against disabled people has developed from this discourse. This has led to calls for legislation in order to change behaviour rather than attitudes (Oliver 1990). Might not changes in legislation, if not accompanied by attempts to change attitudes, result in resentment and a worsening of attitudes?

Social creationists consider that difference should be positively valued and celebrated and material conditions should be improved by changes in the provision for disabled people. It is the lack of access to buildings that is disabling to people in wheelchairs, not their lack of mobility, which is impairment (Harris 1995). Many of the more vocal disabled people are among those who support this perspective (Allan, Brown and Riddell 1998).

The move towards inclusive education is part of the change brought about by the social model. In the view of Forlin, Douglas and Hattie (1996) there are two opposing views on the inclusion debate with little evidence to support or justify either position. Supporters of full inclusion want one unified system of education for all students with no segregation. Opponents of full inclusion see it as one option within a continuum of services (Forlin, Douglas and Hattie 1996). Would full inclusion actually be viable? Is mainstream the best place for those with multiple and complex needs and would there be many benefits for the others in mainstream? Is full inclusion economically viable since resources are not infinite? A continuum of services might seem to be a more feasible option.

The development of comprehensive schooling in Britain has also been linked to the pressure for more integration (Booth 1988 in Norwich 1994), the forerunner to inclusion, although the terms are often used synonymously. Although integration seeks to meet the needs of children with disabilities in the mainstream classroom it has tended to follow the traditional route of provision to facilitate change within the individual child. Dyson (1990) considers that this view promotes mass injustice. He prefers the view that educational institutions cause special needs when they fail to change sufficiently to accommodate the characteristics of all their pupils. Facilitating change within the individual child may be useful in some or,

perhaps, many instances. Combining this with corporate change would possibly be of greatest benefit.

Government policy on special needs has moved in line with the whole school approach to inclusion, particularly since the publication of the Warnock Report (DES 1978). The Green Paper on SEN (1997) states that the Government has a commitment to inclusion and that they support the Salamanca Statement. However the Code of Practice on the Identification and Assessment of Special Educational Needs (DfE 1994) was seen by some as a step back towards focussing on within-child needs. The new, revised Code of Practice (DfES 2001) continues this trend although it does acknowledge the role of the school's learning environment and adult/child relationships in causing or exacerbating some learning difficulties. The wording of the Code of Practice acknowledges that there are limits to inclusion (Evans and Lunt 2002) and maintains the principle of a continuum of provision. Farrell (2001) finds it worrying that the Code seems to take the view that inclusion is only about placing pupils with SEN in mainstream schools and not about making schools more inclusive by improving practices within them.

Allen, Brown and Ridell (1998) argue that many other Government initiatives have moved special needs provision backward towards a more individualistic, less inclusive format. Local Management of Schools (LMS), opting out and the publication of league tables are some of these detrimental initiatives, introduced to give competition and choice (Barton 1993). Special needs pupils may lower a school's position on the league tables discouraging schools from admitting these pupils where possible (Webster and Brayton 1994). The addition of value-added measures, cautiously commended by the Audit Commission (2002),

may help regarding league tables. Florian and Rouse (2001a) consider that they will provide a more inclusion-friendly policy context in which to work. LMS has given schools the choice of where to spend money. Since special needs provision can be expensive, with little obvious return, spending on other things may seem more attractive (Scott 1993). Government initiatives are also considered to be partly to blame by Lewis (2000) who considers that inclusive education has become inclusion without the education. He argues that although inclusion has increased, the education offered to those included is inadequate. Thus they cannot be considered to be truly included. Could this be because inclusion has been forced upon those not convinced of its worth? The encouragement from the government to group students by attainment and the emphasis on whole class teaching is possibly damaging the ability of schools to respond to all learners (Booth 1999).

## **1.2 THE INCLUSION DEBATE**

Inclusion is now almost universally accepted as the way forward for the education of those with special needs but there are still many tensions and much controversy. The term inclusion has now more or less superseded the term integration, which generally referred more to the setting in which a child was placed. Inclusion is thought to better describe the extent to which a child is welcomed and able to participate within a community (Farrell 2001). At one extreme, there are those who argue for full inclusion, all children educated in their local mainstream school as a matter of human rights. These are balanced by those who would wish to see the majority of children in mainstream but with a variety of provision within or separate from mainstream. This is sometimes called 'responsible'

inclusion (Vaughn and Schumm 1995, Hornby 1999). It emphasises the children's needs rather than their rights.

Full, or nil-reject inclusion is generally argued from the human rights and social justice viewpoint. The Centre for Studies in Inclusive Education (CSIE) firmly rejects the medical model of disability and places inclusive education on a human rights platform, demanding a positive response to the social model (CSIE 2003). The medical model is seen as focussing on impairment rather than the needs of the person, controlling the life of the disabled with, usually non-disabled, professionals and the built environment dictating what they can and cannot do. Rather than looking for a medically based cure to make the child as normal as possible, which may not be achievable, it is considered that we should be looking to restructure the school and at the strengths of the child. This is based on a social model of disability that seeks to remove the disabling barriers created by practices and attitudes (Reiser 2002).

It is possible to make a balanced and plausible argument for full inclusion without the use of highly emotive language, as evidenced by the paper by Thomas (1997b). The most emotive statement in this article is "In inclusive schools, all would thrive." (P106), an unarguable aim. However, many arguing on this theme do not restrain their language. Rustemier (2002a) describes segregated schooling as discriminatory and damaging to individuals and society and that it violates children's rights to inclusive education. The language used can at times devalue the arguments made, appearing to be very biased. Lipsky and Gartner (1996) refer to society's myopic vision of disability. They use such words as pernicious and erroneous to describe things with which they disagree such as the

psychological testing of children. The Salamanca Statement (UNESCO 1994) is often quoted as encouraging inclusive schools (Rustemier 2002b, Dyson and Millward 2000, Lipsky and Gartner 1996), which indeed it does. However, it states that inclusive schools provide effective education to the **majority** of children, not all children.

*"regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system". (Salamanca Statement, UNESCO1994, p.IX)*

The extreme position in the movement for full inclusion takes the rights of the child to a mainstream education to the level where they override those of parental choice (Croll and Moses, 2000 Rustemier 2000a). This seems arrogant and dictatorial. How can denying parents their rights be acceptable if denying a child's rights is not? It conjures images of the eugenics movement, albeit from the other end of the spectrum. The principles behind these views may well be sound but as Thomas (1997b) points out the move to replace segregated education may create problems as values change. What is considered totally right today may be thought wrong tomorrow. He cites the example of sending children to Australia for a new life at the beginning of the 20<sup>th</sup> century. Although done with the best of intentions the consequences were disastrous and it is now viewed as morally wrong. Rustemier (2000b), in an article on the world-wide move towards inclusion, notes that *"The Norwegian policy of not providing 'special' schools is **undermined** by the practice of parents sending their children to 'alternative centres'"* (my emphasis) p4. She also notes that the number of children placed in special classes in Denmark, *"a pioneering country in*

*terms of inclusion"* (p4) has been rising. Perhaps the parents feel that their chosen school is the best place for their child and perhaps they might be right. Education is possibly getting lost in the fight for rights.

Responsible inclusion has been put forward by Vaughn and Schumm (1995) and endorsed by Hornby (1999) who considers that the most important rights of children and young people with SEN are to have an appropriate education and to be fully included in the community to which they will belong as adults. He considers that both inclusion and segregation can only be justified if they facilitate these rights. Vaughn and Schumm (1995) give a table listing the features of responsible and irresponsible inclusion. Features of responsible inclusion include putting the student first, the teachers choosing to participate, adequate resources and a continuum of services. The components of irresponsible inclusion are generally the opposite of these beginning with place, rather than outcome, being the foremost consideration.

Promoters of responsible inclusion often see the arguments for full inclusion as ideological (Evans and Lunt 2002). Wilson (1999) prefers logic to ideology. He argues for different kinds of community, designed to meet the needs of pupils, rather than an all-embracing school. Lewis (2000) warns that in the zeal for inclusion we will have failed everyone if we only succeed in putting more students into the present education system. A truly inclusive system needs to be built, if possible, to benefit all. Farrell (2000) considers that arguments in favour of inclusion based solely on human rights are logically and conceptually naïve. He agrees with Hornby (1999) that the basic right is that all children



should receive a good education. Parents should not be denied their right to choose their child's school.

The Government has a commitment to inclusion stating in the Green Paper on SEN (1997) that they support the Salamanca Statement. However, they still maintain the principle of a continuum of provision. As previously stated, the new Code of Practice for SEN has been criticised for concentrating on within-child needs and covertly maintaining categories of need. Tensions are also created by other Government agendas of raising standards (Ainscow 2000). If children with special educational needs are to succeed in the mainstream class their needs must be met within that classroom, whether we refer to meeting individual needs or to changes in practice or environment aimed at meeting the needs of all pupils in the school. If they are to be met, those responsible for meeting their needs must be willing to provide for these pupils. The revised Code of Practice (DfES 2001), like its predecessor (DfE 1994), puts the ball for meeting these needs firmly in the court of the class teacher. The 'school action' phase of helping a child with problems is seen as their responsibility. Therefore class teachers are crucial to the success of the government's commitment to inclusion.

### **1.3 PURPOSE AND AIMS OF STUDY**

Having started my teaching career as a science teacher it was a matter of some concern that research for my Master's degree suggested that science teachers might have negative attitudes towards SEN and that science, as a discipline, might have problems with regard to meeting the needs of those with SEN. Thus my initial aim was to discover if negative

attitudes towards SEN was a widespread phenomenon amongst science teachers. Entries from my research diary show the development from this rather linear and, if my hypothesis that science teachers have negative attitudes towards SEN was disproved, possibly self-defeating aim, towards a richer and potentially more rewarding research aim.

28/11/98

*Why attitudes of science teachers? If there is an attitude problem then there is a need to address this before any interventions can be used because if teachers don't even accept SEN as their responsibility they are unlikely to effectively try any suggestions to help. Therefore we need to know if there is a problem, why, and how can it be addressed. Is the problem purely one of attitude or is it augmented by the nature and quantity of the science curriculum or traditional teaching methods? Is it possible to teach science simultaneously to high flyers and non-readers? Are science teachers trained to ignore SEN or just not to notice it? Do science teachers support the medical model that tends to favour exclusion rather than the social model that favours inclusion?*

23/01/99

*What questions do scientists ask and what evidence do they require of SEN. This may well be quantitative rather than qualitative. Does the teacher's own subject exacerbate SEN or not? Could compare subjects, eg. English and science. Is the subject concrete or abstract, how does this affect it? How hierarchical is the subject? Does a lack of understanding at lower levels affect the ability to grasp higher levels?*

18/11/99

*Research question. Present one probably too linear, yes/no answer. Could be enlarged to yield richer data - eg. The effect of the attitudes of science teachers on their interactions with SEN pupils? JP suggested, How can we understand the attitudes of science teachers to SEN and how does this impact on their practice?*

12/02/00

*Feminist angle – science teachers are usually men. Men less nurturing than women, therefore less sympathetic to SEN?*

02/03/00

*Cultural aspects - science teachers' place within the department and the department within the school. Could look at what a socio-cultural approach would enable me to do with my research. Could bring children's perspectives into it. They have their own ideas about different departments. Language and curriculum aspects.*

13/02/01

*Possible research question - What is the relationship between the attitudes of science teachers towards SEN and their relationship with SEN pupils? How does this compare with other subjects?*

As a result of reading books and journal papers, discussions with other students and staff and attendance at research methods lectures, various ideas were broached, considered, developed or discarded and eventually the bones of the final study were developed.

The purpose of the study was to increase the understanding of the way attitudes of teachers towards special educational needs impact upon their interactions with students who have difficulties. A particular focus was on whether the subject discipline affected the attitudes, the interactions or both. This in turn would help to improve the understanding of how attitudes can affect the degree to which special educational needs are met.

A greater understanding of these issues might indicate that it was necessary to change attitudes and/or increase the amount of positive interaction with students with special educational needs. If this were the case it would indicate possible teacher-training needs. A difference in attitude between teachers from different subject disciplines might also inform further research into causal relationships.

The research aimed to investigate the following research questions:

Is there a difference in the attitudes of teachers from different subject departments towards special educational needs and does the nature of the subject taught impact upon the delivery of the curriculum for those with special educational needs?

How do the attitudes of teachers towards disabilities and children with special educational needs impact upon their practice? Do they affect the way teachers prepare for lessons and teach and the way they treat different members of the class?

It was hoped that investigating these research questions would help to find out how attitudes affected the practice of, and the interactions between, teachers and children with special educational needs. The way in which lessons were planned with the needs of those with difficulties in mind and to what extent this was considered the realm of others, such as support teachers and assistants, was also of interest. So was consistency within the department as a whole, variation between individual teachers, and whether this was attitude-related. Departmental variations in attitude were also investigated, as were any areas that might be related to these beliefs, such as the nature of the subject and the curriculum taught. It was hoped that findings from the investigation would provide information regarding any possible attitude-related issues with respect to meeting the needs of those with learning disabilities and indicate areas that could be investigated in order to change those attitudes.

## CHAPTER TWO - LITERATURE REVIEW

According to Hart (1998) a literature review is

*"The selection of available documents ... on the topic, which contain information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed."* p.13.

The following literature review aimed to survey previous work in the field of attitudes to special educational needs in order to elucidate the importance of these attitudes and to what extent attitudes and their relationship with practice in schools was understood. Since my original interest in the area was instigated by research that suggested that science teachers might have negative attitudes I was particularly interested in any work that could enlarge upon this aspect. The aim was to inform my own research so that a workable proposition could be developed that would avoid repeating previous studies and would contribute further to current understanding of the issues involved.

Consequently the review looks at how attitudes have developed over time and the current position with regard to those attitudes. The literature relevant to the position of science teachers, in relation to attitudes to special needs, was reviewed in order to discover if there was any suggestion of negative attitudes and their associated origins. Finally, research in the field was evaluated in order to suggest areas needing further study and appropriate methods by which to do this.

## **2.1 SEARCH STRATEGIES.**

The literature was reviewed by searching the available electronic databases such as BEI and ERIC. More general web based searches were also made using such engines as Yahoo and Google. Texts such as the Special Educational Needs Abstracts were searched for suitable titles. Another source of appropriate references was the bibliographies of articles and books already consulted.

In order to pick up all the relevant literature, searches were made using the following words and combinations of words: attitudes, perceptions, assumptions and beliefs, linked to special educational needs, learning disabilities, disabilities, mainstreaming and inclusion. For further specificity teacher, English teacher and science teacher were added to the attitudes etc. The searches were limited to 1990 onwards for manageability and because current attitudes are more relevant to the study owing to the rapidity of legislative and policy changes in recent years. Exceptions were made when considering the historical development of attitudes and methodology. To ensure a balance of viewpoints specific author searches were carried out when it was felt that one side of an argument was under-represented. References cited in the articles thus obtained were also an important source of further references. The available literature on attitudes to special needs is vast. Studies in this area have been carried out in most countries and relating to many different personnel such as teachers, student teachers, parents, directors of education, educational psychologists and the children and their peers. Relating the searches to teachers narrowed the field but searches referring to specific subject teachers and attitudes to

special needs resulted in very little material. Most literature relating subjects and SEN seems to refer only to the use made of specific resources.

There are many people whose attitudes impinge on students with special educational needs.

These include the children themselves and their peers, parents, relatives and friends outside school. All the staff, managerial, teaching and non-teaching, have relevant attitudes. The beliefs, current and historical, of the local authority will also affect the policies and ethos of schools within their boundaries and consequently attitudes within them. Much research has already been carried out in many of these areas. A study of attitudes affecting special educational needs cannot ignore the effect of the attitudes of all these people. However, to consider them all in depth would make the study unwieldy and reduce its value. Therefore the study was restricted to the beliefs and perceptions of those who actually teach the children. As a secondary science and support teacher I was particularly interested in these areas so the literature was related mainly to the secondary sector with work comparing subject areas being of especial interest. The articles therefore needed to relate to special educational needs, teacher attitudes and, preferably, the secondary sector. Articles from the resultant searches were selected for their applicability on the basis of title and content of abstract, or because of the use made of them in the citing article. Availability also had input here.

## **2.2 WHY DO ATTITUDES TO SPECIAL EDUCATIONAL NEEDS MATTER? PUTTING THE STUDY IN CONTEXT.**

### **2.2.1 Early perceptions of special needs.**

That attitudes matter can be shown by the history of provision for disabled people. Provision both demonstrates and perpetuates attitudes. People with disabilities have been recognised as different and negatively categorised throughout history. In Sparta and early Rome malformed or weakly infants were left to die of exposure or killed (Penrose 1963). Fifth century, pre-Christian, Ireland recognised 'idiots, fools and dotards, persons without sense and madmen' as distinct groups. However, they were exempt from certain punishments and exploitation and it was the responsibility of the community to look after the deprived child (McConkey 1996). Although the names were negative they fared better than many born in later, 'more enlightened' times.

Another early view of special needs conforms to what Sandow (1994) refers to as the magical model. This pre-dates scientific knowledge and perceives disabilities as miraculous acts of God or the devil. To have a disabled child was seen as a punishment for the sins of the parent or as the result of witchcraft. These children therefore often gave rise to feelings of fear or disgust. Education of such a child was considered impossible and sacrilegious as 'God's will' must be accepted. However, in some, mainly Eastern, cultures those with defects were regarded as particularly innocent and holy (Penrose 1963).



Although increased scientific knowledge has largely disproved this model, in some cultures superstitions still have influence. In Ghana many still view ill health and disability as the result of evil influences or failure to keep taboos (Walker, in Leyser, Kapperman and Keller, 1994). Consequently, social interactions with disabled people are viewed unfavourably, limiting the provision made for them. Sandow's (1994) moral model demonstrates the beginnings of the within-child view of disability. Mankind was seen as self-perfectible. With children, failure to learn was considered the child's fault, due to idleness or wilful refusal to learn, although teachers played a part.

The order in which charitable bodies set up schools indicates the attitudes held towards the various categories of handicap. A school for the deaf was set up in the 1760's, for the blind in 1791, the mentally handicapped in 1847 and the physically handicapped in 1865 (Wedell 1990). This hierarchy of sympathy and value reflected the perceived worthiness of the group to receive education at the time (Hall 1997). The focus was on training the children to be usefully, and preferably gainfully, occupied so as to contribute to their keep, rather than on their intellectual development (Wedell 1990, Hall 1997). This is hardly surprising since it was considered by many to be unnecessary, if not downright dangerous, to educate the poor, let alone the disabled. Sandow (1994) considered that the Victorians demanded a grateful recipient of their philanthropy. In contrast, Cole (1990) is of the opinion that the strength of the religious convictions of the Victorians, with the concomitant concern for the disadvantaged, is underestimated today; they had a genuine concern for their needs. Training the children in a trade enabled them, in later life, to earn their own living and not be dependent on charity. Viewing beliefs and attitudes from a current perspective rather than within their historical context can distort their significance.

The medical model, still extant today, originated in the nineteenth century. Heredity and the transmission of disease were not fully understood, thus certain diseases, such as tuberculosis and syphilis, and behaviours, such as prostitution, were thought to cause heritable disability. Doctors endeavoured to prevent disability by warning against perceived, causative behaviours. This placed the disability within the child, the responsibility for disability in the family arena and the doctors in a position of omnipotent superiority (Sandow 1994). The medical model is now often seen as one of deficit and of the patriarch. It focuses on pathology rather than normality (Bailey 1998) and, in Corbett's (1994) view, has done much to perpetuate negative attitudes.

The 1870 Education Act introduced education for all and this made those who benefited least from education more obvious. It was suggested that schools should not admit the duller and more difficult children since their presence would endanger the education of others (Warner 1890 in Bell and Best 1986), a view still found today. The Royal Commission of 1880 led to the Education (Defective and Epileptic Children) Act of 1899 allowing LEAs to establish special schools. Few certificated teachers were employed in these schools, teaching skill not being considered necessary. Kindness, keeping the children quiet and training them in habits of cleanliness was considered adequate (Garrett 1996), a clear demonstration of the attitudes held towards these children. Cole (1990) however, argues that there was considerable support for integration in the 1870s and 1880s. Most teachers at this time wanted to exclude only those who were openly disruptive or severely handicapped and were very sensitive to the issue of stigmatisation, very similar to the position today. Some children, notably those classified as 'idiots', were deemed ineducable (Hall 1997), and therefore unable to contribute to society.

Further Acts continued to consolidate the provision for children viewed as defective (Bell and Best 1986), a word suggesting rejection. During the early part of the twentieth century the Eugenics movement influenced legislation ensuring the segregation of, particularly mentally, disabled people (Stevens 1995) although Cole (1990) considers that this was little used. This tied in with the eugenic policies of protecting the general populace from these people and cleansing the population of their genes by preventing them breeding. The eugenics movement viewed disabled people as "social rubbish" and "a definite risk to society". Nazi Germany demonstrated the extreme of these views with the extermination of the weak and handicapped (Stakes and Hornby 1997).

In 1922 the Secretary to the Board of Education, A.H. Wood, listed the hierarchy of priorities of categories of impairment reflecting differential public sympathy for them. The blind were at the top of the list and mental defectives at the bottom (Hall 1997). As we shall see, aspects of that list might still be accurate today. Voluntary organisations and concerned individuals were, however, campaigning for a change in views. In 1929 the Wood Committee recognised the stigma attached to special school attendance and recommended integration into ordinary schools to help overcome this.

### **2.2.2 The 1944 Education Act**

The recommendations of the Wood Report were not acted upon until the 1944 Act which reflected changes in the way handicapped children were viewed. The Act recognised them as ordinary children with disabilities rather than defective children lacking normal qualities (Garrett 1996). It was intended that most children should be educated in mainstream

schools. Special schools should simply, as all other schools, provide education according to 'age, aptitude and ability' for those children whose aptitude and ability deviated more from average than in the majority of cases (Alexander 1944 in Garrett 1996), thus removing the stigma associated with such schools. Change in society's attitude to the education of handicapped children seemed imminent (Garrett 1996). This was not the case (Hall 1997). The 1944 Act remained within the realms of the medical model although diagnosis and determination of need moved from the medical profession to the education authority (Hall 1997). It increased the number of categories from four to eleven, all described in medical terms. In Garrett's (1996) view, the overriding attitude was still of a problem within the child. Cole (1990) disputes that this was a device for controlling children who posed a threat to the smooth running of ordinary schools. He considers that it was an attempt to provide, in a scientific and efficient manner, specialist help for these children. Categorisation however, encouraged a separatist view of education and little integration took place. Special schools retained their stigma. Those with severe learning difficulties remained with the medical profession until 1971 (Hall 1997, Ainscow 2000).

### **2.2.3 The Warnock Report**

The Warnock Report, in 1978, initiated the most radical changes in special education in recent years. This confirmed the long-term stance taken by many teachers and parents throughout the century, particularly during the 1960's and 1970's, for integration into mainstream schools. It was produced at a time of concern about equal opportunities, civil rights, human rights and the start of the disability movement (Lunt and Norwich 1999). Some far-reaching changes in the way children with special needs were viewed and educated

resulted from this report, including the 1981 Education Act and the principle of integration (Avramidis and Norwich 2002).

Removing medical categories paved the way for considering pupils with special needs to be individuals with a continuum of need rather than a category of handicap (Ramjhun 1995), although the problems were still considered to be within-child. The term 'special educational needs' may have been an attempt to remove the medical bias of labelling and replace offensive terms with more positive ones (Benn and Chitty 1997). Norwich (1993) argues that the term 'special educational needs' was a category in itself, distinguishing those with, from those without a handicap. This has been subdivided into further, albeit less pejorative, labels such as moderate learning difficulties. However, the lack of clarity over what constituted special educational needs was a weakness that has continued causing problems as to who should be supported with what type of support (Lunt and Norwich 1999).

Corbett (1996) sees Warnock as the voice of enlightened modernity. She considered it to be the voice of a complacent and confident establishment, cutting away the sentimental divisiveness of old attitudes to handicap but creating instead an oppressive, special curriculum that is Eurocentric and narrowly value laden. Croll and Moses (2000) consider that the commitment to inclusion in Warnock is very weak. There are too many qualifications to the ideal of mainstream education for all. However, it was a step in the right direction.

The 1988 Education Act introduced fundamental changes to the education system introducing market principles and competition. The National Curriculum, opting out and

local management of schools all had consequences for special needs, generally negative, discouraging schools from accepting pupils with difficulties (Booth 1999). Competition between schools for students and encouraging parents to select schools based on the league tables undermines school/local community relationships (Booth 1999). This will, in turn, effect attitudes towards those who experience difficulties, both in schools and in local neighbourhoods.

Thus history suggests that attitudes matter because perceptions of those with disabilities will affect their treatment and the nature of provision. Although there have always been those working towards a better outcome, we come from, what can now be seen as, an established negative attitude base towards those with disabilities. Therefore, to progress we need to move towards more positive attitudes. As our attitudes have slowly changed, generally towards the positive, provision for those with disabilities has increased and we have accepted them more into society. Special schools are no longer seen as necessarily the best answer, more children are being educated in mainstream schools.

### **2.3 CURRENT ATTITUDES TO SPECIAL EDUCATIONAL NEEDS**

Societal attitudes to people with disabilities change constantly. Stakes and Hornby (1997) argue that developments in provision for pupils with special needs indicates attitudinal changes towards the disabled within society as a whole, seen throughout history. Teachers, as part of the wider society, reflect the perspectives of society at large as well as of their own professional cultures. Discrimination by peers and teachers during their time at school has been identified by Stakes and Hornby (1997) from research and reports (School's Council

1970, 1971, Snowdon Report 1976, Tomlinson 1982, Ford 1982, and Humphreys and Gordon 1992) as a cause of stigmatisation of some pupils. This in turn has affected their acceptance by, and their accessibility to, society.

Attitudes of the professionals involved with disabled people are particularly important since, throughout history, disabled people, especially those with severe learning difficulties, have had their identities, needs and interests defined by others, usually professionals. Negative attitudes will badly affect the nature and quality of provision for these people.

Corbett (1996) argues that language might betray our attitudes expressing our confidence, commitment or doubt and indicating how we value people. Humphreys and Gordon (1992, in Stakes and Hornby 1997) considered that categorisation at school labelled some children as unworthy and incapable. Terms of categorisation and medical definition, e.g. idiot, moron and fool, are thought by many to have caused stigmatisation and stereotyping, becoming terms of abuse (Corbett 1996, Stakes and Hornby 1997, Barton 1993, Visser and Upton 1993). Using such labels as abuse demonstrates negative attitudes towards the people that they were originally meant merely to describe, placing them at the bottom of the pecking order in order to bolster our own social status and superiority. Thus such people are less than human requiring less than humane treatment, leading to those with special needs being seen as not worth educating (Corbett 1996).

If we consider people to be inferior we cannot in reality offer them equality of opportunity. For this people must be valued, involving fostering positive attitudes, particularly in those

who work with them. Renaming them will not remove the stigma. New names simply acquire a stigma of their own.

Attitudes may have a marked affect on the nature and change of educational provision for those with special needs (Ward, Center and Bochner 1994). Stakes and Hornby (1997) identify a century's lack of appropriate management strategies as being a major contributor to holding back progress in the development of an effective and appropriate climate for the provision for special educational needs in mainstream schools. Negative attitudes towards these pupils, they argue, will have discouraged a sense of urgency in this area. If these people are inferior, they are of little value and little needs to be done.

Attitudes held by teachers about the social and economic worth of pupils with disabilities will affect their value within a wider society and vice versa. These in turn will affect political decisions about provision and resourcing (Stakes and Hornby 1997, Ward, Center and Bochner 1994). Schools need to change in order to keep up with the changing patterns of leisure, employment and technology, particularly with special needs education. Failing pupils are obviously not being equipped to cope with these changes (Dyson 1990). Dyson sees it as the duty of the education system to change to accommodate the individual differences of its pupils thus eliminating the needs of these pupils.

Physical adaptations to schools, although necessary, can be simple to provide. However, Thomas, Walker and Webb (1998) consider that they are less important to successful inclusion than attitudes of staff within schools, although their provision may be indicative of attitudes held. The inclusive culture of a school affects all students within a school and is



essential for the social acceptance of difference. This culture is, they believe, largely created by the attitudes of the staff. The degree to which impairment becomes a disability will depend largely on the expectations of others and social context. The attitudes of those with impairments and of other people will contribute to the disability, as will the educational, social, physical and emotional situations encountered (ILEA 1985 in Oliver 1988).

The successful introduction of any new policy for special needs provision is considered highly dependent upon the views of the teachers responsible for its implementation (Ward and Le Dean 1996, Chazan 1994, Norwich 1994, Ward, Center and Bochner 1994). Thus criteria for inclusive education include the willingness of teachers to include students with disabilities in their classes (Soodak, Podell and Lehman 1998). Indeed, Ringlaben and Price (1981 in Forlin, Douglas and Hattie, 1996) considered teachers' beliefs to be important predictors of positive or negative effects regarding inclusion.

Inclusive practices alone do not necessarily lead to equality of educational opportunity. The reverse may be true if teachers do not fully accept, and are not supported through, the change towards inclusion (Forlin, Douglas and Hattie, 1996). The degree of support that teachers feel for any policy will influence the effort made in its implementation (Ward, Center and Bochner 1994). If teachers disagree with the policy they will not try to make it work, or may endeavour to disprove its effectiveness. A study by Bender, Vail and Scott, (1995) showed that teachers with less positive views towards mainstreaming were less likely to use effective instructional strategies. The attitudes of teachers towards special needs learners were also shown to be of great importance to the success of any strategy aimed at meeting their needs

(Leyser, Kapperman and Keller 1994). Knight (1999) felt that supportive classroom teachers were critical to the successful teaching and inclusion of students in inclusive settings.

Attitudes towards those with special needs can be seen to be in a state of flux. Generally the trend is away from a within-child, categorising, medical model towards a more social model. The meaning of the social model, however, can vary considerably. It is however, agreed that attitudes are important, particularly those of the people responsible for meeting the needs of those with disabilities.

#### **2.4 WHY SCIENCE TEACHERS? SCIENCE TEACHERS' ATTITUDES TO SPECIAL NEEDS**

Scientists, because of the nature of their discipline, the way they are trained and the way they think, will tend to favour the medical model of special educational needs. The medical model is one of deficit, involving categorising, testing as in a scientific experiment, finding out what is wrong. Once you have labelled and diagnosed the problem the children should be given a 'treatment' to remove or lessen the problem. Subject teachers cannot be expected to know what the treatment should be and therefore it will be imposed from outside, encouraging a 'not my problem' attitude.

Genetics, a branch of biology, has encouraged selective breeding of many animals and crops to the advantage of agriculture. Individuals bearing perceived beneficial traits are used for breeding; bearers of inferior traits are not. This is in line with the natural selection of Darwin's theory of evolution (de Beer 1964). In nature, weak or deformed offspring rarely survive, either because of inability to compete with others or because the parents deliberately

push them out of the nest. It is not inconceivable for scientists to agree with this view and therefore lack sympathy with those who have special needs and might be considered as imperfect.

The Eugenics movement certainly considered the biological model, of non-survival of the weak, to be appropriate. This movement led to sterilisation policies, for certain groups of disabilities in several countries that were designed to benefit society by preventing regeneration of these disabilities. The extreme was reached in Nazi Germany with the extermination of the weak and the handicapped. Less radical supporters of the Eugenics movement advocated placing the disabled in separate, rural colonies, segregated from the general population, where they could not develop sexual relations and reproduce (Stakes and Hornby 1997). Although few people would subscribe to such extreme views now, it is possible, considering the scientific basis of some aspects of such views, that some scientists may still support the less extreme ideas, influencing their views on children with special needs.

Science as a discipline traditionally favours the quantitative, positivist, approach with the emphasis on hypothesis and objective experiment generating reliable, repeatable, generalisable data and theory (Maykut and Moorehouse 1996). There are four main assumptions in the 'received (traditional) view' of science. The first relates to the independence of objects in the natural world from human beings. These objects are real and objective and human agency is incidental to the character of the world they inhabit. Secondly the character of the physical world determines scientific knowledge. The third assumption states that there is a unitary set of scientific methods and procedures, carrying with it a general consensus. Lastly science is considered to be an activity that is

individualistic and cognitive (Woolgar 1996). Thus Monk and Dillon (1995) can state in a book relating to the training of science teachers:

*"Flexible and fluent use of theoretical models and the ability to generate hypotheses and design experiments to test them is the hall mark of the professional scientist." (p162).*

The social model of special educational needs fits more within the qualitative, interpretative, paradigm which seeks to explore perspectives and shared meanings leading to insights into situations (Wellington 1996). These methods involve looking at the effects of human intervention and interaction. Perspectives and instincts are not objective. Human agency is much involved here. This is at odds with the first assumption of science.

Qualitative research methods are not experimental in nature and their results may be seen as anecdotal and therefore not to be taken seriously (Maykut and Moorehouse 1996). Supporters of scientific, quantitative studies often question the validity and reliability of such results. Scientists may thus tend to dismiss the social model as unscientific. Consequently the school environment and/or the way they teach science is less likely to be viewed as problematic for children with special needs.

Science has traditionally been seen as an elitist subject. In the early twentieth century science was exclusive, being taught mainly in grammar schools. Science education was held in high esteem. During the fifties and sixties changes in the way that science was taught, spearheaded by the public schools, were brought in to increase its relevance to the science of industrial and technological application. The Nuffield Foundation's projects were particularly influential here, improving the teaching, enthusiasm for, and therefore resourcing of, science education. It remained an elitist activity, however, with an enhanced

status in schools (OFSTED 1994). Many of today's science teachers would at this time have been training to be teachers or being taught science in school.

The 1985, government, Policy for Science had a very positive influence, aiming to encourage high standards for pupils of all abilities in the now largely comprehensive schools and to ensure equal curricular opportunities between boys and girls. It introduced science as an important part of the junior school curriculum and led to the introduction of balanced science. The balance was between the three main areas of science and also knowledge and scientific method. This meant that many teachers had to teach biology, chemistry and physics to all abilities in all age ranges (OFSTED 1994) possibly causing resentment in specialist science teachers.

The National Curriculum discouraged curriculum development in science (OFSTED 1994). The independent sector has largely kept the separate sciences as it is not obliged to teach the national curriculum, attracting many talented teachers to this sector (OFSTED 1994) suggesting that scientists might still see themselves as something of an elite. Lee (1997) states that science is seen as an area for the select few, usually western, middle class males. Children, when asked to draw a scientist, draw a white male in a lab coat with glasses and wild hair (Monk and Osbourne 1995) suggesting they perceive scientists as a race apart.

Science teachers therefore come from a background of superiority and of teaching mainly the higher achievers. Although, with the advent of comprehensive schools, teachers had to teach all abilities, this rarely included pupils with special needs. Prior to the 1981 Act

those children with special needs in mainstream schools were likely to be placed in a remedial class. Most of their, often inadequate, teaching (Hegarty 1993) would take place in this group with specialist teachers and minimal integration. If placed in a mainstream group they would usually be extracted at regular intervals for remedial teaching (Garnett 1988). Pupils with special needs have largely been taught in isolation from both the mainstream classroom and curriculum (Clark et al 1995). Thus, science teachers were rarely called upon to teach them. Equal opportunities is a term that has been used educationally to mean ensuring that all students, including those with SEN, can achieve. In science teaching it usually refers to girls, as in the 1985 policy statement and Monk and Osbourne (1995), or those from other cultures (Lee 1997). Bines (1988) notes that equal opportunities were increasingly considered in relation to class, gender and race but special needs was generally neglected. Even in comprehensive schools it was rarely discussed.

The School Science Curriculum Review was set up in 1981 to encourage the development of science for all young people. According to their Curriculum Guide for special educational needs, science teachers were increasingly aware of students with learning difficulties and much material had been produced in their support. The categories for which this support was intended are given as:

Pupils with low self-educational achievement

Less able pupils

Low attainers in science

Slow learners

Many of the SSCR teams apparently used the same categories when considering science and special needs. The dangers of labelling are noted, although only as risking the needs of the few in addressing the needs of the many. This was considered a reason to favour approaches focussing on the individual rather than groups, citing the Warnock Report as confirmation. The individual is further stressed by the statement that no scheme or set of curriculum materials can meet pupils needs without knowledge of the pupil's home background, motivation, interests and learning potential, health and physical status, current special needs and their development (Brennan 1985 in SSCR 1987).

Although moving away from the medical model's categorisation of the children by a diagnosis and treating them accordingly, the emphasis of this review remains firmly on the problems being with the child or his circumstances. The school and teaching style is not suggested as a cause of the child's needs. Teaching might have to be adapted to meet the needs of the child but not to stop creating them. The science teacher is therefore relieved of blame and placed in a position of benevolence, the benevolent humanitarianism (Corbett 1994, Bines 1988) of the old medical model? The introduction goes on to state that the physical, sensory and more marked mental/intellectual handicaps are beyond the scope of the guide, not usually being found in mainstream schools (SSCR 1987). Although not stated that children with special needs will be in separate classes to other children, the impression of this assumption is gained. The problem of dealing with these children would therefore rest with the remedial class teacher and not the science department as a whole. Attitudes engendered by this approach may well remain with many staff still teaching today.

Science, therefore, as a discipline has much in common with the medical model. Scientists are trained to think in a similar manner to the approach of the medical model. Science traditionally favours the quantitative rather than qualitative approach. The social model fits more within the qualitative paradigm, often seen as unscientific, and therefore more readily dismissed by scientists. Thus teaching methods and school environment are less likely to be viewed as part of the problem.

Since science is traditionally an elitist subject scientists may well view themselves as something of an elite. Thus anyone experiencing difficulties with science may be dismissed as of less importance. Social pressures on students with special needs label them as inadequate and of a lower social class and value, tending to encourage science teachers in these attitudes. Since identification of problems or perceptions of special need lies within the scope of the social model, scientists will be inclined to dismiss them as not "scientific" and therefore not applicable to them. OFSTED in their secondary subject reports for science (2002) note that there are usually well established routines and teaching approaches. Although this is considered favourably it is noted that "*these routines can be so well embedded that they militate against change*" (p4). Moving attitudes from a medical model base to a social model base requires change.

## **2.5 RESEARCH INTO TEACHERS' ATTITUDES TO INTEGRATION/INCLUSION**

With the political shift towards inclusion much research has been carried out regarding teachers and inclusion. Because of their importance to the success of inclusive practices (Vlachou 1993, Garner 2000a, Hastings and Oakford 2003) this research has frequently



centred on teachers' attitudes and beliefs. However, much of this work has been carried out in other countries, notably U.S.A. and Australia. Although largely relevant to Britain, the education systems and laws and their histories, do vary between countries. This and any cultural differences may reduce the relevance of the findings to this country. Garner (2000a) considers the lack of research regarding the views of mainstream subject or class teachers, since the advent of the Code of Practice, surprising, given the emphasis on all teachers being teachers of special needs.

Despite the improvement in societal attitudes towards people with disabilities, much of the research prior to 1995 suggests that teachers' views on integration had not necessarily become more positive at that time (Scruggs and Mastropieri 1996). This conclusion resulted from a research synthesis on twenty-eight investigations into teacher attitudes to mainstreaming/inclusion in a number of countries, published between 1958 and 1995. Little variation was found between the countries. This lack of change towards the more positive, they felt, suggested that teachers viewed students with disabilities in terms of additional work and problems for the teachers rather than from the viewpoint of the social benefits for the student.

Inclusion, though not necessarily a nil reject model, is becoming more accepted. Achievability is more often in doubt than desirability. In a study of mainstream primary and secondary school teachers and heads Croll (2001) found overwhelming support for the retention of special schools. Less than 10% of the respondents felt fewer children than at present should attend them. Special schools were thought to be particularly appropriate for those pupils with emotional and behaviour difficulties (EBD) and to a lesser extent those

with severe learning difficulties (SLD). The heads and teachers were however, more positive about those students already in mainstream schools. It was felt that most would not benefit from special school. Hastings and Oakford (2003) found that student teachers' attitudes to inclusion were affected by the nature of those to be included. They were more negative towards those with EBD and therefore less positive towards full inclusion. In a study using questionnaires to survey Principle Educational Psychologists and focus groups to explore the topic of inclusion with teachers, social workers and health professionals, Evans and Lunt (2002) found that the majority felt that full inclusion was both idealistic and unrealistic although some felt that it was achievable over time.

A study by Croll and Moses (2000) which drew on interviews with education officers and headteachers of special and mainstream schools found much support for the ideal of inclusion. This however, appeared to have minimal effect on education policy. The commitment to inclusion was frequently qualified to the effect that it could not meet the needs of all children, particularly those with severe or complex difficulties and those with emotional and behavioural difficulties. Paradoxically, many of those interviewed expressed strong support for total inclusion but went on to stress the advantages of separate provision. Croll and Moses explain these contradictions with the concept of utopia. Utopia can be both the good place, an ideal to be hoped for, with an expectation of reaching it, or no place, one to be wished for whilst realising that it is probably unachievable. Confusion between good place and no place means hope and desire are confused resulting in conflict of ideas. Utopia in this case is the mainstream school where every child's needs are fully met. Some see this ideal as being possible but others recognise the ideal but cannot reconcile the tensions of meeting every need within one

setting. Contradictions can also be created by the concept of utopia changing as progress towards it is made, thus a utopia reached may not be the one of the original concept.

Forlin, Douglas and Hattie (1996) found that teachers did not agree with full-time integration of all students in mainstream classes. Acceptance waned with the severity of disability. Soodak, Podell and Lehman (1998) express similar findings. In one of the few studies relating directly to science teachers, Norman, Caseau and Stefanich (1998) found that they considered that they lacked the time, training and support necessary to implement inclusive instruction effectively. The study also found that science teachers expected others to provide the support for SEN. Increased hostility towards inclusion among more experienced teachers was found by Soodak, Podell and Lehman (1998) and Forlin, Douglas and Hattie (1996). Research by Chung (1998) into the adaptations made for students with disabilities in science classes found that more experienced teachers made fewer adaptations and that high school teachers were the least positive towards children with disabilities in the classroom when compared with elementary and middle school teachers. However, this research, like most of the other cited, used self-reported questionnaire data to determine the adaptations made by the teachers. There were no lesson observations to confirm this data or further investigations, such as interviews, into the nature of their perceptions.

### **2.5.1 In relation to particular special needs**

In a review of the literature, Chazan (1994) found that teachers had negative perceptions of problem behaviour in the classroom. Few student teachers agreed with total inclusion, their support depending upon the perceived severity of the problem (Ward and Le Dean 1996).

Teachers working in well supported, inclusionist settings were more likely to express positive views, though few supported full inclusion (Minke, Bear, Deemer and Griffin 1996). Once again these last two studies used only self-reported, questionnaire data.

Teachers' academic expectations of pupils with severe learning difficulties were generally low. Failures of these pupils were often attributed to internal factors of the child, the medical model of special needs, and their successes to factors such as luck or quality of teaching. This was less often the case with non-disabled students (Hastings, Hewes, Lock and Witting. 1996).

### **2.5.2 Teacher variables**

Research suggests that attitudes of teachers towards special educational needs impact significantly on the success of inclusive practices. Many factors have been implicated in the nature of teacher's attitudes. In a study comparing the attitudes of teachers to mainstreaming covering six nations Leyser, Kapperman and Keller (1994) identified several variables associated with attitudes. These were: training in special education, age, teaching experience, experience with individuals with disabilities and grade level taught.

Training in special education was found to enhance positive attitudes towards inclusion. Teachers below thirty years of age and those with less than ten years of teaching experience were found to have more positive attitudes than older, more experienced teachers. These findings agreed with those of previous researchers unlike those regarding grade level as Leyser, Kapperman and Keller (1994) found senior-high school teachers more supportive of

integration than junior-high or elementary teachers, the opposite to most studies. Similarly they found gender had no effect on attitudes, whereas other studies showed that females were generally more supportive towards inclusion. The effect of the subject discipline was not covered in this study. This was another study that relied on attitude scale, questionnaire data. It was also conducted over six countries. The original questionnaire, written in English, was translated for use in non-English speaking countries. Although translated by native-speakers of the language, subtle changes of meaning may have occurred during translation.

### **2.5.3 In relation to the subject**

The impact of the subject taught on attitudes to inclusion is an area that seems to be little covered. Chung (1998) surveyed the attitudes of science teachers and their lesson adaptations for various disabilities but he did not compare results with those from other disciplines. Science teachers from elementary, middle and high schools and university educators were surveyed by Norman, Caseau and Stefanich (1998) regarding their experiences, preparedness and attitudes towards pupils with disabilities. This study identified a significant proportion of science teachers, over one quarter, with negative attitudes. Again, no comparison was made with teachers from other subject areas.

Ward, Center and Bochner, (1994) considered the attitudes towards integration of six different groups of Australian educationists and found considerable differences between them. These six groups were not teachers of different subjects, however, but: principals, regular teachers, resource teachers, school psychologists and two groups of pre-school directors. This study concentrated mainly on the influence of the nature of the disabilities or

educational needs of the students, on attitudes. Although not mentioned by the authors, Taverner, Hardman and Skidmore (1997) considered that the within-group differences in attitude found by Ward et al to indicate that there could be differences between groups of subject teachers. Consequently they carried out a study between maths and English teachers. Although little difference was found in the attitudes of these teachers that could be related to subject it was considered that other subject combinations should be researched.

In a study looking at inclusive practice in schools, Florian and Rouse (2001a) surveyed teachers in schools with long-standing commitments to inclusion. Opinions were asked on a list of 44 teaching strategies thought to be helpful to inclusive practice. Although familiar with the strategies, there were differences found between teachers of different subjects in the amount to which these strategies were said to be used, although no observation was used to confirm this. Differing cultures between the subject areas caused by a number of variables and the nature of the subject were thought to be the cause. No specific information was given to compare the subjects.

Garner (2000a) reported on a number of small-scale studies that he considered identified the attitudes of mainstream subject teachers in secondary schools as a major inhibitor of progress towards full inclusion. Using questionnaire and interview data, he looked at teachers' knowledge and views of their responsibilities under the Code of Practice. No analysis was given comparing subjects but it was stated that teachers of non-core subjects and those that were more 'affective' in nature were more positive about the Code. He argued that more research into subject teachers' beliefs regarding SEN in general was essential for the revised Code of Practice to work. A small study into the nature of support for special needs in

secondary schools and how this support was valued (Ellins 1998) suggested that science teachers were more likely to have negative attitudes towards special needs generally. Thus there is scope to investigate further the potential differences, between the attitudes of teachers from different disciplines.

#### **2.5.4 Attitudes and practice**

Another area little covered was how the attitudes of teachers affect their interactions with pupils with special educational needs in the classroom. Since positive attitudes have been shown to facilitate the progress of inclusive practices, it would seem reasonable to assume that positive attitudes would make these interactions more favourable. Any literature that touched on this subject dealt principally with how teachers adapted the work or teaching approaches to make them more suitable. It did not generally mention personal interactions with students with special needs. Bender, Vail and Scott (1995), in a study of American elementary and middle school mainstream teachers, using self-reporting questionnaire data, found that those with more positive attitudes towards mainstreaming were more likely to use those instructional strategies proven to be effective with pupils with disabilities. This was not followed up with any observations of strategy use. However, Schumm and Vaughn (1991) found that English teachers were unwilling to make more than minor adaptations to provide for such pupils despite considering other adaptations to be desirable. This was not related to attitude. Although Chung (1998) surveyed the attitudes of science teachers and how they adapted their lessons to cope with various disabilities he did not consider the relationship between the attitudes and adaptations.

The assumption that attitudes to SEN have a considerable effect on the success of inclusive strategies has been widely made and attitudes have been much investigated. However, most of this research has used self-reported questionnaire data. Although this data is very useful it leaves areas unexplored. Does what teachers say they do actually happen? How many replies reflect what the respondent actually thinks or what they consider they should think? Are attitudes as straightforward as much of this research implies? Thus looking more closely into what attitudes actually mean to those with special needs, the impact of attitudes on practice, could significantly add to this research. Factors affecting attitudes have been studied quite extensively. However, the effect on attitudes of the nature of the subject taught and the discipline's culture is an area that has largely been ignored. This therefore, is another area needing further research.

## **2.6 CONCLUSIONS**

History suggests that attitudes matter because how we perceive those with disabilities affects the way we treat them and the nature of the provision made. We come from, what can now be seen as, an established negative attitude base towards those with disabilities that has restricted the nature and amount of provision made. Over time, provision for those with disabilities and their acceptance into society has increased, suggesting a move to more positive attitudes.

The value we give to children is dictated by our attitudes and may well affect how we treat and interact with them. Attitudes are therefore very important and consequently have been much investigated, particularly in relation to inclusion. An area that still requires further



study, however, is that of how attitudes impact on our interactions with those with special needs.

The nature of the subject taught and the culture of the different disciplines may affect the attitudes of teachers towards those with special needs and therefore the interactions between them and their pupils. Differences in attitudes between subject departments will impact on the inclusive culture of the whole school and therefore on every member within it. Whether differences between subject disciplines do affect attitudes to special educational needs is also an area requiring further research.

Since science is traditionally an elitist subject, which has much in common with the medical model, scientists may well view themselves as something of an elite. Thus anyone experiencing difficulties with science may be considered as outside their area of concern. The medical model portrays SEN as within-child deficit and problems needing treatment. Anyone subscribing principally to this model may well consider that treatment is not in their remit and therefore make minimal effort to meet any needs. Students with special needs are subject generally to social pressures labelling them as inadequate and of a lower social class and value, encouraging science teachers in negative attitudes. Since identifying these problems of perception of special need lies within the scope of the social model scientists may be inclined to dismiss it as not "scientific" and therefore not applicable to them. Science may therefore be a suitable area for consideration when studying differences between subject areas.

## **CHAPTER THREE - METHODOLOGY AND METHOD**

### **3.1 PURPOSE AND AIMS OF THE RESEARCH**

The literature review has shown that attitudes towards those with learning disabilities matter and that they might impact on practice regarding the interactions between teachers and students. Negative attitudes may make it more difficult for the needs of those with difficulties to be met. Certainly assumptions to this effect have influenced previous research (Vlachou 1993, Garner 2000a, Hastings and Oakford 2003) and the relationship between positive attitudes and the success of inclusive practice has been fairly well established. It is important that all teachers in mainstream schools should have positive views towards pupils with SEN and their needs since all teachers are teachers of special needs (DfES 2001). Consequently, if there are any specific groups of practitioners with less favourable attitudes, they need to be identified so that reasons might be discovered and perhaps, attitudes changed.

Since few studies focus on the relationship between the subject discipline and the attitudes of teachers, this is an area needing further investigation. Curriculum subjects differ in their nature and the way they are taught. This, and the differing departmental cultures, may affect the attitudes of the teachers. As has been seen in the review of the literature, science teachers may be one group tending to more negative attitudes due to the culture of elitism that surrounds science, the nature of the subject and the way science is traditionally taught. The medical model, with its emphasis on within-child deficit, may seem more relevant than the social model at explaining SEN to someone with a science background, affecting their

perspective of special needs. Although attitudes are cited as being important for successful inclusive practice (Vlachou 1993, Garner 2000a, Hastings and Oakford 2003), little research seems to have been done on the precise nature of the effects of attitudes on actual practice and the interactions of teachers with children with special educational needs. Information regarding this would enhance understanding of the importance of attitudes to practice and success at meeting needs.

In order to investigate the areas identified above, the following research questions were formulated:

Is there a difference in the attitudes of teachers from different subject departments towards special educational needs and does the nature of the subject taught impact upon the delivery of the curriculum for those with special educational needs?

How do the attitudes of teachers towards disabilities and children with special educational needs impact upon their practice? Do they affect the way teachers prepare for lessons and teach and the way they treat different members of the class?

The purpose of investigating these research questions was to discover if attitudes vary between subject departments and how attitudes affect the practice and the interactions between teachers and children with special educational needs. Was there any difference in the way teachers interact with those with and those without SEN? Was any difference beneficial or damaging? It was hoped to discover whether lessons were planned with special needs in mind or whether it was left to others, such as support teachers and assistants, to provide for these. Was this department-wide or did it vary with individual teachers, and how

did their attitudes impinge on this? The resulting data should provide information as to whether there were any attitude-related issues regarding meeting the needs of those with learning disabilities and indicate areas that could be investigated further in order to facilitate change.

### **3.2 RESEARCH PARADIGM**

The term research is contested, having many different meanings. Perceptions of an activity or the knowledge that accompanies it may be affected by the term, perhaps gaining an undeserved credibility (Murray and Lawrence, 2000). One area of agreement, however, seems to be in the use of the word 'systematic'. The term is used by, amongst others, Murray and Lawrence (2000), Bassey (1999), Drew (1980 in Bell 1999) and Stenhouse (1975 in Wellington 1996). Howard and Sharp (1983 in Bell 1999) use the word methodical. So research is methodical, involving the systematic gathering of data. These terms certainly fit in with the positivist paradigm of 'scientific', objective research. They also add credibility to the interpretative paradigm of research that has tended to be criticised for its subjectivity (Guba and Lincoln, 1994).

Research methodology has traditionally been said to move along a continuum from quantitative to qualitative, although this may oversimplify terms that are open to debate. The quantitative end of the continuum often involves experimental research, generally trying to prove something. It tends to answer 'what' research questions, trying to verify or falsify, a priori hypotheses that are often mathematical in nature or can be proved mathematically (Guba and Lincoln, 1994). Theory presupposes the hypothesis (Robson, 2002). This is the

positivist paradigm. Developing theory from the data gathered, often referred to as ethnographic research, is at the qualitative end of the continuum, the interpretative paradigm. This usually endeavours to answer 'how' and 'why' questions. Centrally placed are descriptive quantitative and descriptive qualitative research, often utilising surveys and structured interviews. However, there is also the increasingly popular belief that both quantitative and qualitative methods are complementary and can be used alongside each other (Hammersley 1996), particularly in the human sciences. Gorard (2002) argues that the distinction between the two is false, all relevant data should be used. Maintaining the divide could lead to discarding important data "of the wrong type", for example, qualitative data in a predominantly quantitative study.

Those that take a stance at either end of the continuum are apt to criticise their opponents. Those based at the qualitative end usually argue that the positivist, quantitative stance utilises research done in the physical sciences with inanimate subjects. Scott and Usher (1999) see positivism as a powerful, yet idealised, model of scientific research that cannot cope with the more complex research requirements of the human sciences, failing to locate the data within its culture and history. The qualitative paradigm is generally considered more helpful here (Cohen and Mannion 1981). However, there is a widely held view that only quantitative data are valid and worthy of serious consideration (Sechrest in Guba and Lincoln, 1994). Criticism directed at the qualitative method suggests that it does not conform to the 'received view' of science, lacks precision and is not objective, preventing generalisation from its findings.

Context stripping is one criticism of the precise, quantitative approach to investigation (Guba and Lincoln, 1994). Controlling the conditions of the investigation to ensure that only the experimental variables are having an effect may remove other important factors, the context, such as social interaction (Scott and Usher 1999). These factors may have considerably influenced the results, negating the aim of increasing reliability and generalisability. The generalisations do not relate to reality. Experimental subjects may mature or have other experiences, which might effect the outcome, during the period of the experiment (Scott and Usher, 1999). Qualitative data can provide information about the wider context and help avoid the ambiguity of being the individual to whom a statistic does not apply (Guba and Lincoln, 1994).

Experiments can be considered artificial because the researcher creates them. Conclusions drawn from them cannot be said to relate to real life (Scott and Usher, 1999). Qualitative researchers collect data from pre-existing situations, natural settings, although Hammersley (1996) argues that some qualitative research, such as interviews, is done in artificial settings and many quantitative researchers work in natural settings. Qualitative data may provide greater insight into human behaviour. Quantitative methods fail to take account of the meanings and purposes that humans put into their actions (Guba and Lincoln, 1994).

The positivist approach, verifying or falsifying hypotheses, assumes that facts are independent of the theory used to explain them. Knowledge can be separated into parts and examined individually. Objectivity is gained by the independence of the hypothesis from the experiment. The researcher can stand apart from what is being examined (Maykut and Moorehouse, 1994). Guba and Lincoln (1994), however, argue that facts only exist within

some theoretical framework and can therefore only be viewed through a theoretical 'window'. The knower cannot be totally separated from what is known, thus true objectivity cannot be achieved.

The above depends on our understanding of the nature of reality since this affects how we see ourselves in relation to knowledge. If reality is one, then study of its constituent parts will create understanding of the whole. This in turn allows the knower to stand outside of what is known and achieve objectivity. However, if we see reality as a collection of socio-psychological constructions forming an interconnecting whole that can only be understood as such, then the knower and the known are interdependent and we cannot be truly objective (Maykut and Moorehouse, 1994).

As a scientist by training I come from a discipline that supports a positivist paradigm, traditionally the dominant orientation in educational research (Mertens and McLaughlin 1995). The positivist approach is usually associated with a quantitative, and possibly experimental, research design. The researcher may well have developed a hypothesis, which the research will be designed to test. However, the aim of my research is to find out how attitudes affect the practice and the interactions between teachers and children with special educational needs. The questions that I wish to answer relate to preparation and adaptation of lessons for those with difficulties and any departmental variation in this.

As these are 'how' and 'why' questions much of this information would best be gathered by a qualitative research approach, an exploratory and descriptive research model utilising people's words and actions as the main source of data. (Maykut and Moorehouse 1994). The

information required relates largely to the attitudes held by teachers towards special educational needs and their effects and therefore it will be important to ascertain the attitudes of the participants. As this information, as will be seen, could well be gathered by quantitative means it would be advisable to bear Hammersley's (1996) methodologically aware eclecticism in mind, not making a firm commitment to either end of the research continuum.

Attitudes, in many contexts, have been widely studied, including those of teachers towards many aspects of special educational needs. By their very nature, attitudes are difficult to measure. Attitude scales represent only an approximation of the way in which attitudes exist within people. They are also susceptible to change (Zimbardo and Ebbeson 1970). A person may contain contradictory attitudes and the relationships between these may vary at differing times and conditions causing variation in test results (Allport 1967). However, the work of Thurston and Likert improved the reliability of measuring attitudes (Allport 1967).

To be appropriate, any method for measuring attitudes must be valid, reliable, simple to administer and interpret and replicable (AECT 2001). Attitude surveys have been much favoured for determining and measuring attitudes, frequently using a Likert-type scale. These possess most of the characteristics of a good measure and are easier to construct than Thurston scales which require judges to produce item scale values (Robson 2002). Attitudes cannot be assessed by means of a single question (Oppenheim 1992). Using a set of ten or twenty items can present an opportunity for triangulation, the responses being cumulative in building the full picture. The systematic procedures used in their creation help to ensure that the scale has internal consistency and/or the ability to differentiate between individuals



(Robson 2002). Attitude scales in questionnaire form permit anonymity, give the responder time to answer and can be given to many people simultaneously, either directly or by post. The data can be easily scored and relatively easily interpreted. They do however, lack flexibility (AECT 2001).

Schumm and Vaughn (1991), Leyser, Kapperman and Keller (1994), Ward, Center and Bochner (1994), Bender, Vail and Scott (1995), Forlin (1995), Forlin, Douglas and Hattie (1996), Hastings, Hewes, Lock and Witting (1996), Minke, Bear, Deamer and Griffin (1996), Ward and Le Dean (1996), Taverner, Hardman and Skidmore (1997) and Chung (1998), all used questionnaires of this type to survey the attitudes of educators towards those with special educational needs and their inclusion within the mainstream classroom. Ward and Le Dean (1996) also asked participants to select the most appropriate placement for hypothetical children with special needs.

Vlachou (1993), however, was interested, not simply with assessing attitudes, but more with influencing factors and interactions between attitudes, the school environment and the disabled students. Her research, therefore, took the format of an emergent design using participant observation, semi-structured interviews, role-play and group discussions and included a wider spectrum of those involved such as the students and their parents as well as the teachers. These methods are all based more in the qualitative research paradigm than the quantitative questionnaires. Since my research involves more than just the necessary assessment of attitudes, a more varied and qualitative approach would probably be appropriate. However, the use of a Likert-type attitude questionnaire would form a useful first step in comparing the attitudes of the teaching staff within the school.

### 3.3 TRUSTWORTHINESS OF DATA

Research loses its value if its findings are not believable or trustworthy (Maykut and Moorehouse 1994), thus issues of validity and generalisability should be considered (Robson, 2002). To be valid an item must measure what it says it measures reliably (Bell, 1999). Generalisability refers to whether the research findings can be applied to other situations, contexts or populations (Robson, 2002).

Careful selection of research methodology and methods will help to ensure validity as will time spent planning and piloting any tests, questionnaires, interview schedules etc. Where possible, different researchers using the same research tools should be able to get similar results (Bell 1999). This is not easy since individuals bring with them their own experience, prejudices and biases, affecting the way they do and see things. Triangulation, using two or more methodological approaches to the same problem, helps ensure validity (Cohen and Mannion, 1981) as do well written research reports giving sufficient information about the methods used for others to judge (Robson, 2002). Thus it was important that data for my research should be gathered by more than one, thoroughly piloted, method and comprehensively reported.

Generalisability depends on how representative the group studied is to the population to which generalisation is to be made. Consequently the highly controlled settings of the laboratory make it difficult to generalise from there to other types of environment. If the group is a known sample from a specific population then statistical generalisations can be made. Generalisation to other groups depends on such things as specificity of the findings to

the group in question, the relationship of the findings to the group context and whether any past events, unique to the group, affected the findings. A well written report of the findings can make a case for generalising the findings to other, similar groups. Repeating the study, where feasible, unlikely with my study, also makes findings more generalisable (Robson, 2002).

The criticism that bias is a source of error has traditionally been aimed at the more qualitative end of the research spectrum. The more subjective methods used are considered more open to researchers' views obtruding into the analysis than with positivist research. However, Wellington (1996) argues that scientific research is not as objective as is often claimed and Hammersley and Gomm (1997) posit that bias is found in all research, quantitative or qualitative. They consider it to be a positive feature in that important aspects of phenomena, hidden from other perspectives, can be revealed. Janesick (1994) agrees that there is no value-free or bias-free research design. Early identification of biases helps to clarify the origins of the research questions and the direction of the research. Bias and its effects therefore need to be taken into consideration when planning and carrying out research.

### **3.4 ETHICAL ISSUES**

Social science research involves studying people. Thus ethical issues permeate the entire project (Robson, 2002). Issues concerning openness about the purpose of the study, invasion of privacy, confidentiality, safety and many others, particularly if children or other disadvantaged people are involved, must be considered throughout (Bell, 1999). Educational researchers need to consider all aspects of the process of conducting their research within

their own specific context in order to reach an ethically acceptable position wherein their actions are considered justifiable and sound. The research should be carried out within an ethic of respect for the person, knowledge, democratic values, and the quality of research (BERA 2002).

Ideally, informed consent will have been gained from all participants before the start of research who will be aware of their right to withdraw, without giving a reason, at any time. Thus they need to understand what the research involves. In my own research, a participant information sheet, see appendix 1, was given to the teachers who were part of the more in-depth part of my study, to explain the research and permission was sought before every observation. However, there can be issues raised by the participant being fully informed. Observation is a case where the issue of covert/overt may be raised. Covert observation is considered unethical. However, atypical behaviour may result from the participants knowing that they are being observed. In my own study, when observing lessons, the teachers knew why I was there but there was the issue of what the students, who were part of the context rather than participants, be told. Since the students were used to the presence of other, sometimes unknown, adults in the room, observing or otherwise, it was left to the teacher's discretion as to whether or not I was introduced. The British Psychological Society Guidelines (2000) state that observation without consent is only acceptable in situations where those observed would expect to be observed by strangers.

The informed consent of participants must be voluntary (BERA 2002, BPS 2000). I originally sought consent, to undertake my research, from the senior management of the school who encouraged the staff to take part. It was therefore possible that some staff might

have felt pressured to take part. Consequently it was necessary for me to stress the voluntary aspect. Had I decided to interview students, care would have had to be taken that none were coerced into taking part, possibly by members of staff from the school.

BERA (2002) guidelines state that voluntary consent should not be obtained by means of subterfuge or deceit. My research was explained to the participants both on the original questionnaire and, for those teachers who assisted further, verbally and by participant information sheets. Occasionally deceit is necessary owing to the nature of the research, such as when distortion of the results would occur if the participant knew the purpose of the research. In such cases BERA (2002) recommends gaining the permission of an ethics committee and seeking post-hoc permission.

Treating participants with respect ensures that they will not be made to commit acts diminishing their self-esteem. The BPS (2000) guidelines state that the risks from physical or mental harm should not exceed those normally encountered. Since the participants in my research were observed during normal teaching activities and interviewed, no problems of this nature arose. However, a stranger observing teaching will always be stressful, therefore this was kept to a minimum by asking permission, reassurances and being as discreet as possible. Privacy was maintained by only observing normal lessons and avoiding intrusive questions during interviews.

Withholding benefits from some participants can be a problem particularly when the effects of a potentially beneficial intervention are being researched (Robson 2002). Some groups will benefit from the intervention and others will not. However, if the intervention turns out

not to be beneficial or possibly harmful the converse will be true. This did not apply to my research.

Confidentiality/anonymity must be maintained (Wellington 1996). This can lead to tensions if the confidentiality conflicts with the objectivity and independence of the research (Pring 2000). There are also issues of participants not being acknowledged and the dilemma of whether any malpractice uncovered should be exposed (Robson 2002). Neither the school, nor the teachers within it have been named in my research report. The context of the school could be adequately described without identifying it and possibly, having their classroom practice publicly commented upon would embarrass some of the teachers involved.

Pring (2000) states that the researcher must have a good reason for the research so as not to waste the time of the researched. My own research was designed to increase the understanding of the issues involved with a view to improving the way the needs of those with SEN were met. It was also a research training activity for myself.

These issues all relate to the researcher's responsibilities to the participant. BERA (2002) also recognise responsibilities to the sponsors of the research and to the community of educational researchers. Pring (2000) notes that, if desired, it is possible to find data and arguments justifying the conclusions that are wanted by the researcher (or sponsors). Tensions may be created between researcher and sponsor if the research does not agree with the sponsors' requirements. To falsify or be overly selective with the data to achieve desired, rather than actual, results would be unethical and damaging to the community of educational researchers. Since my own research was for submission for a degree, the research had to be

carried out in a manner acceptable to the university. Discussion with my supervisor ensured that this was the case.

### **3.5 RATIONALE FOR AND METHOD OF THE RESEARCH DESIGN**

Robson (2002), in a move to reflect a more realistic picture of research designs than the more traditional quantitative/qualitative paradigms, suggests fixed designs, flexible designs and multiple designs. Fixed designs generally involve the collection of quantitative data and flexible designs are situated more in the qualitative paradigm but may involve collecting quantitative data. Multiple designs, as their name suggests, tend to use mixed methodologies and may combine fixed and flexible elements.

In his first edition, Robson (1993) gives a simple classification of traditional research strategy that suggests three main approaches. These are: experiments, surveys and case studies. He summarises them as follows:

*"1. **Experiments:** measuring the effects of manipulating one variable on another variable.*

*Typical features: selection of samples of individuals from known populations; allocation of samples to different experimental conditions; introduction of planned change on one or more variables; measurement on small number of variables; control of other variables; usually involves hypothesis testing.*

*2. **Survey:** collection of information in standardised form from groups of people.*

*Typical features: selection of samples of individuals from known populations; collection of relatively small amount of data in standardised form from each individual; usually employs questionnaire or structured interview.*

*3. **Case study:** development of detailed, intensive knowledge about a single 'case', or of a small number of related 'cases'.*

*Typical features: selection of a single case (or a small number of related cases) of a situation, individual or group of interest or concern; study of the case in its context; collection of information via a range of data collection techniques including observation, interview and documentary analysis". (p. 40)*

These three strategies fit into positivist/quantitative, interpretative/qualitative paradigms with the experimental being at the positivist end of the continuum and the case study at the interpretative end. This is not the only way to classify research approaches but it is fairly simple and comprehensive enabling a concise review of the methods to be made. Not all possible forms of enquiry are covered. In the fixed/flexible approach (Robson 2002), experimental methods generally fall into the fixed designs. Surveys are a strategy also often used in non-experimental, fixed designs although they can be part of a flexible design. Case studies are usually part of a flexible design study.

As has been stated the questions that I wish to answer are:

Is there a difference in the attitudes of teachers from different subject departments towards special educational needs and does the nature of the subject taught impact upon the delivery of the curriculum for those with special educational needs?

How do the attitudes of teachers towards disabilities and children with special educational needs impact upon their practice? Do they affect the way teachers prepare for lessons and teach and the way they treat different members of the class?

When considering the usefulness of the various research methods in answering these questions the format from the first edition of Robson (1993) is used since it concise and straightforward.



### **3.5.1 Experimental methodology**

The experimental method would be unlikely to answer these questions. There are no specific variables to manipulate and no hypothesis to verify. Too many factors are likely to be acting on both the formation and the effects of attitudes for experiments to be viable (Bell, 1999). The questions could be rephrased, by making assumptions, leading to a hypothesis. The assumption "teachers with negative attitudes to special educational needs will be less effective at meeting those needs." would not be unreasonable as the literature review has shown. However, testing this hypothesis would involve a comparison of groups of teachers with known attitudes rather than an experiment since attitudes cannot be imposed upon subjects. Objective measurement of needs met might also present problems. None of the research into attitudes cited above made use of the experimental method and it would seem to be unsuitable for my study.

### **3.5.2 Survey methodology**

The survey method collects data from much larger populations than the experimental method. Information gained may be simple frequency counts or, using various statistical devices, relational analyses may be made (Scott and Usher, 1999). Patterns can be extracted and comparisons made (Bell, 1999). Surveys provide a simple and straightforward method of collecting information about attitudes, beliefs and motives. Generalisable information may be gained in this manner from almost any population (Robson 2002). Questionnaires or structured interviews are generally used although other techniques, such as observation and documents, may be used as well (Cohen and Manion, 1981).

Questionnaires can provide much information, particularly, as we have seen above, for assessing the attitudes of the participants towards children with special needs and their presence within the mainstream classroom. All the researchers cited, save Vlachou (1993), used attitude questionnaires in their work. Much basic information on the participants and how they see their practice could also be gathered this way. Although frequently used to acquire quantitative data, as in most of the research quoted and in the suggested use in my own study, open ended and suitably phrased questions, can provide considerable qualitative data (Wellington 1996) increasing their usefulness in the present study.

Opinions gathered by questionnaires may be incomplete and rather superficial (Robson 2002). However, a postal survey's anonymity can lead to the respondents being more truthful and willing to divulge their own views rather than the perceived correct answer they might give in interview. It is also easier to gather and analyse the views of a large number of people in this way making them more representative (Wellington 1996). A postal survey would be unlikely to produce the depth of information required here. It might, however, help to inform the questions for interviews or the focus of any observation. Although questionnaires can be used for exploratory work the large number of open-ended questions required tends to render them ineffective and inefficient for this (Robson 2002). Questionnaires could, however, be used for widening the scope of the research by confirming, or otherwise, the initial findings in a wider sample of schools, increasing generalisability and establishing the typicality of the sample school (Wellington 1996).

Ambiguity of the questions might be a problem since even the most thorough piloting is unlikely to ensure that every question means the same to every respondent. Many

questionnaires are lost or discarded. This can affect the representativeness of the sample, ruining careful selection (Wellington 1996) and increasing the necessary sample size required for a suitable number of replies. Selection of sample, to ensure that it is truly representative, is important as it relates to the external validity and generalisability of the findings (Robson 2002).

Structured interviews are very similar to questionnaires but are not self-administered. They share some of the problems and advantages of questionnaires. The sample is usually smaller unless many interviewers are employed. However, the response rate is usually higher since the questions are personally asked. Ambiguities can easily be cleared up but this can also lead to interviewer bias if tone of voice or body language suggests an answer. Similarly interviewer characteristics, such as motivation, experience, skills or personality, may also affect the data. The interview is less anonymous than the questionnaire, possibly discouraging frank responses (Robson 2002).

Since answering my first research question about departmental differences in attitudes to SEN requires information about the attitudes of teachers from a number of departments, an attitude survey of the whole school staff would be a suitable starting point for my study. If carefully structured, much valuable information for the second question, relating attitudes to practice, could also be garnered. Thus it was decided to start the study by administering a Likert-type attitude questionnaire with additional questions for further information, to the teaching staff of the chosen school.

### **3.5.3 Survey method - designing the questionnaire**

When designing the questionnaire the first thing to be considered was the research questions.

These were:

Is there a difference in the attitudes of teachers from different subject departments towards special educational needs and does the nature of the subject taught impact upon the delivery of the curriculum for those with special educational needs?

How do the attitudes of teachers towards disabilities and children with special educational needs impact upon their practice? Do they affect the way teachers prepare for lessons and teach and the way they treat different members of the class?

This led to a consideration of what information was necessary to answer these questions.

Possible variables that might affect the answers to the research questions needed to be considered. These were:

- culture of the school/LEA/children
- culture of the subject department
- age of the children
- gender of the children
- experience of the teachers
- age/gender of the teachers

Siting the study in one school would help to remove the effect of the culture of the LEA, school and the children's background. Information that would help to give the basis for covering the effect of the other variables was thought to be: name, age, gender, department/subject taught, years teaching, type of qualification (BEd, BSc, BA etc.), SEN training (initial training, further qualifications, short courses, INSET), pupil years taught and whether they had accessed subject-specific SEN/inclusion material such as national curriculum web sites, QCA documents etc. Questions seeking this information were consequently devised and formed the first part of the questionnaire.

The principle function of the questionnaire was to discover the attitudes of the teachers towards special educational needs. It was decided to ascertain these using a Likert-type attitude questionnaire with a series of statements, relating to various types of SEN, to agree/disagree with. Problems here were that previous researchers (Soodak, Podell and Lehman 1998, Forlin, Douglas and Hattie 1996 and Gash 1996) had found that attitudes vary according to the nature and severity of the need. Many people were very positive towards pupils with mild physical disabilities but negative towards those with severe behavioural problems (Chazan 1994). Solutions to this problem could be to select, like Gash (1996), one specific problem and refer only to this in the attitude statements. An alternative would be to use statements referring to both mild and severe physical/sensory disabilities, learning disabilities and behavioural difficulties. The former solution would be restrictive, limiting the study to a particular type of need and not giving the overview that I wanted. The latter solution would render the questionnaire unwieldy since a very large number of statements would be necessary in order to cover all these aspects. Avramidis and Norwich (2002) cite multiple interpretations as a problem when using Likert-type inventories, particularly if the

statements refer to particular categories of need. The chosen solution was to refer to SEN in almost all statements and to explain in the covering letter that SEN referred to those pupils within the school with physical/sensory disabilities, emotional and behavioural difficulties (EBD) and learning difficulties, that were on, or considered should be on, the special needs register.

More specificity was necessary about what these statements were aimed to measure. If attitudes to SEN were to be measured, what was meant by SEN and what attitudes? SEN was defined as above. Attitudes were considered to be how people felt about children with SEN from a social, academic and workload perspective.

A series of forty statements were written, using these aspects of SEN, which were considered to be indicative of positive or negative views. These statements were based on comments colleagues had made and from my reading in the area, particularly research reports using similar Likert scales. The staff of a local primary school was then asked to score the statements according to whether they expressed negative or positive views or were ambiguous. These scores were then entered on a spreadsheet and the mean, mode, standard deviation and range were found. The scores were sorted by range and standard deviation. The possible range was from 1, strongly negative, to 6, strongly positive, ambiguous being scored at 3.5. Seventeen scores fell within the range 0-2 but these were mostly negative. Taking the range 0-2.5 increased the number to twenty-five. Although still negatively biased, the statements were much more balanced. Using this information, discarding the ambiguous, and with the aid of the mode, twenty statements were selected giving a balance

of positive and negative views. These were checked to see if they covered the areas identified for measurement.

In order to gain a fuller picture of the participants' views on SEN and to help with the selection of the staff for further study a third section for additional information was added. This consisted of open-ended questions asking for the participants' interpretation of SEN, how the nature of their subject affected meeting the needs of those with SEN and further comments.

The completed first draft questionnaire was discussed with supervisors. A revised version was then piloted at a secondary school. Two statements that caused problems were replaced, others moved to further separate opposite statements and adjustments made to the general information section, including the addition of a question to discover if support was actually received in lessons. The final version was then ready for administration in the chosen school, see appendix 3.

#### **3.5.4 Choosing the school**

A list of local schools was made. With the aid of OFSTED reports, league tables and local reputations, schools were categorised and ordered for suitability for research. Those schools that were high achieving or of Beacon status were put low down the list as were poorly achieving schools. The remaining schools were thus more likely to be representative of a large number of other schools. Contacts within the schools were then used in order to gain access using phone calls and personal visits backed up with an explanatory letter, see

appendix 5, and copies of the questionnaire to be used. Access was gained at the third school approached.

Named copies of the questionnaire were distributed via the teachers' pigeonholes in the staff-room on a Monday morning, to be returned to a box in the staff-room by Wednesday morning. To increase the response rate, a second, named, copy was distributed to non-returnees for return by Friday. On Friday a note thanking the respondents for their replies was left on the notice-board together with spare copies of the questionnaire indicating that the box would remain a further week for those who had been unable to return their replies earlier.

### **3.5.5 Case study methodology**

Stake (1994) argues that a research case study is defined not by the methods of investigation but by the interest in the specific case or cases. It is both the enquiry into the case and the result of the study. Robson (2002) believes that the case should be studied in its own right, not as a sample of a population. Stake (1994) considers that whilst people and programmes are suitable cases for study, events and processes are less so. Yin (1994) defined case study as an enquiry in a real-life context. It can cope when there are multiple variables within a technically distinctive context and will rely on many sources of evidence. Bassegy (1999) places Stake within the interpretative research paradigm with regard to case study and Yin towards the positivist paradigm. Sturman (in Bassegy 1999) notes that the investigatory techniques may be varied, including both quantitative and qualitative methods. Case study may be used to evaluate, as a follow up to elucidate unexpected findings or to explore



(Cohen and Mannion, 1981). Bell (1999) considers that case studies are concerned principally with the interaction of factors and events. Case study is obviously varied in definition, use and approach. This variability makes it flexible, a strength (Robson, 2002). Studies can have an explicit research design or be of the loose, emergent type where the theoretical framework emerges after prolonged engagement with the field.

Case studies can have weaknesses (Cohen and Mannion 1981). Problems of controlling multiple variables make them scientifically weak and they are subject to bias, traditional criticisms of qualitative research in general. Cohen and Mannion (1981) state that case studies are limited in their representativeness and that their findings cannot be generalised, not necessarily a problem in education research as problems here are often unique and idiosyncratic. Yin (1994) considers that case studies are generalisable to theoretical propositions, not to populations. Although agreeing that case studies do not lead to scientific generalisations, Bassey (1999) argues for their value in creating fuzzy generalisations making claims such as 'it is possible'. Wellington (1996) probably sums it up with *"People reading case studies can often relate to them, even if they cannot generalise from them"* (p48).

The variability of case studies means that methods of data collection used are also many and varied, 'multiple sources of evidence' occurs in several definitions (Robson 1993, Yin 1994). This use of multiple sources will increase the validity of the study by triangulation (Janesick 1994). Most of the methods used are appropriate to other types of study.

The case study approach would seem to be particularly appropriate to my second research question regarding attitudes and practice. Multiple sources of data would enable information

to be gathered that could relate actual and perceived practice to attitudes and environment, enabling a broad and detailed picture to be drawn. Thus the main part of my study would consist of case studies of two departments. As a science teacher myself, I have experience of, and an interest in science teaching. My previous research had suggested that science teachers might have negative views regarding SEN and in the attitude survey at Pine Grove, science was the department with the most negative scores. The second department would ideally, contrast with this. As science was a core subject, another from within this group would be preferable. English, as an arts subject contrasted most with science in the nature of subject and methods of teaching. The English teachers at Pine Grove also had the most positive attitude scores out of those in the core subjects. English was consequently chosen as the second department in my study.

### **3.5.6 Potential case study methods**

Studying documentary evidence such as school policies and brochures, minutes of staff meetings, and OFSTED reports would all yield information of value to my study. Carrington and Elkins (2002) consider that, in an inclusive school, school documents will provide evidence of the inclusive philosophy. Documentary evidence can be a useful precursor to other methods, supplementing and helping the analysis of other data (Cohen and Mannion 1981). Bell (1999) warns against selecting documents merely on how well they support personal views or hypotheses, a source of bias. Using documentary evidence can be unobtrusive, documents being unaffected by being used for the enquiry (Robson, 2002). However, the knowledge that one's actions or thoughts were to be recorded in a commissioned research diary might affect the nature of those thoughts or actions and could

therefore be obtrusive. Documentary evidence would be of particular use for contextual information relevant to my study.

Observation could give an insight into how a teacher interacts with pupils, both those with special educational needs and those without. It is not an easy option, requiring careful planning and piloting (Bell, 1999). Observation can yield useful data from a non-artificial, 'real-life' setting. It can help confirm if people act as they speak. This is important since interview and questionnaire responses are easily manipulated, intentionally or otherwise (Robson, 2002).

There are two main types of observation generally identified, participant and non-participant. The former is generally thought to fall within the qualitative paradigm and the latter within the quantitative paradigm (Robson, 2002). Atkinson and Hammersley (1994) however, do not recognise the distinction between participant and non-participant observation. Since you cannot study the social world without being part of it, all social research is a form of participant observation. Robson (2002) identifies a third type, unobtrusive observation. This is generally, but not necessarily, unstructured and informal and is non-participatory making it non-reactive.

Participant observation, where the researcher takes part in the activity being researched, trying to see it through the eyes of the participants, draws heavily on the skills of the observer and can be time-consuming (Maykut and Moorehouse, 1994). The researcher may spend months or years in the research community beginning with a broad focus of study and

allowing subsequent subjects of observation to emerge from the initial discoveries (Maykut and Moorehouse, 1994).

Non-participant observation, a more structured approach, is less time consuming in the field but an observation schedule must be developed and its use mastered which also takes time (Robson, 2002). The presence of an observer will affect the behaviour of the participants in quantifiably difficult ways unless the observation is covert, raising ethical issues. Issues of covert and overt observation would have to be tackled, not only with regard to the staff teaching classes being observed, but also the pupils involved. This is the main ethical problem of ethnography (Woods 1996).

Non-participant observation would be particularly useful for relating teacher-perceived practice to actual practice. The nature of the interactions between the teacher and pupils could be investigated in this way.

### **3.5.7 Observation method**

The aim of the observations was to discover more about the actual practice of the teachers and their interactions with the children, both with and without SEN. Three pilot observations of science lessons were carried out in a different secondary school in order to discover potential difficulties and to develop suitable strategies. This suggested that the first observation should be mainly a context gathering, orientation session enabling me to get the feel of the way that teacher worked and to get to know the pupils thus facilitating further, more structured observation in later lessons. The pilot observations also helped with

organisational issues such as where to sit, recording the information gathered and developing and practising coding and observation schedules.

Teachers for observation were largely chosen on the basis of total score on the attitude statements. Those at the two extremes were chosen, as was the one closest to the middle, neutral score. The qualitative answers to the open ended questions were checked for obvious discrepancies. A second, reserve list was created. The selected teachers were then approached for permission to observe their lessons. The English teachers at the two extremes both refused citing workload commitments. Neither the middle scoring English teacher, nor the middle scoring science teacher considered their classes suitable. From the reserve lists the middle scoring English teacher also considered that she taught no suitable classes.

It was originally hoped to carry out two observations on two classes with six teachers, three from each department. However, this proved difficult. The English department taught in mixed ability classes but years seven and eight had few children with special needs as most of these children were withdrawn from English and maths classes for a special literacy and numeracy course. In year nine most children on the SEN register were taught English as a group because of previous behavioural problems. Consequently only two English classes could be observed. One was a year seven with some children with difficulties and the other was the year nine behavioural problems group. Science classes were set throughout the school. SEN children were generally in the lower sets, some teachers only taking one of these. The lower sets were also, in some instances, being taken by the student teachers that were then in the school. It was therefore decided to observe one class from each teacher.

Each class was observed during three lessons with the teacher being interviewed between the second and third lessons.

The first observation was largely qualitative in nature. The physical context of the classroom was noted, as was the nature of the group being taught. Impressions were gained as to the way the teacher taught and interacted with the group. From information gained during these observations an observation schedule was developed for the second observation. This consisted of a sheet on which it was intended to record the type of interaction between the teacher and the whole class, small groups, individuals and named individuals at five-second intervals for a period of five minutes.

This schedule proved to be impractical during pilot observations and was developed into three schedules, see appendices 6, 7 and 8. The first recorded the type of interactions between the teacher and the whole class, small groups and individual children at five-second intervals for a period of five minutes. All interactions with individuals over a five-minute period were recorded by the second schedule, dividing them into children with or without SEN. This could not be completed for the special needs class. The third schedule recorded interactions with specific children over a five-minute period. The second and third observations consisted of three five-minute periods of each type of observation at the beginning of the lesson, towards the middle and towards the end of the lesson, nine observations each lesson, see table 1 below. Contextual details were noted as necessary, see appendix 9 for an explanation of the interactions noted.

Table 1: Format of observations

	Observation 1	Observation 2	Observation 3A	Observation 3B
Carried out during:	Lesson 1	Lessons 2 and 3	Lessons 2 and 3	Lessons 2 and 3
Observation period	Whole lesson	3 x 5 minutes spread across each lesson	3 x 5 minutes spread across each lesson	3 x 5 minutes spread across each lesson
Total number of observations	1	6	6	6
Observed interactions of teacher with:	Narrative observation of whole lesson	Whole class, small groups or individuals	Those with or those without SEN	Individual children

During the second observation a list of questions based on Hay McBer (2000), see appendix 10, was also completed to improve the contextual data that supported the observations. The Hay McBer report was chosen for this purpose because it covered the three dimensions of incorporated professional characteristics, teaching skills and classroom climate (Campbell, Kyriakides, Muijs and Robinson 2003). It has also been adopted by the DfES as the basis for teacher appraisal and is therefore currently much in use in schools.

The Hay McBer report is a controversial document. It has been criticised on theoretical and methodological grounds. BERA consider that it is lacking as an authoritative research-based account, which could be misleading (BERA 2001). This is because the time-scale was too short to measure pupil progress, the concepts of teaching appeared narrow, correlation and causality appeared to have been confused, the samples were too small and too little information was released to the public domain to allow a proper evaluation (BERA 2001). Gorard (2001) considers that the design is not one that should be emulated by the research community, criticising, amongst others, the nature of the sample and its adjustment in favour of the research findings. However, whilst acknowledging the criticism, Kington, Lee and

Day (2003) comment that the main conclusions are in line with much of the current literature on teacher effectiveness.

The questions were selected from those given in the key findings section of the Hay McBer report. Selection was based on those questions that related most closely to personal interactions with the student, covering as wide a range of interactions as possible and that could be answered within the context of the lesson observations. It was not intended that their use would provide a full teacher appraisal but merely enhance the contextual data. As the research progressed it became apparent that a judgement relating to teacher effectiveness was necessary. Initial judgements on possible teacher effectiveness, made during three hours of observation, were subjective and necessarily superficial. They could not be considered definitive since no study of student outcomes was made (Kington, Lee and Day 2003), not all areas were covered and they were made over a short timescale with only one class. Major influences on these judgements were student behaviour and the teacher's stated willingness to use, and actual use of, inclusive teaching strategies, since these were listed as effective, inclusive strategies by Florian and Rouse (2001a). Although the information provided by the key questions strengthened these judgements of teacher effectiveness, they remain tentative.

### **3.5.8 Interview methodology**

Interviews are a useful form of gaining the necessary information, particularly for a small-scale enquiry such as this. Once access has been negotiated, personally asked questions are likely to be answered and ambiguity can be addressed. Points of interest can be developed



and amplification of brief or confusing answers sought. The interviewee may have the opportunity to lead the interview provided it is not too structured. This makes interviewing a particularly suitable medium for finding out people's thoughts and beliefs regarding the work they do, especially if the interviewer can strike up a rapport with the interviewee, but it can lead to difficulties of keeping the interview on course. However, an unskilled interviewer may gain only brief, non-personal answers. This is important regarding the research question under consideration. The ability to interview cannot be taken for granted, the necessary skills not being innate (Powney and Watts, 1987).

The experience of the interviewer must be taken into consideration when the degree of structure of the interview is being considered. Interviewing is a potentially daunting, skilled occupation (Powney and Watts, 1987). The easiest type to carry out is the fully structured interview, little more than a verbal questionnaire involving the maximum control by the interviewer (Robson, 2002). It is probably the easiest to analyse. Maykut and Moorehouse (1994) quote Measor and Stenhouse as believing that structured interviews are to be avoided in qualitative research. However, the proposed research was not intended to be fully situated within the qualitative paradigm.

The unstructured interview is probably the most difficult to manage, particularly for the inexperienced interviewer. With no set list of questions it is very flexible and can be led by both sides at various times but analysis of the results can be difficult (Bell, 1999). It is probably best used for preliminary interviews when the aim is to elicit areas of interest. Some researchers believe that a totally unstructured interview cannot exist (Powney and

Watts, 1987). Since interviews are "conversations with a purpose" (Robson, 1993) some structure is necessary to ensure that the purpose is fulfilled.

The compromise position, and probably the most useful, is the semi-structured interview. This maintains flexibility whilst giving the interviewer more control (Wellington, 1996). The interview is managed by a series of guidance questions, the interview guide, not a fixed script (Maykut and Moorehouse, 1994). Other questions may be generated by the answers given and the use of probe questions may be necessary. Probes encourage the interviewee to expand on what is being said without directing them, which would be prompting (Robson, 2002). This was the method chosen to interview the teaching staff.

Group interviews or focus groups have several advantages. It can be quicker to interview several people at once. Participants may feel more relaxed and they may encourage each other in their answers (Wellington, 1996, Krueger, 1994). However, in mixed status groups, some members may be inhibited in their responses. Dominant individuals can prevent the views of others being heard. There may also be practical difficulties such as getting everybody together at the same time and gaining a satisfactory recording of the interview (Robson, 2002). Group interviews would have been of little use for interviewing the teaching staff but might have been helpful for gaining the views of support assistants and the students, encouraging them to respond and being less intimidating. Since it was decided to concentrate on the views of the teaching staff, focus groups were not used.

The flexibility of interviews leaves them open to bias since it is easy for the interviewer, inadvertently if inexperienced, to influence the answers of the interviewee (Robson, 2002).

Power relations are also important. The interviewer may intimidate, or be intimidated by, the interviewee simply by who they are or appear to be (Scott and Usher, 1999). This is particularly so when interviewing one's peers (Platt 1981).

Semi-structured interviews with the case-study teachers would enable a more in-depth picture of their attitudes to those with SEN to be drawn, enlarging on their attitude scores. Their perceived practice could similarly be investigated. Consequently this method was incorporated into the case-study design

### **3.5.9 Interview method**

Interviews were carried out with all the teachers observed, between the second and third observation. This was to enlarge the picture of how the teachers viewed special needs and the support provided. It was also hoped to gain insight into how the teachers felt they supported SEN in their lessons. An interview was also held with the SENCO in order to get an accurate picture of the support offered to pupils with special needs and an overview of how this was received within the school.

The interviews were carried out at a time specified as convenient by the teacher and in a venue of their choice. Permission was sought, and received, to record the interviews. A semi-structured interview format was chosen as it was considered to be the most suitable; a structured interview would have limited the responses too much and an unstructured format would have been less manageable for an inexperienced interviewer, possibly leading to important areas not being covered (Powney and Watts 1987).

Participants were reminded of the purpose of the interview and the confidentiality of the results. An interview guide was written, see appendix 11, giving an opening question and a possible question relating to all of the areas that were to be covered. It was not intended that these questions would be asked verbatim or necessarily in the order given, but were for reference only. Potential probes were not given allowing them to be generated by the responses to the original questions. This format gave the freedom to explore avenues opened up by the interviewee, whilst still enabling all the interviews to cover similar ground. The areas covered were varied slightly for the SENCO interview. The interviews lasted for, from twenty to forty five minutes.

### **3.5.10 Summary**

A mixed research methodology was suggested by the nature of the research questions and the type of data required. Since both quantitative methods, such as survey techniques, and qualitative methods, such as interviews, could yield valuable information, the study was placed at the centre of the research continuum. Elements of the design, such as the attitude survey, were fixed at the start of the data collection and used to inform later stages of the research, the precise nature of which emerged as the study progressed. Thus the study was of a multiple design.

In order to study the impact of teachers' attitudes towards special educational needs, those attitudes needed to be known. An attitude questionnaire was chosen for this purpose. A questionnaire was distributed throughout the school enabling the attitudes of teachers from all departments to be surveyed and this gave information relating to whether the subject

discipline affected the nature of the teachers' attitudes. Other information, such as approaches to lesson preparation, was also obtained this way.

However, the research question also sought information on how the attitudes of the teachers impacted on their practice and interactions with students with difficulties. To gain real insight into these aspects required an in-depth study using multiple methods of gathering data, a case study. Observation of the teachers and pupils in the classroom, interviews with staff and the study of documentary evidence all contributed to the study. For logistical reasons a case study was made of two departments.

Since individual departments were part of the whole school, the ethos of the school towards special educational needs was likely to affect the attitudes of those within the school. Information relating to this was gathered. Documentary evidence, such as the OFSTED report, school brochure and progress data, was also useful here.

The research design therefore took a three-phase format starting with a study of documentary evidence, followed by a whole school, teacher survey. This helped to inform the final phase of case studies of two departments.

### **3.6 ANALYSING THE DATA**

#### **3.6.1 Documentary evidence**

A number of documents relating to the school were collected. These were the most recent school brochure, Governors' Report to Parents and the OFSTED report. Policies for Special Educational Needs, Science and English were also requested. Although reminders were given these were not forthcoming. The co-ordinators for English and SEN were concerned that they were newly in post and had not had time to review the policies. An interview was held with the SENCO, adding to the whole school information available, and was analysed alongside the documentary evidence.

The documents were read, areas of interest highlighted and a brief indication of the content of the highlighted passages written in the margin. The interview was transcribed in full and main points similarly highlighted. A summary of these main points was made. The documents were then read through again and the main points were colour coded and grouped into themes for discussion.

Progress data provided by the school gave national curriculum levels in English, maths and science, for each child in one cohort on entry to the school and after the year 9 SATs. A progress score had been calculated for each child and information was given about stages on the SEN register where appropriate. This was used to calculate average point scores for each subject for those with and without SEN. Progress in each subject for both groups of pupils was also calculated enabling comparisons to be made.

### **3.6.2 Whole school questionnaires**

The attitude statements were scored from 1, strongly negative to 6, strongly positive based on the initial pilot of statements as to whether the statement exhibited positive or negative views. Where the respondent did not mark a statement it was scored 3.5. If the respondent had qualified the statement but not marked a response the comment was used to designate a response if possible or the statement was scored at 3.5. There was a possible range of total scores from 20 to 120. Within this range 70 was the neutral score. Thus bands were designated: 20 to 40 strongly negative, 41 to 60 negative, 61 to 80 neutral, 81 to 100 positive and 101 to 120 strongly positive.

The internal consistency of these items was examined using Cronbach's alpha, the most common index of reliability (Statsoft 1999). This gave an alpha value of 0.77, see appendix 12, an acceptable level of reliability. The scores were totalled for each respondent and higher scores considered to indicate more positive attitudes, lower scores less positive ones. Since the response data was ordinal using the total score might be considered to be of limited significance (Mogey 1999) although this could also be said of the median and mode scores. The mode, the most frequently occurring category of score, is the simplest measure of central tendency (Fielding and Gilbert 2000) and can be used with ordinal data such as the attitude scores. However, it is possible to have more than one mode for a variable and the most frequent value may not always be the most typical value (Fielding and Gilbert 2000). Representing the middle value, the median is used primarily for ordinal data. It only indicates the point that 50% of the cases are above and 50% are below but it is unaffected by

extreme values (Fielding and Gilbert 2000). The mean cannot be used for ordinal data (Howitt and Cramer 2000).

In order to ascertain the most appropriate score, median and mode scores were calculated for each respondent with 6 representing the most positive attitudes and 1 the most negative score. A Spearman's rho correlation was carried out to check the relationship between the total, median and mode scores. The correlation was significant at the 0.01 level, showing the scores to be closely related.

For mode/median scores  $r_s = 0.74$ ;  $n = 47$ ;  $p = <0.01$

For mode/total scores  $r_s = 0.66$ ;  $n = 47$ ;  $p = <0.01$

For mode/total scores  $r_s = 0.93$ ;  $n = 47$ ;  $p = <0.01$

This suggested that any of the three scoring systems could be used. Using all three scoring systems gave flexibility to the analysis, the results of the correlation giving validity to this.

A database was constructed using the information given on the first part of the questionnaire. The attitude scores were added to this, enabling correlations to be calculated between the scores and variables. In order to examine the relationships between total attitude score and possible variables, one way ANOVA was carried out, using the total attitude scores as the dependent variable. Gender, age, qualifications, experience, department, support in lessons, SEN training, out-of-school experience of SEN and whether SEN material had been accessed on the web, were the independent variables. One way ANOVA was also carried out as above using the median and mode scores as the dependent variable.



One-way (one-factor, between subjects) ANOVA is a measure of variance that can be used when comparing two or more groups in terms of mean score, independently, on a dependent variable. Equal numbers in groups are not necessary, a potential source of complications with other methods and it is more versatile than a t-test (Howitt and Cramer 2000). An alternative form of analysis, regression analysis, allows predictions to be made. Multiple regressions serves two main functions:

1. Determine the minimum number of predictors (variables) needed to predict an outcome.
2. The relationship of the variables to each other and their relative influence on that outcome (Howitt and Cramer 2000).

The analysis of variables within my study was aimed to provide contextual and supporting data and compared the effect of groups, department experience etc., on the outcome variable, attitudes, treating them independently. Consequently the inter-relationship of these variables was not of particular interest here and ANOVA was considered to be the most appropriate method for this study.

In order to discover any departmental differences in attitude scores, these were totalled for each department. As there were only two respondents for Performing Arts and one for Visual Arts, these departments were combined, giving six departments with between five and eight respondents, two with three respondents and one with two. Mean scores and range for each department were calculated.

Definitions of SEN were written out in full on Excel worksheets with all the questionnaire data. This facilitated cross-referencing of data. These were then classified into difficulty or needs definitions. Where a definition given concentrated on the problems or difficulties a

child with SEN experienced this was classified as difficulty. Where the definition described the needs of the child or how these needs might be met it was classified as a needs definition. The numbers of each type of definition was then calculated for each department and the staff as a whole.

Comments relating to the affect on meeting the needs of those with SEN of the nature of the respondents' specialist subject were also written out in full, as were any further comments. These were then summarised and colour coded into themes so that areas of similarity or difference could be identified and cross-referenced with other data such as scores, age, gender or department.

### **3.6.3 Individual teacher case studies**

The data gathered from the questionnaires, interviews and observations about each teacher was analysed together so that it provided a series of case studies with the individual teacher as the case. The first section of the questionnaire provided background information as to the teacher's age, gender, qualifications, experience and further training. The attitude statements from the questionnaire provided a score indicating the nature of the teacher's attitudes towards SEN. The third, qualitative, section of the questionnaire gained the teacher's own concept of SEN and gave an indication of the teacher's priorities towards SEN, particularly regarding their own subject.

The interviews were transcribed in full. They were then read through, the main points highlighted and a brief indication of content written in the margin. A summary of these main

points was made. The interviews were read through again and the main points grouped and colour coded enabling a word-picture to be drawn of the attitudes and practice of that teacher.

#### **3.6.4 Observations**

The narrative observation (observation 1) was written up in full for each of the teachers. Data from observations two and three was placed onto Excel worksheets initially as raw data from the three types of observation carried out. This could then be totalled, grouped and regrouped in order to look for patterns and enabling it to be analysed.

The data relating to the teacher's interactions with the class (observation 2) were analysed with regard to the relevant frequencies of each interaction with the whole class, a small group or individual pupils. Thus rank orders of interactions could be compared for the different groups and later for different teachers. Percentages were also calculated to indicate the proportion that any one interaction represented of the total interactions with that group (whole class, small group or individual).

Observation 3, A and B looked at interactions with those with or those without SEN (A) and interactions with specific pupils (B). The results from B could also be totalled to give results similar to A. To check for reliability of these observations and whether the results could be combined for comparison with other teachers, the percentage of each interaction as a function of the total interactions received by that group (with SEN or without SEN) was calculated. This was used to create a rank order of interactions. The rank order of

interactions for observations 3A and 3B was then compared for each teacher using Spearman's Rho correlation.

For Sally -  $r_s = 0.59$ ;  $n = 7$ ;  $p = >0.05$

For Mike -  $r_s = 0.82$ ;  $n = 8$ ;  $p = <0.01$

For Kate -  $r_s = 0.92$ ;  $n = 7$ ;  $p = <0.01$

For Pat -  $r_s = 0.99$ ;  $n = 10$ ;  $p = <0.01$

Observation A could not be carried out for Jane due to the nature of her class. This level of correlation allows observations 3A and 3B to be combined for the purpose of analysis. Average interactions per child were also calculated for each different type of interaction observed.

### **3.6.5 Comparisons**

The information contained within the individual case studies was summarised in table form enabling comparisons between the various participants to be made. Interview and observation data generated information on how theory and practice were related. Participants were compared on a departmental basis, English and science in order to enrich the data from the questionnaires regarding departmental differences in attitudes and practice. The English and science teachers with the most positive scores were compared in order to investigate the relationships between positive attitudes and practice and any departmental influences on this.

Thus most of the information needed to answer the first part of the first research question -

Is there a difference in the attitudes of teachers from different subject departments towards special educational needs and does the nature of the subject taught impact upon the delivery of the curriculum for those with special educational needs?

was gained from the questionnaire. The second part, although informed by the questionnaire, was mainly answered by the case studies.

Although some of the answers to the second research question -

How do the attitudes of teachers towards disabilities and children with special educational needs impact upon their practice? Do they affect the way teachers prepare for lessons and teach and the way they treat different members of the class?

were gained from the questionnaire, most information came from the case studies.

## CHAPTER FOUR - RESULTS

### 4.1 THE SCHOOL

In order to maintain confidentiality, documents that would identify the school do not appear in the bibliography.

#### 4.1.1 First impressions

Pine Grove School was originally built in 1975. There has been a name change and an ongoing process of enlargement since then; a large arts building opened about five years ago. Classrooms for the learning support department were recently completed. The buildings appeared to be in good condition. They were clean and modern and the grounds were tidy and cared for. Between lessons the students moved around the school in a relatively quiet, orderly manner and appeared well behaved. Members of staff were approachable, friendly and helpful. The OFSTED inspection team found that the ethos of the school was good and the atmosphere industrious in 1997.

*" The ethos of the school is very positive. Pupils are valued, respected and helped to achieve their full potential. The school is an orderly place where pupils are friendly, well mannered and relaxed. Visitors are made welcome by pupils, who treat them with courtesy" (p.15)*

The OFSTED inspection report (1997) for the school states that the Local Education Authority established Pine Grove School in 1989 as a six-form entry, 11-16 comprehensive school. The school later became grant maintained and is now a foundation school. It was

created by the merger of two schools, with different backgrounds and different levels of achievement.

Pine Grove School's location was close to the boundary of two wards with very different socio-economic backgrounds, drawing pupils in equal proportions from both. One ward was a relatively prosperous suburb of a small city, composed largely of private, owner-occupied housing. There was a high proportion of adults with further and higher education qualifications. The other ward consisted mainly of local authority housing, some of it now privately owned. In this ward there were more single parent families, higher levels of unemployment and fewer adults with advanced qualifications, giving the school a fully comprehensive intake.

In 1997, pupils' abilities, as measured by external tests, matched a normal distribution with small variations positively in Years 9 to 11 and negatively in Year 8. Reading ages varied from 7.6 to 12.6 on entry. The total school population and those on the SEN register can be seen in table 2 below, figures are taken from OFSTED 1997, the Governors Report to Parents 2001, the school brochure 2002-2003 and DfES performance tables 2003.

Table 2: Numbers with special educational needs related to school population

	School population	On SEN register		With statement	
		Number	%	Number	%
1997	944	198	20.98	22	2.24
2001	980	223	22.8	26	2.65
2003	1043	220	21.09	25	2.4

The school population was predominantly white. The number of pupils eligible for free school meals was 154 (16.4%) and had been gradually rising (OFSTED 1997). Sixty-five

percent of pupils continued in education on leaving school at the age of 16. This had risen to 70.7% in 2001 (Governors Report to Parents 2001).

GCSE results had risen since the last inspection and were then above national averages for five or more subjects at both A\* to C and A\* to G. Average points scores were rising faster than the national figure (OFSTED 1997). The DfES performance tables 2003 indicate that, having peaked in 2000, the results for five or more A\* to C had fallen since and are now at national levels. The Value Added was just above the broadly average but not significantly so. In national tests at the age of 14 in English, mathematics and science, results were above, but not significantly different from national averages (OFSTED report 1997). The results in 2002 were similar except for science, which had risen by 15%. The Value Added was in the broadly average band (DfES performance tables 2003). Just over half the pupils entering the school from primary schools had higher levels of achievement than in some other local secondary schools (OFSTED report 1997).

#### **4.1.2 Special educational needs according to OFSTED**

Generally, the OFSTED inspection report for 1997 was a good one. The school provided a good education for its pupils and value for money. However, one area singled out for criticism was special educational needs. It was felt that pupils on the SEN register were not always reaching the standards of which they were capable. Their progress was more limited than that of other pupils in the school. SEN formed one of the four "Key issues for action".

*"... the school should:- ... Provide improved support for pupils with special educational needs both in the classroom and across the curriculum through:- teaching and tasks more suitable to pupils' needs, appropriate resources for*



*learning, and additional ancillary support, clearer role definition for all teachers with responsibilities for special educational needs" (p.4)*

The provision of additional hours for SEN was considered "urgent" (p.3).

The support for pupils with SEN in the classroom was considered good but insufficient. Concern was expressed that support assistant hours had been cut over the previous three years. No reason is given for this but it is noted later that the school's income had continued to reduce since the previous inspection. It would appear that learning support had been an area where cuts in expenditure had been made. Support assistant hours that were specified by a statement of special educational need were, until recently, centrally funded by the LEA. However, deployment of those assistants and the employment of assistants to support non-statemented SEN were the responsibility of the school.

The lack of appropriate work for students with SEN was considered to be the main weakness in teaching in the school.

*"The main weakness in teaching is the provision of appropriate support and work for pupils with special educational needs. There is a shortage of ancillary support in classrooms and too little emphasis is placed on designing appropriate tasks and work to meet the abilities and needs of pupils" (p.12).*

Development plan targets to provide tasks more suited to the needs of these pupils had not become fully operative. The wide range of literacy skills between the highest and lowest attainers was noted. This was particularly obvious in subjects such as geography, maths and science where literacy expectations are quite high.

However, teaching in the learning support department was considered to be good.

*"Staff are sensitive towards the pupils and encourage them to complete each set task. The main teaching resources for literacy, whilst narrow in range, are used well and*

*teachers make good use of de-coding skills in exercises, spellings and comprehension. ... Computer hardware and software are inadequate. Pupils with special needs who receive classroom support are helped appropriately by staff working alongside them in the classroom. Tutors practise spellings and tables on some mornings in registration time. The school encourages voluntary help for paired reading and a small number of pupils from Year 9 help younger pupils in this way" (p.13)*

Parental consultation and involvement in the annual review was thought to be good, as was the use of IEPs. However, monitoring was considered variable because the SENCO was not allocated sufficient non-teaching time. Computer hardware and software for SEN was considered inadequate.

There were several areas where the governors did not meet the requirements with regard to SEN. The annual report to parents gave no progress information for those with SEN. Links between the governors and provision for pupils with SEN were inadequate.

A picture is drawn of a department working well under difficult circumstances. There was only a limited whole school approach to meeting the needs of those with SEN and the department seems to have been high on the list to absorb cuts in spending. This suggests that learning support might not have been senior management's highest priority in the school.

#### **4.1.3 Special Educational Needs five years on**

The school obviously wished to portray itself as being very caring and positive about special educational needs. The school brochure (2002-2003) indicated that

*"One of the beliefs we have is that all pupils have equal rights of access to the whole curriculum and that this curriculum should be as full and varied as possible, so that individual talent and potential can be fully developed and achieved. ... Learning*

*Support staff will deliver specific courses and closely monitor the progress of pupils with an identified special educational need."*

The Governors' report to Parents 2000/2001 began with the statement

*"All pupils with a learning difficulty are entitled to full access to a broadly based, balanced curriculum, including the National Curriculum."*

Equal rights to the whole curriculum was stressed in both the school brochure and the governors report to parents. However, the recently appointed SENCO, when describing the support in the school, stated that the "fast-track" SEN groups in years 7 and 8 were withdrawn from English, Maths and languages for this course designed to boost their literacy and numeracy skills. She was concerned that they had no access to modern foreign languages until year 9, which was disadvantageous. The fast-track package was one area that the SENCO wished to alter. Students currently had to take the whole package and she wanted it more tailored to the individual needs of each pupil, allowing them access to MFL.

The school was particularly keen to emphasise its ability to accommodate the physically disabled. With regard to admissions the school brochure (2002-2003) stated that the

*"Governors will look sympathetically at pupils in wheelchairs due to the modification to the site to enable them to attend".*

The wording could perhaps have been improved upon. Under the heading 'Learning Support' the statement was made -

*"The school will continue to integrate disabled people wherever and whenever possible and strongly believes that this is to the benefit of everyone."*

This was followed by a description of the facilities for the physically disabled.

The Teaching and Learning Centre was described, in the brochure, as giving short-term support to a carefully selected minority of pupils from Key Stage 3 with significant

behavioural and/or learning difficulties in the mainstream. In a newsletter to parents dated April 2002, mention was made of 21 pupils who were causing concern with their behaviour. Those in years 7 and 8 were said to have been removed to the teaching and learning centre for separate tuition until they could be reintegrated or had to be excluded. Those in years 9 and 10 had been warned of their progress towards exclusion. The school apparently wished to reassure the parents that they were using the centre as stated in the brochure.

Some concerns raised by OFSTED regarding SEN had since been addressed but possibly not all. Lack of data relating to progress for those with SEN in the governors' report to parents was one criticism from OFSTED. The governors' report to Parents 2000/2001 had one and one half pages on 'The Implementation of the Policy for Special Educational Needs. This told us that the average gain in reading age over the last academic year was 11 months, 29 months being the highest. For spelling it was 14 months and 30 months respectively. However, the governors' report also stated that *"It is the aim for the SENCO and the SN Governor to meet regularly"* (my emphasis). Does it not always happen? OFSTED found that the links between the governors and the provision for pupils with special educational needs were not strong enough.

OFSTED found that *"pupils have insufficient support in the classroom"* and that some pupils with statements were not receiving their entitlement of support. The governors' report stated that support was delivered through small group work and setting. It added, *"Pupils may also be supported in the classroom with individual learning programmes as far as resources will allow"* (my emphasis). This phrase also occurred in the school brochure. Was this being

realistic or was it a get-out clause? It certainly suggests that in-class support was a low priority with regards to SEN and that the OFSTED finding might still be extant.

The governors' report to parents 2000/2001 told us that a number of new support assistants had been "*taken on to the school's payroll*". The wording was interesting because the LEA had recently devolved to schools, funding for paying support assistants attached to statements of educational need. Those assistants would previously have been on the LEA's payroll. The report says that there are 11 assistants supporting pupils but did not give the full-time equivalent of those assistants. There were 26 children with statements and 223 on the SEN register, not a lot of available time for in-class support considering that much of it was spent supporting fast-track groups.

OFSTED found that there was inadequate computer hardware and software for SEN. The governors' report to parents told us that 2 Successmaker (an integrated learning system) machines had been installed. The SENCO stated during interview that she felt that this was insufficient. She had also been unsuccessful so far in getting permission to withdraw children from lessons for twenty-minute periods to use these machines. This system had been used with good results in her previous school.

It was also found by OFSTED that the roles of those responsible for SEN both in the school and in individual departments were not clear enough to ensure that all staff could effectively meet the needs of those with SEN. The SENCO felt that not all teachers were yet aware of the roles of those responsible for meeting special needs.

*"I mean some people do think, ... that's your problem, they're your pupils. I think for many ... teachers in this school, it'll be a big shock, ... the new Code of Practice is*

*really saying, I know its always said it, but every teacher is a teacher of special needs. And I think my role is supposed to be more that I'm there to advise, to help, but not do, necessarily, all the time. And, I think, some teachers won't like that" (6,I.8).*

There was still little departmental planning for SEN. The SENCO felt that this was probably due to initiative overload. She was however impressed with the whole school literacy initiative that has been introduced.

*"I think that a real positive about this school is that there is quite an active literacy group, and there's a member of every department on that literacy steering group. And everybody is trying to do active things about it. We had the HMI in recently, and I happened to go in at the lunchtime to talk to him ... with a couple of teachers from science who are on the literacy group. ... when they talked about and showed him what they'd done in science to make it more accessible, to think about the literacy, it was excellent. I think there's a lot of good practice going on" (6,I,13).*

According to OFSTED the SENCO had insufficient non-teaching time for her role. In interview the SENCO said

*"I haven't made massive changes, because I hadn't got the flexibility to do it really when I got here. By the time I got here the timetable was set; all my lessons were organised. And then, when I took the job, I did insist that I had free time to do the SENCO bit of it, and they did stick to that, although not quite as generously as they'd said at the interview. I did say that I wanted at least eight free lessons. And I suppose, technically, I've got eight free lessons but some have been swallowed up by other things" (6,I.3).*

A small move in the right direction perhaps?

One concern of the SENCO on her arrival was the state of the paperwork in general and the IEPs in particular. *"I was really concerned that the pastoral team were doing a lot of the IEP type work but it was not formalised as IEP's at all" (6,I.3).* OFSTED found the use of IEPs to be a strength. *"Individual education plans are used effectively to ensure that appropriate support is given" (p.17).* Was the previous SENCO given any additional non-teaching time after the inspection?

Although effort had obviously been made in response to the criticism the impression was still given that senior management did not rank special needs as one of the highest priorities in the school. The SENCO was unsure as to how highly they were valued.

*"He (the head) was very positive about all their (support assistants) qualities, and he did seem to know their individual foibles and knew what they were good at, what their skills were. So I think they are recognised for that. But, having said that, sometimes, when I look at the general way that the pay and conditions and things are treated, then sometimes I think, are they valuing them as much as they should do? ...the jury's out a little bit on that one" (6,I.24).*

#### **4.1.4 Curriculum subjects**

Generally other subjects fared moderately well in the OFSTED report. Performance in the SATS was above the national average and had improved since the previous inspection although English, in particular, but also maths and science had begun to decline again. Attainment at Key Stage 4, including English, maths and science had also risen since the last inspection. Five A\* to C and Five A\* to G levels at GCSE were slightly above national averages.

The major criticism of the English department was the decline in standards. Although the results for A\* to C at GCSE for 2001 were an improvement on those for 1997, they had still not returned to those for 1996. Inadequate support for those with SEN and the poor spelling and sentence construction of some low-achieving pupils were the other negative comments. Other areas were generally satisfactory or good. The pace of lessons was thought to be particularly good. It was noted that the department was all female and that it had recently undergone a change of leadership. At the time of the research the department was still all female and had just undergone another change of leadership.

The science department had a more mixed report. Collaboration and the working relationship between staff were considered good, as were staff/pupil relationships. The pace of lessons was sometimes slow, leading to occasional unsatisfactory progress. When provided, in-class support enabled those with SEN to make good progress. Teaching was satisfactory, however. The department was considered somewhat under-resourced with ineffective professional development. As in English, there had been a decline in standards since the previous inspection. However, by 2001 the results for A\* to C at GCSE had overtaken those for 1996.

National Curriculum subjects other than the core subjects were in keeping with national expectations and modern foreign languages and PE were above. Attainment was satisfactory or better in over three-quarters of the lessons observed. It was thought to be higher in Key Stage 3 than Key Stage 4. It was stated that *"Poor attainment mainly occurs in classes which consist of pupils of lower ability"* (p9).

Lessons were thought to be well planned and paced but sometimes under-resourced.

*"The majority have clear aims, especially in design and technology, geography, mathematics, modern foreign languages and science. A variety of methods, activities and tasks is used in each lesson to maintain pace, interest and motivation. Pace is particularly good in English and music. ... Teaching benefits from good relationships between teacher and pupil in the majority of subjects, but especially in design and technology, history, geography and science. ... However, a narrow range of resources in some subjects, for example, geography and science, and the inaccessibility of information technology equipment, sometimes prevents pupils receiving their full entitlement to information technology in both key stages, and across subjects"* (p.12).

The use of non-specialist teachers for religious education was seen as a problem.



A photograph in the school brochure (2002-2003) showed children working hard in a computer suite with the caption *"technology plays a significant role in education and computers are used as a teaching and learning aid throughout the school"*. This area of criticism had apparently been addressed.

#### 4.1.5 Progress

The school had available one set of scores that had been calculated for the cohort of students that took Key Stage 2 SATS in 1999 and Key Stage 3 SATS in 2001. The scores listed their teacher assessment National Curriculum levels for each subject at Key Stage 2 and their test levels for each subject at Key Stage 3. A score, based on those used by the DfES School Performance Tables, had been allocated to each student for each subject and this had been used to calculate a progress score by subtracting the KS2 score from the KS3 score. From these it was possible to calculate the average N.C. level and points score for each subject for all those students on the SEN register and for all those not on the register. An average progress score for each group could also be calculated.

Table 3: Average N.C. level and points score for the 1999 cohort at Key Stage 2

	Key Stage 2					
	English		Maths		Science	
Average	Level	Points	Level	Points	Level	Points
With SEN	2.98	21.2	2.96	20.89	3.32	22.92
Without SEN	3.99	26.9	3.94	26.46	3.92	26.06
Difference between scores	1.01	5.7	0.98	5.58	0.60	3.14

As can be seen from table 3 above, at K.S. 2, the levels and point scores in maths and English, for those with SEN were quite similar. The scores for science were noticeably higher. For those without SEN the average scores for all three subjects were very similar.

The difference between the scores for those with and without SEN was much smaller for science.

At K.S. 3, table 4 below, the science scores and levels for those with SEN had fallen behind those for maths. English now had the lowest scores and levels. For those without SEN science had the lowest scores and levels, followed by English, then maths. The difference between the scores for those with and without SEN was still smaller for science but the difference was less marked. With regard to progress however, both those with and those without SEN had made less progress in science than in English, and particularly maths. Those without SEN had made proportionately more progress in science than those with SEN since the difference in scores for those with and without SEN was larger for science than for English or maths.

Table 4: Average N.C. level, points score and progress score for the 1999 cohort at Key Stage 3

	Key Stage 3								
	English			Maths			Science		
Average	Level	Points	Progress	Level	Points	Progress	Level	Points	Progress
With SEN	3.91	26.89	5.66	4.19	28.11	7.22	4.08	27.46	4.54
Without SEN	5.62	37.02	10.09	5.74	37.53	11.07	5.50	35.82	9.76
Difference between scores	1.71	10.13	4.43	1.56	9.42	3.84	1.42	8.35	5.21

#### 4.1.6 The SENCO

Mrs Meadows, the SENCO, had been in post since the beginning of the school year. The previous SENCO remained in the school as a part-time support teacher. There was little flexibility for Mrs Meadows to make changes for this year as the timetable was fixed when she arrived. There was also the problem of the new Code of Practice not being in place in

September as originally announced by the DfES. Mrs Meadows had therefore concentrated on getting the administration organised and in place. Changes that she would have liked to introduce were mainly to the "fast-track" (literacy and numeracy) classes to make them more flexible and individual to the children. She would also have liked more "Successmaker" (computer software) licenses and to be able to withdraw children for twenty minutes from lessons to be able to use them. Mrs Meadows would also have preferred the in-class support to be more general, rather than the assistants working with just one child. She was trying to improve the information for staff on those pupils on the SEN register.

In Mrs Meadows' opinion, any variations in attitudes towards those with special needs reflected those found in life. However, she did not think that all teachers fully understood their responsibilities towards those with SEN. Attitudes were not the biggest factor in meeting a child's needs, she felt.

*"So, I think regardless ... of what they feel about these pupils, if they're a good teacher they will try and do the right thing by every child and try and make sure there is differentiation, whether they like it or not. I think it's down to good practice" (6,I.9).*

She did not consider that there was any particular departmental bias towards those with SEN.

*"I think there's pockets right across the school really, there's pockets of excellence in every subject I would say, and the odd one or two that, probably don't want the children there, in every subject" (6,I.10).*

Although the nature of the subject probably did affect those with SEN, Mrs Meadows felt that the new initiatives were probably overcoming this to some extent.

*"I think all the new initiatives, like the literacy initiative, is making teachers more aware of how much language or how much numeracy there is in their subject. So, I think the literacy and numeracy initiatives, although we moan about them, they are good because they're reminding us about good practice" (6,I.12).*

The initiatives however, had their downsides, lowering the priority of planning for SEN within the departments.

*"I've got to remind people that we're there still because the new Code of Practice gives me an opportunity to do that. But the English department, they've had so much, the Maths department, the science department, they've all had masses of initiatives coming in, I don't think I could practically expect them to be considering us as a high priority at the moment "* (6,I.15).

Use of support staff was variable. Some teachers informed them beforehand of what they would be doing and what they required of the support. With others the support staff were thinking on their feet. Mrs Meadows felt that this was largely a pressure of available time.

*"Although we would love there to be lots of forward planning, I think I've got to always be realistic. I know sometimes that I have (support assistants) in my room and I might have said, just as the pupils are coming in, what we're doing, because I haven't had time to see them. So, I can't expect the perfect world. Although we'd love it, it's just not possible"* (6,I.17).

Some staff did consult with the support staff with regard to students needs but generally only with something specific such as sight impairment.

Mrs Meadows felt that the learning support department was valued within the school.

*"It was really nice actually. Somebody left, ... and his leaving speech was quite moving. ... he said, 'I don't want to pick people out particularly but I have got to say thank you to certain people', and ... he said thank you to a couple of the support staff who'd been in with him. So I think there are people that really value having support in there. "* (6,I.23).

Mrs Meadows felt that she could not give unqualified support to more inclusion. This was because it needed properly resourcing. She felt that support assistant hours attached to statements of educational need were gradually being reduced although the LEA denied this.

More training for all teachers was also necessary.

*"It's all very well saying that all teachers are teachers of special education, but I don't think all teachers feel qualified to be that"* (6,I.25).

Other staff within the school would, she felt, probably feel supportive of more inclusion were it not for behavioural needs.

*"I think generally they would but it's the behavioural ones, I think, that are the big problem. Even I feel that, I can do this for reading, I can do that for spelling ... but actually getting a handle on behaviour, and improving that is difficult, and setting meaningful IEP targets is difficult. And I think that's where staff do feel quite resentful" (6,I.28).*

#### **4.1.7 Summary**

##### **4.1.7.a The school**

- This was a moderately good school
- It had slightly above average achievement
- The catchment area was mixed
- SEN was not the highest priority
- The learning support department was effective but too small and under resourced
- The English department was struggling with falling standards, but was otherwise good.

The pace of the lessons was good

- The science department was cohesive but lessons were sometimes slow with a lack of progress
- Those with SEN made least progress in science during Key Stage 3

##### **4.1.7.b SENCO**

- SEN was suffering from initiative overload
- The whole school literacy policy was good for SEN
- Staff were not aware of their roles

- More inclusion was only viable if properly resourced
- Behaviour problems inhibited the desire for inclusion

## 4.2 QUESTIONNAIRE ANALYSIS

### 4.2.1 Whole school

Questionnaires were distributed to 61 teachers. Forty-seven staff completed the questionnaire representing a return rate of 77%, higher than 70% often quoted as necessary to avoid bias but lower than the 90% suggested by simulation studies (Robson 2002). The distribution of responses between the subject departments can be seen in table 5 below. Numbers from each department are necessarily small but in most cases the response rates are acceptable. Technology is marginally below 70%, visual and performing arts more so. Because of the numbers involved and the nature of the departments, visual and performing arts were combined into one department for analysis.

Table 5: Response rates for each subject department

Department	Teachers in department	Respondents	% response
Science	9	7	77.78
Maths	9	7	77.78
English	8	8	100.00
Foreign Languages	6	5	83.33
Technology	9	6	66.67
Humanities	7	6	85.71
PE	4	3	75.00
Support	2	2	100.00
Visual Arts	3	1	33.33
Performing Arts	4	2	50.00
Arts combined	7	3	42.86
All staff	61	47	77.05

Items from the attitude scale were scored from 1 to 6. Agreement with an item signifying positive views was scored as 1 - strongly disagree to 6, strongly agree. Where agreement indicated negative views, the scoring was reversed. The internal consistency of these items was examined using Cronbach's alpha, see appendix 12. This gave an alpha value of 0.77, an acceptable level of reliability (Nunnally 1978). The scores were totalled for each respondent, higher scores consequently indicating more positive attitudes and lower scores less positive ones. Median and mode scores were also calculated for each respondent with 6 representing the most positive score and 1 the most negative score. To check the relationship between the total, median and mode score a Spearman's rho correlation was performed showing a high degree of relationship between the three scores.

Taking the totalled scores of all these 47 respondents, the mean score was 76. This is at the positive end of the neutral band, see table 6 below

Table 6: Banding for attitude scores

Score band	Strongly negative	Moderately negative	Neutral	Moderately positive	Strongly positive
Score	20-40	41-60	61-80	81-100	101-120

The range of scores was 52, from 48 to 100, median being 79. As shown in table 7, below the staff as a whole is tending towards a positive score in its attitudes towards special educational needs.

Table 7: Distribution of scores from attitude scale

	Negative		Neutral		Positive	
Total score	3	6.4%	25	53.2%	19	40.4%
Mode	13	27.7%	0	0%	34	72.3%
Median	12	25.5%	3	6.4%	32	68.1%

#### 4.2.2 Variables

In order to examine the relationships between the total attitude score and the possible variables, one way ANOVA was carried out, using the total scores from the attitude scale as the dependent variable. As shown by the literature, gender, age, qualifications, experience, department, whether lessons were supported, SEN training, experience of SEN out of school and whether SEN material had been accessed on the web, were the independent variables. This yielded no results of statistical significance, see appendix 13.

Similarly, one way ANOVA was also carried out as above using the median and the mode scores as the dependent variable, see appendix 13. Using the median, a significant difference was found for experience of SEN out of school.  $F(1,45) = 4.98$ ;  $p < 0.05$ . A significant difference was also found for departments,  $F(8,38) = 2.91$ ;  $p < 0.05$ , using the mode. A Post Hoc, Tukey HSD test was carried out and this indicated that the significant difference was between group 6, science and groups 1, English ( $p < 0.02$ ), 5, humanities ( $p < 0.02$ ), and 8, arts ( $p < 0.05$ ).

Departmentally, although not statistically significant, the mean, total score of three departments fell in the weakly positive band, see table 8 below. These were learning support, PE and arts, the departments with the least number of responses. All other departments fell into the neutral band. However, all but science, were to be found at the positive end of the neutral band. Staff teaching the three core, National Curriculum subjects had the lowest mean scores. These are the subjects in which SATs are taken at the end of Key Stage 3 and contribute to the school league tables. English and science had the greatest range of scores, MFL the least. Of the three staff with scores in the weakly negative band,



two were in the science department and the third was in the maths department. There were three weakly positive scoring teachers in the Maths department and two in all the other departments.

Table 8: Total attitude scores by department

Department	Respondents	Mean	Range
Support	2	86	84-88
PE	3	83	79-87
Arts	3	81	79-83
Technology	6	80	69-93
Humanities	6	78	70-89
MFL	5	77	71-83
English	8	75	65-100
Maths	7	73	59-84
Science	7	67	48-83
All Staff	47	76	48-100

The order of mean score suggested that the core subjects were the lowest scoring departments and that most of the foundation subjects were slightly higher. In order to investigate this further the departmental scores were allocated to group 1, core subjects; English, mathematics and science, group 2, most of the foundation subjects; modern foreign languages, humanities and technology, and group 3, others; arts, physical education and learning support. This also gave the opportunity to work with larger numbers of respondents. ANOVA was again carried out using total attitude score as the dependent variable and grouped department as the independent variable. This time a significant difference was found.  $F(2,44) = 5.198$ ;  $p < 0.01$ . A Post Hoc, Tukey HSD test was carried out and this demonstrated that the significant difference was between groups 1, core and 3, others ( $p < 0.05$ ). The difference between groups 1, core and 2, foundation, and 2, foundation and 3, others, was not significant ( $p > 0.05$ ). This was confirmed using the median and the mode scores. Median;  $F(2,44) = 5.341$ ;  $p < 0.01$ , mode;  $F(2,44) = 3.360$ ;  $p < 0.05$ .

Table 9: Composition of departments by percentage mode scores

% Mode			
	Positive	Neutral	Negative
Science	14.29	28.57	57.14
Maths	57.14	14.29	28.57
English	50.00	50.00	0.00
MFL	60.00	40.00	0.00
Humanities	83.33	16.67	0.00
Technology	50.00	50.00	0.00
Support	50.00	50.00	0.00
PE	66.67	33.33	0.00
Arts	100.00	0.00	0.00

In order to further explore departmental attitudes, the mode scores were grouped; 6 and 5 (positive), 4 and 3 (neutral) and 2 and 1 (negative), and the percentage respondents in each group calculated for each department, see table 9 above. The mode score was used rather than the median because it was more consistent and gave a better spread of scores. Using this grouping the percentage scores of all departments was 50% or above positive, with the exception of science, 14.3%. Fifty seven per cent of scientists had a negative score. The only other department to gain a negative score was mathematics (28.6%).

Table 10: Composition of grouped departments by percentage mode

% Mode			
	Positive	Neutral	Negative
Core	40.91	31.82	27.27
Foundation	64.71	35.29	0.00
Other	75.00	25.00	0.00

When the departments were grouped into core, foundation and other, table 10 above, the increase in positive attitudes from the core group through the foundation to the other group can be seen.

Although not significant, there was an indication that males were more negative in their views than females, table 11 below.

Table 11: Scores by gender

	Mean total score	% Mode		
		Positive	Neutral	Negative
Male	72.6	53.33	20.00	26.67
Female	77.8	56.25	37.50	6.25

Regarding qualifications, see table 12 below, although not statistically significant, those with an education qualification, Certificate of Education or Bachelor of Education degree, were the most positive, both by mean totalled score and by mode score. Those with a subject based qualification, such as a Bachelor of Arts or Bachelor of Science degree and a Post-Graduate Certificate of Education were less positive and those with higher, generally subject-based, qualifications were the least positive by both mean totalled score and by mode score. Although the positive mode score of groups 1 and 3 are identical, group 3 has a much higher negative score so that, overall, group three is the most negative.

Table 12: Scores by qualification

	Mean total score	% Mode		
		Positive	Neutral	Negative
1. Cert Ed/BEEd	78.3	58.33	41.67	0.00
2. BA/BSc, PGCE	76.1	52.17	34.78	13.04
3. Higher	74.1	58.33	16.67	25.00

Although not statistically significant, the mean total score for training for SEN suggested that the more training, the more positive were the views, see table 13 below. Comparing negative and positive mode scores leads to a similar conclusion since those with no training had the least positive score and the most negative score and those with most training had a higher positive score and the least negative score. Those with initial training had the highest positive score but also a high negative score.

Table 13: Scores by training in SEN

	Mean total score	% Mode		
		Positive	Neutral	Negative
1. Initial training	76.45	57.89	26.32	15.79
2. Courses	78.64	55.56	38.89	5.56
3. None	71.1	50.00	30.00	20.00

Comparing the results for qualification with training in SEN initially appears to be contradictory. However, since the higher qualifications were frequently subject based they do not constitute training in SEN. Thus those who pursue higher, subject-based qualifications may have less positive views to SEN and those who undergo training in SEN may have more positive attitudes towards SEN.

As might be predicted, accessing SEN material from the web, see table 14 below, was generally related to those with more positive attitudes, although this was not statistically significant and the difference between scores was small. Although the positive mode was higher for those who had not accessed material on the web, the negative mode was also higher giving an overall trend to the more negative.

Table 14: Scores by whether respondents had accessed SEN material from the web

	Mean total score	% Mode		
		Positive	Neutral	Negative
Yes	77.25	56.41	35.90	7.69
No	75.35	61.22	32.65	18.37

The variation in scores with regard to whether a respondent had experience of SEN out of school, see table 15 below, was an area where statistical significance was found in the median  $F(1,45) = 4.98$ ;  $p < 0.05$ . Although not the case for total scores ( $F(1,45) = 3.813$ ;  $p < 0.06$ ) or mode ( $F(1,45) = 2.006$ ;  $p < 0.2$ ) the scores do support the supposition that those with experience of SEN out of school had more positive attitudes.

Table 15: Scores by whether respondents had experience of SEN out of school

	Mean total score	% Median			% Mode		
		Positive	Neutral	Negative	Positive	Neutral	Negative
Experience	79.8	23.53	76.47	0.00	58.82	35.29	5.88
None	74.7	10.00	80.00	10.00	53.33	30.00	16.67

The pattern for age is less clear and not significant, with a possible move to the more positive with age or perhaps polarising and becoming more neutral, see appendix 14.

The scores for experience and whether a teacher received support in their lessons were inconclusive, see appendix 14. The group sizes for support were however, very unequal, with 38 people receiving support and 9 receiving none.

### 4.2.3 Summary

- The staff tended towards the positive in their attitudes to SEN.

- There were statistically significant results relating to department and experience of SEN out of school using mode and median scores.
- Those departments in the core subjects tended to be least positive, most of the foundation subjects, MFL, humanities and technology, more positive and the other departments most positive on total score and percentage mode. This is significant for total, median and mode scores with this departmental grouping.
- The science department was particularly negative using percentage mode.
- Females were slightly more positive in their attitudes to SEN than males.
- Those with a certificate or degree in education were more positive than were those with a subject-based BA/BSc and PGCE. Those with higher qualifications were least positive.
- The more SEN training a teacher had received, the more positive their views were likely to be.
- Those who had accessed material from the web were more likely to have positive views.
- Those who had experience of SEN out of school were more likely to have positive views. This was significant using median score.

#### **4.2.4 Open Ended Questions**

Section C of the questionnaire posed three, open-ended questions. These asked for the respondents' interpretation of SEN, how they felt the nature of their specialist subject affected meeting the needs of those with SEN and any further comments.

#### 4.2.4.a Interpretations of SEN (q. C1)

The majority of the interpretations of special educational needs could be categorised either as one of difficulty or of needs. Those that concentrated on the problems experienced by those with SEN were considered to fall into the difficulty category, eg

*"Children with weak skills (literacy, numeracy) difficulties in mobility, sometimes poor concentration skills" (10).*

*"Pupils with learning difficulties (or behavioural or physical problems that create learning difficulties)" (43).*

Definitions that concentrated on the needs of those with SEN or meeting those needs were placed within the needs category eg.

*"Children with separate educational needs eg learning (high and low ability) behaviour, emotional" (31).*

*"Pupils who require extra support" (27).*

Some definitions fell into both categories eg.

*"Children who have physical/emotional disabilities which require them to have more specific needs than mainstream children" (14).*

Four respondents mentioned those of high ability as having special educational needs.

The majority of staff that gave a definition, defined SEN by the difficulties children experience, see table 16 below, possibly a more medical model, more negative definition. Defining SEN by needs fits more with the social model, which is possibly, more positive. However, respondents with more positive scores did not necessarily give a needs definition, nor those with less positive scores a difficulties definition. Looking at the mean total score, those giving a needs definition were marginally more positive. However the percentage of respondents giving a difficulties definition that obtained positive median and mode scores

was higher than that of those giving a needs definition. Likewise, the percentage of those giving a difficulties definition, gaining a negative median score was much lower than for those giving a needs definition. For mode score a marginally greater percentage of those giving a difficulties definition gained a negative score. Those giving a difficulties/needs definition were generally more positive in their scores although only four respondents gave this definition.

Table 16: Distribution of definitions of SEN against attitude scores

	Respondents	Mean total score	% Positive		% Neutral		% Negative	
			Median	Mode	Median	Mode	Median	Mode
No definition	7	76.71	14.29	28.57	8.57	57.14	0	14.29
Difficulties	21	75.14	14.29	66.67	80.95	19.05	4.76	14.29
Difficulties/Needs	4	80.25	50	50	50	50	0	0
Needs	15	76.2	6.67	53.33	80	33.33	13.33	13.33

#### 4.2.4.b Meeting special needs and the nature of the specialist subject (q. C2)

Major themes running through the responses to the question on how the nature of the subject affected meeting special needs generally dwelt on the problems involved.

These were:

1. practical work - access, capability, safety and behaviour.
2. time - to cover the syllabus, to give SEN students enough time to support their needs and to prepare lessons.
3. literacy - students with poor literacy skills found it difficult to cope in some areas.

Subjects needing less literacy skills were felt to be better for those with SEN.



Six out of seven science teachers cited problems with practical work particularly for the physically disabled.

*"Practical work can be hard to make accessible to wheel chair users" (3 science).*

*"Practical work can be affected, eg Motor skills" (27 science).*

Technology was another subject where practical work was considered to create problems by three of the six teachers.

*"Some students with physical disability have difficulty with specialised equipment. Severe difficulties are only overcome by help of teaching assistants. Others with co-ordination difficulties experience problems with cutting fabric and control of machines" (20 technology).*

It also featured in comments about PE, arts, maths and humanities (geography).

Thoughts about practical work were often linked to behaviour and safety. Technology, science and the arts all mentioned these two.

*"Getting round machines, benches etc. Safety - bad behaviour cannot be tolerated" (46 technology).*

*"Practical work difficult for some pupils with poor/impaired motor skills ... Behaviour problems an issue for safety" (47 science).*

*"In a practical subject it is often far more difficult to deal with the behavioural problems in a group. This is a big problem where safety is concerned" (39 arts).*

The ability to understand and follow instructions was also mentioned by members of the science and arts departments.

*"Also following verbal instructions in order to carry out practical tasks is difficult" (1 science).*

*"... a pupil's ability to read, write and follow verbal instructions can often hamper their progress" (7 arts).*

Time was another recurring theme. In the English department this was linked to there being too much to cover in the curriculum to give time to meeting individual needs.

*"Too much work to cover to do justice to individual learning needs" (10 English).*

It was additional time needed to prepare work for those with SEN that concerned a member of the maths department.

*"National curriculum strategy can enhance provision of suitable work for SEN. However, much more time is needed for preparation and this is limited in school. ... I feel hard pressed to meet needs fully" (45 maths).*

The need for repetition of tasks and areas of the curriculum raised issues of time in modern foreign languages. *"Often SEN children need more time to do tasks (more repetition etc)" (37 MFL).*

Lack of literacy and numeracy skills were mentioned as a problem in science and the arts.

*"Often the subject requires a level of literacy that the pupils do not possess. Likewise the numeracy skills " (1 science).*

*"Some pupils with SEN excel at music. However, the biggest obstacle when teaching children with SEN in music is literacy - a pupils ability to read, write and follow verbal instructions can often hamper their progress" (7 arts).*

Too much essential written work in the humanities was thought to create problems.

*"A lot of emphasis on reading and writing in history can create difficulties" (19 humanities).*

Comments that were very subject specific indicated that it was difficult to cover a complex English text with a mixed ability class.

*"As we teach all mixed ability it can be very difficult when trying to get a whole class through a set text - especially if it's a difficult one!" (5 English).*

Listening skills, spelling foreign words and acquiring the necessary vocabulary were problems cited by members of the MFL department. *"Listening tasks from tape sometimes difficult. Spelling/writing foreign words, pronunciation" (37 MFL).* Science teachers felt

that understanding scientific concepts was problematic. *"Low ability find scientific concepts very difficult"* (34 science). Science teachers also felt the lack of specialist support.

*"A lot of specialist terms means the support staff sometimes struggle with helping students access the curriculum"* (3 science).

The need for differentiation was raised in several subjects. Two English teachers saw this as a positive answer.

*"It (the nature of the subject) doesn't (affect meeting the needs of those with SEN) - as long as you are prepared to 'differentiate your success' (25 English).*

However, a maths specialist and a PE teacher both viewed it more negatively as creating more work. *"Work has to be differentiated"* (24 support). *"More differentiation"* (11 PE).

Positive comments were made although these were in the minority, 10 people made positive comments, 27, negative and 6 no comments. Two English teachers felt that their subject offered opportunities of level, pace and creativity for those with SEN.

*"Can approach work at own level, at own pace. Can meet needs if differentiate the work"* (6 English).

*"Language development - opportunities to extend experience and stimulate creativity"* (42 English).

One science teacher also felt that her subject offered many opportunities.

*"Allows motor skills to be used/practised. Encourages group work and communication between all pupils. Educates staff and pupils in terms of 'life-style' and needs of SEN pupils - mostly those with physical problems. Encourages empathy"* (42 science).

Within the humanities, those teaching religious studies felt that the subject offered the ideal medium for those with SEN to flourish because of the issues raised and teaching styles used.

*"RS is an ideal medium to meet needs of SEN students ie discussion, debate, raising issues, big questions - life, death, meaning"* (32 humanities).

Of the three teachers of history, two felt that history was difficult for those with SEN because of all the reading and writing but one considered that it could meet their needs well.

*"History responses are often open-ended, allowing for differentiation. History also lends itself to role play, oral work and other approaches" (8 humanities).*

A teacher of modern foreign languages felt that those with SEN did well because they worked harder, a reference to those with physical disabilities.

*"I have taught many physically challenged students (sight also). With planning, they access the curriculum to their full ability because they tend to work harder" (12 MFL).*

A drama teacher felt her subject to be of definite value to those with SEN. *"SEN pupils find drama a release due to the lack of written work" (2 arts).*

#### **4.2.4.c Further comments (q.C3)**

There were three major themes running through the responses to further comments. These were:

1. the need for more - support, time and training
2. behaviour
3. inclusion - desirable/detrimental.

Teachers from the maths, technology, humanities and science departments all wanted more support.

*"Needs far more support than is provided at present. I find it impossible to teach 25 pupils, of whom a number might have SEN, very satisfactorily" (19 humanities).*

Other staff from English, MFL, technology and science wanted specialist support.

*"In an ideal world, all SEN pupils should have specialist support in the classroom so that mainstream teachers can cater for groups as a whole" (10 English).*

The word 'specialist' here generally implies SEN specialist whereas when referred to in the section about the implications of the teacher's specialism it generally referred to subject specialist.

*"As teachers we need to be given time and advice from specialist teachers of SEN students to develop materials to make the curriculum more accessible" (3 science).*

Members of the English and science departments requested more time and two English teachers wanted more training

*"More specialist training is needed (subject-specific) if we're expected to include all SEN pupils in all classes. More time is needed to plan differentiated lessons and materials" (5 English).*

Pupils with behaviour problems were not the most popular of students with SEN throughout the school.

*"Pupils with statements for behaviour can be a disruptive influence on a class. Can have detrimental effect" (6 English).*

*"Behavioural problems are much more exclusive and very difficult to incorporate in a large class" (12 MFL).*

*"I am happy to include SEN pupils with physical and learning difficulties - except those with severe behavioural problems" (41 science).*

Comments on other types of SEN relate to additional work created or resources needed to meet their needs, rarely do they question the child being in the school as is the case for those with behavioural difficulties.

Comments on inclusion were of two types. Most, (6) were of the opinion that mainstream was not the place for all pupils.

*"Inclusion can have a detrimental affect on children who's abilities are so limited that the majority of mainstream school is inaccessible" (29 humanities).*

Others, (3) were more supportive but there were qualifications.

*"inclusion - desirable with specialist support available (eg physically handicapped)"*  
(44 MFL).

#### **4.2.4.d Summary**

- The teachers were generally positive in their attitude scores towards SEN.
- When asked about SEN, the majority thought of negative aspects, ie difficulties or problems.
- Teachers gave a difficulty or a needs definition of SEN. Most gave a difficulty definition, not simply those with a less positive mean attitude score or overall percentage mode score.
- The comments focussed on problems rather than on needs or benefits.
- Main themes of comments were:
  - practical work - access, capability, safety and behaviour.
  - time - to cover the syllabus, to give SEN students enough time to support their needs and to prepare lessons.
  - literacy - subjects needing less literacy skills were felt to be better for SEN.
  - support and training - more was needed.
  - behaviour - those with severe behaviour problems should not be in school.
  - inclusion - was supported but not for all students.

## 4.3 CASE STUDY, KATE

### 4.3.1 Questionnaire

Kate was a female (qA1) science and special educational needs (qA3) teacher, teaching all branches of science, literacy, numeracy and geography (qA4). She had a BSc, BA, PGCE and a DipEd in SEN (qA5) and was over 51 years old (qA2) having taught for twenty-five years (qA6). Kate taught years 7-9 (qA8) and had received training for SEN during short courses out of school and for further qualifications (qA7). Support was available for some lessons (qA9). Her daughter had dyslexia so she had experience of SEN outside of teaching (qA11). Kate had accessed general advisory material during the last three years but not subject-specific material (qA10).

Her total score on the attitude statements (section B) was 83, a positive score, falling within the moderately positive band of 81-100, see table 17 below. It was the most positive score within the science department. Kate gained the full range of scores on the statements, thirteen of her answers gained positive scores, five were negative and two statements had no response. Her median score was 4.5 and her mode score was 5, both moderately positive corresponding to the total, positive score.

Table 17: Banding for attitude scores

Score band	Strongly negative	Moderately negative	Neutral	Moderately positive	Strongly positive
Score	20-40	41-60	61-80	81-100	101-120

Kate's interpretation of SEN (qC1) was: "*have difficulty in some way accessing the full range of the curriculum.*" emphasising the students' difficulties, rather than their needs. When considering how the nature of her subject affected meeting the needs of children with SEN (qC2) Kate felt that practical work presented problems for some physically disabled students in science. The necessity to follow instructions during practical work was also thought to be a problem for pupils with SEN. She considered literacy and numeracy requirements for science to be above those possessed by some pupils.

In her further comments Kate stated that socially, inclusion was very important for all pupils. Kate thought that it was difficult to justify inclusion for behavioural difficulties because of the effect on fellow students of just one badly behaved pupil in the class; more difficulties were created than solved. Inclusion had to be linked to well-structured, well-devised programmes of support, specifically tailored to the needs of the pupils. Also, in her view, the severity and nature of the behavioural problem affected whether mainstream was the appropriate place for these students. Kate felt that mainstream, with appropriate support, was right for those with physical disabilities and for students with learning difficulties where possible although the varied nature of these disabilities made generalisations difficult. In her experience, adequate support for these pupils was often lacking.

Kate was a mature, experienced teacher with considerable training in SEN. As would be expected, she was positive in her views towards those with SEN but this was tempered by realism gained from experience.



### 4.3.2 Interview

Kate was knowledgeable about the SEN provision within the school as would be expected of someone who was both a science and SEN teacher. She gave a detailed account of how support was organised in the school, commensurate with this status and in contrast to most other participant teachers. In years seven and eight there were two 'fast-track' groups withdrawn from maths, English, languages and humanities in year seven and language in year eight. Three special needs teachers taught these, assisted by classroom assistants, literacy and numeracy in year seven, literacy in year eight. Children with statements of special educational need had additional support in other subjects. There was one group withdrawn from languages for literacy support in year nine. Support higher up the school was linked to statements.

In theory Kate supported greater inclusion but felt that in reality it was problematic. She shared the worries of other participant teachers about those with behavioural disabilities *"in theory fine, in practice it seems to create more problems than it solves, particularly for behavioural problems"* (5,I.21). To include those with more severe behavioural difficulties would, she considered, have an adverse affect on others, both behaviourally and academically.

*"the thought of inclusion of people with more severe behaviour problems, ... It's the effect it then has on others, not only their behaviour but on their lack of progress, so it's one of these things that on paper looks right, but (not) when you're in the classroom trying to deal with it"*(5,I.21).

Kate would certainly support the inclusion of those with more severe learning disabilities but only with more resources.

*"So, ... more space, more time, more teachers, more classroom assistants, and you've probably got ... the best situation. .... you're not just thinking of the academic development of ... really low ability kids, you're thinking of their social inclusion as well. Therefore to put them in mainstream has got to be ... better for them socially, but academically, probably not with the resources that are available at the moment" (5,I. 22).*

Kate was unaware of any specific SEN policy for science " ... *it's not something I am aware of, that we've got a specific SEN policy*" (5,I.11). She thought that setting was considered to be sufficient. With not attending science departmental meetings she was unaware if SEN was discussed at them. However, the science department frequently asked for more support but the response from senior management was that having smaller teaching groups represented additional support

*"... always they're arguing for more support in science, but, in terms of time-tabling, (senior management) say 'well you teach smaller groups anyway therefore that is your support'. Which ... isn't any sort of answer really," (5,I.11).*

She received support in some of her science lessons, usually an assistant who was there specifically for a child with a statement.

*"I have a year eight, they are set and this is a bottom set. There are quite a lot of special needs pupils in there, but I get support that is supposedly directed at a specific child. So every lesson I have got support, ... occasionally they will support other pupils but basically, the classroom assistant is for one particular child who has ... named hours on their statement" (5,I.3).*

The assistants usually worked only with the specified child but would support other students that they knew needed help.

*"I think they are used to ... the way that I ... work now I think. And therefore when they know if that child is ... on task, they'll go and support the other ones that they know by now ... need support and to a certain extent I don't need to direct that, just occasionally I will say can you go and support whoever" (5,I.4).*

Kate did not include the assistants in planning "Not directly" (5,I.5). Advance warning of what was to be covered in the lesson was given.

*"Normally, at the beginning of the lesson I will say this is what we are going to do or if I see them beforehand I will say this is what we're doing" (5,I.5).*

She did not have assistants *"just sitting at the side as a spare part"* (5,I.7) but she did not have to give instructions as to what she wanted done.

*"it's not often that I would say, and I want you to do this and this. All the support that I've got I've never needed to do that because, they're always doing what I've wanted them to do" (5,I.6).*

Kate rarely, if ever, asked their advice on suitable work for the child they supported.

Changes that Kate would like to see to the support given were more of it and training for the support assistants so that they could support specialist areas such as science

*"There certainly was talk at one stage about having, ... specialist, classroom assistants. I can certainly see advantages in that" (5,I.9).*

Kate felt that some assistants found subjects such as science intimidating

*"I think that does actually scare some, ... to be in a situation where you've got twelve bunsen burners going and kids wandering around and, if you're not familiar with that and happy with it, it's a bit intimidating" (5,I.9).*

Teaching assistants often felt that they knew nothing about science and the apparatus and environment could be frightening. Although specialist assistants could lose the continuity of following one child through all their lessons Kate felt there would still be advantages.

*"... it is a bit of swings and roundabouts really because ... some of the kids that need support, actually like having the continuity of having someone that ... they know and get on well with. So, from my own point of view, to have somebody who I knew was confident and competent in science, that would be, ... an advantage" (5,I.9).*

Kate was definite that science as a subject created problems for students with SEN.

*"Some of it is just very difficult for some of these kids to cope with. Anything that requires abstract thought is often actually beyond what they are capable of" (5,I.16).*

The students had difficulty with scientific concepts *"They can't grasp the concepts ... to actually be able to apply them"* (5,I.17).

As with Sally, Kate felt that the science syllabus, particularly for key stage 4, was not relevant for lower ability students "... they (the bottom groups) *could see no relevance to ... a lot of the work ... that we had to cover*" (5,I.14). She found it difficult to justify certain parts of the syllabus herself

*"... given that, they have to do science ... there were still things like atomic structure that realistically those sort of kids have no use for at all"* (5,I.14).

The lack of motivation found in many lower ability pupils, not just in science, was, she thought, down to a lack of relevance in the work

*"I still think one of the main problems, I don't think it's just in science really although I'll speak more from science, is a lot of the ... the lack of motivation that ... a lot of the less able kids have, is the lack of relevance to their lives and in what we do have to try to teach them. It doesn't matter what you do, a lot of them still don't want to do it, but I do think that some of the, certainly the key stage four stuff, needs looking at much more closely for the less able"* (5,I.14).

Kate definitely changed the way she taught when she had pupils with SEN in the class

*"Yes, I think inevitably you do deliver differently if you've got special needs, because I think a lot of things have to be seen in a much more concrete, hands on sort of way"* (5,I.18).

She made it more visual using models that they could handle and the pace was slower. The emphasis of a lesson would be changed, less would be covered and it would be at a more basic level

*"I know I do lots of things ... not so much to change the focus but probably to change the emphasis on exactly what it is we cover. Of course, you never cover as much, you're going to cover things on a much more basic level. ...if I'm trying to get them to think of words I'll often ... put things up as a sort of a hangman because I know they always like playing hangman even though they can't spell. But I wouldn't necessarily do that with a more able group"* (5,I.18).

Safety was also an issue, as the lower ability pupils did not handle apparatus well. Consequently she used more demonstrations and less practical work because the numbers in the classes made it too stressful with the safety implications

*"I am also aware that, they don't handle apparatus terribly safely and carefully, so, things that with a bigger, with a more able group I may do as a class practical, reluctantly, if I've got a fairly big group with special needs, which are much more lower ability, I might be tempted to do, either a demonstration myself or actually get a kid to do the demonstration, rather than run the risk of having twelve sets of apparatus when, ... they're still not certain of what they're doing" (5,I.18).*

Kate did not consider this to be ideal for the children for whom the practical work would be helpful.

Kate hoped that most teachers felt that inclusion was the way forward but considered that reality might be different *"I'd like to think yes, but I would suspect most people would say no, but ... I might be wrong"* (5,I.24). She felt that the wide range of abilities might create more problems for an academic subject such as maths than for a practical subject such as food technology

*"I can imagine that ... subjects like maths that are very academically ... would see more of a problem than a more practically based, like food technology" (5,I.27).*

It was her impression that some teachers still felt that those pupils with SEN were of less importance than were other pupils and that current pressures such as league tables exacerbated that.

*"but I think some people still ... think special needs kids, ... they're not important. No, not that they're not important, but at the end of the day they're not going to feature in our league tables. ... "* (5,I.28).

She felt that a lot of staff, unhappy with inclusion, did not want to teach the lower ability range.

*"and I think there are a lot of staff who don't want to teach the bottom end, ... ability kids. So I suppose from that point of view, quite a lot of staff wouldn't be happy about more inclusion" (5,I.28).*

Because of the pressures on staff to constantly raise standards, Kate considered that those with SEN were often regarded as detrimental to that and sidelined. She felt that this was wrong and that they had as much right to reach their potential as any other children

*"the kids we're talking about, are never going to appear in there (league tables) but that doesn't mean that they shouldn't have an equal amount of time invested in them really" (5,I,28).*

Children with special needs required to be taught to function adequately in the outside world when they left school

*"I mean, arguably, if they are special needs because they are academically very weak, they are never going to catch up, but you should be trying to keep the gap as narrow as possible. ... we're not talking about under achieving. You're talking about weak kids who need every support to function adequately ... when they leave school" (5,I,28).*

Kate, as a teacher of science who had moved into special needs teaching, had thought a great deal about the support of SEN in schools. She obviously cared about meeting the needs of these children but was also very realistic about the problems involved in trying to meet these needs within the mainstream situation.

### **4.3.3 Observations**

#### **4.3.3.a Observation 1, Narrative Observation**

##### Context

The lesson was in a laboratory, fairly scruffy and uninspiring, not an ideal learning environment. There was little display of work or posters on the walls. At the front was a blackboard, with the teacher's bench with services in front of it. There were three doors to the room, one to the atrium, one to the adjacent laboratory and one external door with the

one large window beside it. The children sat at moveable tables arranged around service columns. The class was a year 8 bottom set of 23, 19 of whom were present. Although Kate was a science/SEN teacher, she was unsure who was on the SEN register or which stage they were at.

#### Behaviour

The class was very restless, slow to settle and noisy. They were difficult to silence and did not remain quiet while Kate was talking. Whilst working they were chatty with occasional shouting out, moving about and singing.

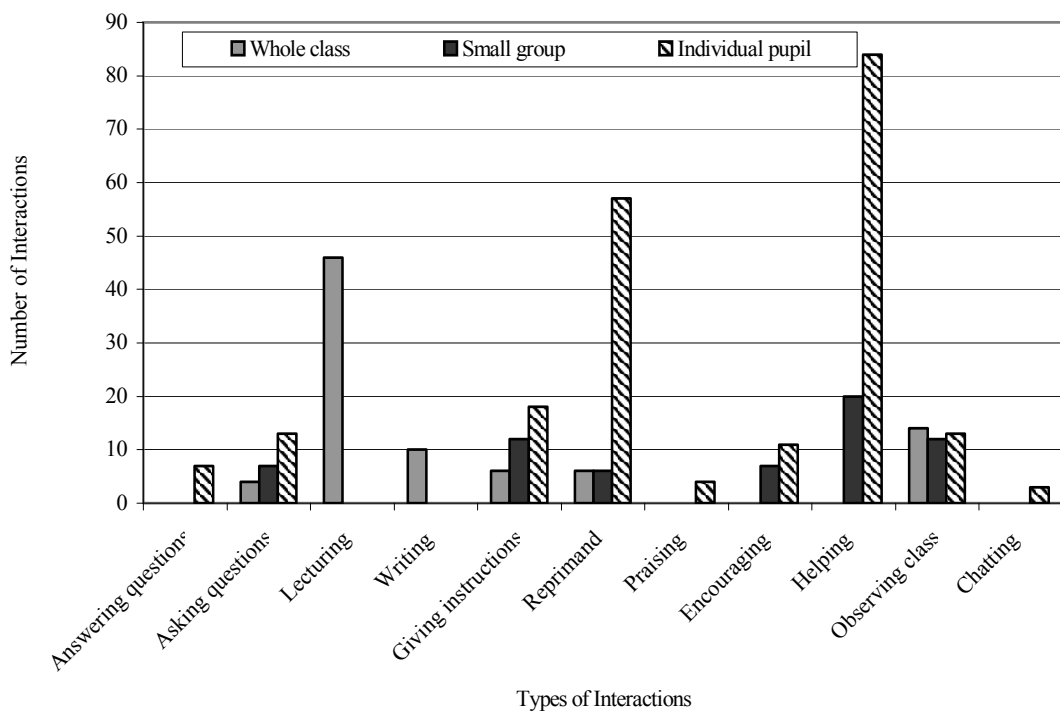
The lesson, on rocks and fossils, began with a reference to the previous lesson, an introduction to this one and information for this lesson. There were instructions for today's work, copying and answering questions from a book. The lesson ended with a discussion of what had been learned. Kate later stated that she felt that the subject material offered little of interest for these children and that there were few suitable resources in the school.

Kate gave information directly or by asking questions. These were sometimes aimed at a specific person, particularly in an effort to get, and retain, attention. There was frequent use of the pupils' names to recall attention or to reprimand behaviour. Her voice was generally at a similar level, moderately loud, although occasionally louder and slightly shrill. There was no shouting.

### 4.3.3.b Observation 2

The interactions between the teacher and the class were observed, noting the nature of the interaction and whether it was with the whole class, a small group of pupils or an individual member of the class. This was carried out at five-second intervals for five minutes on three occasions during each of two lessons, see figure 1 below. Lecturing was the most common interaction out of a total of 86 with the whole class followed by observing the class and writing on the board. These three activities represented 81.4% of the six, different interactions with the whole class.

Figure 1: Interactions of Kate with class, observation 2





Three types of interaction accounted for 68.8% of the 64 interactions between Kate and small groups of children. These were: helping, observing and giving instructions.

There were 210 interactions with individual pupils, covering 9 different activities and two interactions, helping and reprimands, represented 67.1% of these. Giving instructions, observing, asking questions and encouraging made up a further 26.2% of the interactions. Kate answered 7 questions but only praised individuals 4 times. She also chatted with individuals.

Table 18: Interactions of Kate with class, observation 2

Type of interaction	Whole class	Small group	Individual pupil
Answering questions	0	0	7
Asking questions	4	7	13
Lecturing	46	0	0
Writing	10	0	0
Giving instructions	6	12	18
Reprimand	6	6	57
Praising	0	0	4
Encouraging	0	7	11
Helping	0	20	84
Observing class	14	12	13
Chatting	0	0	3
Total interactions	86	64	210

As with other participants, there was a large variation in the types of interaction between the different groups see table 18 above. Lecturing and writing were solely whole class activities whilst she helped mainly individuals but also small groups. Reprimands were largely the province of the individual, although some were given to the whole class and small groups. Praise was rarely used, only to individuals. Kate, perhaps, preferred to encourage small groups and individuals instead. Chatting and answering questions were restricted to individuals.

### 4.3.3.c Observation 3

In order to compare how the nature and frequency of the interactions varied between those with SEN and those without, two types of observation were undertaken. Every interaction with an individual child was noted during three, five-minute periods in each of two lessons. These were noted as to whether the child had or did not have SEN, observation 3A. Similarly every interaction with a named child was noted for three, five-minute periods during each of two lessons, observation 3B. These interactions were also grouped into those with and those without SEN.

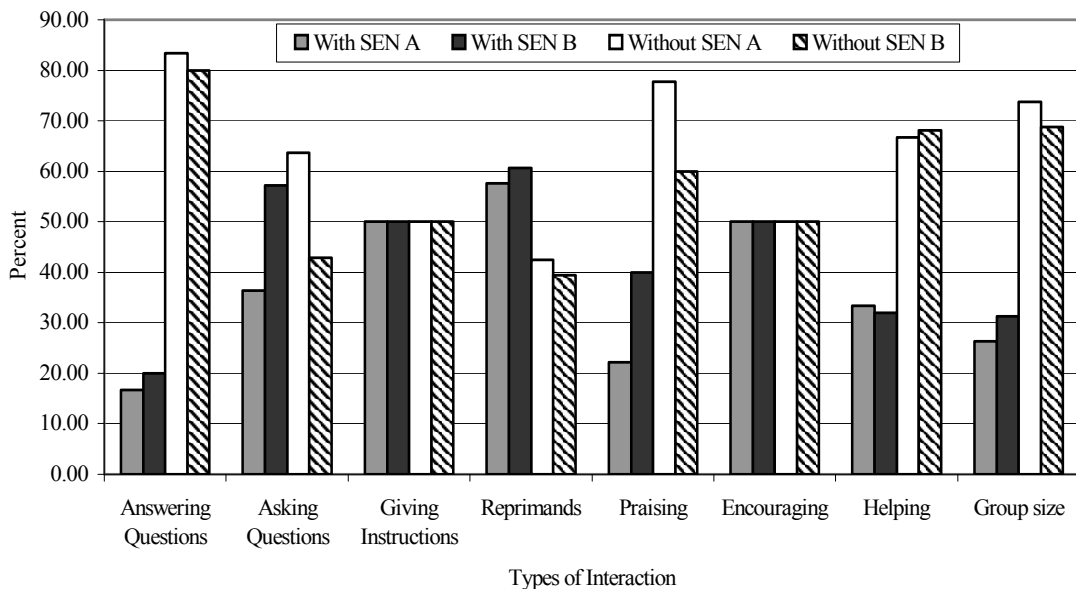
In observation 3A, see table 19 below, reprimands and helping were the most frequent interaction for both those with SEN and those without, although in the opposite order. These two activities represented 68.5% and 63.3% of the interactions within their respective groups. Encouraging was the next most frequent interaction for those with SEN whereas praising and asking questions held this position for those without SEN. For those with SEN, asking questions, giving instructions, praising and answering questions followed in that order but for those without SEN it was encouraging, answering questions and giving instructions. Praising was, perhaps, the most surprising difference here.

Table 19: Interactions with those with and without SEN, observations 3A and 3B

Interaction	Pupils with SEN A	Pupils with SEN B	Pupils without SEN A	Pupils without SEN B
Answering questions	1	1	5	4
Asking questions	4	4	7	3
Giving instructions	4	2	4	2
Reprimands	19	20	14	13
Praising	2	4	7	6
Encouraging	6	6	6	6
Helping	18	15	36	32

Not surprisingly, the results for observation B, when grouped into those with SEN and those without, were very similar, see table 19 above. Praising and giving instructions swapped places for those with SEN, encouraging, answering and asking questions changed frequency for those without. Reprimands and helping remained the same.

Figure 2: Comparison of percentage interactions of those with and those without SEN, observations 3A and 3B

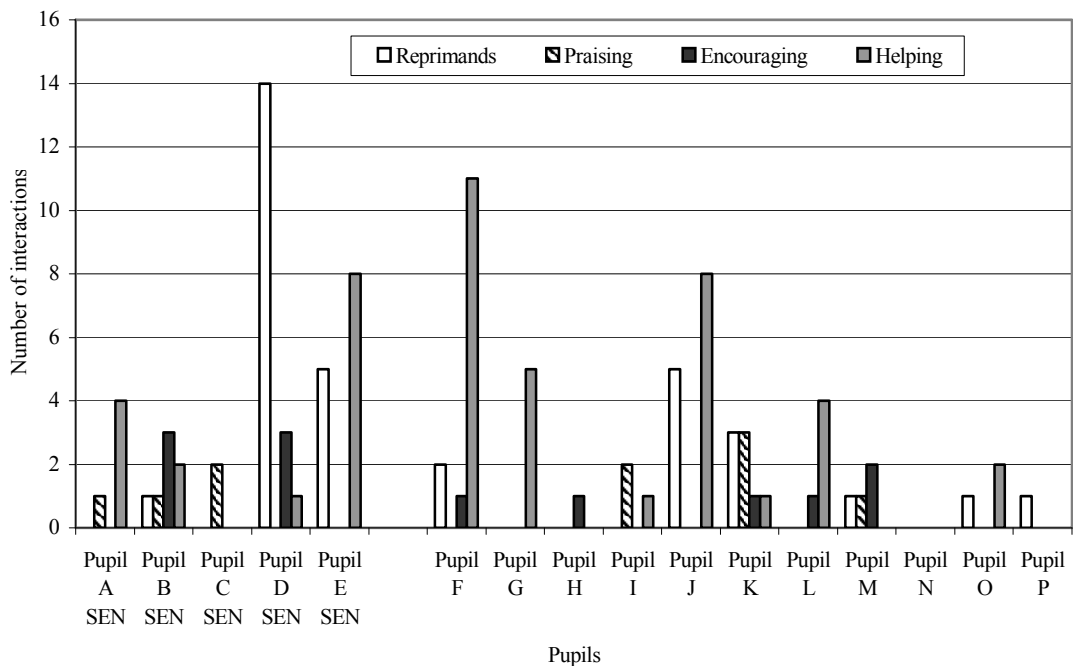


The differences in distribution of interactions between those with and those without SEN can be clearly seen in figure 2 above. This shows the percentage share of the interactions between the two groups for both observation A and B. Except for giving instructions and encouraging where both groups received 50% of the interactions during both observations, there are differences between both groups and both observations. Although the group with SEN represents only 26.32% of the total for observation A and 31.25% for observation B, this group generally received a larger share of the interactions. Answering questions was an exception to this. Praising was slightly anomalous in that those with SEN in observation A

received 22.22% and in Observation B, 40%, just below and just above the group sizes. This and asking questions were the most marked differences between observations A and B.

All the children with SEN were included in the interactions, see figure 3 below, although only one was reprimanded, praised, encouraged and helped. Two of the five children with SEN (D and E) received most of the reprimands, one receiving considerably the most. Pupil E also received more help than others in this group but otherwise the interventions were fairly evenly spread. Although the group without SEN represented 68.75% of the pupils, it only received 56.3% of the interactions.

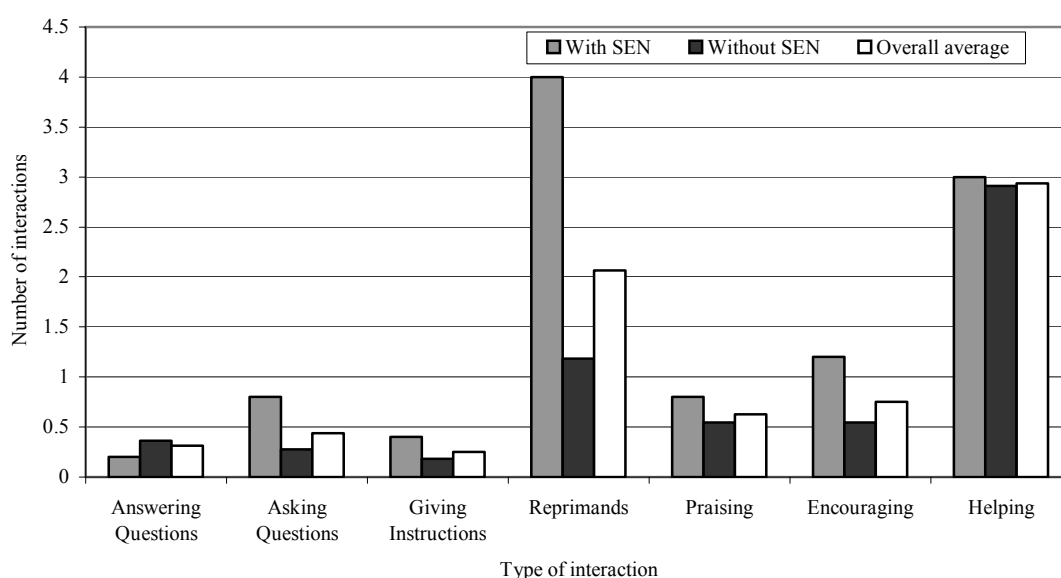
Figure 3: Principle interactions between Kate and individual pupils, observation 3B



If the average intervention per pupil is considered, see figure 4 below, it can be seen that those with SEN received more of every type of intervention than those without SEN, with

the exception of answering questions. This was particularly marked for reprimands where those with SEN receive an average of 4 reprimands per pupil compared with 1.18 per student for those without SEN. However, one student did account for most of the reprimands (14 out of 20). The difference was slight for helping and praising.

Figure 4: Average interactions per pupil, observation 3B



Overall, reprimands and helping, with lecturing for the whole class, were the most frequent interactions. Other interactions were less numerous and generally more evenly spread. Praising was used less often than with some other participant teachers.

#### 4.3.4 Key Questions

The lesson began with a short review of the previous lesson and instructions for the work to be done in the current lesson. The introduction did not contain a clear plan and objectives for the lesson. Necessary resources were available in the room.

Explanations and instructions were clear and all members of the class were included in the lesson. Some variations in motivational strategies were used to include all students. The class was a lower set using the appropriate level of a published teaching scheme. No other differentiation was used save that by outcome and additional help given with the work. There was little variety in the teaching methods and activities used which was largely oral questioning and copying from books. Various questioning techniques were used. Misconceptions were picked up and dealt with as appropriate.

Kate encouraged pupils to improve their work throughout the lesson and listened to the pupils, responding to their comments appropriately. Attempts were made to keep the pupils on task throughout the lesson. Bad behaviour was not always corrected immediately. Occasionally Kate praised a pupil's work. She allocated her time fairly between the pupils and treated them all in a fair manner. Lesson pace was rather slow. It finished on time but the times specified for activities during the lesson were not adhered to. Although there was a review of what the pupils had learned at the end of the first lesson observed, there were no plenary sessions during the other two observations.

#### **4.4 CASE STUDY, MIKE**

##### **4.4.1 Questionnaire**

Mike was a male (qA1) science (qA3) teacher. He taught science and biology (qA4), had an HNC and a Certificate and Diploma in Education (qA5). Having taught for 28 years, he was in the 51+ age group (qA2). Mike taught all year groups (qA8), received support during

some lessons (qA9) and had received school-based training in SEN but no other training (qA7). He had accessed no SEN advisory material during the last three years (qA10) and had no experience of SEN outside of teaching (qA11).

His total score on the attitude statements (section B) was 67. This was a slightly negative score, see table 20 below, neutral being 70, but fell within the neutral band. This might give mixed responses as evidenced by the fact that eight of Mike's scores were positive, three strongly so, and twelve were negative, one strongly and five moderately so. Mike's median score was 3, weakly negative and his mode score was 2, negative. Overall Mike's scores suggested that his attitude towards SEN was slightly negative.

Table 20: Banding for attitude scores

Score band	Strongly negative	Moderately negative	Neutral	Moderately positive	Strongly positive
Score	20-40	41-60	61-80	81-100	101-120

Mike's interpretation of SEN (qC1) was "*Children with learning difficulties*". This emphasised the difficulties that these children have, not their needs, covering only one type of need.

When considering how the nature of his subject affected meeting the needs of children with SEN (qC2) Mike thought that practical work, especially safety considerations, often caused significant difficulties. There were no further comments (qC3).

Mike was a mature and experienced teacher who had some, but only school-based, training in SEN. His interpretation of SEN was very brief and only considered those with learning difficulties. No mention was made of physical or behavioural disabilities.

#### 4.4.2 Interview

Mike gave the impression during the interview that SEN was not a major issue in relation to his teaching. Although a member of the pastoral support team it required some effort to recall what provision was made for SEN within the school and then he was unsure. *"For the kids who are further up ... if they've got a statement ... I don't know."* (2,I.3). Mike seemed to see pupils as covering an ability range with SEN at the bottom rather than SEN as a separate group with individual needs.

*"It's just that special needs kids are that end of the spectrum and ... when you are talking to a class you are trying to cover a range all the time"* (2,I.17).

Consequently, pupils with SEN got no special planning other than using the lower level of the commercial science scheme used.

*"Not really ... beyond ... the fact that I am planning for a particular group at a particular level, ... using the green Eureka stuff rather than the red, nothing other than that"* (2,I.12).

He was weakly supportive of inclusion but with strong reservations, feeling that the reasoning was unsound.

*"So I suppose, inclusion, alright, so long as someone is making a balanced decision about whether it's really appropriate and I suppose, ... I feel ... that its just being done as a bit of dogma, and ... being done even though its harmful"* (2,I.18).

As with other interviewees, behavioural needs were seen to create most problems for inclusion. Referring to the difficulties of including pupils with SEN *"I'm thinking mainly of kids with severe behavioural problems"* (2,I.18).



His support for inclusion was largely confined to understanding why it was being encouraged. Reservations however, were all based on behavioural difficulties. He was concerned about the damage that they could do to themselves, the teacher and the other members of the class.

*"I understand ... people's reasoning behind it but ...I don't know. ... with someone with real special needs, real behavioural problems, trying to get them to fit to the norms of, the rigour of ... a normal class, is putting an extra strain on them, probably, and an extra strain on the teacher, and damaging to the other children "* (2,I.18).

Physical and learning disabilities were not mentioned although learning difficulties were the only ones mentioned in his concept of SEN on the questionnaire. He taught a physically disabled girl and his comments about her, and her support, were generally favourable.

Support in the class was, apparently, something to be endured rather than helpful, depending on those providing it.

*"... sometimes A. C. gets some (in-class support) ... and that works quite well I think, mainly because of the nature of the ladies that do it are quite good. ... But sometimes I do find it quite irritating" (2,I.4).*

His current support assistants were good but it could annoy if they talked to the students whilst he was talking to the class.

*"you can be asking the class to be quiet and the ECO (Education Care Officer) carries on talking to the person, ... almost interpreting what you're saying, and that can be quite off-putting sometimes" (2,I.4).*

He considered that it tended to be better if they were working with a group of children. Assistants supporting in his class had to work on their own initiative. *"I don't have meetings with them. I think I may have done that years ago, but I haven't done it at this school"* (2,I.5). He rarely asked them to do anything specific, expecting them to work on their own initiative.

*"You've got to be able to rely on the ECO's being good enough to be able to tune in to what we're doing in the class and ... supporting off their own bat really" (2,I.7).*

Mike was not immediately sure what changes he would like to see in the support offered for SEN but decided that a specialist science teacher would probably be preferable, possibly to look at science as a whole rather than work in class.

*"I sometimes think really, ... rather than having people coming in supporting your lessons, if we could have a specialist science teacher who would just take a good look straight round" (2,I.8).*

Non-specialist support assistants could be a problem *"sometimes it can be a bit limiting, not having a specialist" (2,I.8)* and he thought that classroom support was not an efficient use of resources *"I sometimes think the ECO thing is a bit wasteful of resources" (2,I.8).*

There was no science policy for SEN. *"the policy is really built into the scheme" (2,I.9).*

There was a commercial, differentiated scheme in use with the students who were set for science throughout the school. The setting meant that, students with SEN were generally in smaller groups doing less demanding work.

*"What there is, ... is differentiated work and ... groups are set by ability, so kids with special needs are put in with, in theory, smaller groups doing ... work that's appropriate" (2,I.9).*

This was apparently sufficient *"I think most of it's pretty well covered actually" (2,I.12)* and made the assumption that pupils with SEN would be in lower sets. SEN was only occasionally discussed at departmental meetings. He could not remember the last time it was discussed.

*"It was probably when the SEN co-ordinator came in to talk to us about something, I can't remember what it was, something to do with SEN" (2,I.13).*

Although technically, the students were set for science throughout the school, Mike did not consider this to be very accurate in year seven. This was because it is based on mainly verbal, qualitative feedback from junior-school teachers and this was variable.

*"depends what school you're looking at, what's average at one school might be ... bright but its relative. So I was asking for subjective assessments from the teachers and that's where you're in ... major problems" (2,I.10).*

From year eight the school had its own, quantitative data and so the setting was more effective *"It works better later on in the school because then we have our own data really. Like SATS"* (2,I.10). Setting was definitely preferred to mixed ability. Beyond year seven Mike considered that the range of ability and achievement became unmanageable in all ability classes.

*"the further along you go ... the distance between what the brighter kids are able and ought to be doing and what the less able kids are capable of and are actually doing gets wider and wider and its more and more difficult to manage" (2,I.11).*

On the questionnaire Mike put that practical work, particularly regarding safety, could cause problems for those with SEN. This was not mentioned during the interview. His concern here was about language but he considered this to be a problem for all students, not just those with SEN.

*"So, trouble with all kids really. A lot of them say 'I can't do science, don't understand it'. What they mean is they ... can't speak the lingo, technical terms really. So if these kids have problems with basic literacy, to try to tell them how to spell photosynthesis, it's a bit tricky" (2,I.14).*

Mike felt that the understanding of scientific concepts was strongly connected to understanding the technical words used.

*"It's a technical subject with its own technical jargon. And your understanding of the concepts, really, does depend to a certain extent, on being able to understand what the words mean. The concepts are ... wrapped around them aren't they?" (2,I.14).*

Although the scientific ideas were often fairly straightforward, scientific words often confused all children, not just those with SEN. *"the science ideas are actually pretty straightforward, but the language puts them off a lot of the time"* (2,I.15).

Mike considered that he changed the way he taught for children with SEN but, once again, *"I am doing it for all kids all of the time"* (2,I.17). The main change was in the use of language in that he used both basic and technical language alongside each other. *"You are using the technical jargon and keep on reinforcing it with the basic stuff."* (2,I.17). As those with SEN were considered by Mike to be *"at that end of the spectrum"* (2,I.17), the change in teaching style that he used to accommodate the range of ability was seen to be appropriate for those pupils with SEN. *"So I must do, (change the way he taught) but not with special needs especially in mind, but just with a range of ability in mind"* (2,I.17).

Mike felt that it was likely that most of the staff shared his misgivings with regard to SEN but that only those who currently had problems would be voicing them. To gain a fair assessment of the situation he felt it would be necessary to have controlled, equal conditions. *"So you would have to give everybody the same timetable, ... the same kids, then you would ... have a consensus"* (2,I.20). With regard to subject differences affecting the way teachers viewed SEN Mike felt unqualified to comment. However he did suggest that everyone felt that their own subject was special and that consequently *"each one will have its special problems, won't it?"* (2,I.21).

The space on the questionnaire for further comments was left blank. When asked at the end of the interview if there was anything that he would like to add he gave an emphatic no!

Mike was a science teacher who apparently saw himself as just that. Children with SEN were just the lower part of the range of abilities that he taught. He did not see any need to make further adjustments to the work than was already built into the teaching scheme. Any further support required seemed to be the responsibility of the support assistants, when present, apparently with little reference to him. In common with other interviewees his reservations about inclusion as a policy centred on those with behavioural problems. SEN was not a big issue with Mike.

### **4.4.3 Observations**

#### **4.4.3.a Observation 1, Narrative Observation**

##### Context

The class entered fairly quietly and in an orderly manner and took their places although they appeared more interested in their own agendas than in preparing for a lesson. The lab was tidy, fairly clean and uncluttered. There was children's work and science spellings on the walls. The teacher's bench was in front of the blackboard. The doors to the prep-room and atrium were in this wall. There were windows on two adjacent sides and a fire door at the rear. The children sat at moveable benches arranged around service stations.

The lesson was on the structure of a flower and started with a recap of this. A demonstration of the dissection of a flower was given then the children returned to their places and did this. Questions to answer when this was completed were written on the board. After clearing away the plenary was to mark the questions. The dissection was not discussed.

## Behaviour

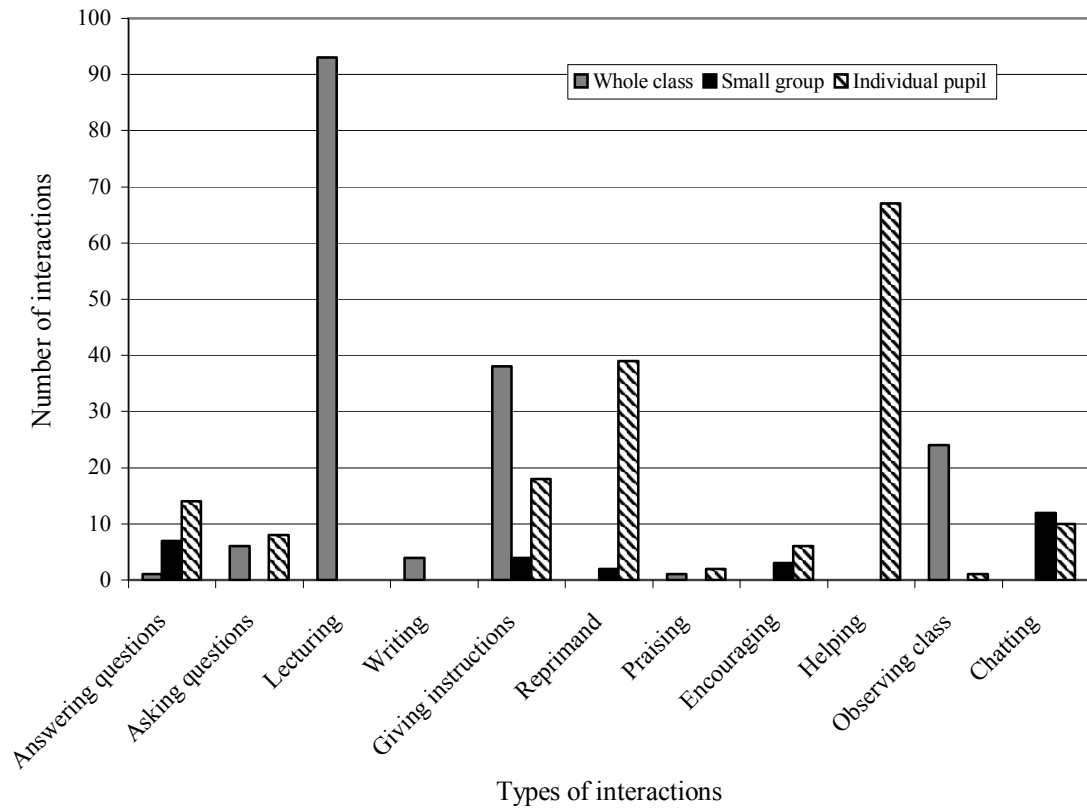
Mike spoke from the front in a moderately loud, firm voice, not shouting, not a great deal of modulation. Some praise was given and approval was often signified by repeating a given answer in an approving voice. When dissecting the flower Mike sat at a table with the children around him. At one point, when looking at the progression down the stem from tight bud to developing carpel, Mike was totally absorbed. This was what he was there for - biology!

The general atmosphere was of orderly disorder. There was little obvious attempt to maintain the discipline that undoubtedly existed. The class was fairly quiet. Most were on task most of the time but some were obviously not. Some girls threw messages to each other and some boys had disagreements, some of a mildly physical nature, fairly discretely. These events were apparently unnoticed by Mike.

### **4.4.3.b Observation 2**

The interactions between the teacher and class were observed noting the nature of the interaction and whether it occurred with the whole class, a small group of pupils or an individual member of the class. This was carried out at five-second intervals for five minutes on three occasions during each of two lessons, see figure 5 below.

Figure 5: Interactions of Mike with class, observation 2



Lecturing was the most common interaction out of a total of 167 with the whole class, see table 21 below. Giving instructions and observing the class followed this in frequency. These three interactions represented 92.8% out of 7 different interactions with the whole class. There were only 28 interactions with small groups of pupils covering 5 different types of interaction; 67.9% of these were chatting and answering questions. There was a greater variation in the types of interaction between Mike and individual children. Two of these, helping and reprimanding constituted 64.2% of the 165 interactions. A further three interactions, giving instructions, answering questions and chatting made up another 25.5% of the interactions.

There is a variation in the types and amounts of interactions between the different groups, see table 21 below. Lecturing, giving instructions and observing the class were principally whole class interactions whilst individuals more often received help or reprimands. The whole class was never reprimanded and small groups were only reprimanded twice. Questions were asked of the whole class and individuals but never of small groups. Chatting was an activity confined to small groups and individuals. Praising was rarely used. Encouraging was only directed at individuals and groups, never the class. Answering questions mainly involved individuals or small groups.

Table 21: Interactions of Mike with class, observation 2

Type of interaction	Whole class	Small group	Individual pupil
Answering questions	1	7	14
Asking questions	6	0	8
Lecturing	93	0	0
Writing	4	0	0
Giving instructions	38	4	18
Reprimand	0	2	39
Praising	1	0	2
Encouraging	0	3	6
Helping	0	0	67
Observing class	24	0	1
Chatting	0	12	10
Total interactions	167	28	165

#### 4.4.3.c Observation 3

In order to compare how the nature and frequency of the interactions varied between those with and those without SEN, two types of observation were undertaken. Every interaction with an individual child was noted during three, five-minute periods in each of two lessons. These were noted as to whether the child had or did not have SEN (observation 3A).



Similarly every interaction with a named child was noted for three, five-minute periods during each of two lessons (observation 3B)

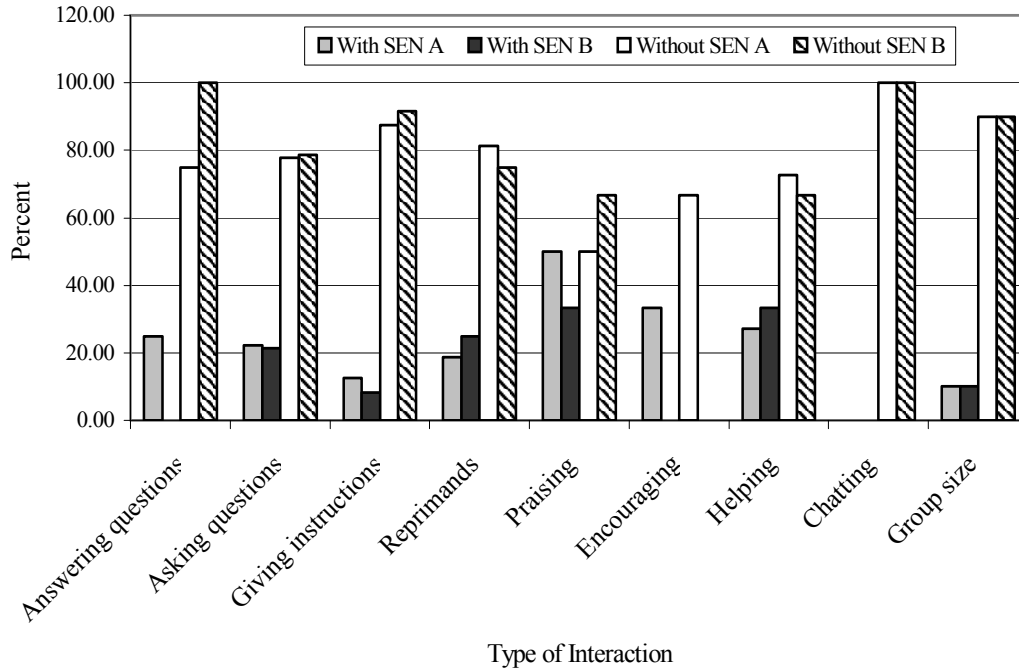
During observation 3A, table 22 below, reprimand was the most frequent interaction for those without SEN, equal with helping for those with SEN. Helping was the second most frequent activity for those without SEN. These two activities constituted 57.1% of the interactions with those with SEN and 59.2% of those with students without SEN. For those with SEN, praise was the next most frequent interaction, giving instructions and encouraging the least. Mike only chatted to those without SEN. Praising and encouraging were the least frequent with this group.

Table 22: Interactions with those with and without SEN, observations 3A and 3B

Interaction	Pupils with SEN A	Pupils with SEN B	Pupils without SEN A	Pupils without SEN B
Answering questions	2	0	6	6
Asking questions	2	3	7	11
Giving instructions	1	1	7	11
Reprimands	6	7	26	21
Praising	3	2	3	4
Encouraging	1	0	2	0
Helping	6	2	16	4
Chatting	0	0	4	4

In observation 3B, table 22 above, the interactions with individual students were totalled for those with and those without SEN. Reprimand was again the most frequent interaction for both those with and without SEN. Helping was lower down the list coming after asking questions and alongside praising for those pupils with SEN and after asking questions and giving instructions for those without SEN. Helping and reprimands collectively represented 60% and 39.7% of the interactions with those with and without SEN, respectively. Once again, chatting was confined to those without SEN.

Figure 6: Comparison of percentage interactions of those with and those without SEN, observations 3A and 3B



The variation in distribution of interactions between those with and those without SEN can be seen in figure 6 above, where they are shown as a percentage of total for each type of interaction. Although those with SEN made up 10% of the group size, in almost all cases they received the greater proportion of the interactions. This is particularly noticeable with praising and helping. Only regarding giving instructions do both A and B come close to the group size of 10%.

Both children with SEN were included in the lesson during the observations, figure 7 below. Pupil A received more reprimands than pupil B and was not praised. Pupil B was praised twice. Both were asked questions and received a similar number of interactions. No pupil without SEN received as many reprimands as pupil A.

Figure 7: Principle interactions between Mike and individual pupils, observation 3B

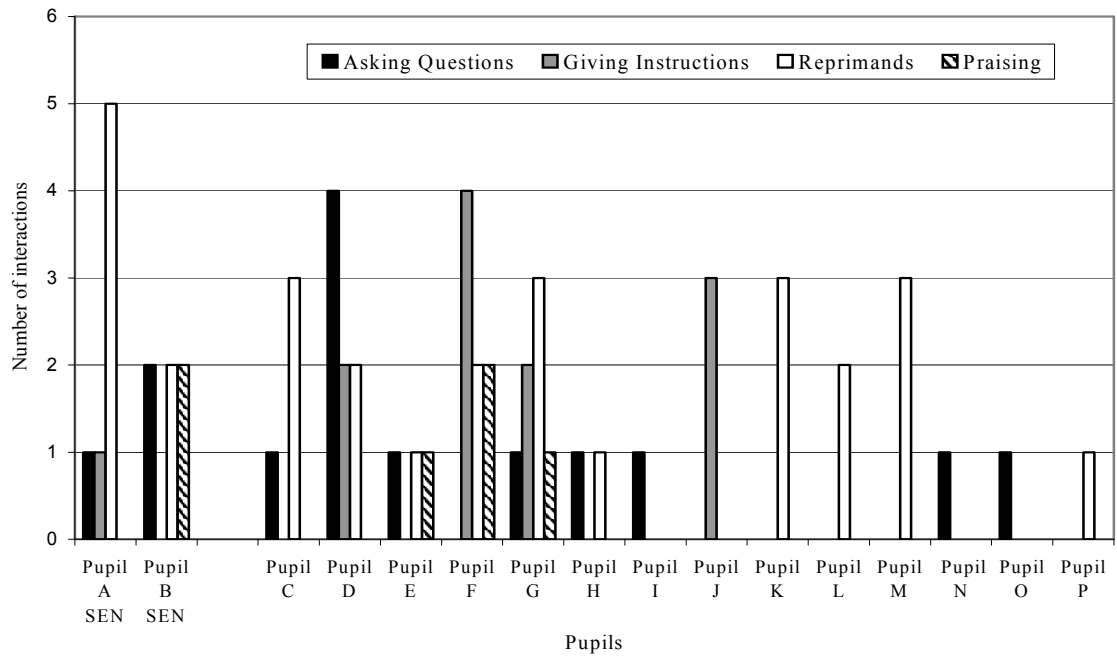
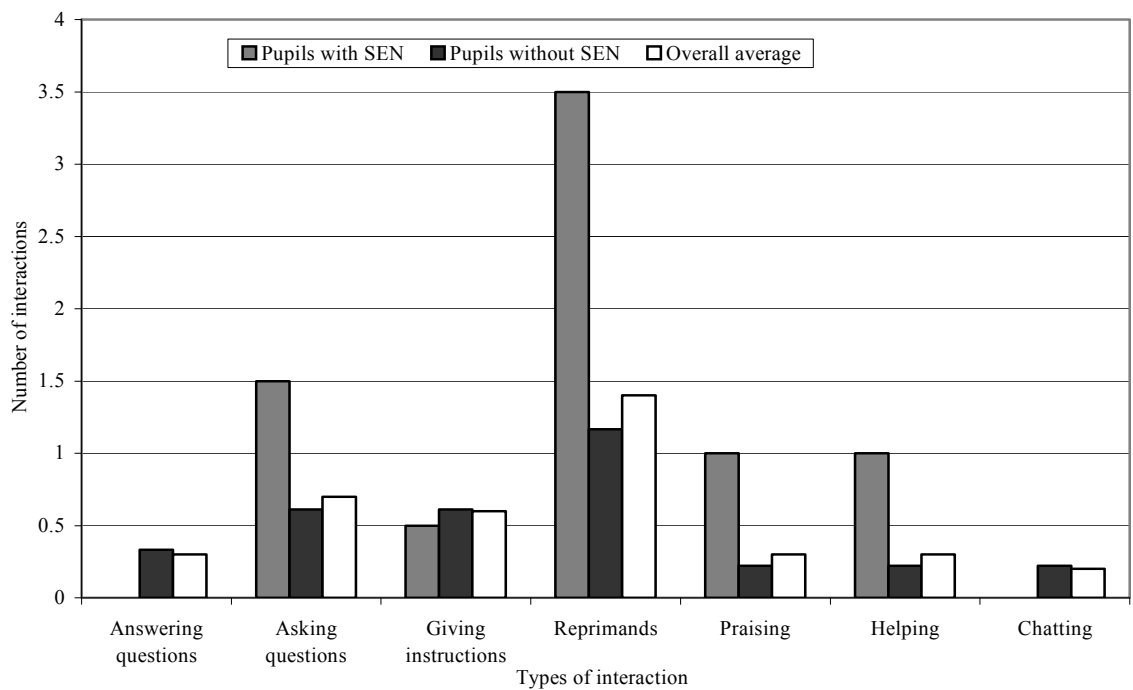


Figure 8: Average interactions per pupil, observation 3B



Using average interactions per pupil, figure 8 above, there was variation between the most frequent interactions for those with and those without SEN. Reprimands and asking questions appeared at the top of both groups. However, praising and helping were the next most frequent for those with SEN but giving instructions and answering questions occupied that position for those without SEN.

Overall the interactions were fairly well spread throughout the group. However those with SEN did get a larger share of the interactions, receiving on average, more reprimands, praise and help than those without.

#### **4.4.4 Key Questions**

The lesson had a clear introduction but this was largely spent reviewing the last lesson. Although the children were told the anticipated content of the lesson, the objectives were not clearly stated. All necessary resources were available in the classroom.

Instructions given to the children were clear, as were explanations of any points. All children were expected to take part in the lessons and were asked appropriate questions. However, there was little variation in the motivational strategies used. Differentiation was covered by the fact that this was a lower set using the lower level of the teaching scheme. No further differentiation was used, save by outcome. A variety of learning methods and activities were used.

Mike's questions were generally similar in their nature although there was some variation in the difficulty of the response required. Misconceptions were cleared up although with some inconsistency. The pupils were generally encouraged to improve where appropriate. Their points of view were listened and responded to.

The pupils were not always on task and this was not always addressed. Poor behaviour was not always dealt with immediately. Achievement and effort were praised and all children were treated fairly, receiving an appropriate amount of Mike's time. The lesson proceeded at an appropriate pace and lasted for the planned time. There was no review of what had been learned at the end of the lesson.

#### **4.5 CASE STUDY, SALLY**

##### **4.5.1 Questionnaire**

Sally was a female (qA1) science (qA3) teacher, teaching all branches of science and geography (qA4) with a BSc and a PGCE (qA5). She was between 26 and 30 years old (qA2) and had been teaching for two years (qA6). Sally taught all year groups (qA8), received training for SEN during her initial training but no other SEN training (qA7). Support was available for some lessons (qA9) and she had no experience of SEN outside of teaching (qA11). Sally had accessed no advisory material during the last three years (qA10).

Her total score on the attitude statements (section B) was 59, a moderately negative score, see table 23 below. She gained the full range of scores on the statements but only six of her

answers gained positive scores and fourteen negative. Sally's median and mode scores were both 2, moderately negative suggesting that Sally was fairly negative in her attitudes towards SEN.

Table 23: Banding for attitude scores

Score band	Strongly negative	Moderately negative	Neutral	Moderately positive	Strongly positive
Score	20-40	41-60	61-80	81-100	101-120

Sally's interpretation, of SEN, (qC1) was:

- *Low ability,*
- *Physically disabled,*
- *Behavioural problems,*

This concentrated on the students' difficulties rather than their needs.

When considering how the nature of her subject affected meeting the needs of children with SEN (qC2) Sally thought that the physically disabled had difficulties with the practical work, those of low ability found the scientific concepts problematic and the badly behaved simply did not want to learn science. Further comments about inclusion and teaching pupils with SEN (qC3) were that the preparation was time consuming and completing the syllabus took much (underlined) longer.

Sally was young and recently trained so she had received training in SEN in the recent past. However, both her attitude scores and her qualitative comments suggested fairly negative views towards special needs. Her interpretation of SEN did not allow for learning

disabilities that were not related to low ability. Sally's further comments emphasised the negative aspects of teaching those with difficulties.

#### **4.5.2 Interview**

Here was a person of many contradictions. Sally was very strongly supportive of the idea of inclusion, *"I'm totally all for inclusion. I think that it's absolutely marvellous."* (3,I.25) whilst a strong theme of the interview was that children with SEN make it very hard for the teachers *"... it (SEN) makes teaching very hard"* (3,I.50). Bright children however, were *"a joy to teach"* (3,I.51). Science was seen as a subject that was not suited to pupils with SEN *"it's a really difficult subject for children with special needs"* (3,I.15). However, if freed from a specified curriculum a suitable science course could be devised,

*"I think, if we weren't confined, ... to these sort of strict goal posts, ... of the National Curriculum ... it could be much better"* (3,I.20).

Sally gave the impression of lacking confidence and feeling unable to cater for the needs of these children, *"I just feel completely stretched"* (3,I.9) because she felt unsupported both in terms of training and support from the school, *"They're all mine on my own"* (3,I.4).

Inclusion was a great idea because *"seeing, ... children surrounded by a variety of society within the school is brilliant. They develop, ... broader minds"* (3,I.25). There were potential benefits for all, including teachers. Sally admitted to having reservations herself regarding teaching two boys in wheelchairs in her class. However, her doubts proved unfounded, *"they are great, great lads"* (3,I.28). She considered this need to reassess ideas and beliefs to be a strength of inclusion. All students could benefit because

*"if children can grow up and not think of the lads in wheelchairs as being abnormal or anything like that, that can only be a good thing" (3,I.28).*

Children with behavioural difficulties were viewed differently, however, *"Well I suppose the children who have really bad behavioural problems, that's a different issue isn't it," (3,I.30).*

Unlike other aspects of inclusion, these had been discussed in the staff room, usually from a negative viewpoint

*"these (children) should not be in this school, for a variety of reasons, ... because they are a danger to themselves and to other children, and to the teachers, I suppose, as well. They are just going to cause mayhem. And that just ruins other children's education." (3,I.30)*

The concerns were about the effect of these students on others in the school. However, children with other needs were not thought to present any safety issues, largely because of the support given to disabled children.

She was highly supportive of the idea of increasing inclusion, *"I think the idea is great" (3,I.26)* but had reservations of the reality.

*"I don't know. Possibly. But that's going to all depend on parents. What they want ... I'm not sure that if I had a child with severe special needs that I'd want them to be here at all." (3,I.26).*

Sally considered that special needs were not properly catered for making it very hard for the teachers. She seemed to lack confidence when it came to meeting the needs of those with problems,

*"I just feel completely stretched in seventeen directions in a lot of my classes. I don't think I can cater for that at all" (3,I.9).*

Both students with behavioural problems and those experiencing difficulty with the work aroused these feelings of inability to cope, largely because of the one to one help she



considered they needed. More support in lessons would be the preferred solution to this problem.

*"I'd like more of it (support). Absolutely more of it because, there are just a certain amount of kids in the school that ... need to have a lot of one to one help all the time" (3,I.7).*

Taking the needs of individual students into account was not part of lesson planning, nor was consulting the learning support assistants that supported the two disabled boys although their help was sought for other students in the class. *"I will very much ask for their support because it's a difficult group behavioural problem, all round" (3,I.5).* The groups were set, the lower sets following the lower ability version of a published science scheme. Further differentiation was considered unnecessary.

*"The groups that we have are sets anyway, so for a lower ability group I'll prepare work for that group, ...very little outside that, like individual pieces of work. ...my help to them would be more actually going to them and helping them rather than preparing different pieces of work for them." (3,I.10).*

This appeared to be the case in the department generally, as Sally knew of no section of the science policy that referred specifically to special needs. The only discussion of special needs to have taken place during science departmental meetings was the lack of support in lessons. *"The lack of support has been discussed, not special needs" (3,I.12).*

The staff received information about the children with special needs consisting of a summary of their problems, history, position on the register and targets. Copies of IEP's were not included. This information was filed away and referred to only if needed, *"It's (looking at the information) not kind of on my list of day to day things to do." (3,I.44).* She did not feel qualified to use this material due to lack of training,

*"To be honest, I probably know very little about what's going on in school and what they actually do and what's involved in all these IEP's and what-not. You don't get training, do you, for it in school" (3,I.44).*

The children's IEP targets would not relate directly to science, *"Oh no. They wouldn't apply to science at all"* (3,I.45).

Sally varied her teaching methods only for a year ten group where most of the children had problems. This group had to be taught a little at a time and she had to *"force work out of them"* (3,I.23) causing resentment. Other groups with just a few children with special needs in them were taught in the same way as any other group. She tried to help those with problems when they were working individually. The science department had "word walls", a literacy initiative for all pupils to help with the subject specific-language. These were lists of words relevant to the current topic displayed on the walls to help with spelling. A spelling test accompanied these at the end of the topic. She considered these to be effective but the spelling test was *"something that I can quite easily forget about"* (3,I.48).

Science was considered to be a difficult subject for children with special needs. The subject-specific vocabulary and the, sometimes abstract, concepts caused particular problems. Sally considered that, for those students with behavioural needs, the science curriculum was seen as having little relevance. The students just wanted to be out at work and they could not relate what they learned in science to this,

*"So I've got a big problem at times, anyway, thinking that these children should be catered for in a completely different way and they shouldn't be taught these things"* (3,I.15).

Part of her perceived problem might have been guilt at feeling this way, *"that might sound terrible"* (3,I.15). Basic skills and a more vocational curriculum were considered to be more suited to the needs and interests of those children. She did not see science as a vocational subject.

She went on to illustrate that science was really much more of an academic subject using a year seven, top group that she taught.

*"They're a fantastic group to teach, absolutely brilliant. And there is a real spark there. They are genuinely interested in all these new ... they're bright and really enthusiastic, they want to learn more about it. They'll quite happily research things, go to libraries and get on the Internet ... The kids that are of lower ability, any kind of kids with special needs, I find ... they don't have that interest and it's hard to teach them." (3,I.17).*

She used the same group to illustrate why she did not want mixed ability groups in science. Having a limited range of abilities in each group made it easier to teach. Those groups at the "top end of the scale", like her year sevens, "makes it all worth it" (3,I.51). Once again there were hints of guilt, "I'm not saying that I want to teach all bright kids all of the time" (3,I.51). She had taught mixed ability groups in a previous school and found it "really, really hard" (3,I.51).

Despite science being very difficult and seen as irrelevant by most children with special needs, Sally felt that it would be quite easy to provide a suitable science course for them if not constrained by such things as the National Curriculum. She illustrated this with her year nine group from the previous year. After SATS there was time for project work and investigations,

*"that wouldn't have been the type of work that you would do with this (lower ability group) and we did things like, forensics, ... things that they thought were more relevant to their lives" (3,I.21).*

The forensics were particularly relevant since "A lot of them had been involved in crime" (3,I.21). The group apparently showed interest in the work for the first time in the year.

Sally could not relate to the idea that any other subject might be easier or more difficult for these children or that the nature of the subject could affect the teachers' views on special

needs. She did, however, add that it was different for the English teachers as they taught in mixed groups although adamant that this would not be suitable for science.

Overall, Sally was full of contradictions. Whilst professing to be a strong supporter of inclusion she appeared to lack confidence regarding her ability to meet the needs of those with SEN. She felt that science was a difficult subject for those students, unsuited to their needs. Teaching the more able students appeared to be some compensation.

### **4.5.3 Observations**

#### **4.5.3.a Observation 1, Narrative Observation**

##### Context

The lesson was in a laboratory that was not an ideal learning environment, the ceiling was dirty and the blackout blinds were showing signs of wear. It was fairly tidy. There were posters on the walls and children's work on the display board. The children sat at moveable tables arranged around service stations.

The class was a lower set, year 8. A lot of the class were absent at an activity centre. To avoid the absent pupils missing new work Sally stated that the lesson would not be as originally planned. It was on elements, compounds and mixtures using a video, followed by poster work and a card game. Fourteen pupils were present. Five children in the group were on the SEN register, four at stage 1 and one at stage 5. One of these was currently being taught in the behaviour unit.

## Behaviour

The class was slow to settle. The introduction was a mixture of information and questions. Answers to questions were accepted with praise. Two boys were particularly troublesome; one was sent out briefly. While whole class teaching the reprimands were fairly loud, often broken record. When the children were working the reprimands were very quiet, personal and delivered at the child's level. One boy was kept behind after the lesson for further discussion of his behaviour. A fair time was spent helping two girls that had been absent the previous lesson and reprimanding the two boys.

The children worked fairly well but the two boys were frequently a nuisance, talking at inappropriate moments, shouting out and annoying other pupils. Most listened attentively while Sally talked to the class. Some were not sure how to play the card game and were consequently silly. Sally commented to me that the class "gave her a headache, so much telling off."

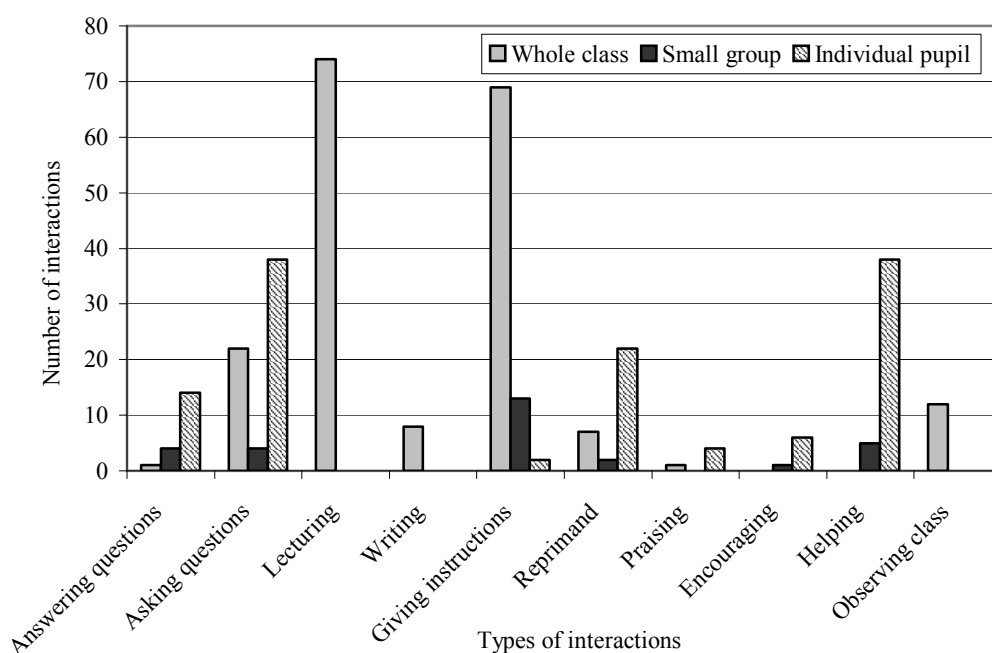
### **4.5.3.b Observation 2**

The interactions between the teacher and the class were observed, noting the nature of the interaction and whether it was with the whole class, a small group of pupils or an individual member of the class. This was carried out at five-second intervals for five minutes on three occasions during each of two lessons.

Lecturing was the most common interaction out of a total of 194 with the whole class followed by giving instructions and asking questions, see figure 9 below. These three

represented 85% out of 8 different interactions. There were 29 interactions with small groups of pupils and 45% of these were giving instructions. Next was helping followed by asking questions and answering questions. Only 2 reprimands were given to small groups. These interactions represented 96.6% of the 6 different types of interactions. Three types of interaction accounted for 79% of the 124 interactions between Sally and individual children, asking questions, helping and reprimanding.

Figure 9: Interactions of Sally with class, observation 2



There was a variation in the types and amounts of interactions between the different groups, see table 24 below. Lecturing and giving instructions were principally whole class interactions whilst individuals were more often asked questions and helped. Questions were asked of the whole class on 22 occasions but only 4 times of small groups. Reprimands were

more often directed at individuals. Praising and encouraging were also directed at individuals rather than groups or the class.

Table 24: Interactions of Sally with class, observation 2

Types of interaction	Whole class	Small group	Individual pupil
Answering questions	1	4	14
Asking questions	22	4	38
Lecturing	74	0	0
Writing	8	0	0
Giving instructions	69	13	2
Reprimand	7	2	22
Praising	1	0	4
Encouraging	0	1	6
Helping	0	5	38
Observing class	12	0	0
Total interactions	194	29	124

#### 4.5.3.c Observation 3

In order to compare how the nature and frequency of the interactions varied between those with SEN and those without, two types of observation were undertaken. Every interaction with an individual child was noted during three, five-minute periods in each of two lessons. These were noted as to whether the child had or did not have SEN (observation 3A). Similarly every interaction with a named child was noted for three, five-minute periods during each of two lessons (observation 3B).

During observation 3A, see table 25 below, reprimand was the most frequent interaction for those with and without SEN. Asking questions of both groups came next although it was more significant for those without SEN and it tied with answering questions for those with SEN. These two activities represented 61.54% of the interactions of those with SEN and 64.71% of the interactions with those without SEN. Sally did not chat.

Table 25: Interactions with those with and without SEN, observations 3A and 3B

Interaction	Pupils with SEN A	Pupils with SEN B	Pupils without SEN A	Pupils without SEN B
Answering questions	5	1	6	1
Asking questions	5	7	19	13
Giving instructions	3	2	4	3
Reprimands	19	10	25	11
Praising	4	4	5	5
Encouraging	1	1	4	0
Helping	2	2	5	1

If the interactions with named pupils (observation 3B) were totalled for those with SEN and those without, see table 25 above, the most common interactions were reprimands for those with SEN and asking questions of those without SEN, followed by asking questions and reprimands. These two activities represented 62.96% of the interactions with those with SEN and 70.59% of the interactions with those without SEN.

The variation in distribution of interactions between those with and those without SEN can be seen in figure 10 below, where they are shown as a percentage of the total for each type of interaction. Although pupils with SEN made up only 20% of the class they received 43.55% of the interactions whilst those without SEN made up 80% of the class and received 56.45% of the interactions.



Figure 10: Comparison of percentage interactions of those with and those without SEN, observations 3A and 3B

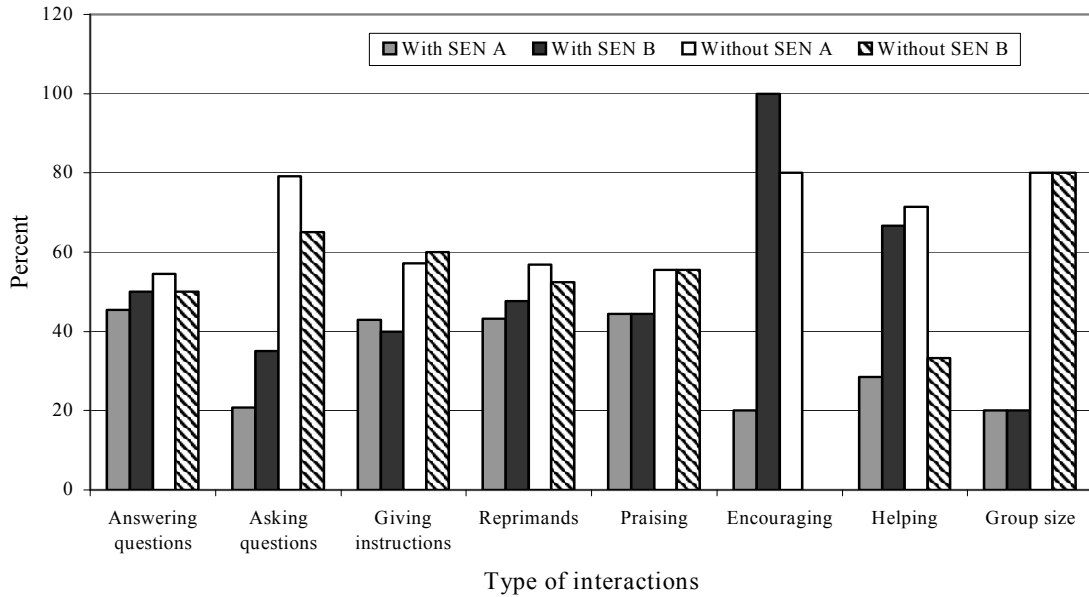
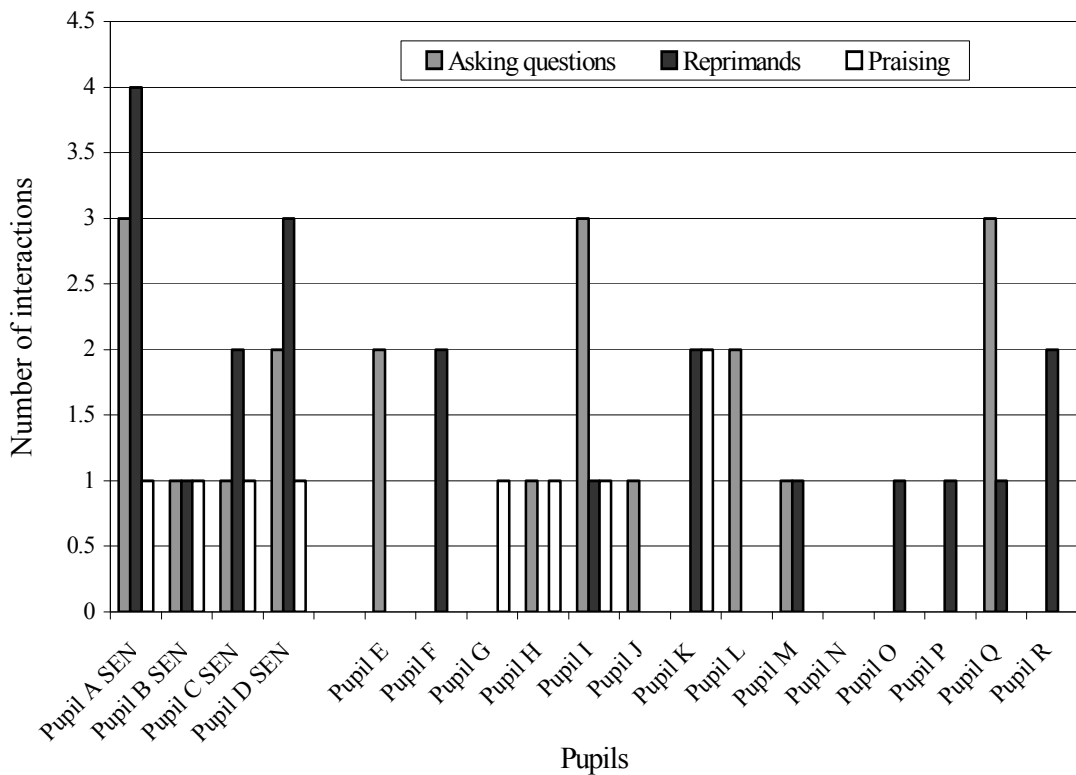
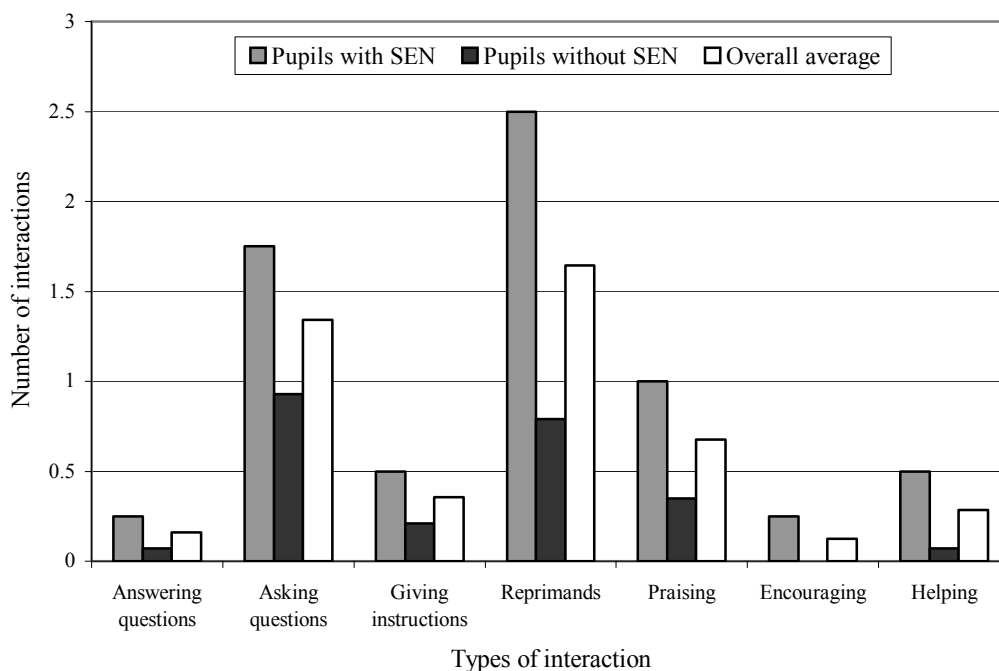


Figure 11: Principle interactions between Sally and individual pupils, observation 3B



All the children with SEN were included in the lesson, see figure 11 above. They were all reprimanded, asked questions and praised. These interactions were more spread out amongst those without SEN, although this was, of course, a larger group (14 pupils compared with 4). On average, those with SEN were reprimanded and praised more than those without. The order for the four most frequent interactions within their groups varied between those with and those without SEN when comparing average interactions per pupil (observation 3B, figure 12 below). For those with SEN reprimand was first followed by asking questions, praise and giving instructions and help. For those without SEN the order was asking questions, reprimand, praise and giving instructions.

Figure 12: Average interactions per pupil, observation 3B



Overall, giving instructions and helping were the most frequent interactions, with lecturing to the whole group. Those with SEN received a greater proportion of the interactions, particularly reprimands and praise.

#### **4.5.4 Key Questions**

Although the lesson started with an introduction it did not give a clear plan and objectives for the lesson. Resources were already in the classroom. Instructions and explanations were reasonably clear. Most of the pupils were involved in the lessons, either answering questions or reading out loud from the textbook.

All were expected to do the practical and written work. There was little differentiation within the group in the work that the pupils were expected to do in this lower set. Differentiation was by outcome and by extra help given during the lesson when the pupils were working individually. A variety of learning methods and activities were used although the questions used were all of a similar nature. Sally occasionally corrected misconceptions although this was inconsistent, as was her encouragement of them to improve. She did listen and respond to the pupils on some occasions but not all.

There was little consistency in keeping the children on task. Similarly she did not always correct bad behaviour immediately if at all. Achievement and effort were regularly praised. Sally was fair in her allocation of time and treatment of pupils, those needing most help, or chastisement, received more than those who did not. The lesson was rather slow and hampered by the need for regular reprimands to two pupils. Little guidance was given over

how long various activities would last and that given was not adhered to. The lesson over-ran and no plenary session was held.

## **4.6 CASE STUDY, JANE**

### **4.6.1 Questionnaire**

Jane was a female (qA1) English and humanities teacher with a M.Ed degree (qA5). She was between 41 and 50 years old (qA2) and had been teaching for 25 years (qA6). Jane taught all year groups (qA8) and had received only school-based training for SEN. She received support occasionally (qA9) and had accessed both general and subject-specific, advisory material during the last three years (qA10). Jane had experience of SEN outside of teaching (qA11).

Her total score on the attitude statements (section B) was 76. This was a neutral score, falling within the neutral band of 61-80, see table 26 below. Her score came close to the top end of the neutral range and therefore her scores on individual questions were likely to be fairly positive with some contrasts. Jane gained the full range of scores on the statements, eleven of her answers gained positive scores and nine were negative. Of these five scores were strongly positive and three were strongly negative. If the weakly agree and weakly disagree columns were combined seven of her scores could be said to be neutral (3.5). Jane's median score was 4, weakly positive. However, her mode score was 6, strongly positive. Overall, Jane's scores would suggest that her attitudes to SEN were moderately positive.

Table 26: Banding for attitude scores

Score band	Strongly negative	Moderately negative	Neutral	Moderately positive	Strongly positive
Score	20-40	41-60	61-80	81-100	101-120

Jane's interpretation of SEN, given in response to question C1 was; "*Specific, identified additional help needed (in terms of behaviour or other need) to access the curriculum and make progress.*" This placed the emphasis on the students' needs, rather than their difficulties.

Regarding the effect of her specialist subject on meeting the needs of children with SEN (qC2), Jane offered two strands of thought. One referred to resource needs including equipment, staff, training, teaching assistants, books and software. The second indicated that her subject offered opportunities for language development, to extend experience and to stimulate creativity. Further comments centred on the fact that she felt uncomfortable responding to some of the statements on the questionnaire as she felt that her response could be interpreted in a misleading way. Agreeing with the statements she listed would all result in a negative score.

Jane was an experienced teacher who had apparently thought about SEN and its implications. She had generally positive views but some reservations. Her concern over the negative statements suggested that she might be anxious not to appear to have negative views.

#### 4.6.2 Interview

Here was a teacher who had thought a great deal about SEN. Jane had strong views on the rights of all children to have access to the curriculum and to make progress within school. This, to her, equated with inclusion *"Inclusion means that every child has a right to make progress"* (4,I.36). Inclusion, in her opinion, did not mean all children being in the same classes within the same school *"if it's an inclusion centre on site like our TLC, that's not exclusion"* (4,I.36). Jane felt that there was much work that needed to be done, both locally and nationally, before all children would be able to make progress

*"So, people really have got to start doing something, to make special needs happen rather than just talk about it and advise us that it's good practice"* (4,I.42).

This included changing perceptions of roles of teachers and support assistants

*"And I think at some stage we've got to attack this ... problem of what is support and how do we use support"* (4,I.11),

and improving the nature, amount and use of resources

*"access to the resources, your understanding of the specialist resources that are needed, and relatively little input can make a massive difference in the classroom"* (4,I.42).

Jane was obviously much more aware of the organisation and nature of the provision for SEN within the school than most other teachers interviewed. She gave a very comprehensive account of the work of the Teaching and Learning Centre, a unit set up in the school two years ago

*"to help children to behave sufficiently well to be able to learn more effectively in the classroom and ... be another strategy to help to try to prevent exclusion."* (4,I.2).

As a deputy head and member of the senior management team, she would have had some involvement in the setting up of this. Jane could also explain how IEPs were produced and monitored by the SENCO and the year and departmental heads. Those with SEN in year 7

were withdrawn from English, maths and foreign languages for "fast track", a programme of accelerated learning. Two groups were withdrawn and

*"they will actually follow the National Curriculum but, because they will have extra time and more continuity of staff, it's possible for the staff then to focus on their very specific learning needs." (4,I.13).*

Her awareness of, and enthusiasm for, issues relating to SEN, obvious throughout the interview, suggested that she had thought much more deeply on the subject than would be required for purely administrative reasons related to her senior management post.

Last year Jane had support for her year 9 behavioural support class, a group of students, mainly boys, selected because of the problems their behaviour had caused in class during the previous year. This year a similar class was unsupported, as insufficient support was available. She had found it very useful to have an assistant who could work with a volatile student, possibly a different one each lesson, keeping them on task and helping with their, sometimes considerable, literacy difficulties.

*"Each year I've also had students who've had very, very significant ... hindrances to learning, particularly in terms of basic literacy who find it very, very difficult to write in sentences ... and that in turn leads to behavioural problems. So ... they would be a priority for sitting down with them and actually helping a, to keep them focused on the task and b, help them to actually formulate their sentences and try to sort of elevate them in terms of ideas ... so that they could actually play an active part in the lesson. Super support ... it makes a big difference" (4,I.5).*

It had not been possible to include the support assistant in planning as they had not attended every lesson and their support was unpredictable. However she had sometimes planned work around support when she knew the assistant would be there.

*"when I've had specific lessons where I've known really the success of the lesson will depend on me having support there, I've often ... double checked to make sure or held that lesson back until I've known I've got a support teacher there. Especially group work, because with those particular students, group work works more effectively if you've got more staff in the room." (4,I.6).*

Jane consulted the support assistants about the students, particularly follow-up as to the success of the work.

*"a lot of follow up, ... how did that work? If I've tried a particular technique either to motivate them or even to teach, ... using a writing program for example, I might ask 'did that work with such a body' " (4,I.7).*

Jane would like to plan lessons to take account of every need within them but did not have enough time.

*"... I would love to be able to say yes to that (plan a lesson to take account of all the different learning styles) with conviction. In reality, it it's not quite like that ... we don't have three hours to plan" (4,I.35).*

She differentiated within the lessons and made different worksheets but not too obviously because pupils did not like it.

*"... with some children I'll go in sometimes with separate work sheets for separate children, but I'm very careful to make sure they're on the same colour paper. To the onlooker they look very, very similar ... because children don't like a special one, they don't like a different one" (4,I.35).*

Although there was a part of the English departmental policy that related directly to SEN, Jane felt that other parts of this and whole school policies were more relevant for support.

*"there's also lots and lots of other things within that plan that are relevant to support, so, for example, differentiation seems key. We make use of writing frames, we use individual activities, we've got a whole school literacy strategy" (4,I.19).*

She felt that whole school objectives were more effective than individual, departmental SEN policies that tended to sideline support

*"I think there is a tendency rather than to ... pigeon hole support ... to actually bring and integrate, ... almost ... interweave effective teaching that helps children who need extra help to make more progress, but interweave it as part of good teaching" (4,I.19).*

SEN was discussed at English departmental meetings and good practice was shared. There was a departmental rep on the whole school literacy management group but no identified



SEN rep within the departments, which Jane considered would raise the profile of SEN within the meetings

*"we haven't got an identified special needs person/special needs teacher within each of the ...departments, therefore it's not really addressed" (4,I.26).*

She found the concept difficult to understand but was not aware of any particular difficulties caused by the nature of the subject. In the lessons that she had observed, support had been given to those that needed it but by different methods

*"I've observed lessons in a variety of subjects from Design Technology to Science, ... to work in the TLC and it has been evident in all of those classes that some children need extra help and that extra help has normally been given, ... but in different ways" (4,I.27).*

Problems with literacy impacted on all subjects

*"I think literacy is key to every single subject. And I think children who have problems with literacy and with the basic oral communication will struggle with almost any subject in the curriculum" (4,I.28).*

Jane had very strong views on inclusion

*"I'm almost a zealot about this idea that all children have a right to make progress in learning, and a lot of children don't make progress"(4,I.36).*

However, inclusion to her did not mean including all children in the mainstream classroom.

*"I feel that people shouldn't mistake inclusion. Inclusion means that every child has a right to make progress. Sometimes, you've got to take positive action, to help that child to make progress, and therefore if it is a separate group, then so be it" (4,I.36).*

She felt that inclusion was often mistakenly assumed to mean that every child must be treated the same within a mixed ability classroom but that this did not actually meet the children's needs.

*"I think people have often got this mistaken idea that inclusion means mixed ability teaching in every classroom where every child should be treated exactly the same. If you treat every child the same you're not meeting needs at all" (4,I.36).*

The stigma of being unable to read and write was, in her opinion, far greater than that of being taught in separate groups.

*"... there is actually a much greater stigma for children, not to be able to read and write and have those basic literacy skills that are so vital to adult life, there is more stigma in that, than the stigma and the discomfort children feel by having to go to a different classroom and be taught by a different teacher" (4,I.36).*

Support must therefore be put in as early as possible to give children these basic skills and access to the curriculum, *"an ultimate right of every single child" (4,I.36).*

The trend towards placing more children in mainstream schools rather than special schools was seen by Jane as working against inclusion.

*"I feel quite strongly that they're actually taking away something that leads to inclusion. ... You're effectively taking away the specialist expertise they've got, you're taking away their environment, you're taking away from them being in groups of one to eight and putting them in a group of one to twenty eight. ... I think it's false ... I think it's a very sad move, very, very sad indeed" (4,I.37).*

Jane believed that including more children in mainstream schools was merely a ploy to save money. For it to work well she considered that it would involve too much repetition of expertise and resources and cost more than any government would be likely to spend.

*"I think every school, would need to replicate the expertise and the specialist facility that we have in the special schools. ... And ... that's going to cost an absolute fortune and I suspect ... governments have no intention of doing that. We've not even got the TLC resourced properly" (4,I.42).*

Resources were a recurrent theme of the interview. When considering desired changes to the support offered, the nature and quantity of resources were frequently mentioned. Behaviour support units were considered to be in need of more resources, particularly their own. The grants to run it were too small and inconsistent, with the result that resources were being

taken from other pupils in order to maintain it. However she considered that these units were essential to both those pupils at risk of exclusion and other students within the school.

*"I'd like to see considerably more resources going into ... behaviour support units ... our TLC. We're managing it on a shoestring and we're actually taking away from the rest of curriculum delivery, to be able to put staff in there to do it. It's so necessary ... to children who are at risk of exclusion and to the rest of the children as well" (4,I.10).*

Liaison between primary and secondary schools was an area that could be improved. She felt that, at present, much of the diagnostic work that was carried out in primary schools was being repeated by the secondary schools

*"more time devoted to liaison between primary and secondary staff actually looking at the diagnostic ... learning that teachers have done about individual children, so that ... we know the techniques that will work with specific children" (4,I.10).*

This was wasteful of resources and contributed to the learning dip between key stages two and three.

Jane would like to see more teaching assistants, particularly subject-specific ones

*"support of skilled teaching assistants can actually make the difference between ... success in a lesson or a lesson being one constant battle for that teacher" (4,I.9).*

These assistants would work with both the SENCO and the head of the relevant department and would *"actually understand what you're doing and why you're doing it"* (4,I.10). She would also like to see more assistants available to deliver specific programmes. Related to this was the issue of roles of teachers and support assistants.

*"And I think at some stage we've actually got to come to an understanding in the profession, what is the role of a teacher? What is the role of an enhanced sort of teaching assistant? Who actually teaches, and the role of learning support in the classroom. And I think the shortage of teachers means that we're actually going to have to make use of people with tremendous skills who can deliver some of these short term programmes, and accept that, well certainly in this school, it is not staffed sufficiently well to be able to put two teachers in a classroom to any great extent" (4,I.11).*

Reaching this understanding would help to make better use of the resources available and would help to dispel the myth, that she felt many teachers believed, that schools were resourced sufficiently to use teachers for support in the classroom. Some mainstream teachers were used in this manner in the school and there was an expectation, misguided for resourcing reasons, that more could be used.

*"there is an expectation that we should do that (use mainstream teachers) to a much greater extent. But ... I produce the timetable and I know that ... we don't have the resources to do that" (4,I.15).*

It should be recognised, she felt, that there were different categories of assistants, some of whom were capable of teaching small groups of pupils, prepared materials.

*"we should recognise, I think, there is almost, ... an arrogance of teachers that they're the only people that can teach. And ... I think other people do have the skills to deliver specific programmes with prepared material to small groups of children, particularly where they're based on spiral learning where you're reinforcing issues using tried and tested materials and I also think those people should actually have their skills recognised" (4,I.13).*

Although it was working fairly well in her school because of the dedication of the staff and the whole school focus on teaching and learning, Jane felt that support was not working nationally.

*"You've only got to look at the bench marking tables where at the top end the figures for the top five percent, the top twenty five percent of schools are going up every year and as I adjust my bench marking tables the children at the bottom end are going down, and that gap I believe is getting wider and wider. ... so I don't think that support nationally can be can be working" (4,I.23).*

This needed to be addressed with dedicated funding and shared good practice, locally and nationally.

Jane was a teacher who had obviously thought deeply about SEN. She had strong views on the rights of all children to have access to the curriculum and to make progress within school,

her definition of inclusion. Inclusion, in her opinion, did not equate with all children being in the same classes within the same school. She felt that there was much work that would need to be done, both locally and nationally, before all children would be able to make appropriate progress. This included changing perceptions of the roles of teachers and support assistants and improving how support for SEN was resourced.

### **4.6.3 Observations**

#### **4.6.3.a Observation 1, Narrative Observation**

##### Context

The lesson was in studio 3, a classroom in the new performing arts block. It was in part of a larger room divided by a folding wall with limited soundproofing. The room was clean, pleasant and colour co-ordinated. There were curtains at the windows and the folding wall and display boards were covered in similar fabric. The floor was carpeted and chairs and tables folded for storage. There were notices on one board and nothing on the other.

This was a year 9 group selected because of considerable behaviour problems. Most were on the SEN register for behavioural and/or academic problems. The student with a statement had just been excluded. 10 were present, 8 boys and 2 girls. The students were well spread about the room, frequently with a space between them.

## Behaviour

The class behaved impeccably. I was introduced as a visitor from the University of Birmingham looking at key stage 3 English teaching. Jane admitted after the lesson that she knew that this introduction would encourage some of the pupils to try and impress.

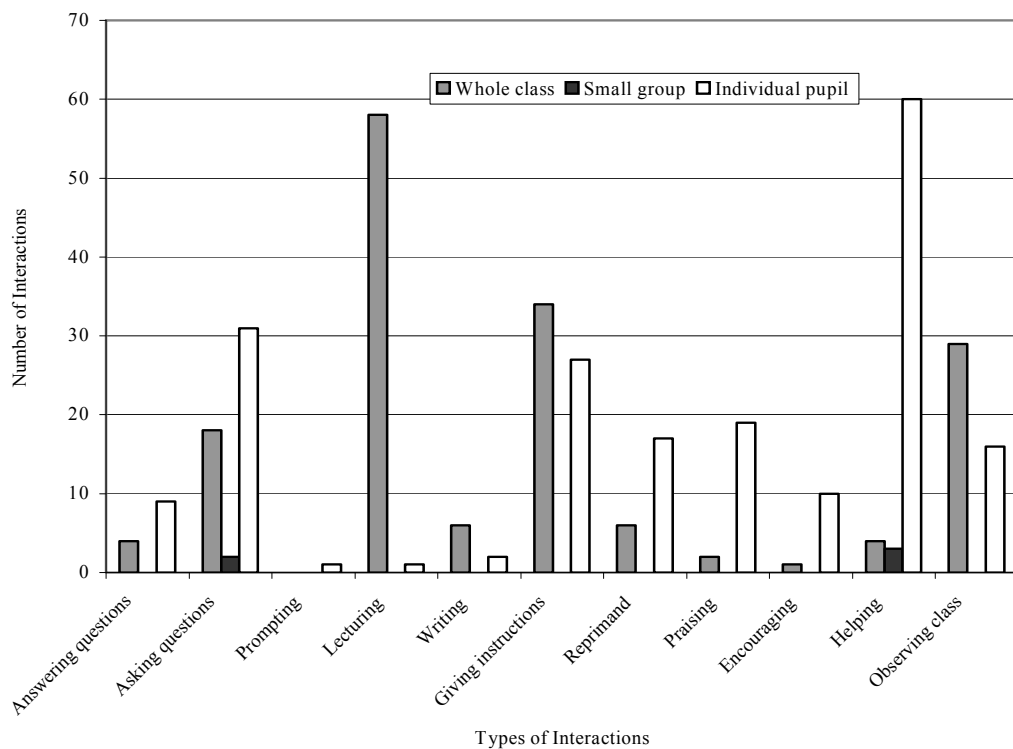
The introduction was very calm and quiet, setting clear aims for the lesson. They were tracing Macbeth's mood as a scene progressed. Mood was discussed with a mixture of questions and information. A group of pupils acted out the scene while the others observed and drew a graph of Macbeth's mood. Using a prepared sheet the pupils then planned an answer to an exam question for the next lesson.

The pupils listened attentively, putting up their hands and vying with one another to answer the questions. In-depth answers were often given. Any slight straying from the correct procedure, such as answering a question without being asked, was quietly reprimanded. While the group was acting out the scene Jane walked around the room, quietly prompting or reprimanding the watchers, often with a non-verbal gesture. At all times reprimands were quiet and positive, often taking the form of questions. The written work was undertaken in silence. A pupil with severe academic problems, having missed the previous lesson, was given an alternative written task to do. At one stage she became petulant and screwed up her work. She was offered the chance to do it again several times and eventually accepted. The lesson ended with "a quiet moment before we go".

### 4.6.3.b Observation 2

Since this group consisted only of students with SEN the observations during lessons 2 and 3 took a different format than with the other teachers observed. As with the other teachers, the interactions between the teacher and the class were observed, observation 2, noting the nature of the interaction and whether it was with the whole class, a small group or an individual. This was carried out at five-second intervals for five minutes on three occasions during each of two lessons, see figure 13 below.

Figure 13: Interactions of Jane with class, observation 2



As with other participant teachers, lecturing was the most frequent whole-class interaction representing 35.8% of the interactions, see table 27 below. Giving instructions and

observing the class represented a further 38.9%. Asking questions was the only other significant whole-class activity. Interactions between Jane and small groups were few. Out of 360 interactions noted only 5 were with small groups. This was probably because the students were encouraged to work on their own except for specified group work such as acting out a scene from a play. Interactions with individual pupils were the most frequent, 193 compared with 162 for whole-class activity and these covered a wider range of activity. Of these, helping represented 31.09% of the interactions and asking questions and giving instructions a further 30.05%.

Table 27: Interactions of Jane with class, observation 2

	Whole class	Small group	Individual pupil
Answer questions	4	0	9
Ask questions	18	2	31
Prompting	0	0	1
Lecturing	58	0	1
Writing	6	0	2
Instructions	34	0	27
Reprimand	6	0	17
Praise	2	0	19
Encouraging	1	0	10
Helping	4	3	60
Observing class	29	0	16
Total interactions	162	5	193

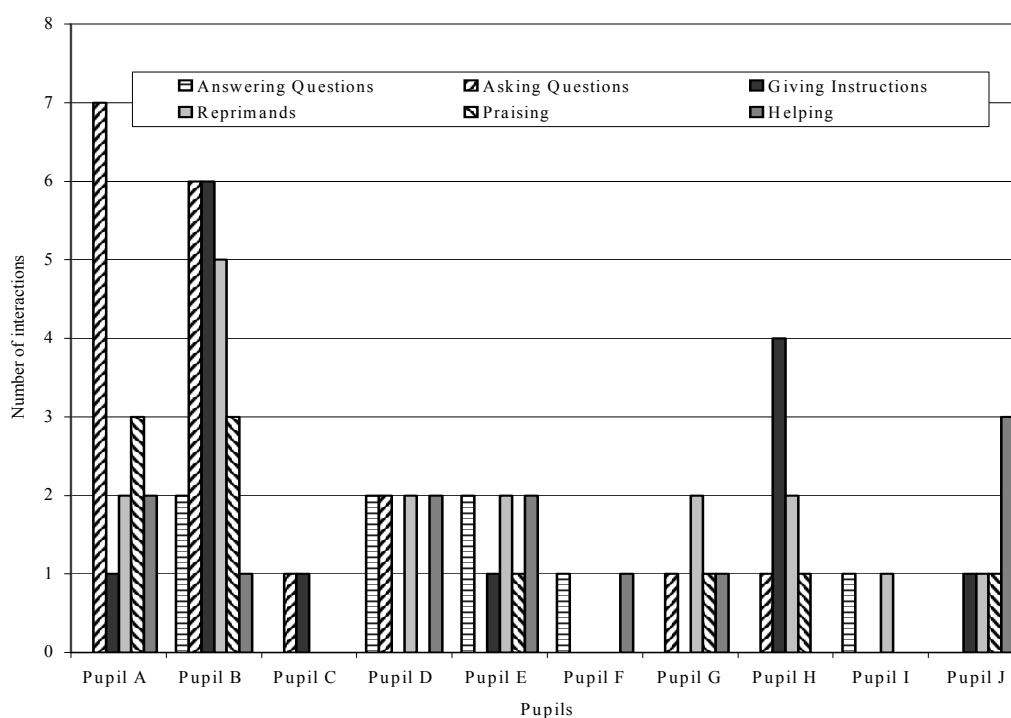
#### 4.6.3.c Observation 3

Observation 3, A, comparing interactions between the teacher and those pupils with and those pupils without SEN, could not be carried out as all the students had SEN. Interactions between the teacher and named students (observation 3, B) were noted, as with the other teachers, for three, five-minute periods during each of two lessons.



During observation 3, B, figure 14 below, the 83 interactions were spread between 10 of the 12 members of the class. Two of the pupils, A and B, received 49.4% of these interactions. Asking questions (21.7%) was the most frequent interaction followed by reprimands, giving instructions and helping. Praising represented only 12.1% of the interactions.

Figure 14: Interactions between Jane and individual pupils, observation 3B



The most notable contrasts with other participant teachers were the lack of interaction with small groups and the lower frequency of reprimands. Praising was used only moderately. Helping and giving instructions were frequent activities. Two pupils received most of the interactions.

#### **4.6.4 Key Questions**

The lesson began with a clear introduction stating the aims and expected outcomes of the lesson. Materials and resources for the lesson were prepared and in the room although, on one occasion, work that Jane had marked was forgotten. She went to fetch this taking with her the two pupils that she felt could least cope with being left unsupervised. Explanations and instructions were clear.

All the pupils were involved in the lesson. A variety of motivational strategies were used in order to include all the pupils. Different work, and additional help, was given for those who could not cope with that given to the rest of the class. Teaching activities ranged from answering questions both orally and written, researching information and acting out scenes from a play. Some variety was used in the questioning technique.

Misconceptions were addressed as they appeared. The pupils were praised on what they had done and encouraged to improve. Jane listened to the pupils responding to their contributions. The pupils were kept on task throughout the lesson and poor behaviour was corrected immediately. Good achievement and effort were praised and all students were treated fairly, receiving an appropriate amount of Jane's time. The lesson was conducted at an appropriate pace, lasted the correct time and finished with a review of what had been learned during the lesson.

## 4.7 CASE STUDY, PAT

### 4.7.1 Questionnaire

Pat was a female (qA1) English teacher with a B.Ed degree (qA5). She was between 41 and 50 years old (qA2) and had been teaching for 12 years (qA6). Pat taught all year groups (qA8) and had received no training for SEN. She received some support (qA9) and had accessed no advisory material during the last three years (qA10). Pat had a relative or friend with SEN (qA11)

Her total score on the attitude statements (section B) was 66. This falls slightly to the negative side of the neutral point of 70, within the neutral band of 61-80, see table 28 below. Pat gained the full range of scores on the statements and gained 10 positive and 10 negative scores. The majority (6) of her negative scores were moderately negative whilst the majority (7) of her positive scores were weakly positive. Pat's median score was 3.5, neutral and her mode score was 4, weakly positive. Overall Pat's score would suggest that her attitude to SEN was neutral.

Table 28: Banding for attitude scores

Score band	Strongly negative	Moderately negative	Neutral	Moderately positive	Strongly positive
Score	20-40	41-60	61-80	81-100	101-120

In answer to question C1 Pat described SEN as "*Children who have physical/emotional disabilities which require them to have more specific needs than mainstream children.*" This considers both the difficulties and needs of children with SEN.

When considering how the nature of her subject affected meeting the needs of children with SEN (qC2) Pat thought that there was too much in the curriculum, giving no time to slow down to meet the needs of those with problems. In response to the question (C3) asking for further comments she asked, "*Is the mainstream environment always the best place for these children to gain their potential?*" This was particularly related to those with emotional problems who she considered did not always make the best partners for those with other special needs. The need for more training was also commented upon.

Pat was a mature and fairly experienced teacher but with no training in SEN. Her further comments suggested that she considered this to be a problem. Her attitude scores and her comments suggested a slight degree of negativity towards SEN in the mainstream school.

#### **4.7.2 Interview**

Pat created the impression of someone who cared about meeting the needs of those pupils with SEN and was generally supportive of inclusion

*"I'm very much for your special needs children that want to work being involved in the classroom and learning to socialise and whatever," (1,I.17).*

Her support of inclusion was however, qualified, those children with behavioural needs were less welcome in her lessons "*I think that any child that is out to disrupt, you don't want them in your room.*" (1,I.17). She viewed the more gifted as children with special needs. When planning lessons these were the pupils she considered most, "*to be honest I give extra*

*thought to the special needs children at the top. I class them as special needs as well."*

(1,I.9). Lack of support was seen as a problem, not so much for herself but because the children found it difficult to cope without it *"they are struggling"* (1,I.5). She felt that she could not give them adequate help

*"as an English teacher ...I just haven't got the time or even the knowledge necessarily, to try and help them (children with severe spelling problems), and they perhaps need extra."* (1,I.5).

Although supportive of inclusion this was not Pat's first response to the idea. Her initial reaction to a question about her feelings towards inclusion was against those with behavioural problems *"I think that if they've got severe behavioural problems it is a nuisance, because they disrupt."* (1,I.17). She then moved on to saying that she was in favour of children with special needs being in the class if they wanted to work but expanded on the difficulties with disruptive children *"You try and accommodate them, you bend over backwards, and I find it so frustrating that they are getting so challenging."* (1,I.17). An example was then given to reiterate her support for the inclusion of those who wanted to work

*"I've got a boy in my year 10, he'll be lucky to ... get a D, I'm hoping to get him up to a C. I'm really amazed at the work he's doing, he's so positive and he's a pleasure to have in here and the others are learning from him and that's how it should be but unfortunately they're not all like that, as we know."* (1,I.17).

Disruptive children were seen to be a problem for the teacher. The effect of the disruption on other members of the class was not mentioned. Pat felt that other staff generally viewed inclusion as she did.

The lack of support in lessons, and for pupils with special needs generally, was seen to be a problem essentially for the children. Severe spelling problems apart, Pat did not consider

that she had any children whose problems were beyond her *"To be honest I haven't got any children that have caused me major concerns with special needs that I can't cope with."* (1,I.8). However, she felt that she did not have the time in lessons to give these children the necessary extra support. This particularly applied to those children who had English as a recent second language

*"I don't get the time to sit with him (a Chinese boy in year 10) and go through it but he's missing out on course work. ... I see these Japanese children particularly... the girls are getting so upset because they can't cope with the work, and they're having problems and there is only so much that you can do with them."* (1,I.6).

The extra help with literacy given to pupils with special needs in withdrawal groups was also considered inadequate and added to their problems.

*"These kids are being put back into normal classroom situations and because they have got such weak reading/spelling skills ... they are struggling and I think that there should be more help for children like that"* (1,I.5).

Pat had not been given any departmental policy documents and was not aware of a departmental policy on SEN. She felt that this was probably due to herself and the head of English both having joined the school at the start of the academic year (nine months previously). SEN was discussed at departmental meetings although, like most other topics, not in great detail. *"It is discussed but I think there's other, more pressing issues at the moment ...everything is discussed only briefly."* (1,I.13)

When planning her lessons Pat varied in the amount of consideration she gave to the needs of those with SEN. It depended on the class, all of which were mixed ability. *"Some I don't at all, I teach to the middle with some classes but to be honest I give extra thought to the special needs children at the top."* (1,I.9). She did not tend to change the way she taught to take into account children with special needs in the class because *"I've usually only got a*

*small handful in there"* (1,I.16). In order to help those with problems Pat gave extra individual help and differentiated the work where possible. When the class was doing group work she found specifying the group members useful, particularly with year 10.

*"I will split them away from their friends and I'll get the high fliers with some of the weaker ones, and that way works really, really well. I won't let them sit in their gangs of whatever, split them up that way and I'll have them saying to me, some of them at the end 'I really learnt something from them, they really helped me.' "* (1,I.16).

English as a subject was not seen to be a difficult one for children with SEN. *"I think English (teachers) are perhaps, particularly good at accommodating them because we are mixed ability all the way through"* (1,I.19). Pat felt that the department had chosen mixed ability because that had proved to be most successful. However, exam syllabi such as those for SATs and GCSE did cause problems because of the in-depth nature of the work required and the fact that all the students sat the same paper.

*"when they are studying for the SATs ... and your GCSE level when you've got more in-depth studies of literature, that does cause problems. They can't keep up with it ...they are faced with ...(for example) Macbeth, and ...they give up before they even start."* (1,I.15).

She was concerned that there were those pupils who did not qualify for extra time or someone to help with the reading but found it very difficult. *"but what about the other ones (who do not qualify for help) they're the ones that, I think, find it hard."* (1,I.15).

Pat would have preferred the groups to be set. Although she agreed with the argument that having all abilities in a group raised the standards at the lower end, she found it very difficult, with a mixed ability class, to find a suitable pitch for some of the more difficult texts that had to be studied.

*"I can see both sides ... the mixed ability, GCSE for example, ... hopefully their grades are pulled up. It doesn't always work but sometimes, when you think of the*

*range of texts we've got to study, ... I can't do that sort of text ... your Dickens and your Victorian novels, (at a) pitch that they can all manage." (1,I.20).*

In her opinion other departments might view special needs differently from the English department due to the nature of the subject. The fact that some departments set the children was given as an example of this. This was not seen as viewing SEN more or less favourably but just finding the most suitable way of teaching that subject. *"No, perhaps its just works for them, a better way of teaching." (1,I.20).*

Pat obviously cared about meeting the needs of those pupils with SEN and the gifted, and was generally supportive of inclusion. However, she did not support the inclusion of those with behavioural needs. She considered lack of support to be a problem for those with SEN. She had various strategies to help these pupils although she considered her lack of training to be a problem here. Most of her planning was aimed at supporting the gifted.

### **4.7.3 Observations**

#### **4.7.3.a Observation 1, Narrative Observation**

##### **Context**

The lesson was in Studio 3, a classroom in the new performing arts block. It was half of a much larger room divided by a folding wall which had been sound proofed with only limited success. It was clean, pleasant and colour co-ordinated. The windows were curtained and the folding wall and display boards were covered in a similar fabric. Chairs and tables folded up for storage and the floor was carpeted. Of the two notice boards, one displayed a few notices and the other, nothing. This was not Pat's usual classroom although this lesson was generally held here.



This was a mixed ability set of year 7 pupils with one child on the SEN register at level 1, although he was absent, and two boys who were described as in need of a lot of help. Both were considered difficult to keep on task and one was described as unable to take criticism. Two of the girls were said to be enthusiastic but of limited achievement.

### Behaviour

The class entered in a fairly orderly manner and settled reasonably quickly. There were 26 out of 29 present. The children behaved well. Most listened and sat still. When working in pairs most chatted quietly and were on task.

The lesson started with a literacy activity on suffixes. The children had envelopes containing suffix cards and a white board. Some examples of root words were given and individuals had to use one of their suffixes to make a new word. Working in pairs, they then had to make 5 new words about each other that they could use in their biography work. They copied these into their books and cleared away. Reminders of what they had to do for their biography work were given with examples.

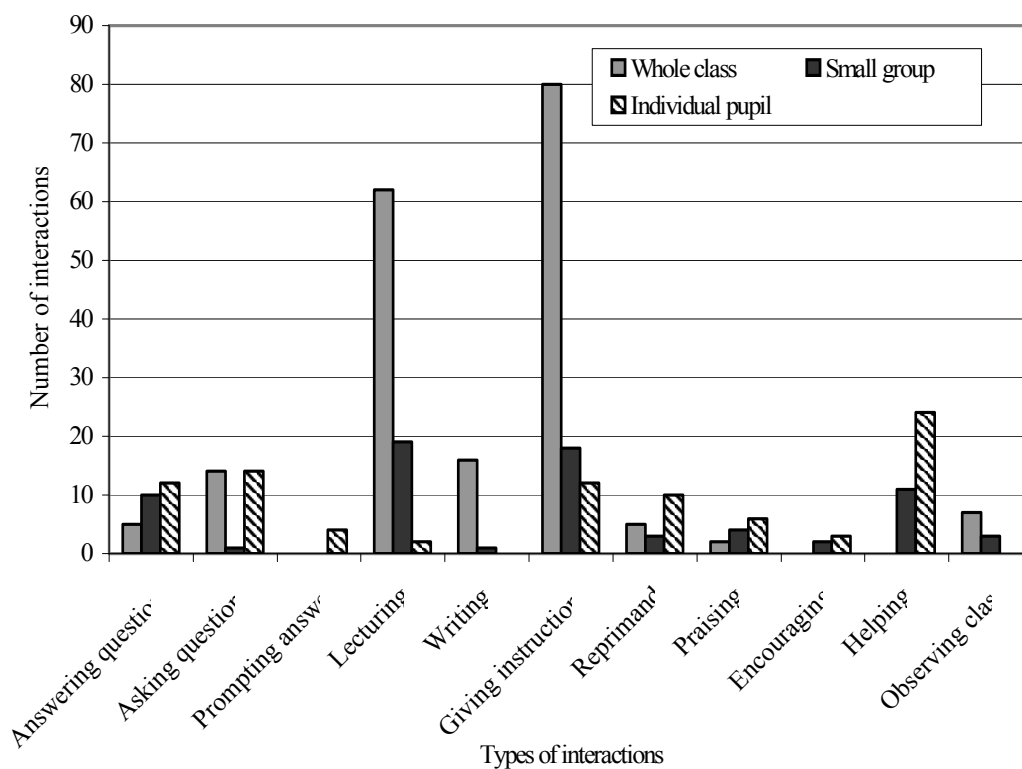
Most of the children worked well and fairly quietly. They moved around to get things or to ask for help. Some put their hand up for help. Pat walked among the groups and helped as needed. She spent a lot of time with the two boys described as needing help and some time with another boy.

Pat stood at the front looking from side to side. She spoke fairly loudly with no shouting and rarely made negative comments. Most reprimands were in a positive manner, emphasising what the pupils should have been doing rather than criticising what they were doing. There was one sarcastic comment but this was said in a playful tone.

#### 4.7.3.b Observation 2

The interactions between the teacher and the class were observed noting the nature of the interaction and whether it was with the whole class, a small group of pupils or an individual member of the class. This was carried out at five-second intervals for five minutes on three occasions during each of two lessons, see figure 15 below.

Figure 15: Interactions of Pat with class, observation 2



Giving instructions and lecturing were the two most frequent interactions with the whole class. These represented 74% of the 192 interactions with the whole class. Writing and asking questions provided a further 15.6%. There were 75 interactions with small groups and, once again, lecturing and giving instructions were the most common, representing 49.3% of the 11 different interactions. Helping and answering questions contributed a further 28%. Pat praised small groups only 4 times and reprimanded 3 times. Of the 89 interactions with individual students, five contributed 80.9% and of these, helping contributed one third.

Table 29: Interactions of Pat with class, observation 2

Type of interaction	Whole class	Small group	Individual pupil
Answering questions	5	10	12
Asking questions	14	1	14
Prompting answer	0	0	4
Lecturing	62	19	2
Writing	16	1	0
Giving instructions	80	18	12
Reprimand	5	3	10
Praising	2	4	6
Encouraging	0	2	3
Helping	0	11	24
Observing class	7	3	0
Chatting	1	3	2
Total interactions	192	75	89

There was limited variation in the types and amounts of interactions between the groups, see table 29 above. Lecturing and giving instructions were principally whole group activities although they were also the most frequent interactions for small groups and giving instruction was a significant activity with individuals. Helping was the most frequent interaction with individuals and significant with small groups but was not used with the

whole class. Reprimand and praising were not significant activities in any group contributing only 3.7% of the interactions for the whole class, 9.3% for small groups and 18% for individual students. Reprimand was more frequent than praise for the whole class and individuals and the reverse for small groups.

#### 4.7.3.c Observation 3

In order to compare how the nature and frequency of the interactions varied between those with SEN and those without, two types of observation were undertaken. Every interaction with an individual child was noted during three, five-minute periods in each of two lessons. These were noted as to whether the child had SEN or did not have SEN (observation 3A). Similarly every interaction with a named child was noted for three, five-minute periods during each of two lessons (observation 3B).

During observation 3A, see table 30 below, reprimand was the most frequent interaction both for those with and without SEN. Reprimand represented 34.78% of the interactions with those with SEN and 27.4% of those with students without SEN. Helping was the second most frequent activity for those with SEN, and asking questions for those without SEN. Praise was the next most frequent interaction both for those with and without SEN. Helping was equal to praise for those without SEN.

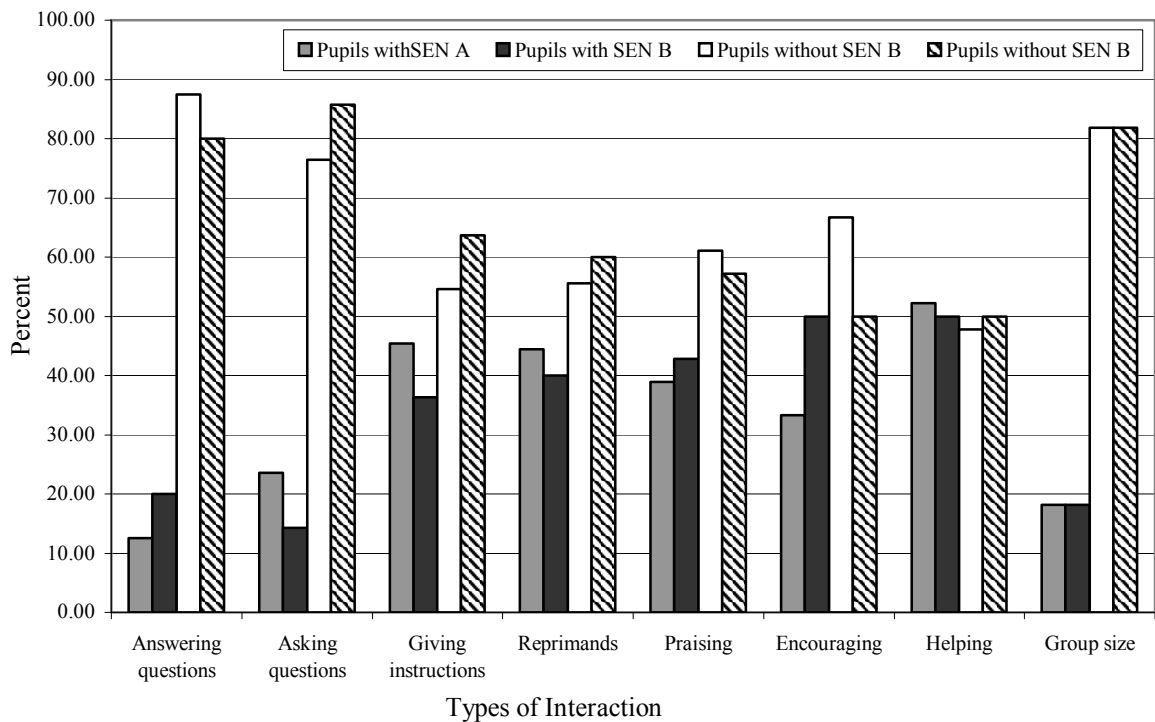
Table 30: Interactions with those with and without SEN, observations 3A and 3B

Interaction	Pupils with SEN A	Pupils with SEN B	Pupils without SEN A	Pupils without SEN B
Answering questions	1	1	7	4
Asking questions	4	1	13	6
Helping	12	9	11	9

Giving instructions	5	4	6	7
Reprimands	16	10	20	15
Praising	7	6	11	8
Encouraging	1	1	2	1

The results from observation 3B, when the pupils were grouped as those with SEN and those without SEN, were very similar to those from observation A, see table 30 above. Reprimand remained the most frequent interaction for both groups although the distribution was more balanced, but helping moved to second place for those without SEN. Praise followed for both groups as before.

Figure 16: Comparison of percentage interactions of those with and those without SEN, observations 3A and 3B



The variation in distribution of interactions between those with and those without SEN can be seen in figure 16 above, where they are shown as a percentage of total for each type of interaction. Although those with SEN made up less than 20% of the group size, in almost all

cases, and particularly helping, they received a greater proportion of the interactions. The frequency of most types of interactions represents about twice the group size. Only with regard to answering and asking questions do A and B relate to, or fall below, the group size.

All the children with SEN were included in the lesson, see figure 17 below. Pupils B and D were the only pupils with SEN to receive reprimands and both were praised, as was pupil A. All four were helped. Pupil B received most interactions. No pupil without SEN received as many reprimands as pupils B and D, although pupil P received four. Seven pupils without SEN were praised. Most instructions were given to pupil H who received the most interactions of those without SEN.

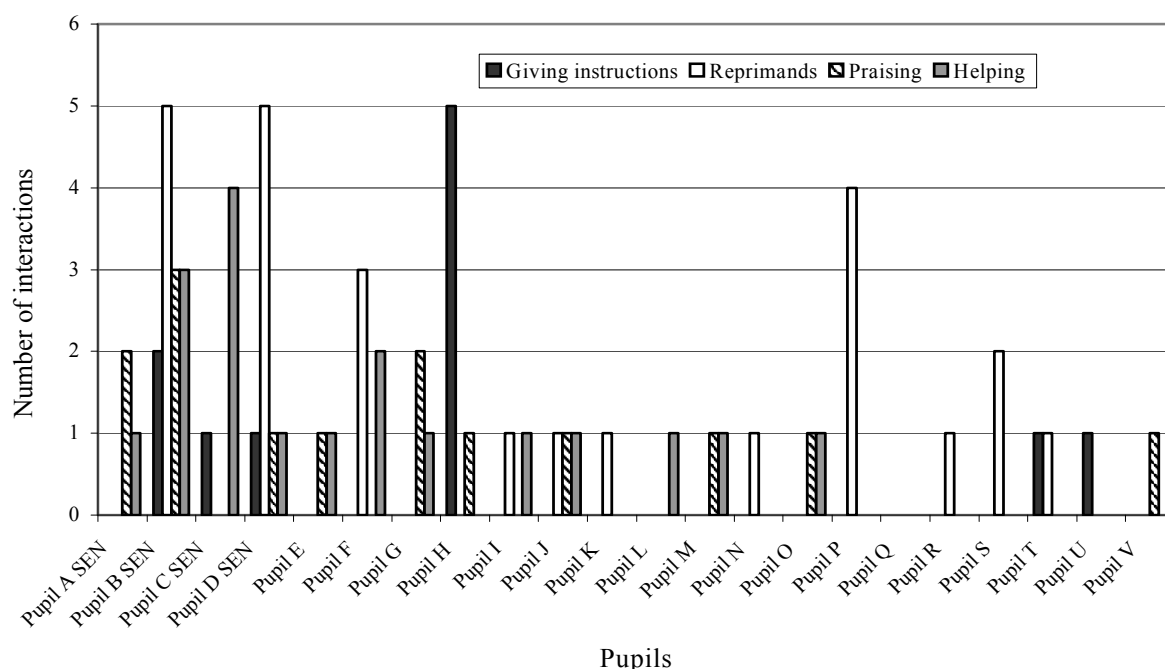
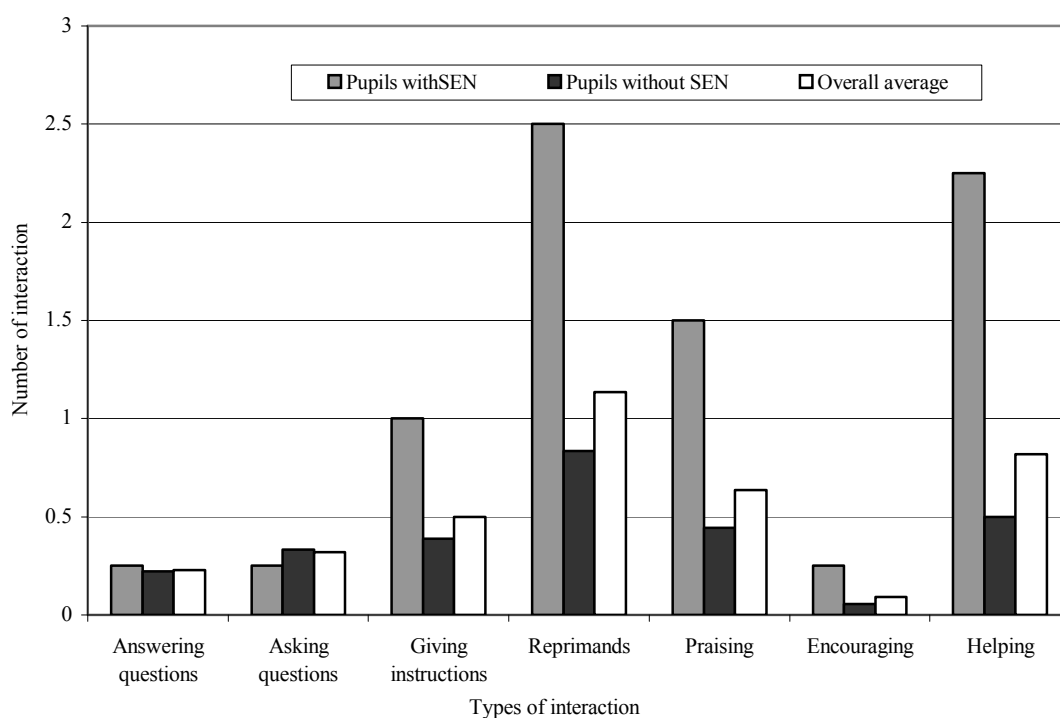


Figure 17: Principle interactions between Pat and individual pupils, observation 3B

Using average interactions per pupil, see figure 18 below, there was little variation between the most frequent interactions for those with SEN and those without. However, those with SEN received, on average, more interactions per pupil than did those without SEN. The only exception was asking questions.

Figure 18: Average interactions per pupil, observation 3B



Although reprimand played a significant part in the interactions of Pat with the pupils it was not so marked as with some other participant teachers. Helping the pupils had a larger role here. Those pupils with SEN received a larger share of most interactions than those without SEN, with the exception of asking and answering questions.

#### **4.7.4 Key Questions**

The lesson began with an introduction that stated clearly the aims and objectives for the lesson. Necessary resources were prepared but some time was spent, while the children were working in groups, organising these. Instructions and explanations were clear so that the pupils could get on with the expected task with the minimum of fuss.

All the pupils were involved in the lesson, many answering questions and all participating in the group work. Although this was a mixed ability group there was little differentiation, save by outcome, in the work that was set for the pupils. The groups were carefully chosen so that weaker pupils were in a group with stronger ones and Pat gave extra help to those likely to have more problems. Activities were varied throughout the lesson using a number of different learning and motivational strategies. These were aimed at the whole class rather than at specific individuals or groups. Questions asked were generally of a similar nature.

During the lessons observed, no evidence of recognising and changing misconceptions was seen but good work was shown in order to encourage higher goals in other pupils. Pat listened to the pupils and responded appropriately. Advice on how to improve work was given.



The pupils were usually on task during the lesson and lapses were generally dealt with promptly. Bad behaviour was usually corrected although occasionally Pat was engrossed in helping other pupils and did not respond immediately.

Although Pat praised correct answers and good work she was relatively sparing with this. However, she was generally positive in the way she addressed and reprimanded pupils, indicating how pupils should be working and behaving rather than criticising actual work and behaviour. Pat was fair in her allocation of time and treatment of pupils, helping all those who needed it in proportion to the degree of help required.

No indications of how long activities were due to last were given but she did give clear indications of when the pupils were to move on. Generally the pace of the lesson was appropriate although it was sometimes a little slow. The lesson finished on time with a review of what the children had learned.

#### **4.8 THE TEACHERS COMPARED**

To further investigate departmental differences in attitude and their impact on practice the participant teachers were compared within their departments, table 31 science and table 33 English. Table 35 summarises and compares the features of the teachers on a departmental basis. The science and English teachers with the most positive scores were compared, table 36, in order to investigate the relationships between positive attitudes and practice and any departmental influences on this. The influence of positive verses negative attitudes to SEN was considered by means of comparing those teachers with positive attitudes with those with more negative attitudes through both departments, table 37.

### 4.8.1 The science department

Table 31: A profile of the teachers

	Kate	Mike	Sally
	Mature Experienced Female SEN and science teacher	Mature Experienced Male Science teacher, year head	Young Inexperienced Female Science teacher
Attitude Score-total	83	67	59
median	4.5	3	2
mode	4	2	2
Overall	Moderately positive	Slightly negative	Moderately negative

Table 32: Similarities and differences between Kate, Mike and Sally

Similarities	Differences		
	Kate	Mike	Sally
Difficulties definition of SEN	Mature and experienced	Mature and experienced	Young, inexperienced
Behaviour difficulties not suitable for inclusion but physical disabilities are fine	Supportive of inclusion with reservations, most realistic views on inclusion	Barely supportive of inclusion. Considered inclusion to be for wrong reasons	Said she was very supportive of inclusion. Contradictions, dwelling on difficulties, rather idealistic
Science is a difficult subject for those with SEN, particularly language and abstract concepts	In-depth thought about inclusion and SEN Wants more support assistants	Thought little about inclusion and SEN Support assistants can irritate	Little in-depth thought about inclusion and SEN Wants more support assistants
Practical work poses problems	Consciously changed her teaching style when those with SEN in class	Taught to a range of ability, not to any special need	Rarely changed way she taught
Key stage 4 syllabus not relevant	Lack of order during lesson and students noisy	Orderly disorder, students fairly quiet	Lack of order during lesson and students noisy
Do not consult support			

assistants	Slightly harassed during lesson	Relaxed during lesson	Harassed during lesson
Needs not actively planned for in lessons	Chatted to the students	Chatted to those students without SEN	Did not chat
Differentiation by setting and outcome Lectured whole class	Praise little used but more to those with SEN	Used praise the most, more to those with SEN	Praise little used but consistent throughout class
Most help to individuals	Encouraged more than Mike or Sally, more to those with SEN	Encouraged less than Kate, more to those with SEN	Encouraged less than Kate, more to those with SEN
Reprimand a significant activity	Asked more questions of those with SEN than Sally	Asked most questions of those with SEN	Asked least questions of those with SEN
Praise not a significant activity	Gave least help to those with SEN	Helped those with SEN more than Kate, similar to Sally	Helped those with SEN more than Kate, similar to Mike

SEN was not a high profile in the science department, see table 32 above. Science was considered a difficult subject for those with SEN and it was seen in terms of the difficulties that it created. There was little willingness to adapt to meet special needs, the scheme of work apparently providing sufficient differentiation; anything else was not their responsibility. The most positive teacher was the most willing to change her teaching style. However, all the teachers interacted more with those with SEN. The lessons were not well structured or particularly orderly; reprimands were well used. None of the teachers supported full inclusion.

#### 4.8.2 The English department

Table 33: A profile of the teachers

	Jane	Pat
Attitude score-total	Mature Experienced Female Senior Management , English teacher 76	Mature Experienced Female Part-time English teacher 66

	median	4	3.5
	mode	6	4
Overall		Moderately positive	Neutral

The English department gave SEN a higher profile, see table 34 below. English was not seen as a difficult subject for those with SEN and it was considered in terms of need rather than difficulty. Thought was given to meeting individual needs, less so by the less positive teacher. Both teachers gave structured, orderly lessons; reprimands were not a principle interaction. Neither teacher supported full inclusion.

Table 34: Similarities and differences between Jane and Pat

Similarities	Differences	
	Jane	Pat
Mature and experienced	Definite, well thought out views on inclusion and the larger view of SEN. Her definition of inclusion related to the right of the child to make progress, which did not necessitate every child being in a mainstream classroom with its peers. Anxious not to appear negative.	More concerned with the smaller view of her classes and students Pat supported inclusion provided the students wanted to work. Those with severe behavioural problems did not come in this category.
Needs model of SEN		
SEN was a consideration in the English department		
English not a particularly difficult subject for those with SEN		
There was some consideration of the needs of students with SEN in departmental and individual planning	Did not have time to plan lessons to meet every need within it but did as far as possible. With behavioural class used very specific behaviour management techniques.	Did not specifically change the way she taught for those with SEN. Planned for the gifted. Arranged groups to include all abilities.
Mainstream classroom not necessarily thought to be the best place for all those with SEN		
Some thought was given to meeting individual needs in lesson planing, the classes were mixed ability	Did not chat	Chatted
Both teachers gave structured orderly lessons	Gave less help, reprimands and praise	Gave more help, reprimands and praise
Reprimand was not the principle interaction	Asked more questions	Asked fewer questions
The interactions of both teachers were similar in observation 2		

### 4.8.3 Comparison of science and English teachers

The science teachers were generally more negative in their views than the English teachers, table 35 below, seeing SEN in terms of difficulties and problems and science as a difficult subject. SEN was not a high profile in science with individual needs not being actively catered for. In English, SEN was given some consideration and there was more willingness to meet individual needs. The English lessons were more structured and orderly with less reprimands. Behaviour was an issue with the science teachers, less so with the English teachers. Teachers from neither department supported full inclusion.

Table 35: Science and English compared

Science	English
<ul style="list-style-type: none"> <li>• Had more negative attitude scores</li> <li>• Gave a difficulty definition of SEN</li> <li>• SEN was not high profile</li> <li>• Individual needs were not actively planned for in lessons. Setting and lower level of scheme sufficient differentiation for SEN</li> <li>• Most positive science teacher most prepared to meet needs</li> <li>• Difficult subject - language, abstract concepts, relevance of KS4 syllabus</li> <li>• Safety issues with behavioural difficulties</li> <li>• The science teachers interacted with classes in differing ways</li> <li>• Mainstream considered suitable for physical disabilities but not for behavioural problems</li> <li>• Views were fairly cohesive, essentially practical, concerned with the reality and difficulties of meeting needs in their classrooms with a difficult subject</li> <li>• Lessons not very structured or orderly</li> </ul>	<ul style="list-style-type: none"> <li>• Had more positive attitudes scores</li> <li>• Gave a needs definition of SEN</li> <li>• SEN was a consideration</li> <li>• Some thought was given to meeting individual needs in departmental and lesson planing, classes mixed ability</li> <li>• More positive English teacher more prepared to meet needs than less positive one.</li> <li>• Subject not considered particularly difficult for those with SEN</li> <li>• Safety was not mentioned</li> <li>• The two English teachers interacted with a class in a similar way in observation 2</li> <li>• The mainstream classroom was not necessarily considered to be the best place for all those with SEN</li> <li>• Views were not very cohesive between these two teachers - Jane was very rights of child, larger view of SEN, Pat was more concerned with the smaller view of her classes and students</li> <li>• Structured orderly lessons</li> </ul>

<ul style="list-style-type: none"> <li>• Reprimand was a principle interaction</li> <li>• Praise was not a principle interaction</li> <li>• Kate and Mike chatted, Sally did not</li> </ul>	<ul style="list-style-type: none"> <li>• Reprimand was not a principle interaction</li> <li>• Praise was not a principle interaction</li> <li>• Pat chatted, Jane did not</li> </ul>
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#### 4.8.4 Positive science and English teachers

Table 36: Similarities and differences between Jane and Kate

S i m i l a r i t i e s	Differences	
	Kate	Jane
<p>Support inclusion but with reservations</p> <p>Both thought in depth about inclusion and SEN</p> <p>Both consider that SEN is under-resourced</p> <p>Change style of teaching to accommodate those with SEN</p> <p>Spent more time with students who were in need of additional help</p> <p>Lectured whole class</p> <p>Helped individuals</p>	<p>Difficulties definition of SEN</p> <p>Own subject, science, difficult subject for those with SEN</p> <p>Considered issues from a practical, day to day, in-class perspective</p> <p>Behavioural difficulties big issue, if severe should not be included</p> <p>Did not consult support assistants</p> <p>Lesson less structured and orderly, students sat where they chose</p> <p>Class noisy while working</p> <p>Worked mainly with small groups or individuals</p>	<p>Needs definition of SEN</p> <p>Own subject, English, presents no difficulties specifically for those with SEN</p> <p>Considered issues from a wide, somewhat theoretical, perspective</p> <p>Behavioural difficulties not a specific issue</p> <p>Consulted support assistants</p> <p>Lesson well structured and orderly, students sat in specified places</p> <p>Class worked in silence</p> <p>Worked with whole class or individuals, not small groups</p>

	Reprimanded more	Praised more
	Chatted a little	Did not chat
	More help and encouragement	More instructions and questions

The more negative, difficulties culture of the science department does seem to have an influence on the more positive attitudes of Kate, table 36 above.

#### **4.8.5 Comparison of those with positive and those with more negative attitude scores**

It seems that those with more positive attitudes were more likely to have thought in depth about SEN and be more supportive of inclusion, table 37 below. They were also more likely to consider those with SEN to be their responsibility and more willing to change teaching styles to accommodate their needs. All teachers spent more time with those with special needs.

Table 37: Jane and Kate, positive, compared with Pat, Mike and Sally, more negative

<b>Jane and Kate</b>	<b>Pat, Mike and Sally</b>
Supported inclusion but with reservations	Support for inclusion more variable
Both had thought in depth about inclusion and SEN	Had parochial views on inclusion and SEN
Thought that SEN was under-resourced	Thought that SEN was under-resourced
Changed their style of teaching to accommodate those with SEN	Made no major changes in teaching style

Spent more time with students who were in need of additional help	Spent more time with students who were in need of additional help
Lectured the whole class	Lectured the whole class
Helped individuals	Helped small groups and individuals
Meeting the needs of those with SEN was considered to be their responsibility	Inclined to feel that the responsibility for SEN belonged elsewhere
	Preferred the children to be in sets

Further discussion of these issues can be found in chapter 5



## CHAPTER FIVE - DISCUSSION

This study was designed, essentially, to answer two research questions. These were:

Is there a difference in the attitudes of teachers from different subject departments towards special educational needs and does the nature of the subject taught impact upon the delivery of the curriculum for those with special educational needs?

How do the attitudes of teachers towards disabilities and children with special educational needs impact upon their practice? Do they affect the way teachers prepare for lessons and teach and the way they treat different members of the class?

The aim of investigating these research questions was to discover if attitudes varied between subject departments and how attitudes affected the practice and the interactions between teachers and children with special educational needs. It was hoped to discover whether lessons were planned with the needs of those with difficulties in mind or whether this was left to others, such as support teachers and assistants, to provide. Was this department-wide or did it vary with individual teachers, and how did attitudes impinge on this?

This chapter aims to explore how effectively the study answered these questions and the implications of those findings. The study consists of a case study of the attitudes towards SEN found amongst the teaching staff of one school. Within this framework are five further case studies of individual teachers looking in greater detail at their attitudes towards SEN and how these attitudes impact on their practice. These teacher case studies give a much

more detailed picture of five, very different teachers. Two were members of the English department and three were members of the science department. The studies looked at the answers given in their questionnaires, what they said in interviews about their attitudes and practice and how this was put into practice when their lessons were observed. A summary of the argument begins the chapter before moving on to look at the findings in more depth. The different components of the study will be discussed and related to each other and the literature.

## **5.1 SUMMARY OF ARGUMENT**

### **5.1.1 The ethos of the school affects the attitudes and practice of those within it**

Pine Grove School was a moderately good school with a mixed catchment area and slightly above average results. The analysis has shown that SEN did not seem to be viewed as a high priority by senior management. Attitudes permeate through the school from senior management to the staff and back and between staff. Teachers at the school were therefore working in a culture of low esteem for SEN and this may have affected their attitudes towards this area and possibly been reflected in their practice. This was seen in the fact that, although the overall attitude score of the staff was shown to be weakly positive, SEN was viewed rather negatively in terms of difficulties and problems. Behaviour problems were a recurring theme throughout the study. Students with these problems were almost universally viewed negatively and represent the greatest barrier to the teachers accepting greater inclusion of students with SEN.

### **5.1.2 Attitudes vary between different departments and the nature of the subject taught impacts on attitudes, practice and outcome**

There were distinct differences in the scores of some subject departments. Those teaching the core subjects were generally more negative than those teaching other subjects. Within the core subjects, and the school as a whole, science was the most negatively scoring department and this was reflected in the progress made in key stage 3 by those with SEN. The nature of the subject does have implications, science was considered to be a difficult subject, English less so. Practical subjects and those requiring higher levels of numeracy and literacy were considered to create more problems relating to SEN.

### **5.1.3 Attitudes impact on practice and outcome, often in subtle ways**

Attitudes are very complex and impact on practice in many ways and at many levels. It might be thought that a teacher with positive attitudes would be trying hard to support these students and that one with negative attitudes would be dismissive, making little attempt to meet these needs. This did not appear to be so. Irrespective of their views on pupils with SEN, a good teacher will endeavour to meet the needs of all pupils without consciously making the effort to do so. Positive attitudes do not guarantee that needs will be met, nor negative attitudes that they will not. However, those with negative attitudes are less likely to make the effort and their attitudes will communicate themselves to the students in terms of the students' worth and their suitability to study that particular subject.

The teachers with the most positive attitudes were both more prepared to make special provision for those with SEN. This did not necessarily make them equally effective. Behaviour management skills may have been more important here. Those with less positive attitudes were apparently less willing to make an effort to support these children but did support them, mainly with additional help and encouragement. The most negative scoring teacher was the least willing to adapt to the needs of those with SEN.

## **5.2 TRUSTWORTHINESS OF STUDY**

This study, like any other small study had limitations. The results of any study based in only one school cannot be said to relate directly to any other school. Thus the aim was not to draw firm generalisations. However, where the circumstances of another school are similar to those of the study school, then the results might well be of relevance. As Wellington (1996) said of case studies "*People reading case studies can often relate to them, even if they cannot always generalise from them.*" This research is a case study of one school. Pine Grove School was found to be a moderately good school with slightly above average achievement. It was situated in a socio-economically-mixed catchment area and special educational needs was not the highest priority within the school. This description would fit a large number of schools, thus the results of this study might be relevant to those schools. Determining the ethos of the school would also help people to relate to the school and therefore increase the generalisability of the findings. Some of the limitations of a small study will have been removed by the use of multiple methods of data acquisition, triangulation (Robson 2002). Although the initial data was obtained by a self-reporting questionnaire, which is prone to respondent bias (Florian and Rouse 2001b), this was used to

inform further, in-depth study using lesson observation and interviews. Documentary evidence was also used and the approaches were both quantitative and qualitative. Since the study was carried out by only one researcher there is the potential for researcher bias. Robson (2002) comments that triangulation is a valuable strategy for dealing with threats to the validity of research, reducing those of reactivity and researcher and respondent bias.

The questionnaire presented an opportunity to gather general data on the staff in the school that was not directly related to the research questions. Such information as age, gender, qualifications and training in SEN could be gathered. This was helpful in setting the school context and it also served to help measure the validity of the attitude scale as a tool. Similarity between the results of this study and those of previous research into these variables lends support to the reliability of other findings in this study. Because this was a small study, the total sample was only 47, the numbers of respondents within any variable was often small. Consequently the effects of a normal distribution of variance cannot be ignored and all patterns and trends must be viewed with caution. If these had been the main findings of the study this would have been a considerable weakness. However, as these findings were informative, supporting data, smallness of sample is less important. Tests for consistency of data were also carried out to establish the reliability of the results.

Research has shown that there are many variables that affect teachers' attitudes to SEN. Information relating to several of these variables was sought on the questionnaire. With regard to gender it was found that, at Pine Grove, the male teachers tended to be more negative than were the female teachers. Other research is inconsistent. Avramidis and Norwich (2002), in a review of the literature, list four studies that found females to be more

positive in their attitudes than males, as at Pine Grove. Three studies were listed where gender was not found to be related to attitudes.

Training in special education was found to enhance the formation of positive attitudes to inclusion (Center and Ward 1987, Leyser, Kapperman and Keller 1994). At Pine Grove a similar situation ensued. Those with no SEN training had the least positive scores and those with most training had the most positive scores. The qualifications that the teachers possessed presented a different picture. Teachers with a certificate or first degree in education had the most positive attitudes. If the first degree was subject based with a post-graduate certificate of education then attitudes were less positive. Those with a higher qualification, usually subject-based, had the least positive attitudes. It would appear that although more SEN training is linked with positive attitudes, more training, per se, is not. This could be linked to the effectiveness of SEN training in raising the confidence of teachers to cope with SEN students. Alternatively, those with more positive attitudes to SEN may be more likely to opt for SEN training and those with less positive attitudes prefer subject-based training. Perhaps the latter view their subject as more important or just more interesting. Mike, who had a further, subject, qualification, certainly appeared to be very subject-orientated in his views and teaching.

Those teachers who had accessed SEN material from the web were more likely to have a positive attitude score. This may well be that those who have positive attitudes are more likely to have accessed material from the web. It might be expected that those teachers who received support in their lessons would be more positive in their views towards SEN. This was the case in a study looking at attitudes to inclusion by Minke, Bear, Deemer and Griffin

(1996). However, the results obtained at Pine Grove were contradictory with the total score disagreeing with this hypothesis and the mode score agreeing with it. This may have been due to the unequal sample sizes of 38 receiving support and 9 not receiving it. The quality of support was generally praised during the study at Pine Grove making it unlikely that poor support encouraged negative attitudes.

Experience of SEN out of school, unless negative, is an area that might be thought to favourably affect teachers' attitudes towards SEN. The results from Pine Grove were statistically significant here, supporting the hypothesis that those with experience of SEN out of school would have a more positive attitude score. This was found to be the case by Harvey (1985, in Hastings and Oakford 2003). However, most studies that relate experience of contact to teachers' attitudes to SEN, relate to experience within school. Leyser, Kapperman and Keller (1994) found that more experience of those with disabilities led to more positive attitudes. Avramidis and Norwich (2002) list a number of studies that they consider support the premise that contact with students with significant disabilities leads to more positive attitudes, providing that contact is well planned and supported. However, they also note that social contact does not necessarily lead to more positive attitudes, as was the case in a study carried out by Forlin, Douglas and Hattie (1996).

Overall, there is an acceptable level of agreement with other studies regarding the teacher-related variables. This would add validity to the attitude scale as an instrument, thereby enhancing the trustworthiness of the study.

## **5.3 THE SCHOOL**

### **5.3.1 What was the ethos of the school in which the participant teachers worked?**

Teachers work within the context of a school. Therefore to look at five individual teachers, in however much depth, would be incomplete without investigating the school and how this impacts on attitudes and practice. Ainscow (2000) notes that there is considerable evidence that the workplace culture affects how teachers see their work and pupils. Similarly the school's ethos has a considerable impact on teachers' attitudes towards inclusion (Avramidis and Norwich 2002). Thus it was necessary to gather data to provide this context for the more detailed study of individual staff. A low priority for learning support with senior management in a school would impart a culture of a low importance for SEN with its resultant effect lower down the school. This seems to have been the case at Pine Grove School.

The OFSTED report for Pine Grove School in 1997, considered provision for special educational needs to be an area of weakness. It was seen as a department that was working well under difficult circumstances. There was only a limited whole school approach to meeting the needs of those with SEN and the learning support department seems to have been high on the list to absorb cuts in spending. Governors did not fulfil all their responsibilities with regard to SEN. The new, current SENCO felt that members of the teaching staff were still not fully aware of her role or their own regarding SEN, possibly due in part to the low profile of SEN. Although attempts have been made to address the



weaknesses identified by OFSTED these do not seem to have been comprehensive. There is an effective whole school literacy policy in place but there has been only limited response to the inadequacy of computer hardware and software in the learning support department and in-class support still appears to be in short supply. If management view SEN as of low priority, other staff may similarly consider it unimportant.

The cultural norm of the school may also be operating in the other direction, the views of the staff influencing those of senior management and other staff. Jordan and Stanovich (2003) believe that teachers' epistemological beliefs, which contribute to their teaching practices, are influenced by their experience of collaboration with other staff to the extent that the views of the majority become the norm for the whole school. This in turn sets the standard for the entire educational delivery process of the school. Looking at the analysis of the questionnaire, we can see that overall, the staff scored a positive, but not strongly positive, score on the attitude items. The mean, total score was 76, weakly positive, from a possible range of 20-120, and approximately 70% of the staff gained a positive score whether using total score, median or mode. This is in line with the overall ethos of the school, not sufficiently positive to suggest a staff eager to move the area forwards, suggesting perhaps, a staff that is accepting rather than welcoming. The average attitude score might have been higher had SEN had a higher priority with senior management and within the culture of the school.

### **5.3.2 How did the staff think of SEN?**

The definitions of SEN and further comments focus mainly on difficulties and problems, painting a rather negative picture overall, in keeping with only moderately positive attitude scores. Apparently the staff does not feel totally confident of being able to meet the needs of those with SEN which, in many cases, they feel they should not have to meet. The concentration on difficulties and problems may be that SEN has not entirely left behind the legacy of the medical model, in which it was traditionally placed, with its focus on within-child deficit. That the staff, overall, had weakly positive attitude scores is perhaps a function of the desire, in most cases, to help those children with SEN, provided that they did not have severe behavioural difficulties. Negative attitudes towards those with behavioural difficulties are not exclusive to the staff at Pine Grove. Hastings and Oakford (2003) and Croll (2001) found that student teachers and teachers were negative about children with emotional and behavioural problems.

As the majority of staff gave a definition of SEN that was based on the difficulties attached to having SEN, it would appear that this, somewhat negative, viewpoint is generally how they visualise SEN. A needs definition would appear to be more positive. However, there does not seem to be correspondingly negative attitude scores to accompany the difficulties definition, nor positive scores to accompany the needs definition. Those respondents giving a combined definition, only four, did tend to have more positive scores.

Just as the definitions of SEN dwelt on difficulties, comments relating to the relationship between the respondents' specialist subject to SEN largely concerned problems encountered.

There were only 10 positive comments compared to 27 negative ones. Where practical work was a feature of the subject, notably in science and technology, there were concerns about access and safety. These were related to those with physical disabilities but also to those with behaviour difficulties. Sufficient time for SEN was another theme for the problems listed. Having students with SEN in the class created difficulties in getting through the syllabus, they needed more help than time allowed and lesson preparation took longer. The literacy demands of some subjects were also seen as a problem and those subjects where the literacy demands were less were consequently thought to be better for those with SEN. In fact, some of the positive comments were related to the opportunities given for those with SEN by subjects where the literacy demands were few.

More negative comments were found in the responses given under any further comments. Comments requested more support, time and training, the implication being that these were currently insufficient. Behaviour difficulties featured quite strongly, and unfavourably, in further comments. Those with behaviour problems were considered to be difficult to teach and having a negative impact on the education of others. Some teachers questioned whether these students should be in the school, not something that occurred with others types of special need encountered. Behaviour difficulties also featured as a reason why none of the staff supported full inclusion although complex needs were also felt to be unsuitable for mainstream. The SENCO had commented during her interview that she felt that behavioural difficulties were a problem with the staff and she also, found their inclusion within the mainstream, difficult to manage.

## **5.4 THE SUBJECT DEPARTMENTS**

### **5.4.1 Were there departmental differences in attitude?**

The first research question asks if there are departmental differences in attitudes towards SEN. The results show that there does appear to be differences between departmental attitude scores and that these differences indicate the conflicting pressures between government initiatives to raise standards and the move towards increasing inclusion. These differences are also reflected in the progress made by those with SEN in the core national curriculum subjects of English, maths and science.

Although there is limited statistical significance in the results there are differences to be seen in the scores obtained by members of different departments. Using the mean totalled scores, the subject areas fell into three bands with increasing levels of positivity. The first band was the core subjects which students have to take and are tested on at the end of Key Stage 3. The results of these tests are published and form part of the league tables by which schools are judged. They have recently been the subjects of government initiatives to raise standards such as the Key Stage 3 strategy. This band gained the least positive scores. The second band, MFL, humanities and technology, corresponded largely to the foundation subjects which students may be expected to take to GCSE standard. The other subjects making up the third band are not subject to such pressure being either non-statutory or, in the case of PE, only taken to GCSE level by a minority. This band gained the most positive scores. It was however, the band with the smallest number of respondents and therefore open to inaccuracies. These bands are consistent with the findings of Garner (2000a) regarding the

impact of the Code of Practice. He found that teachers of non-core subjects and those subjects which were more 'affective' held more positive attitudes towards the impact of the Code. It would appear that the pressures of trying to raise standards, as measured by examination results and league tables, might be adversely affecting attitudes towards SEN. This pressure to raise standards is in direct conflict with pressure for more inclusion and is thought to be the cause of many tensions within schools (Florian and Rouse 2001a, Ainscow 2000).

Of the three core subjects, English had the most positive scores and science the least positive scores. This was particularly noticeable when looking at the percentage mode scores when 57% of science teachers had a negative score, no English teachers did. Science was the only department in the school to have an overall, negative score. Consequently, at Pine Grove School, in answer to the first research question, there does appear to be departmental differences in attitudes towards special educational needs.

It might be asked if these differences in attitude made any difference to progress in the different subjects. Garner (2000a) notes that the attitudes of subject teachers can impact on the progress made by individual pupils in a given subject area, an important aspect of curriculum delivery. It was noticeable that those with SEN made least progress between Key Stages 2 and 3 in science, the subject where attitude scores were the most negative. When the children arrived at Pine Grove School there was least difference in achievement between those with and those without SEN in science and most in English. By Key Stage 3, maths had the least difference between them and those with SEN had made the most progress in maths and least in science. Although the nature of science teaching and the SATS at Key

Stage 2 might have been different to those at Key Stage 3, perhaps the negative attitudes within the science department contributed to this lack of progress for those with SEN. The science department as a whole seemed to give little consideration to SEN.

#### **5.4.2 Was the nature of the subject relevant?**

The first research question also asks if the nature of the subject taught impacts on the delivery of the curriculum to students with SEN. Florian and Rouse (2001b) found that the variation in the use of different strategies between subjects was down to a number of factors including the nature and status of knowledge in the subject areas and also varying subject and departmental cultures. In the opinion of the science teachers their subject did affect practice. The English teachers were not so convinced. Neither English teacher considered the relationship between the nature of English as a subject and SEN to be a particular issue. On the questionnaire, Jane had commented on the advantages it could offer such as stimulating creativity but felt that it offered no particular problems despite considering that literacy offered the key to all other subjects. Pat's only concern was that the depth of study of some of the texts required was too great for some pupils with SEN, making it hard for them.

All three science teachers felt that, regarding science, there were very definite subject implications for SEN. These related to abstract concepts, language and, for Kate and Sally, the relevance of the syllabus, particularly at Key Stage 4. Connor (2001), quoting Gains, noted that the national curriculum in general was of limited significance to many pupils, particularly those with SEN. There were also implications for practical work, an important

part of the science curriculum, relating to safety and the students' ability to follow instructions. There was little practical work in the lessons observed; Kate in particular related this directly to behaviour and problems with instructions. The English lessons observed were quite well structured, science lessons much less so. To what extent this relates to the subject or the science departmental culture at Pine Grove and to what extent it is simply the normal practice of the individual teachers is a matter for conjecture and perhaps further research.

The English lessons observed took place in a clean, tidy environment where there were few distractions. All the science laboratories were in need of decoration and repair. Although Mike's was fairly tidy there was still equipment and piles of books around. The laboratories Kate and Sally taught in were also untidy. Although this fact is not directly related to the nature of the subject it does relate to the way they are taught. The environment may well affect the behaviour of the children and the attitudes of the children towards the subject. Pupil perspectives were not investigated in this study but it might well be beneficial to explore this area.

## **5.5 ATTITUDES AND PRACTICE**

### **5.5.1 What is the nature of attitudes to SEN?**

The five teachers that were studied were very different in their attitudes, even when their attitude scores were not too dissimilar. The levels of thought given to SEN and their apparent, and actual, willingness to make an effort to meet the needs of those with SEN were

variable and sometimes apparently in opposition with their attitude scores. Views on the issues involved were not straightforward and often inconsistent, even with the same person. The most negative scoring teacher, Sally, was the most contradictory. She was very positive in her stated attitude, inclusion was a wonderful idea, but she found actually meeting students' special needs very difficult. Her emphasis was on the negative aspects of children with SEN in the classroom. Kate, the most positive scoring teacher, was positive about the benefits of inclusion though not so enthusiastic as Sally. She had a more considered approach. Her concerns were about the realities, such as the effect on peers and teachers, and also on how effectively their needs were met in mainstream. The two, more or less, neutral-scoring teachers had quite different attitudes. Pat was caring in her approach to SEN, concerned that she felt unqualified to help these students but not entirely sure that she should have to, whilst essentially supporting inclusion. Mike seemed to have hardly thought about SEN and inclusion. He could see where supporters of inclusion were coming from without really supporting it himself. The more positive scoring English teacher, Jane, was the only one to be positive about including those with behaviour difficulties, her definition of special needs referring to behaviour or other need, emphasising behaviour. In all other cases behavioural difficulties were cited as those least suitable for inclusion. The two more positive teachers, Kate and Jane, saw meeting the needs of those with SEN as their responsibility. There was an element of "not our problem" in the views of the other three, more negative teachers.



### **5.5.2 What were the teachers' views on SEN?**

Kate was a mature, experienced science teacher who had received considerable training in SEN and a large part of her timetable was with the learning support department. Not surprisingly she had the highest attitude score of the participant teachers, although still only moderately positive. As with Jane, Kate's views were probably more in line with Vaughn and Schuum's (1995) 'responsible inclusion' rather than full inclusion, feeling that mainstream was not the best place for all students, particularly with current levels of resourcing. She did not mention the children's rights but did express concern that children with SEN were not always as valued as they should be, that this was wrong since they deserved as much time and effort as other children. Like Jane, Kate obviously cared about meeting the needs of those with SEN and had given a lot of thought to the issues of SEN and inclusion but from a different, less theoretical, perspective. She was more concerned with how they related to daily problems in the classroom rather than the nation-wide, bigger picture, an approach possibly related to her scientific background with its emphasis on the practical. Behavioural difficulties were considered difficult to include in mainstream because of the problems they created, whilst severe learning difficulties were not currently considered to be suitable because mainstream schools were generally unable to meet their needs. Kate's ideas for improving support for SEN were less comprehensive than Jane's. She wanted an increase in what was already provided and subject-specialist support assistants. Subject-specialist support assistants, also mentioned by Jane, were identified by Florian and Rouse (2001a) as being a positive innovation in inclusive schools. Kate's combination of concern and cynicism would support positive, but not strongly positive attitudes.

Mike was an experienced teacher of science and member of the pastoral support team, being a year head. He had only school based training in SEN. His attitude scores were weakly negative. Mike had thought little about SEN, his definition of SEN was brief and mentioned only learning difficulties. He added no further comments on his questionnaire and had nothing to add at the end of the interview. SEN was not really his concern, he was a science teacher. Mike viewed inclusion as dogma and that it was being encouraged for the wrong reasons. His reservations were mainly towards those with behavioural difficulties because of the problems they created for themselves, the teacher and other children. Those with SEN were, he considered, the bottom end of a range of abilities and it was his responsibility to teach to the range using the lower level of a published science scheme which provided the differentiated work. Any changes he made to his style of teaching were designed to accommodate the range of abilities and not aimed specifically at those with SEN. These changes were mainly regarding explaining and reinforcing the specialist language which he considered the major difficulty, together with safety, that related to science and SEN. Mike had little time for support assistants. They were expected to know what to do and to get on with it without irritating him. That Mike's attitude score was only weakly negative is perhaps surprising.

Sally was a young, inexperienced science teacher having received training in SEN only during her teacher training. This may well have been inadequate since Garner (2000b) argues that the quantity and quality of training for SEN in initial teacher training has, if anything reduced in recent years. Her attitude score was moderately negative, the most negative of the participant teachers and she defined SEN by listing three categories of difficulties. Comments on the questionnaire concentrated on the problems created.

However, in interview many conflicts and tensions surfaced, perhaps the confusion of good place and no place of Croll's and Moses' (2000) utopia? Sally professed to be highly supportive of inclusion, extolling its social benefits for all children. Including children with behavioural difficulties was a different issue. She felt that they should not be in school because they were a danger to everyone and caused mayhem, ruining other students' education. Sally was also not sure if parents of children with complex difficulties would want them to be in mainstream. Her professed support for more inclusion was not a result of her feeling that the needs of those with SEN would be better met there. Provision for these students was considered to be inadequate making it very hard for the teachers. Sally felt unable to meet their needs herself, largely because she felt that they needed more one to one help. Although willing to do this, she felt that she did not have the time in lessons and needed much more support. Thomas (1985 in Center and Ward 1987), in a study in the United States, found that teachers who felt incompetent at selecting appropriate teaching methods and lacked support expressed negative views about mainstreaming. This describes Sally. SEN seemed to be a source of considerable stress to Sally. She also appeared to feel guilty for finding the higher level groups so rewarding to teach. Although obviously caring about meeting the needs of those with SEN, she felt very much on her own in trying to do this and without the necessary expertise.

Jane, a mature, full time teacher of English and deputy head of Pine Grove School had very strong and well-informed ideas about inclusion and SEN generally. Her attitude scores were moderately positive and she was anxious not to appear negative, commenting that she was unhappy with some of the attitude items because her response would be negative. This was perhaps the first hint of conflict within those views. Jane's opinions on inclusion, like Kate's,

were in line with the 'responsible' inclusion of Vaughn and Schumm (1995) and demonstrated an interesting combination of positive and negative views. Although she fully supported the rights of children, it was not their right to a place in mainstream as advocated by supporters of nil-reject inclusion such as Rustemier (2000a), but the view taken by such as Hornby (1999) that their right was to make progress and receive the best education for them. In fact her views on full inclusion were quite negative since she considered that it was actually removing something, in terms of expertise and environment, that lead to the actual inclusion of children with SEN. She felt that, in reality, inclusion was being encouraged to save money and not to enhance the education of these students. Her views on how to achieve this were also well thought out and did not simply revolve around receiving more money and resources, although this played a part, and involved the national, as well as the local, picture. It included changing perceptions of the roles of teachers and support staff as well as improving the way support for SEN was resourced. Considering Jane's enthusiasm for meeting the needs of those with SEN and the degree of thought given to SEN it is perhaps surprising that her attitude scores were only moderately positive. Her disillusionment with current trends and the progress of inclusion may account for this.

Pat, a mature part-time teacher of English obviously cared that the needs of those with SEN were met but not necessarily by her. She was not so well informed as Jane on issues surrounding SEN not having thought about them so deeply. Her attitude scores were neutral and although relatively supportive of inclusion, those with behaviour difficulties did not gain her support. Pat did not seem entirely convinced that it was her responsibility to meet the needs of those with SEN. Part of the responsibility seemed to lie with the child who had to want to work to warrant being included. Disruptive children were seen as a problem for the

teacher, not the other students in the class. Lack of support however, was seen as a problem for those with SEN since they were not getting the help they needed. She felt that she had neither the time nor the expertise to help them, suggesting that she thought others should be meeting their needs. Pat was more concerned with those who were gifted, who she also considered to have special needs. It was these needs that she tended to plan for in her lessons although using other strategies to help those with difficulties such as differentiated worksheets and ensuring that small groups contained a mix of abilities. Pat showed a mix of concern for the needs of those with SEN, antagonism towards those with behavioural difficulties and unwillingness to plan for their needs, whilst incorporating inclusive strategies into her style of teaching consistent with the contradictions of a neutral attitude score.

### **5.5.3 What effect do attitudes have on the style of teaching?**

There was no, obvious, direct link between attitudes and style of teaching. Florian and Rouse (2001a) list four broad categories of strategies that were useful for promoting inclusive practice. These were: differentiation strategies, co-operative learning strategies, classroom management strategies and teaching social skills, strategies used in many classrooms with a range of pupils. In the opinion of Lewis and Norwich (2001) the need is for more intensive and explicit teaching for those with SEN rather than different techniques. Thus pupils should be given, for example, more opportunities for practice, more examples and reinforcement of learning techniques. The strategies employed by the five participant teachers were not necessarily in line with this. Kate as the most positive teacher listed various strategies that she used including a slower pace and a more basic level. These were not particularly more intense although they may have been more explicit. However, with the

class observed, behaviour problems prevented much use of these techniques. Jane certainly gave the best demonstration of intensive use of behaviour strategies with her specialised group. Her skills with mixed ability groups were unfortunately not observed.

Florian and Rouse (2001a) name classroom management strategies as important in meeting the needs of those with SEN. Therefore, if teachers varied in their skills at controlling a class, this would probably have impacted on their effectiveness at meeting those needs. Good behaviour management would have helped all students to make progress, especially those with SEN. This ability would in itself be affected by factors such as the number of students with SEN in each class, whether the class was mixed ability or a bottom set and the position held by, and the experience of the individual teachers. Attitudes to SEN did not appear to be directly related to this. Other factors such as the use of such strategies as co-operative learning practices may also have had an influence on success at meeting needs (Florian and Rouse 2001a) and a willingness to use these strategies did appear to be linked, albeit weakly, to more positive attitudes.

All the teachers gave, to some extent, more of most interactions to those with SEN; these pupils needed and received more help. They also received more reprimands irrespective of the teachers' attitudes. Their success with students with SEN at a basic level was probably more dependent on how good a teacher they were (OFSTED 1998). The effect of attitudes was subtler. Not chatting to those with SEN or not asking them so many questions would be sending messages about value and worth to those pupils. This in turn would be affecting the amount of effort the students would make and the amount of troublesome behaviour

exhibited. This would affect the outcome. It would be interesting to have the pupils' perspectives on this issue.

#### **5.5.4 Teaching styles in Science**

Kate, as a learning support teacher and a science teacher, not surprisingly had the highest attitude score of the participant teachers. It might well be expected therefore, that she would demonstrate the most effective teaching strategies for these students. However, there was little evidence of this. Perhaps Kate felt that she could more effectively meet their needs during the numeracy and literacy classes she took them for as a learning support teacher and that their progress in science was of lesser importance. Her views that much of the science syllabus was irrelevant to these students would suggest that this might be the case and if so she may well have been sending subtle messages to the children that science was not for them (Ainscow 2000, Garner 2000a). Obtaining the views of her students might have helped to clarify this. Teacher behaviour was the most frequently cited reason for disabled students choosing a career in science (Weisgerber, 1990 in McCann 1998). This works in reverse too.

Unlike English, science lessons were set so that the lessons observed were with a bottom set and contained a larger number of pupils with SEN, several with behavioural problems. Lessons took place in an untidy and somewhat dirty laboratory. The behaviour management strategies used in Jane's lessons were not so consistently used here and the lessons were noisy and less effective. Work was based on a published scheme and the appropriate level was used so Kate had not differentiated the work further. However she chose not to do the

practical work included for behaviour reasons. Kate claimed in interview to make a variety of changes to her teaching style for those with SEN. The lesson pace was slow and the level fairly basic but this could not be compared with other classes. These strategies naturally affected the whole class, not just those with SEN. Some visual aids were used. Those with SEN, on average, received more of most interactions, particularly reprimand, although one boy received most of these. The difference between interactions received by those with SEN and those without SEN was however, greater with other teachers. There was only a slight increase of help to those with SEN. However, those with SEN were encouraged, praised and asked more questions than those without SEN. Praising was not a particularly dominant activity. Although the lesson was not very orderly the atmosphere was possibly more relaxed than in Jane's lessons and Kate chatted to the pupils. Overall she was obviously trying to meet the needs of those with SEN.

Observations revealed that the orderly nature of Mike's lessons probably assisted all students, including those with SEN, to make progress (Hay McBer 2000), despite a weakly negative attitude score and the apparently little separate consideration that he gave to SEN. Mike's lessons were quite relaxed and took place in a fairly clean and tidy laboratory. Although more structured than Kate's there was not the tight structure currently recommended with clearly stated learning objectives (Hay McBer 2000), strict timing and a plenary to finish. There were few behaviour management techniques in evidence but the behaviour was generally acceptable. Structured observations revealed that Mike chatted with children the most of the participant teachers although not with those with SEN. It is possible that Mike has always been a fairly effective teacher and has therefore not seen the need to change his methods. He may well give little conscious thought to issues, working his way through them



by means of instinct and experience, Ainscow's (2000) tacit knowledge; problems are not an issue. This might explain his apparent lack of concern with SEN. When it came to practice, those with SEN received a proportionately larger share of all the interactions save chatting, particularly reprimand, praise and help. This approach is quite positive in that it includes students with SEN in with the rest of the class rather than as a separate group, a strategy that Florian and Rouse (2001a) noted as being used by teachers who created inclusive classrooms. However, seeing these students as the bottom end of the spectrum does classify them negatively. The support assistants are probably left to meet any specialised needs that Mike has missed. Providing the published science scheme of work is sufficiently wide-ranging using this rather than obviously different work for those with SEN could be advantageous. Connor (2001) comments on the need to integrate support work into the curriculum rather than as an addition. The fact that Mike did not chat with those with SEN and their being considered to be at the lower end of the spectrum might have given subtle messages to those pupils about how they are valued (Ainscow 2000, McCann 1998).

Sally was the least experienced teacher. Despite an apparent desire to help those with SEN Sally did not profess to use many strategies to do so. They all did the same work from the lower level of the published science scheme and she only changed her teaching style with one group of year 10 pupils where most of the group had problems. This group was taught a little at a time. Otherwise her only stated method was more help for those that needed it. She did not consider that the children's IEPs would be relevant to science and frequently forgot to give the spelling tests that were part of the whole-school literacy initiative. In practice Sally gave little individual help and encouragement to any of the students although those with SEN got proportionately more of the little she did give, particularly with regard to

encouragement. Sally asked more questions of those without SEN. Perhaps she felt that they were more likely to be able to answer. If this is the case she might well be giving negative messages about value to those with SEN (Ainscow 2000, McCann 1998). Generally however, those with SEN received more of most interactions, in line with other participant teachers but there was little evidence of the support that she stated she gave. Sally appeared rather stressed. This may have been because she felt unsupported and therefore unable to meet the students' needs. This perceived inability to meet needs and the stress this created might have been the cause of her apparent lack of effort to meet those needs. The lack of effort may well however, have contributed to the stress. Her negative attitude score might have been influenced by her difficulties with those with SEN, perhaps explaining the contradictions of her expressed support for inclusion.

Comparing the three science teachers, Mike and Kate were mature and experienced; Sally was young with only two years experience. Kate and Sally both purported to support inclusion although Kate was realistic in her support, Sally more ideological, perhaps because of her inexperience or a desire to be supportive of current trends. Although supportive of inclusion, the interview data suggested that Sally was not particularly willing to make adaptations to her teaching style to support those with SEN. She apparently felt that others should be supporting her in this. Interview and observation data suggested that Kate was much more willing to do this but Mike considered any changes in style were simply to accommodate the range of abilities rather than those with SEN. Although all three teachers considered science difficult for those with SEN the department did not appear to make any effort to overcome this. With its positivist culture and a predominantly difficulties-based definition of SEN, the science department may well still have viewed SEN from the

standpoint of the medical model. Jordan and Stanovich (2003) found that teachers who view disability this way considered their responsibilities towards those with SEN as minimal and that this was reflected in their practice. It is possible that progress for those with SEN was more dependent on the effectiveness of the teacher, which did not appear to be linked to their attitudes towards special needs. SEN had a low profile in science, much more so than in English.

### **5.5.5 Teaching styles in English**

Jane's lessons were impressive with regard to the behaviour of the group, all of whom had behaviour problems, and in the quality of the oral work displayed. Her strategies with regard to behaviour management were those of the highly effective teacher in Hay McBer (2000). The students were given the opportunity to make progress which, with their problems, they may not have done in a mainstream class. The perspective of the students on the relative values of being able to progress and being in a segregated class would have been an interesting addition to the study. It would be very difficult to show the level of commitment to a group of students, demonstrated by Jane, whilst holding negative attitudes towards them. Although her status as deputy head was probably beneficial to maintaining order, much more was involved. There was obviously a very clear set of rules governing the conduct of the lesson, of which the students were aware and Jane consistently and quietly enforced them. She avoided confrontation by quietly, and repeatedly, offering an alternative to the misbehaviour exhibited or an opportunity to calm down outside. No excuses were accepted. With regard to work, the students were given clear instructions as a class and further instructions and help were given to individuals.

Possibly a consequence of the highly controlled nature of the lesson was the slightly clinical aura. Little interaction was permitted between the students except during carefully choreographed group work. The students sat in specified places, usually with a space between them, working individually in silence. This was probably the reason for the most noticeable difference between Jane's interactions with the pupils and those of other teachers, the fact that she rarely interacted with small groups. She also differed from the other teachers in a lower rate of reprimand, perhaps surprising with a class made up of students with behaviour difficulties but obviously part of the behaviour strategy. What was possibly more surprising, given this strategy, was the relatively low rate of praise. Praise has often been considered a valuable tool in encouraging good behaviour (Rogers 1998, Fontana 1994, Elton 1989, Wheldall and Merrett 1984), even by those who denigrate the use of rewards (DiGuilio 1995, Jensen 1995). However, the overall atmosphere of the lesson was positive. Jane did not chat to the pupils. All interactions related to the lesson. This may have been part of the behaviour strategy or may have been Jane's usual behaviour with any class. As Jane was observed with no other classes this remains a matter for conjecture. The fact that the lesson was being observed may also have affected Jane's behaviour.

Pat, with a neutral attitude score, whilst caring that the needs of those with SEN were met, was not totally convinced that it was her responsibility to meet those needs or that she had the time and expertise necessary to do so. Her attitudes may well have impacted on her planning since she said she planned for the gifted more than for those with problems. Pat admitted to generally pitching her teaching to the middle of the ability range and giving those with SEN more help. OFSTED (1998) found this to be quite common. They found that the

extra time given to these pupils was often reasonably successful at helping those with SEN but it did leave other pupils relatively neglected.

Pat's lessons were well structured and orderly. This was a mixed ability group although those with the higher levels of need would have been removed for a fast-track lesson. The atmosphere was much more relaxed than in Jane's lesson with the children sitting where they chose and being allowed to chat while they worked. When doing group-work, the groups were specified by Pat to include all abilities. Unlike Jane, Pat chatted with the pupils whilst circulating to check progress and give help. Behaviour management techniques were not so much in evidence although misbehaviour was generally dealt with promptly and consistently. The overall atmosphere of the class was positive although Pat reprimanded slightly more than Jane but the reprimands were generally positive in nature. Pat, like Jane, did not make excessive use of praise, reprimanding more frequently. Those with SEN were included in all aspects of the lesson and received a larger proportion of most interactions than did those without SEN, particularly as regards helping. Despite apparently feeling that meeting their needs was not really her responsibility, Pat obviously endeavoured to do so. Ainscow (2000) states that experienced teachers apply tacit knowledge to use feedback from pupils to adjust existing arrangements as necessary. Pat may well have been doing this, possibly with limited, conscious awareness, fulfilling her role as a teacher as effectively as possible. However, Ainscow (2000) also notes that to do this requires a positive view of difference that is difficult to encourage if the teachers feel unsupported or threatened. Pat, with her neutral attitude score and her acknowledgement of lack of support, may well not be making full use of skills that she may already possess. Since she admitted that she expected those with SEN to want to work, any that exhibited an unwillingness to work, for whatever

reason, might have received subtle messages from her with regard to their perceived worth as well as the more obvious messages in the form of reprimands.

Comparing the two teachers of English, Jane was apparently more prepared to adapt to the needs of those with SEN. She was prepared to take a potentially very difficult class and persevere to make it work. Pat on the other hand welcomed those with SEN that were "prepared to work" and concentrated her planning more on the gifted. This may well reflect their differing attitudes. The more relaxed atmosphere in Pat's lessons may have been due in part to personal style or to the nature of the class; Jane would have had to maintain a much higher level of vigilance with her class to ensure order. However, Pat reprimanded more than Jane, particularly those with SEN although reprimand was not a dominant activity in either teacher's lessons. Both teachers delivered structured, orderly lessons in a pleasant environment without many distractions, and were remarkably consistent in the type and frequency of interactions with the whole class during observation 2. This may be related to the influence of the subject on teaching styles or simply a similarity between the two teachers.

#### **5.5.6 How do the departments compare?**

The English department as a whole seemed to give much more thought to the needs of those with SEN. Having decided to set their pupils and use the lower level of a published science scheme of work for the lower sets, science apparently deemed themselves to have done sufficient. If this was not adequate it was the responsibility of the learning support department to provide anything else necessary. Ironically, having recognised a difference in

pace of learning demonstrated by the division into sets, this was not continued by recognising the further needs of pupils with SEN. The needs of those with SEN and ways of supporting those needs seem to have been discussed in the English department. The strategies used by the members of the English department observed were more obviously designed to help those with SEN than were those used by the science department. Pupils with SEN made more progress in English, as shown by the progress data.

Generally the two most positive teachers, Jane and Kate, supported responsible inclusion. Both had reservations about full inclusion, particularly with current levels of resourcing. Their views on the rights of children with SEN to have an education that prepared them for life in an inclusive society echo those made by special school heads quoted in Croll and Moses (2000). These two teachers were also the only ones to have thought about SEN in depth. Whether this was as a result of them having positive views or whether the positive views developed as a result of their in-depth thought is a matter for conjecture. The teachers with more negative views were more variable in their support but generally more negative. Their views on SEN were much more parochial, relating mainly to the effect in their classrooms. Kate had thought much more deeply about the issues and Jane was very much aware of the wider picture. Both were much more convinced than Pat, Mike and Sally, of the fact that meeting the needs of those with SEN was their responsibility and were more willing to change their teaching style to accommodate those needs.

Thus we can see that attitudes by themselves give an incomplete picture. It would be inappropriate to draw simplistic inferences between attitudes and behaviour. To do so would be to deny the complexity of their nature and implications. It is however, evident that the

subject taught is among the influences working with attitudes to affect meeting special educational needs.



## CHAPTER SIX - CONCLUSION

The study has found that attitudes to special needs are complex and do not necessarily relate directly to practice. This does not mean however, that attitudes are of no importance since they impact on the complexity of the whole picture and can influence meeting the needs of students with SEN. Pressures from within the school and from government initiatives appear to impact on attitudes. This can be seen by the, only moderately, positive attitudes of the staff in general, reflecting a school ethos that is not totally supportive of SEN, and the more negative attitudes of those departments that are under the greatest pressure, the core subjects.

Attitudes were shown to vary between different departments. Differences were found between the scores of some subject departments. Those teaching the core subjects were generally more negative than those teaching other subjects. Within the core subjects, and the school as a whole, science was the most negatively scoring department. Progress made in key stage 3 by those with SEN reflected this. The nature of the subject taught impacts on attitudes, practice and outcomes. Science was considered to be a difficult subject, English less so. Practical subjects and those requiring higher levels of numeracy and literacy were considered to create more problems with regard to SEN.

The links between attitudes and practice were more complex. Those with positive attitudes towards SEN were not necessarily the most effective at meeting the needs of those with SEN, nor vice versa. Overall teacher effectiveness was probably of greater importance. However, those teachers with more positive attitudes were more willing to make special provision for those with SEN than were the more negative teachers. Even this is confused by the fact that

Pat and Mike, with slightly negative attitudes, were apparently unwilling to make much effort to support those with SEN, but however, did so in their lessons. It is likely that the greater impact of negative attitudes is from the more subtle messages that are given which affect the students' self-esteem, choice of subject and progress in that subject. It must not be forgotten that perspectives are a two-way phenomenon. Pupils' perspectives will affect the way they behave and this in turn will relate to the teacher's attitudes, creating a circular effect.

## **6.1 TRUSTWORTHINESS OF STUDY**

This is a small-scale research project carried out by a single researcher, both of which bring with them inherent problems and potential weaknesses. It needs to be remembered that generalisations need to be made cautiously and wide-ranging conclusions cannot be drawn. However, the careful choice of a school with few unusual characteristics, and the whole school research, which established the ethos of the school, does mean that the research will relate to a wider audience than just the members of Pine Grove School. The use of multiple sources of data will also help to reduce the effects of researcher and respondent bias (Robson 2002). In this study data was gathered from documents, questionnaires and interviews and this was backed up with lesson observations. Time spent on instrument construction, piloting and review also improved the trustworthiness of the resulting data. That the results relating to other variables affecting attitudes to SEN are comparable to previous results obtained in other studies raises confidence in the validity of the attitude scale.

With hindsight there were questions left unanswered and alternative methods that could have been used. Some of these were related to the problem of being an outsider researcher. Clarification of some of the issues raised in interview, that only became apparent during analysis, would have been possible for a teacher in the school. Likewise, going back to a teacher to gain information on a point raised in another interview would be easier for the insider researcher. Having analysed the observation data, further observations would have been useful. However, as a guest in the school there were pressures not to outstay one's welcome or put too much pressure on, already well-burdened, teachers. There were however, advantages. A teacher within the school would find it difficult to ask questions to which other teachers felt they should already know the answers. Status would also be an issue. The researcher may intimidate if of higher status than the participant, or be intimidated by the participant if they are the high status member (Scott and Usher, 1999). Confidentiality can also be an issue when researching one's peers (Platt 1981).

## **6.2 DID THE RESEARCH ANSWER THE RESEARCH QUESTIONS?**

### **6.2.1 First research question**

Is there a difference in the attitudes of teachers from different subject departments towards special educational needs and does the nature of the subject taught impact upon the delivery of the curriculum for those with special educational needs?

In answer to the above question we can conclude that, at Pine Grove School at least, there is a difference in attitudes towards special educational needs between teachers from different

subject departments. The science department in particular was more negative than the other departments. Teachers of the core subjects, as a group, were also more negative than those of the foundation subjects and the more 'affective' subjects. The nature of the subject did have an impact on the delivery of the curriculum. Practical subjects had worries relating to safety and access. Science was considered to be a difficult subject because of specialised language, abstract concepts and practical work. The level of literacy and numeracy required by any subject was considered to reflect on its suitability for those with SEN. Those subjects which did not rely on these skills were generally seen as being most suitable. There were concerns about the relevance of the curriculum, particularly at key stage 4. Progress did seem to be affected. Those with SEN made least progress in key stage 3 in science, which was the most negative scoring department, when compared with English and maths.

Considering the three science teachers, in interview Kate and Sally both purported to support inclusion although Kate was realistic in her support, Sally more ideological, perhaps because of a desire to be supportive of current trends or her inexperience. Although supportive of inclusion, Sally was not particularly willing to make adaptations to her teaching style to support those with SEN, apparently feeling that she should be supported in this. Kate was much more willing to do this but Mike considered any changes in style were simply accommodating the range of abilities rather than those with SEN. The potential for progress for those with SEN did not appear to be linked to their attitudes towards special needs but was probably more dependent upon the effectiveness of the teacher. Although all three teachers considered science a difficult subject for those with SEN no effort to overcome this had apparently been made by the department. With its positivist culture and largely difficulties based definition of SEN, the science department may well still have viewed SEN

from the standpoint of the medical model. The profile of SEN in science was much lower than in English.

Of the two teachers of English, Jane, with the more positive attitudes to SEN, was apparently more prepared to adapt to the needs of those with SEN. She was willing to persevere with a potentially very difficult class to meet their needs. Pat on the other hand welcomed those with SEN that were "prepared to work", concentrating her planning more on the gifted. This may well reflect their differing attitudes. The more relaxed atmosphere in Pat's lessons may have been due in part to personal style or to the nature of the class; Jane would have had to maintain a much higher level of vigilance with her class to ensure order. Although reprimand was not a dominant activity in either teacher's lessons, Pat reprimanded more than Jane, particularly those with SEN. Both teachers' lessons were structured and orderly in a pleasant environment without many distractions, in contrast to the three science teachers. They were notably consistent in the type and frequency of interactions with the whole class during observation 2. This may be related to the influence of the subject on teaching styles or simply a similarity between the two teachers.

These findings have implications for both further research and practice. More research is needed into whether departmental differences in attitudes to SEN are widespread and this needs to be linked to progress data and pupil outcomes in all subjects. The effect of setting students is also an area that would benefit from further research particularly in relation to the academic progress of those with SEN and its impact on self-esteem. Further work needs to be done on the relevance of the curriculum and ways to overcome any problems so caused whilst not compromising the quality and usefulness of the education received by those with

SEN. With regard to practice, at Pine Grove School the departments generally, but especially the science department, need to review their practice with a view to improving the outcome for SEN. Perhaps behaviour management is an area for consideration. More obvious support for SEN from senior management would be helpful. The effect of current educational initiatives such as Key Stage 3 strategies and changes in the National Curriculum at Key Stage 4 also need to be investigated. These may be putting more pressure on teachers which may have an adverse affect on attitudes and outcomes regarding SEN.

### **6.2.2 Second research question**

How do the attitudes of teachers towards disabilities and children with special educational needs impact upon their practice? Do they affect the way teachers prepare for lessons and teach and the way they treat different members of the class?

Attitudes have been found to be very complex, impacting on practice in diverse ways and at many levels. What pupils with SEN actually receive may not relate directly to attitudes. It might be thought that teachers with positive attitudes would endeavour to support these students and those with negative attitudes might be dismissive and make little attempt to meet their needs. This was not found to be the case. Irrespective of whether a teacher thinks those pupils should be there or not, a good teacher will apparently endeavour to meet the needs of all pupils without consciously making the effort to do so, often succeeding. Positive attitudes do not guarantee that needs will be met, nor negative attitudes mean that they will not. All the participant teachers gave, to some extent, more help and encouragement to those with SEN but with variable results. This rarely matched received wisdom with regard to

provision for SEN. Behaviour management skills are obviously important as to how effective any teaching strategy could be for any pupil in the class. Attitudes are important however, since those teachers with negative attitudes are less likely to make the effort and their attitudes will communicate themselves to the students in terms of the students' worth and the suitability of the students for studying that particular subject. This may adversely affect both the student's performance and choice of subject. Likewise a real interest in, and a good knowledge of, the subject will improve the chances of all pupils. A love of the subject will be conveyed to the students and the teacher may be more able to deal with the problems of progression and concepts because of their understanding of the nature of the subject. Further, possibly more qualitative, research needs to be done to investigate the more subtle interactions and messages given between teachers and pupils with SEN and their relationship to the teachers' attitudes and the pupils' self-esteem. The perceptions and views of the pupils would be of value here, although this would raise ethical problems regarding researching more vulnerable groups such as children. The science department sets from year 7, the English department does not. This may well send subtle messages that permeate the whole school regarding segregation, differential worth and self-esteem that it would be valuable to investigate.

There are implications regarding the progress towards inclusion in these findings. Much work needs to be done if the staff at this school, and probably many similar schools, is to be persuaded that students with more complex needs can be successfully included in the school. Resources and training would undoubtedly help as would raising awareness of the fact that all teachers are teachers of SEN. Sharing good practice, within and between schools would improve outcomes and help to convince the unconvinced that inclusion can work. An audit

of effective support would also be beneficial to this aim. Strengthening the, only moderately, positive attitudes must not be neglected at Pine Grove School and at any other where a similar situation exists. With regard to severe behavioural needs, this will not be easy. There needs to be much more research into whether those with behavioural difficulties, can and should be included in mainstream schools and if they should, how this is best to be done.



## APPENDICES

### Appendix 1. Participant information sheet

#### The University of Birmingham

##### School of Education

Dr. Jill Porter

Director of Studies: Research Degrees

Phone: [REDACTED]

Email: [REDACTED]

Jean Ellins

Research Student

Phone [REDACTED]

Email: [REDACTED]

I am currently studying for an Ed.D. (Doctorate in Education) at the University of Birmingham. My subject for research is attitudes to SEN. I am particularly interested in departmental differences in attitude and how this impacts on practice. I am carrying out my research at your school. As a practising teacher I am well aware of the workload on all teachers and have designed my research to take up as little time as possible for individual staff.

My research is in two stages. The first involved as many teachers as possible filling in a questionnaire. The second phase concentrates on two departments, the science and English departments. This involves me in observing two or three lessons given by three teachers in each department. These observations will be related to interactions and will not be assessing the quality of the teacher or the teaching. I would also like to interview these teachers at their convenience. Participation is entirely voluntary. All teachers are free to refuse to take part and those that do agree may withdraw at any time without giving a reason. This research is independent of the school and no data will be passed on to anyone in the school or local authority.

The resulting report will be in the format of a thesis submitted for examination. The school and individual teachers will not be identified, thus ensuring confidentiality. If you require any further information about this, or the research generally, please contact either myself or Dr. Jill Porter, my supervisor, whose details are given above.

I am grateful for your co-operation in this matter.

Jean Ellins

## Appendix 2. Covering letter for questionnaire

### Special Educational Needs Questionnaire

Name \_\_\_\_\_

I am currently doing research into Special Educational Needs as part of my studies for an EdD. (Doctorate in Education) at the University of Birmingham. This research will hopefully contribute to the enhancement of meeting the needs of those with SEN. The first part of my research requires the completion, by as many teaching staff as possible, of a short questionnaire that you will find attached. I would therefore be grateful for your co-operation in filling this in and returning it to the labelled box in the staff room by the morning of **Wednesday 27<sup>th</sup> February**.

I have asked for your name on this cover letter so that I may get back to you if necessary in the further stages of my research. This letter will be removed from the questionnaire to maintain anonymity of the data. No individual will be identified with the data now or in the final thesis.

In order to keep the questionnaire as short and comprehensive as possible I have used the term SEN to cover the whole range of needs from physical/sensory impairments through learning disabilities to emotional and behavioural difficulties. Please, therefore, take SEN to mean the range of needs experienced by those children on the SEN register at this school.

There is no need to agonise over the statements. Your first reaction as to whether you agree or disagree is what is required. It will also be quicker to answer that way!

Please accept my thanks for your co-operation in this matter. I look forward to collecting your completed questionnaire on Wednesday.

Jean Ellins

## Appendix 3. Questionnaire

### Special Educational Needs

#### A) General Information

Please answer the following questions. Where boxes are given please tick all that are appropriate.

1. Are you: Male  Female
2. Age group: 21-25  26-30  31-40  41-50  51+
3. Department \_\_\_\_\_
4. Subject/s taught \_\_\_\_\_
5. What qualification/s do you have (e.g. Cert. Ed, BEd, BSc, BA, MEd, PGCE, etc.)? \_\_\_\_\_
6. Number of years teaching experience. \_\_\_\_\_
7. Have you received **any SEN** training during : initial teacher training,  school based training,   
short courses out of school,  further qualifications,  no training,
8. Which year-groups do you teach: 7  8  9  10  11  12  13
9. Do you receive support during any of your lessons? yes  no
10. Have you, in the last three years, personally consulted any SEN, advisory material (e.g. national curriculum web-sites, QCA documents etc.)? general material, yes  no  subject-specific, yes  no
11. Have you any experience of SEN outside of teaching (e.g. a friend or relative with SEN)? yes  no

#### B) Perceptions

Please circle one selection to indicate your degree of agreement or disagreement with the following statements:

	Statement	Strongly disagree	Disagree	Weakly disagree	Weakly agree	Agree	Strongly agree
1)	I can tell a child with SEN when I walk into a classroom.	SD	D	WD	WA	A	SA
2)	Teaching children with SEN enhances my technique.	SD	D	WD	WA	A	SA
3)	The curriculum is not suited to those with SEN.	SD	D	WD	WA	A	SA
4)	I try to plan lessons with the help of the support staff, if available.	SD	D	WD	WA	A	SA
5)	It is difficult to meet the needs of all those in my lessons.	SD	D	WD	WA	A	SA
6)	Where possible, schools should be adapted for those with physical disabilities.	SD	D	WD	WA	A	SA
7)	Planning my lessons takes too long when there are children with SEN in the class.	SD	D	WD	WA	A	SA
8)	Children with SEN need not affect the pace of a lesson.	SD	D	WD	WA	A	SA

	Statement	Strongly disagree	Disagree	Weakly disagree	Weakly agree	Agree	Strongly agree
9)	The Learning Support Department should supply any necessary SEN-related material to help with my teaching.	SD	D	WD	WA	A	SA
10)	Children with SEN should not be my responsibility.	SD	D	WD	WA	A	SA
11)	Most children with SEN can be effectively educated in mainstream schools.	SD	D	WD	WA	A	SA
12)	Helping children with SEN to access the curriculum is a specialist task.	SD	D	WD	WA	A	SA
13)	I enjoy making my lessons accessible to children of all abilities.	SD	D	WD	WA	A	SA
14)	I look up SEN-related material to help me with my teaching whenever possible.	SD	D	WD	WA	A	SA
15)	We would cover the curriculum faster if there were no children with SEN.	SD	D	WD	WA	A	SA
16)	Children with SEN enrich the ethos of the class.	SD	D	WD	WA	A	SA
17)	With care, SEN children can access the curriculum.	SD	D	WD	WA	A	SA
18)	Children with SEN slow down the pace of the class as a whole.	SD	D	WD	WA	A	SA
19)	We should be trying to include many more children with SEN in the mainstream school	SD	D	WD	WA	A	SA
20)	The presence of children with SEN hampers the way I teach.	SD	D	WD	WA	A	SA

### C) Further Information

Please continue overleaf if necessary.

1. Please describe your interpretation of SEN

2. In what ways does the nature of your specialist subject affect meeting the needs of children with SEN?

3. Are there any further comments you wish to make about the inclusion and teaching of pupils with SEN?

#### **Appendix 4. Covering letter for questionnaire, second hit**

### **Special Educational Needs Questionnaire**

**Name** \_\_\_\_\_

I am sorry that you have as yet been unable to complete my questionnaire. In case you have misplaced the original I have included a second copy for your convenience. As you will be aware, with research the greater the number of responses, the greater the value of the results. Consequently your response not only has its own value but increases that of everybody else. Therefore, if you could find five minutes to fill it in I would be very grateful. The labelled box in the staff room will be collected on Friday afternoon, 1<sup>st</sup> March.

I have asked for your name on this cover letter so that I may get back to you if necessary in the further stages of my research. This letter will be removed from the questionnaire to maintain anonymity of the data. No individual will be identified with the data now or in the final thesis.

In order to keep the questionnaire as short and comprehensive as possible I have used the term SEN to cover the whole range of needs from physical/sensory impairments through learning disabilities to emotional and behavioural difficulties. Please, therefore, take SEN to mean the range of needs experienced by those children on the SEN register at this school.

There is no need to agonise over the statements. Your first reaction as to whether you agree or disagree is what is required. It will also be quicker to answer that way!

Please accept my thanks for your co-operation in this matter. I look forward to collecting your completed questionnaire on Friday.

Jean Ellins

## Appendix 5. Introduction letter to schools

### The University of Birmingham

#### School of Education

Dr. Jill Porter

Director of Studies: Research Degrees

Phone: [REDACTED]

Email: [REDACTED]

Jean Ellins

Research Student

Phone [REDACTED]

Email: [REDACTED]

I am currently studying for an Ed.D. (Doctorate in Education) at the University of Birmingham. My subject for research is attitudes to SEN. I am particularly interested in departmental differences in attitude and how this impacts on practice. I would like to carry out my research at your school. As a practising teacher I am well aware of the workload on all teachers and have designed my research to take up as little time as possible for individual staff.

My research will be in two stages. The first will involve as many teachers as possible filling in a questionnaire; it should take about five minutes. I would hope to administer this as soon as possible. The second phase, two or three weeks later, will concentrate on two departments, the science department being one. This will involve me in observing some lessons given by, possibly, three teachers in each department. I would also like to interview these teachers at their convenience. Documents such as the school brochure and policies relating to SEN would also be useful.

The resulting report would be in the format of a thesis submitted for examination. The school and individual teachers would not be identified, thus ensuring confidentiality. If you require any further information about this or the research generally please contact either myself or Dr. Jill Porter, my supervisor, whose details are given above.

I am grateful for your co-operation in this matter.

Jean Ellins

**Appendix 6. Observation schedules for observation 2**

Date \_\_\_\_\_  
 Teacher \_\_\_\_\_  
 Subject \_\_\_\_\_

Observation 1

Time/secs	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Whole Class																					
Small Group																					
Individual																					
Time/secs	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	
Whole Class																					
Small Group																					
Individual																					
Time/secs	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	
Whole Class																					
Small Group																					
Individual																					

**Appendix 7. Observation schedules for observation 3A**

Date \_\_\_\_\_  
 Teacher \_\_\_\_\_  
 Subject \_\_\_\_\_

Observation **3**

Sheet \_\_\_\_\_

Time/mins	1	2	3	4	5
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					



**Appendix 8. Observation schedules for observations 3B**

		Observation 3					Sheet _____
Date		1	2	3	4	5	
Teacher							
Subject							
Time/mins	Individual						
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							

## Appendix 9. Coding for interactions observed

### Coding

- |        |   |
|--------|---|
| 1, NQ  | Answering questions posed by students eg "How do I do this?"  |
| 2, KQ  | Asking a question of a student the class or a group eg "What is the function of the stigma?"  |
| 3, PO  | Prompting an answer to a question eg "The stigma receives something. What is it?"   |
| 4, L   | Lecturing - explaining/giving information/knowledge eg explaining the journey of the pollen tube down the style.                              |
| 5, W   | Writing on the board eg writing the questions for the students to answer.   |
| 6, I   | Giving instructions- relating to work or organisation eg "Will you give out these worksheets please?"   |
| 8, R   | Reprimand - verbal or non-verbal eg use of student's name or a pause whilst looking at a particular student. Tone of voice is important here. |
| 10, PA | Praising, verbal or non-verbal eg "Well done" or a smile at a particular student.   |
| 11, E  | Encouraging a student to do to more or better work eg "Come on, you can do some more."  |
| 12, H  | Helping a student with their work eg showing a student how to construct a particular table.   |
| 15, O  | Observing the students, walking around the class.   |
| 16, Ch | Chatting to pupils about matters other than the task in hand eg a discussion about scented pens.  |

## **Appendix 10. Key questions based on Hay McBer 2000**

### **SEN Research**

#### **Observation 2**

#### **Key Questions**

Date\_\_\_\_\_Teacher\_\_\_\_\_Subject\_\_\_\_\_Year\_\_\_\_\_

1. Does the teacher communicate a clear plan and objectives for the lesson at the start of the lesson?
2. Does the teacher have the necessary materials and resources ready for the class?
3. Does the teacher give clear instructions and explanations?
4. Does the teacher involve all pupils in the lesson?
5. Does the teacher vary motivational strategies for different individuals?
6. Does the teacher use differentiation appropriately to challenge all pupils in the class?
7. Does the teacher use a variety of activities/learning methods?
8. Does the teacher use a variety of questioning techniques to probe pupils' knowledge and understanding?

9. Does the teacher recognise misconceptions and clear them up?
10. Does the teacher encourage pupils to do better next time?
11. Does the teacher listen and respond to pupils?
12. Does the teacher keep the pupils on task throughout the lesson?
13. Does the teacher correct bad behaviour immediately?
14. Does the teacher praise good achievement and effort?
15. Does the teacher treat different children fairly?
16. Does the teacher allocate his/her time fairly amongst pupils?
17. Does the teacher use an appropriate pace?
18. Does the lesson last for the planned time?
19. Does the teacher review what pupils have learned at the end of the lesson?

## **Appendix 11. Interview guide**

### Introduction

*Thanks* for being interviewed/taking part in research.

*Purpose of research* - Ed D thesis on attitudes to SEN

*Purpose of interview* - follow-up of questionnaire and observation.

*Conduct of interview* - permission to record, confidentiality and they can stop the interview at any time.

### Interview

Test recorder, ask for name and subject taught.

*Opening question* - How is support for SEN organised in this school?

*Possible follow-up questions/prompts/areas to be covered* -

For subject teachers:

Do you receive any support in your lessons?

How do you make use of this support?

Do you include the support in your lesson planning?

What changes would you like to see made to this support?

What is the departmental policy on SEN?

What part does SEN play in your lesson planning?

Is SEN discussed at departmental meetings?

Does the syllabus cause any problems for SEN pupils?

Does the nature of the subject you teach cause any problems for SEN pupils?

Do you have to change the way you teach a lesson if you have SEN pupils in it?

How do you feel about the trend towards increasing inclusion?

What do you feel are the attitudes of other staff towards increasing inclusion?

Do you feel that there is any link between subject departments and the way people view SEN?

For SENCO:

What changes have you made since your arrival?

What changes would you like to make?

Do attitudes vary amongst staff? Does this have an effect on the way they are treated?

Is there a departmental basis to any variations in attitude?

Does the nature of the subject effect the way children with SEN are treated?

Do teachers involve support staff in their lesson planning?

Does the staff have realistic expectations of support staff?

Is support valued in this school?

What are your feelings about the trend towards increasing inclusion?

What do you think that the staff in general feel about the idea of increasing inclusion?

*Closing comments and thanks.*

## Appendix 12. Consistency of Items in Attitude Scale

Table 38: Reliability coefficients for items on attitude scale

Reliability Coefficients 20 items			
Alpha = .7690			
	Item - Total Correlation	Alpha if item Deleted	
Q1	-0.12	0.79	0.02
Q2	0.47	0.75	-0.02
Q3	0.37	0.76	-0.01
Q4	0.16	0.77	0.01
Q5	0.26	0.76	-0.00
Q6	0.01	0.78	0.01
Q7	0.50	0.75	-0.02
Q8	0.56	0.74	-0.03
Q9	0.20	0.77	0.00
Q10	0.25	0.76	-0.00
Q11	0.31	0.76	-0.01
Q12	0.48	0.75	-0.02
Q13	0.38	0.76	-0.01
Q14	0.18	0.77	0.00
Q15	0.50	0.75	-0.02
Q16	0.34	0.76	-0.01
Q17	0.34	0.76	-0.01
Q18	0.56	0.74	-0.02
Q19	0.41	0.75	-0.02
Q20	0.52	0.75	-0.02

### Appendix 13. One way ANOVA, total score, median and mode as dependent variables

Table 39: ANOVA for grouped departments

Grouped departments		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	865.812	2	432.906	5.198	.009
	Within Groups	3664.646	44	83.287		
	Total	4530.457	46			
MEDIAN	Between Groups	5.490	2	2.745	5.341	.008
	Within Groups	22.616	44	.514		
	Total	28.106	46			
MODE	Between Groups	9.178	2	4.589	3.360	.044
	Within Groups	60.099	44	1.366		
	Total	69.277	46			

Table 40: ANOVA for gender

Gender		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	277.482	1	277.482	2.936	.094
	Within Groups	4252.975	45	94.511		
	Total	4530.457	46			
MEDIAN	Between Groups	1.203	1	1.203	2.012	.163
	Within Groups	26.903	45	.598		
	Total	28.106	46			
MODE	Between Groups	3.377	1	3.377	2.306	.136
	Within Groups	65.900	45	1.464		
	Total	69.277	46			

Table 41: ANOVA for age group

Age group		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	464.330	4	116.082	1.199	.325
	Within Groups	4066.128	42	96.813		
	Total	4530.457	46			
MEDIAN	Between Groups	5.437	4	1.359	2.518	.055
	Within Groups	22.669	42	.540		
	Total	28.106	46			
MODE	Between Groups	2.986	4	.747	.473	.755
	Within Groups	66.290	42	1.578		
	Total	69.277	46			



Table 42: ANOVA for separate departments

Separate departments		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	1148.740	8	143.592	1.614	.153
	Within Groups	3381.718	38	88.993		
	Total	4530.457	46			
MEDIAN	Between Groups	8.479	8	1.060	2.052	.066
	Within Groups	19.627	38	.517		
	Total	28.106	46			
MODE	Between Groups	26.297	8	3.287	2.906	.012
	Within Groups	42.980	38	1.131		
	Total	69.277	46			

Table 43: ANOVA for qualifications

Qualifications		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	106.576	2	53.288	.530	.592
	Within Groups	4423.881	44	100.543		
	Total	4530.457	46			
MEDIAN	Between Groups	1.087	2	.544	.885	.420
	Within Groups	27.019	44	.614		
	Total	28.106	46			
MODE	Between Groups	1.668	2	.834	.543	.585
	Within Groups	67.609	44	1.537		
	Total	69.277	46			

Table 44: ANOVA for SEN training

SEN training		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	368.207	2	184.104	1.946	.155
	Within Groups	4162.250	44	94.597		
	Total	4530.457	46			
MEDIAN	Between Groups	1.323	2	.661	1.087	.346
	Within Groups	26.784	44	.609		
	Total	28.106	46			
MODE	Between Groups	1.081	2	.541	.349	.707
	Within Groups	68.195	44	1.550		
	Total	69.277	46			

Table 45: ANOVA for whether supported in lessons

Support in lessons		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	11.530	1	11.530	.115	.736
	Within Groups	4518.928	45	100.421		
	Total	4530.457	46			
MEDIAN	Between Groups	.396	1	.396	.643	.427
	Within Groups	27.711	45	.616		
	Total	28.106	46			
MODE	Between Groups	.072	1	.072	.047	.830
	Within Groups	69.205	45	1.538		
	Total	69.277	46			

Table 46: ANOVA for whether accessed general SEN material

Accessed general SEN material		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	92.053	1	92.053	.933	.339
	Within Groups	4438.404	45	98.631		
	Total	4530.457	46			
MEDIAN	Between Groups	.240	1	.240	.387	.537
	Within Groups	27.867	45	.619		
	Total	28.106	46			
MODE	Between Groups	2.327	1	2.327	1.564	.218
	Within Groups	66.950	45	1.488		
	Total	69.277	46			

Table 47: ANOVA for whether accessed subject-specific SEN material

Accessed subject-specific SEN material		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	8.261	1	8.261	.082	.776
	Within Groups	4522.196	45	100.493		
	Total	4530.457	46			
MEDIAN	Between Groups	.363	1	.363	.589	.447
	Within Groups	27.744	45	.617		
	Total	28.106	46			
MODE	Between Groups	.012	1	.012	.008	.931
	Within Groups	69.265	45	1.539		
	Total	69.277	46			

Table 48: ANOVA for Experience of SEN out of school

Experience of SEN out of school		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	353.886	1	353.886	3.813	.057
	Within Groups	4176.571	45	92.813		
	Total	4530.457	46			
MEDIAN	Between Groups	2.799	1	2.799	4.976	.031
	Within Groups	25.308	45	.562		
	Total	28.106	46			
MODE	Between Groups	3.041	1	3.041	2.066	.158
	Within Groups	66.235	45	1.472		
	Total	69.277	46			

Table 49: ANOVA for experience

Experience		Sum of Squares	df	Mean Square	F	Sig.
TOTAL SCORE	Between Groups	340.479	3	113.493	1.165	.334
	Within Groups	4189.979	43	97.441		
	Total	4530.457	46			
MEDIAN	Between Groups	1.286	3	.429	.687	.565
	Within Groups	26.820	43	.624		
	Total	28.106	46			
MODE	Between Groups	3.362	3	1.121	.731	.539
	Within Groups	65.914	43	1.533		
	Total	69.277	46			

## Appendix 14. Scores by age, support and experience

Table 50: Scores by age

Age years	Mean total score	% Mode		
		Positive	Neutral	Negative
51+	76.5	72.73	9.09	18.18
41-50	75.7	47.37	42.11	10.53
31-40	78.4	60.00	30.00	10.00
21-30	74.8	50.00	33.33	16.67

Table 51: Scores by whether respondents receive support in lessons

	Mean total score	% Mode		
		Positive	Neutral	Negative
Support	75.9	55.26	28.95	13.16
No support	77.2	44.44	44.44	11.11

Table 52: Scores by years experience in teaching

Experience in years	Mean total score	% Mode		
		Positive	Neutral	Negative
0-5	75.7	66.67	11.11	22.22
6-15	79.3	36.36	45.45	18.18
16-25	72.6	55.56	44.44	0.00
26+	74.7	77.78	11.11	11.11

## Appendix 15. Sample interview

### Interview 3 34/S1-

- J1. Can you tell me, to start with, how support is organised in this school, support for special needs?
- I1. As in classroom support?
- J2. As in the school as a whole, as far as you know.
- I2. Well, I just know that kids that, erm, for me, I've got support for physically disabled kids in my class, yea and I've got classroom support for one child in particular in a year 8 group when he's back from the teaching and learning centre, where he's been taken out for long stints, but I don't have a huge amount of support at all.
- J3. You don't have any support for academic needs and things like that?
- I3. No.
- J4. Are any children taken out of lessons at all, anything like that?
- I4. No. They're all mine on my own apart from the two lads in wheel chairs who have help all day long in school, em, and they're attached to one of the classroom assistants, but, I mean, they'll help me out in the class in general anyway but they are very much, they are supposed to be just for these two kids.
- J5. So do you actively make use of them, you know, for the other children or is it just what they do off their own bat?
- I5. Oh no! Totally ask them for help specially, in particular, for one year 10 group that I have. These two lads in particular. I will very much ask for their support because it's a difficult group behavioural problem, all round.
- J6. So do you involve them in your lesson planning at all?
- I6. Not consciously, no.
- J7. Would you like, you know, what sort of changes, basically, would you like to see in the support that you get?
- I7. I'd like more of it. Absolutely more of it because, there are just a certain amount of kids in the school that everybody knows about that just need to have a lot of one to one help all the time.
- J8. Is this a mix of needs in terms of like behaviour.
- I8. Behavioural problems, yes, and children that just can't cope with the work.
- J9. They are the ones with the academic problems?

I9. For both those reasons I just feel completely stretched in seventeen directions in a lot of my classes. I don't think I can cater for that at all.

J10. What part does SEN play when you are actually planning lessons? Do you consciously plan for the needs of those children or is it integral.

I10. Not particularly, to be honest. With the group that we have are sets anyway, so for a lower ability group I'll prepare work for that group, em, very little outside that, like individual pieces of work. It would be, my help to them would be more actually going to them and helping them rather than preparing different pieces of work for them.

J11. Is special needs actually discussed in departmental meetings at all?

I11. No.

J12. You have never known it to be discussed at any meeting that you have been to?

I12. The lack of support has been discussed, not special needs.

J13. Not how you should deal with them within the science curriculum or anything like that?

I13. No.

J14. Do you think that the science syllabus, generally, or the subject of science poses any special problems for children with special needs?

I14. Yes.

J15. What sort of problems?

I15. It's a really, I just think that it's a really difficult subject for children with special needs. Children that aren't, that have any kinds of special needs at all, but with the vocabulary that's involved and the new ideas for them to comprehend, I think that it's a difficult subject for them. I can't get past the, oh kids with behavioural problems, they just can't see beyond, you know, they finish school at 16, that's it. They're out, that's it and they want to work. So I've got a big problem at times, anyway, thinking that these children should be catered for in a completely different way and they shouldn't be taught these things. That might sound terrible but by that I mean giving, teaching them skills in English writing, you know, basic maths, and vocational work. There's the lack of interest there, but also I think that it's really hard for a lot of children.

J16. You don't see science as a vocational subject at that sort of level?

I16. No, not really, no.

J17. You see it much more as an academic discipline?

I17. Mm, yes. Because you really notice the difference. I have a year 7 class, really bright kids. They're a fantastic group to teach, absolutely brilliant. And there is a real spark there. They are generally interested, sorry, genuinely interested in all these new ideas and they've got

a lot of this from primary school, its amazing what they've learnt there anyway, but they've just, they're bright and really enthusiastic, they want to learn more about it. They'll quite happily research things, go to libraries and get on the internet and what-not. The kids that are of lower ability, any kind of kids with special needs, I find they just don't, they don't have that interest and it's hard to teach them.

J18. They just seem to have a block against science, you think?

I18. Yes. They don't see the relevance at all. "Why are we learning about plants?" You know. They don't see that, you know, if it weren't, if there was no plant-life then we wouldn't be alive. It just doesn't compute with them at all.

J19. They can't make the links?

I19. No, they can't make the links, at all.

J20. Does the nature of the way you have to teach science, do you think, you know, its very prescriptive these days with the National Curriculum and everything like that, and there's also the way we have been traditionally taught to teach science, with the practical work and things like that. Do you think that the nature of the way it's taught actually has an affect on children with special needs? Is that one of the problems perhaps?

I20. Yea, yea, I think so. I think, if we weren't confined, you know, to these sort of strict goal posts, you know, of the National Curriculum and what-not, it could be much better. There are so many interesting bits to do. We'd just have a wider scope and more time to do it.

J.21. If you could be more selective you think you could probably produce a course, a science course.

I.21. Of course you could. Pick things that are more relevant to the kids. I had a group last year who, low ability kids. They'd finished their SATS and it was, we had a couple of weeks to use for, you know, project work or investigations and what-not and that wouldn't have been the type of work that you would do with these, this lot and we did things like, forensics, you know, got into groups of things like that. But, er, outside the realms of our curriculum, things that they thought were more relevant to their lives, quite funny. A lot of them had been involved in crime. So, do you know what I mean it was just, it was more relevant, it was real to them. They don't want to know about chlorophyll and respiration and what-not. It was fun for them. The first time in the year they actually were interested. I mean, there were other things that we did with them, but, it was good fun.

J.22. Do you have to teach in a different way at all, when you have got special needs children in the class?

I.22. (pause) um, I don't know, ha ha. Do I have to or do I, ha ha? Um, yes I suppose I do.

And you do have to. I'm in, I mean there are two situations I've got really. I've got a whole group of children with problems. They are year 10 kids and yes I would teach them completely different. What I do with them is completely different to any other group in the school. Whereas I have another group with, maybe, one or two children with special educational needs and that wouldn't be the same. I'd sort of teach that group like I do any other group, you know, and then try to help the kids out as much as I could, I suppose.

J.23. So you teach that year 10 group essentially the same syllabus but you just vary the way in which you approach it.

I.23. Yes, yes, and don't do very much at once. And I force work out of them, either. They resent that, I tell you. Three of them jumped out of my window last week and ran off.

J.24. It's fortunate that you are on the ground floor!

I.24. Yes.

J.25. The trend today seems to be towards increasing inclusion, having more and more children with more and more severe special needs within the mainstream classroom. How do you feel about that?

I.25. I'm all, I'm totally all for inclusion. I think that it's absolutely marvellous. I think that seeing, um, children surrounded by a variety of, of society within the school is brilliant. They develop, you know, broader minds and what-not. There's nothing wrong with it at all. I think it's great. But I do think that it's really hard for us. That's the truth. I don't think that it's catered for, properly, at all.

J.26. The idea's all right.

I.26. The idea's, I think, there's nothing wrong with it at all. I'm all for it, completely all for it.

J.27. Could we go the whole way, you know, including everyone, or do you think there are reservations?

I.26. I don't know. I don't know. Possibly. But that's going to all depend on parents. What they want, so? I'm not sure that if I had a child with severe special needs that I'd want them to be here at all. I don't know. I think the idea is great.

J.27. You think it has potential benefits for everyone, teachers included?

I.27. Oh absolutely.

J.28. It all depends on the organisation presumably?

I.28. Mm. I mean even me as a teacher, when I find out that two of the lads in my lessons, I mean they are quite severely disabled, in wheelchairs. I mean I had a moment of reservation there, thinking, well I had never dealt with that before. You know, you have to stop and think yourself as a teacher, you know they are great, great lads, you know, but if children can grow



up and not think of the lads in wheelchairs as being abnormal or anything like that, that can only be a good thing.

J.29. Do you think that generally within the school, that's the opinion of the teachers?

I.29. I don't know to be honest. I'd like to think so, but it probably isn't.

J.30. You have not, heard discussions where ...

I.30. Well I suppose the children who have really bad behavioural problems, that's a different issue isn't it, and at times we will talk about that, saying these should not be in this school, for a variety of reasons, you know because they are a danger to themselves and to other children, and to the teachers I suppose, as well. They are just going to cause mayhem. And that just ruins other children's education and that's why.

J.31. So largely, your reservations are probably on the behavioural side. You don't find any safety implications with any other variety of special needs with science being a practical subject?

I.31. Well, as I said, my experience here, I mean I haven't been at this school that long anyway. Last year was my first, so my only experience of this is the two boys in wheelchairs and as I said they are supervised all of the time. So, no, there isn't a safety issue there, at all. Um, I can't think of any occasion where ? to be bothered, to be honest.

J.32. Do you think that there is any link between the various subjects, You know, various subjects are very different from one another in what you teach and how you teach it, and things like that. Do you think that that is likely to have any effect on how people would look at special needs, because of the nature of their subject, perhaps?

I.33. Gosh! (pause) its, um, I don't know. Its difficult because, of course, we are a core subject and all the kids have to be taught science, English and maths as well, so I don't know how all the other subjects would feel about it.

J.34. You don't perceive, perhaps, that, say teaching English would be easier, or say teaching history or something like that would be easier or more difficult?

I.34. I suppose that it may be easier in the sense that they've probably been doing those subjects for longer.

J.35. But not the nature or how its taught?

I.35. No, I don't think so. I've never had these discussions with other departments. Its, odd, just even thinking about it.

J.36. Is there a departmental policy on special needs, or a special section of the science policy?

I.36. I don't know.

J.37. So obviously you've not come across it if there is one!

I.37. No, not that I know of.

J.38. Have you ever seen the science policy?

I.38. Like the science handbook?

J.39. Presumably.

I.39. Yes, now, I have read that. I don't recall anything in it about SEN. It's nearly two years ago when I read it. No, I can't recall anything. The only SEN information that I have, that's come straight from J, M. M. gave it to me last year, J. E. this year. We get information that way.

J.40. What sort of information do you get?

I.40. The children's list mainly.

J.41. So it's just the level they're at and

I.41. And their targets and what-not and their objectives.

J.42. Do you actually see their IEP's?

I.42. I'll show you what I have got. They're just files of the bits and pieces that I've been given. There's not much. The SEN register. Statemented pupil update, so that's, again, just the history of them. Health problems, behavioural problems coming in.

J.43. So you don't get a copy of their specific IEP's, just a summary.

I.44. Just a summary of everything. It's not, I mean all this documentation and what-not, it tends to be stuff I file away and look at bits and pieces if I need to. It's not kind of on my list of day to day things to do. To be honest I probably know very little about what's going on in school and what they actually do and what's involved in all these IEP's and what-not. You don't get training, do you, for it in school?

J.45. So the targets are mainly language targets, rather than ones that would be specifically applicable to science?

I.45. Oh no. They wouldn't apply to science at all.

J.46. You've got spelling tests and things, I think, within the science curriculum, haven't you, to help all of the children with the language?

I.46. Yes, I mean subject specific words, like I've got there.

J.47. Word walls. So that is for everyone, isn't it?

I.47. Yes. That's where we are up to at the moment. That's all the key words for that topic and that will change for the next topic

J.48. And do they have a spelling test at the end of the topic?

I.48. We try to but, you know, that's something that I can quite easily forget about all the same as well.

J.49. Yes. It can be difficult to fit in, presumably?

I.49. Yes. You just don't always think of it. But they do, they tend to use that. They work quite well I think. They do ask for spellings, "use the word wall" they've got to make an effort, so.

J.50. Right, so is there anything else about special needs that you can think of that might be at all relevant?

I.50. That it makes teaching very hard, very hard. I know its different, English for instance. They are taught as mixed groups.

J.51. Would you like to see that in science or not?

I.51. No. Absolutely not! I have taught, myself, in a school that works like that. Honest, I thought it was really, really hard. At least with ours, yes there will be some children that are worse than others, harder to teach, for whatever reasons, but, you know, academically, those kids are kind of grouped, you know, there is not a huge range there and it does make it easier. And likewise, at the top end of the scale, which can be a joy to teach, like those year sevens I was telling you about, you know, it's just, that makes it all worth it when you can actually. I'm not saying I want to teach all bright kids all the time, but it's really nice, that's true. You don't have to worry too much about, you know, three or four children that are really struggling at various places around the classroom, either. The chances are that if I did have that I wouldn't have anyone in to support me anyway. I've only got support for the two boys. I mean the other times, zilch.

Appendix 16. Sample completed observation schedule for observation 2

Sheet 3A

Observation # 3

21 period -  
5 SEM

Date 14/05/02  
Teacher 1/82+  
Subject Science

Time/secs	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Whole Class	0 15	0 15		I 6	0 15	0 15	0 15			L 4	L 4	L 4	I 6	L 4	L 4	L 4	L 4			
Small Group																				
Individual			R 8					0 15	0 15									R 8	I 6	R 8
Time/secs	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200
Whole Class				I 6	I 6			L 4	L 4	L 4		L 4	L 4		L 4	L 4	L 4			
Small Group																				
Individual	R/I 8	0 15	0 15				R 8	R 8						R 8					I 6	R 8
Time/secs	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300
Whole Class			R 8	L 4	L 4	L 4	L 4													
Small Group	R 8	R 8																		
Individual			R 8					R 8	R 8	R 8		R 8	0 15	0 15	0 15	0 15	0 15	0 15	0 15	0 15

Appendix 17. Sample completed observation schedule for observation 3A

Date 30/04/02  
 Teacher 14/ET-  
 Subject Eng Y 7?  
 26 present.  
 Observation 2 3  
 Sheet 1

Time/min	1	2	3	4	5
SEN	KQ PA	I	R	II	PA MH
NSEN	R PA PO H	R KQ H	PA E	I	
SEN	NQ H R	I H	KH.	R	RA PA
NSEN	NQ H	H	H PA H C	R H PA	
SEN	R R	RQH R	E	H	H.
NSEN	R H	NQ R	R H PA PA KQ	R Q KQ R	
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					
SEN					
NSEN					

Appendix 18. Sample completed observation schedule for observation 3B

Sheet 1

Observation 3B

Date 20/05/02      20 min  
 Teacher 40/S7E      2 SEN.  
 Subject Science      Start of lesson

Individual	1	2	3	4	5
1	R				
2	R				
3	R				
4	R				
5					
6					
7					
8					
9					
10					
11					
12	6				
13	2				
14	KG				
15	R				
16	R				
17	PA 10				
18					
19					
20					
21					
22					
23					
24					
25					
26	KG				
27	6				
28	2				
29	KG				
30	KG				
31	T				
32	6				

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